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DEPARTMENT OF SOCIOLOGY

TELEPHONE 919-684-2915

July 20, 1986

David de Ferranti N-852 Policy and Operation Research Water Supply and Urban Development Department

Dear Mr. de Ferranti:

My name is Xiangming Chen. I am a Ph.D candidate in Sociology at Duke University currently working as a summer intern in Division 2 of PHN. I'm doing (with another Chinese intern) demographic and epidemiological projections and analyzing the relationships between projected patterns of major chronic diseases and their changing demand for health care in China. With a general interest in population studies, I have done some research on urbanization and urban development (see enclosed three papers). I have talked to Ms. Christine Allison in the East Asia Education Department. She recommended you as a resourceful and knowledgelable person whom I may talk to for advice and suggestions. I hope that we have an opportunity to meet sometime in a couple of weeks. I have read your staff working paper "Paying for Health Services in Developing Countries". I am presently using somebody's office (N-310A) and my extension is 61606. I will also try to call you soon. Thank you.

Enclosures.

Sincerely yours

Xiangming Chen

GIANT CITIES OF THE URBAN HIERARCHY IN CHINA:

A PERSISTING DILEMMA WITH A PROMISING SOLUTION

Liangaing Chen

Duke University

Portions of this research were presented at the Annual Meeting of the Southern Sociological Society, Charlotte, N.C., April 11-14, 1985. I am indebted to Professor Joel Smith whose comments and criticisms, both substantive and stylistic, have considerably facilitated the completion of this work. Marcia Spray's kind and competent assistance in preparing the tables and references for the final draft is gratefully acknowledged. I also would like to express my thanks to the two editors for their useful suggestions on the final revision.

[Forthcoming in The Metropolis Era, Volume 1, Mattei Dogan and John D. Kasarda (eds.), Sage Publications, 1986].

ABSTRACT

International urbanization characterized by rapid growth of large cities poses serious questions of population distribution and economic development to many national governments, especially to those of the Third World countries. This chapter examines various characteristics of a set of very large cities in China. Serious problems facing the rapid growth of these cities are identified. Further discussions focus on China's recent policies for coping with the existing problems by containing growth of the very large cities and achieving a more integrated urban system.

GIANT CITIES OF THE URBAN HIERARCHY IN CHINA:

A PERSISTING DILEMMA WITH A PROMISING SOLUTION

INTRODUCTION AND OVERVIEW

China has the largest population in the world, but only about 20% of its people live in cities. However, 50% of China's total urban population reside in 38 cities of one million people or more. What problems are associated with a relatively low level of urbanization and concentrations of people in a large number of very large cities? In this chaper we will consider this matter by: (1) examining the structure and integration of the Chinese urban system, (2) identifying some major problems associated with the growth of very large cities that analysis reveals lack integrated urban development, (3) assessing the cross-national potential of China's policy responses to these problems by examining their experiences thus far, and (4) presenting a prospective view of the very large Chinese cities in the future.

Urbanization, urban places, and urban life began 5,500 years ago in the ancient Near East (Golden, 1981). However, only with the onset of the Industrial Revolution in the West did areal and demographic concentration accelerate. In 1500 there were only 24 cities in the world with more than 100,000 population. Most were in China and such other long established Asian and African civilizations as India and

Egypt. By 1900 the number had increased to 339. In 1500 the top 20 cities, all of which were located in what are now considered less developed regions, had a total population of 4,832,000. In contrast, the 20 largest cities with suburbs (almost all of which were in Western Europe and North America) at the turn of 20th century contained 41,235,000 residents (Chandler and Fox, 1974). Relative to the long span of history, only a short time elapsed between the first urban revolution which brought people together in settled communities and the second urban revolution which produced go cities in response to the factory system and its technological transformations (Kearley, 1984).

In the 20th century, the momentum of urbanization has accelerated; the number of million-population cities has increased from 16 in 1900 to 234 in 1980 (United Nations, 1981). Contemporary urbanization is chiefly characterized by the fact that growth in the number and size of large cities in the developing countries has been rapidly surpassing that in the developed nations. In 1970, 77 (48%) of the 160 million-population cities were located in LDCs. Only ten years later, 124 (53%) of the 234 such cities were in LDCs. The total population was distributed between 354,758,000 in LDCs as against 298,882,000 in MDCs. The United Nations now predicts that by the year 2000 the number of cities with one million or more residents in the developing world will approach 300 and have a combined population of almost one bil-

lion (Hamer, 1985:39). This concentrated urban growth in very large cities of the less developed regions signals the inception and continuation of a third urban revolution (Kearley, 1984).

Serious problems have been associated with what has become an overconcentration of population in very large cities in developing countries. They include crowded living conditions, traffic snarls, overloaded transportation, severe pollution, serious unemployment caused by the large influx of rural migrants, and unequal distribution of income and services both within large cities and between them and rural areas. These problems, in conjunction with the rapid pace and staggering magnitude of urbanization, constitute major challenges to policymakers. The close and multiple interrelationships among urbanization, demographic dynamics, and socioeconomic development make urban system planning one of the top priorities on the agendas of almost all countries, especially the developing ones. Despite the fact that the process of urbanization is now universal and rapid, its relation to other socioeconomic factors and policy responses to it vary tremendously among the countries of the world.

In this article we examine the size, characteristics and functions of a group of very large Chinese cities. First, we (1) review some relevant literature on Chinese urbanization, and (2) identify some definitional problems in discussing the size of urban places in China. After ad-

dressing the issues of size and function, we will examine the theoretical rationales for and structural components of Chinese urbanization policy and consider its implications, for population distribution and economic development in other developing countries.

URBANIZATION RESEARCH ON CHINA

Due to a lack of statistical information on Chinese population in the last thirty years, little has been known about population distribution and urban growth in the world's largest nation. Limited descriptive and historical studies (Murphey, 1974; Kapp, 1974; Gernet, 1977; Chan, 1981) have provided detailed chronological accounts of individual Chinese cities with special features, such as the "treaty port" of Shanghai or the former largest city of Hangzhou (around the 13th century). These studies tend to emphasize unique sociopolitical antecedents as influences on the growth of large Chinese cities. Although they provide a historical context that helps place the post-revolutionary phase of urbanization in perspective, they offer little guidance for a structural analysis of either very large Chinese cities as a set or the urban system as a whole.

Another major body of research focussed on changes in policies toward urban system planning in post-revolutionary China (Buck, 1981; Kwok, 1981; Murphey, 1980). These policy-oriented studies reveal how the post-1949 Chinese government, driven by a Marxian view that such cities as pre-1949

Shanghai represent decadence, power, corruption, and lust for capital, adopted a counterurbanization policy. Buck (1981), tracing the evolution of China's urban policy from 1949 to 1979, presented a detailed discussion of China's efforts, especially after 1958, to produce spatially balanced and decentralized development. Kwok (1981) suggested that there have been four periods in the transformation in China's urban development and identified the rationales for spatial considerations and locational emphases for each. Although such analyses are largely descriptive, they catch a thematic thread that runs through these urban planning strategies. One of the major goals of this discussion is to decide whether there is a Chinese model of urban development by dissecting and elaborating the underlying rationales and structural components of recent responses to urbanization.

DEFINITION AND STRUCTURE OF URBAN CHINA

We begin with some definitions and classifications of the Chinese urban system and review some statistics on the distribution of cities in China.

Urbanization can be defined as a differentiation process in which spatial and demographic processes interact to produce a concentration of people; specific urban units are compact, permanent settlements of population within a geographic boundary (Golden, 1981). Urban places in China are defined in terms of population size. However, there have been changes in the definitions used since the early 1950s.

Urban places were then defined as settlements with 2,000 inhabitants or more, at least half of whom were engaged in nonagricultural pursuits. Places of 1,000 to 2,000 population might also be classified as urban if 75% or more of the population was nonagricultural (Ullman, 1969:89). Since 1964 (the second census), urban places were defined as towns with 3,000 inhabitants, 70% or more of whom were nonagricultural. Places of 2,500-3,000, 85% or more of whom were nonagricultural also are urban. Settlement centers of more than 20,000 people were defined as cities. More recently, cities have been grouped into three categories based on size: (1) large (500,000 and over); (2) medium-sized (200,000 to 500,000); and (3) small (below 200,000). A recent study (Ding, 1984) defined a new category of very large cities which includes those with 1,000,000 people and more.

Table 1 describes the urban population in China in terms of locality categories and several measures of concentration and distribution.

"Table 1 about here"

It shows very high level of population concentration at the top of the urban hierarchy is observed, but this is not primarily accounted for by one or two primate cities (Chen, 1985a). Although the proportion of the total population in urban areas of 1,000,000 and over (these include the rural counties) is only 20% (column 2), 52% of the urban popula-

tion is located, in such places (columns 3 and 4). Concentration in very large cities also is indicated by the considerable gap between the largest and next largest places on two other measures (columns 5 and 6). The proportion of the urban population in the second category (500,000-999,999) is less than half that in the largest category, while the proportion of the total population in the same category is twice (41%) that in places of 1,000,000 and over. This is mainly due to the presence of a sizeable rural population in the smaller size group. Thus, the high concentration in very large cities is exemplified by the fact the urban/rural ratio for the top category (.339) is six times that of the second largest category (column 6). Still another indication of the same phenomenon is the fact that although the number of million-plus-population cities (38) constitutes 16% of the 239' cities, their combined population accounts for more than half of the total urban population, showing the top-heavy concentration in the urban system. Nevertheless, concentration of total population in China of 1982 (1.05) (see Table 1) was much less than similar levels for 1960 in Brazil (2.92). Denmark (4.25), Ghana (2.03), the United States (4.06), United Kingdom (4.97), and Yugoslavia (2.36) (Gibbs, 1966:173). This suggests that population growth at the top will increase the structural imbalance in the urban hierarchy.

Although the level of urbanization in China only increased by about 5% from 1950 to 1980, the number of million-plus cities grew from six in 1949 to 44 in 1983, an astronomical rate of 633%. Against this backdrop, we now consider the group of cities with populations of 2,000,000 or more. They constitute 25.2% of all cities of such size in LDCs. The 16 cities of 2,000,000 and over constitute 13% of the 124 cities of over one million in the less developed world; however, their combined population is 25% of the 330 million people in such cities.

Because of the lack of information in the past, little has been known about population concentration, industrial complexity, and the municipal infrastructure of very large cities in China. The availability of recent information on these 16 cities, however, provides an opportunity to examine some heretofore unexplored issues: (1) relationships between population size, density and municipal functions, (2) variations in the association between central cities and their suburban areas, and (3) differences between the socioeconomic status of populations of Shanghai and Beijing and those of other very large cities. Moreover, these data also permit comparisons between the ecological patterns and and processes of industrial, highly suburbanized western cities and of those in China.

The information for our study has been taken from the 1982 Statistical Yearbook of China (State Statistical Bu-

reau, 1983). All 16 cities for which information is provided have populations of more than 2,000,000. If we follow the definition that very large cities are those with more than 1,000,000 people (Ding, 1984), these 16 cities deserve to be called giant cities, standing on the top layer of the urban hierarchy. They do not constitute either a random or representative sample of the Chinese city population; they have been designated by the State as nationally important "key" cities on the basis of their size and/or political and administrative positions as national or provincial capitals, strategic locations, or industrial centers. Their historical experiences and geographical distributions make comparisons among them and between them and other cities meaningful.

We have information both on each city and its two components: (1) the urban district and (2) suburban (rural) counties under municipal jurisdiction. This distinction is best understood in relation to conventional spatial ecological concepts. There is no isomorphism between the Chinese definitions and concepts and those for western metropolises because urban growth patterns and municipal administrative systems differ greatly in the two parts of the world. However, we may draw some parallels for the sake of subsequent analysis. The urban district in Chinese usage is a broad concept that includes city districts. The number and size of urban districts in very large cities vary greatly. While

Shanghai has 12 urban districts, there are nine in Tianjin. Qingdao's urban districts cover only 118 square kilometers, the smallest of the 16, whereas Shanghai's urban district's amount to an area of 627 square kilometers, about five times as large as that of Qingdao. The city district is a much larger area than the Central Business District (CBD) of large western cities and approximates the central city of the United States. The urban district usually includes the city's outskirts and is an appendage to the city district. It is structurally similar to the urban fringe: the subzone of the rural-urban fringe that is contiguous with the central city (Pryor, 1968:206). In reality, it is analogous to the urbanized area including the central city in the United States. These urban districts vary a lot in their degree of urbanism, since they cut across the city edge, with portions of them located within the city limit and parts of them stretching into the adjacent rural areas.

Suburban (rural) counties are included in these cities' boundaries for administrative reasons. There also is considerable variation in the number of rural counties administered by the municipal governments of the 16 cities. For example, Nanjing has five such counties, while there are nine under Beijing's jurisdiction. Shanghai, the largest of the 16 cities, embraces 10 surrounding counties. These counties bear some resemblance to the rural fringe—that subzone of the rural—urban fringe—contiguous with the urban

fringe--and have a lower density of occupied dwellings than the median density of the total rural-urban fringe, a higher proportion of farm than nonfarm and vacant land, and a lower rate of increase in population density, land use conversion, and commuting (Pryor, 1968:206). To a certain extent, these suburban (rural) counties are comparable to portions of SMSAs outside urbanized areas. While possessing predominantly rural characteristics. these counties are diverse in their level of development. Some, bordering on the urban districts of Shanghai and Beijing, contain a considerable number of industries and have been selected as sites for satellite towns to absorb industry and population from the central cities. Others, located mostly on the edges of municipal boundaries, are completely agricultural and reflect little urban influence because only weak transportation and communications links are available.

The information on the two urban sections allows us to examine both their differences and the functional relationships between urban districts and their affiliated counties. This will help provide a more specific and realistic assessment of the population size and industrial capacity of cities, which despite the fact that they are very large, have very diverse functional and spatial segments within their administrative boundaries. Therefore, regardless of their inherent limitations, this material should reveal much more than previously has been known about the general profiles and structural attributes of very large Chinese cities.

cities and their respective urban districts and suburban (rural) counties are available. There is demographic information on population size, density per square kilometer, and the rate of natural increase. Municipal infrastructure and industrial complexity are indicated by the number of industrial enterprises, heavy and light industrial output values, and numbers of units providing retail and food services. We have standardized these measures into rates and per capital values, thereby reducing the skewness of frequency distributions that are affected by the considerable size variation among the cities.

Indicators of industrial capacity and economic concen-

Measures of a variety of characteristics of these 16

Indicators of industrial capacity and economic concentration are standardized as production enterprises per 10,000 population and industrial output value per capita. Municipal infrastructure is expressed by food services, colleges and high schools, hospitals beds, and so forth, per 10,000 persons. Indicators of the standard of living in these very large cities include consumption sales per capita, housing space per capita, etc. These measures are calculated separately for cities as a whole, urban districts, and attached counties, and are comparable across units of place.

POPULATION GROWTH AND MUNICIPAL CHARACTERISTICS

Patterns of difference in urban structure will be examined in the context of the dynamics of change in size of

these cities during the last 150 years. Table 2 summarizes this information.

"Table 2 about here"

Due to its special status as the imperial capital from the mid-1660s to 1911, Beijing was the largest city in China and one of the largest in the world around 1825. The impressive growth of Shanghai from the late 1900s to 1949 reflected its role as the country's leading port and the rapid development of its commercial and transportation facilities. Shanghai's average annual growth rate of 3.5%, from 1900 to 1949 surpassed that of almost all other cities. Increasingly, extensive overseas trade in the first half of the 20th century contributed to the continued high growth of the old port cities of Tianjin and Guangzhou (Canton). The Manchurian cities of Shenyang (Mukden) and Changchun grew rapidly in the 20th century in response to the development of heavy industry under the Japaness rule in the 1930s and concentrated Soviet aid after 1949. Favored by transportation advantages, cities along the Yangtze River in Central China, such as Wuhan and Nanjing, experienced rapid population growth. Nanjing also benefited from being the wartime capital for the Nationalists during the 1940s. As the largest military and financial center for the Nationalists in Southwest China, Chongqin added 753,000 people to its population up until 1949. "

Growth patterns took a different turn after the Revolution of 1949. Some of these 16 cities, even though they may only have been small towns 100 years age, escaped the one million mark after 1949 and have grown rapidly as a result of governmental policy to build them into major industrial centers. This policy not only produced substantial controlled migration of technical personnel and workers from large coastal cities to interior cities, but also speeded up natural increase of their populations, particularly in the 1950s when there was little in the way of effective population control policies. Lanzhou's population soared from approximately 100,000 in 1949 to 2,400,000 in 1982 (10.1% per annum) due, in a certain degree, to the stimulus of a booming oil refining industry. Both Chengdu and Chonggin grew at 5.8% annually for the last 33 years, as both received a number of military-related industries and other organizations from northern and eastern provinces during the Cultural Revolution. On the east coast, as a result of efforts to control population growth in very large cities since the 1960s, smaller port cities like Dalian (6.5%) and Qingdao (5.4%) grew faster than the older and larger port cities of Guangzhou (4.3%), Tianjin (4.7%), and Wuhan (4.2%). This policy had a particularly strong effect on China's largest city, Shanghai, which at 3.0% per annum had the slowest average growth rate from 1949 to 1982. In general, these very large cities have grown very rapidly both absolutely and proportionally in comparison with small cities; 115 cities of 200,000 or less in 1953 dropped to only 65 in 1982 (Ding, 1984). However, it should be noted that the high growth rates of these very large cities also include changes resulting from the annexation of surrounding rural counties.

"Table 3 about here"

Table 3 contains basic population statistics for the urban districts and suburban (rural) counties of the 16 cities. The two differ substantially in population density and size. The three largest cities (Shanghai, Beijing, and Tianjin) all have larger urban district populations, while the other cities vary considerably in the distribution of population between the two sections. Rather than reflecting widely varied settlement patterns, however, this reflects both the absence of uniform standards for dividing urban districts and suburban (rural) counties and original differences in the size and system of municipal administrations. That the urban district populations grow faster is the opposite of the national population growth pattern, which is 1.3% per annum for cities and 1.5% per annum for counties. This unusual demographic characteristic of very large cities in China will be considered in more detail later.

"Table 4 about here"

. . .

cities. The mean values for almost all the indicators are higher for the urban districts than for the suburban rural counties. This suggests a higher concentration of population, industrial capacity, and municipal functions (including recreational facilities and social services) in the urban districts. Compared with the national averages, the 16 cities are already more developed than the country as a whole in terms of industrialization, educational opportunity and the standard of living. Their higher standards of living and better municipal infrastructure are reflected in per capita measures of educational, recreational, medical and food service facilities. For example, the number of college students per 10,000 population (71) in these cities is about seven times the national average (11). While 10,000 people share accessibility to only 13 doctors as a national average, there are 30 doctors available for 10,000 residents in these cities, on average.

Table 4 contains descriptive statistics for selected

major demographic and socioeconomic attributes of these 16

However, the development of municipal utilities and economic functions in these cities is shown to be uneven. Demographically, the 16 cities have very high residential density, especially in the urban districts. This great density is also displayed by their poor public housing conditions. Although their gross industrial output per capita is three times the national average, these 16 cities possess less ag-

ricultural capacity, on average, notwithstanding that their rural counties are more productive than the national average in grain output. On another score, 5.8% of the total labor force in these cities is engaged in retail services, which is only half that of the nation as a whole. In comparison with large urban centers in developed socities and even some metropolises in developing countries, several public services in these 16 cities are worse in per capita terms. For example, while there are an average of 3.87 public busses for 10,000 residents, 500 inhabitants have access to one bus on average in Bogota of Columbia (World Bank, 1984). The mean statistics in Table 4 reveal the general characteristics of the 16 cities. However, they do not capture the extreme discrepancies in the distributions of some of the measures.

Within these municipalities, there is a considerable gap between the urban districts and the rural counties. That the urban districts are much more crowded, industrialized, and functionally integrated has two implications. The first is that there is a major difference between patterns of city structure in developed and developing societies. In western societies, population density in central cities rises, then falls with distance from the center; in non-western societies it remains high throughout the city's area. Compactness and crowding diminish over time in western cities as populations disperse into surrounding areas; they tend to

remain constant in non-western cities with less expansion at the urban periphery (Berry and Kasarda, 1977), though limited decentralization of industries and services has occurred in some more developed and better-planned urban centers in Third World countries. In contrast to the centrifugal forces in the large metropolises of western industrial societies, a centripetal drift still operates in large urban centers of developing countries generally,

The data show that very large Chinese cities share the growth pattern of large cities in other non-western societies. The faster population growth in the urban districts (see Table 3) suggests that they draw people from suburban (rural) counties, rather than having necessarily high rates of natural increase. This internal demographic growth of urban districts is matched with little external infrastructure and socioeconomic development in the farther outskirts and rural counties. It is until the materialization of this development that residents in surrounding rural counties are likely to be halted from drifting into the urban districts of these cities.

Second, these intra-city discrepancies evidence a lack of functional integration and coordination in the administrative boundaries of the 16 cities. They also suggest uneven socioeconomic development across the two sections. However, it is possible that there is within the two sections some degree of functional interdependence which cannot

be integrated 'due to highly limited city-suburban interaction. This structural segmentation largely results from (1) an overconcentration of resources in the urban districts and (2) underdeveloped transportation links between the two sections. Inadequate municipal planning has stalled more balanced socioeconomic development. Just as the continued sprawl of western metropolises is stimulated by rapid changes in land use promoted by widespread mass transportation and communications, the absence of dynamic suburbanization in China is attributable to weak intra- and inter-city transportation and communications systems that hamper attempts to redistribute resources of urban districts to rural hinterlands and maintain a smooth information flow between the two sections.

The distribution of population and industrial strength of cities depends on (1) how each one's size and functions fit into the whole demographic and economic system and (2) how each layer of the urban system is internally structured. Focusing on the latter, we have done some correlational analyses on the 16 cities to explore the relationships among population concentration, industrial capacity and municipal development in the top rung of China's urban system. The ecological and industrialization models postulate positive relationships between city size, industrial capacity and municipal functions (Bean et al., 1972; Berry and Kasarda, 1977; Eberstein and Frisbie, 1982) (For a brief review of

these theoretical models, see Chen, 1985b). Correlations of three demographic measures (size, density and the rate of natural increase) with various indicators of industrial complexity and service functions reveal that population size (natural log*) is strongly related to light industrial output per capita (.64*), industrial profit and tax revenue per capita (.56). and production investment per capita (.48). Population density (natural log) is positively associated with industrial enterprises per 10,000 people (.58) and light industrial output per capita (.66).

The relationships within the two sections are more interesting: (1) the magnitudes of the coefficients are generally larger for each of the two sections than for the city as a whole, (e.g., the correlation between density and heavy industrial output per capita is .24 (city) in contrast to .55 (suburban county) and .71 (urban district), and the correlation between density and industrial profit and tax revenue per capita is .43 for the city and .91 for the urban district. The relationship is less strong for the rural counties, though size and density are correlated with industrial output per capita at .61 and .69, respectively. These positive coefficients indicate that the larger and more densely populated the urban districts and suburban are, the higher is their level of industrialization, especially light industry.

The associations between population and nonproduction investment are in opposite directions for the two sections of the 16 cities. While size and density are weakly associated with nonproduction investment per capita at .24 and .30 (urban district), the comparable coefficients are -.84 and -.64 for the rural counties. This indicates that larger and more crowded rural counties generally have less nonproduction investment. On the other hand, size and density are associated weakly (.33 and .35) with housing investment per capita, whereas the same coefficients are .49 and .67 for the rural counties. This reflects the less strong relationship between population size and density and housing improvement in the urban districts of these 16 cities. The negative relationship (-.47) between population size and the number of food services per 10,000 people suggests that the larger and more crammed the cities are, the fewer are the food services as restaurants and snack bars on a per capita basis. From the perspective of economies of scale, this may be a lack of indication that there has been much increase in the size of these food service establishments to compensate for the small number of them. However, this situation may be improved quickly since an increasing number of restaurants and eateries, many privately-owned, have been appearing in these very large cities in response to the new economic reforms. Rate of natural increase has a negative relationship with grain output per capita (-.68), implying

that population grows faster than the availability of grain in these cities. In fact, much of the food supply for these very large cities must come from other provinces.

The relationship between consumption sales per capita and population size and density is positive, as expected. However, it is positive (.57) only in the urban districts, being -.59 for the rural counties. On average, larger crowded counties have fewer high and vocational schools, although population growth and establishment of more secondary educational institutions tend to be associated in the urban districts. The differences in the magnitudes of the coefficients indicate a closer association between urbanization and such service facilities as hospitals and cinemas per capita in urban districts than in rural counties. These analyses provide only limited support for the proposition that city size and density are positively related to industrial capacity and municipal infrastructure development. They alert us to useful directions for further lines of inquiry as information for more units in the city system become available. Improvements in conceptualization and measurement of various indicators will permit more rigorous tests of more stringent hypotheses with better data.

A major premise of ecological theory is that high levels of industrialization and economic growth in large urban centers tend to be accompanied by more efficient municipal infrastructure. Correlations between indicators of industrial capacity and municipal functions and standards of living show that five of six industrialization characteristics have strong positive correlations (.70 and over) with consumption sales per capita and hospitals per 10,000 people. Their positive relationships with housing opportunity measures and development of higher education (college students per 10,000 people) are much more moderate. The same five indicators of industrial capacity (i.e., heavy and light industrial output per capita) have weak negative associations with retail services per 10,000 population, suggesting that business and commercial networks in these very large cities grow behind the pace of industrialization. This contradicts suggestions that large cities with high levels of industrialization have extensive trade linkages (Berry and Kasarda, 1977).

To check the possibility that these associations are unduly influenced by extreme values for Shanghai, the analysis was repeated excluding that city. A comparison of coefficients is revealing: for example, the correlation between consumption sales per capita and gross industrial output per capita only drops from .74 to .68, while the correlation of gross industrial output with completed living space per capita increases sharply from .33 to .75. Other industrialization indicators behave similarly in relation to consumption sales and housing. These comparisons indicate the tremendous influence on overall patterns of Shanghai's high con-

sumption level and bad housing conditions. The negative and weak positive relationships between levels of industrialization and the development of cultural and educational facilities become strongly positive when Shanghai is deleted. This suggests that Shanghai's overwhelming industrial capacity is not being translated into recreational and educational services per capita possibly because of the overcrowding of its population. The two employment characteristics (% of labor force employed in state and collective enterprises) whose associations with urban conditions are in opposite directions must be interpreted carefully. The size of the proportion of labor force in state enterprises (most of which is in large organizations and government agencies) has close positive relationships with indexes of the standard of living (i.e., .47 with housing space and .51 with availability of hospital service). On the other hand, higher proportions of employees in collective enterprises are associated with lower levels of recreational and service functions, the correlations with housing space and hospitals per 10,000 people being -.50 and -.47, respectively. Nevertheless, retail services, many of which are collectively-owned, have only a small positive relationship with percent of employees in such enterprises.

The hypothesis that industrial growth and municipal service functions are associated is largely validated in very large Chinese cities: the more industrialized the cit-

ies, the more developed their municipal service functions and the standard of living. Higher agricultural activities, in contrast, are associated with lower levels of municipal functions and lower standards of living. Moreover, the results indicate an unbalanced and less systematic integration between industrial growth and the development of municipal service at present (e.g., consistently weak relationships between indicators of industrial capacity and such municipal functions as retail trade and cinemas). The strong impact of Shanghai on stability of the coefficients also attests to this fact.

"Table 5 about here"

Having examined the general pattern of relationships among various structural dimensions of these cities, we now consider how each city stands in relation to the others on a set of representative characteristics. Standard scores for nine indicators are used in order to summarize divergences from the average free of the underlying metrics. Table 5 presents the ranks and these scores. Rank is scored in the same order as the standard score, i.e., that is, the city ranking highest receives a score of 16 and the lowest a score of one. The numbers in parentheses in column 10 are the total of each city's standard scores (i.e., treating each characteristic as equal in weight). The bold numbers are the ranks based upon all the indicators.

Consistent with the generally known demographic dominance and high socioeconomic status of Beijing and Shanghai in the urban hierarchy, the two cities rank over all other cities. That Beijing ranks the higher of the two reflects its more balanced development as the nation's capital. The older ports like Tainjin and Guangzhou (Canton) and newer ports along the Yangtze (e.g., Wuhan and Nanjing) have achieved more balanced development than inland cities, (e.g., Lanzhou and Taiyuan), except for Xi'an and smaller port cities (e.g., Dalian and Qingdao). The old industrial city of Changchun, which ranks the lowest on industrial capacity (col. 2), housing indicator (col.7), medical facilities (col. 9), but the highest on grain output (col. 3), exemplifies a lack of integrated development. The big gap in standard scores between Shanghai and Beijing and some other cities reflects the difficulties of creating a more balanced and homogeneous top layer of the urban structure in China.

EXISTING PROBLEMS AND POLICY IMPLICATIONS

In this initial attempt to evaluate the various dimensions and features of a set of very large Chinese cities, their structure is clarified by marshalling and juxtaposing demographic and socioeconomic indicators for their urban districts and suburban (rural) counties. The analysis suggests that these very large cities in China exhibit some of the characteristics of large metropolises in western societies. Population size, level of industrialization, and mu-

nicipal service. functions are positively related, as they tend to be in most western cities. These observations, however, have to be interpreted carefully, for limitations of the data do not permit systematic and rigorous statistical analyses. More important, even the descriptive measures clearly indicate uneven development between urban districts and rural counties with a concentration of population and resources in the former. The urban districts are functionally more integrated; their demographic measures are more strongly related to economic and service function indicators than are those for the rural counties. This suggests that very large Chinese cities have the features of large western urban centers at earlier stages of urbanization of the latter. All of this has implications for the design and implementation of urban policies.

The primary implication concerns policy responses to a persisting dilemma associated with the growth processes and functional roles of these very large cities. On the one hand, these cities have higher standards of living and more urban amenities than the rest of the nation (see Table 4), although they still lag behind large western cities on a per capita basis. However, they also share many of the serious problems of very large or primate cities in the Third World. Shanghai's population density in the urban district is higher than that of Tokyo, Mexico City, New York, and Sao Paulo. In 1982 population per square kilometer measured 43,000 in

the central area of Shanghai which covered only 141.7 square kilometers. Of the 121 community blocks in the urban district, 20 had registered residents of over 100,000 per square kilometer. Five of these had residential densities of over 150,000 per square kilometer (Gu and Zhu, 1984).

The high density means extremely crowded housing, with a number of households in Shanghai still sheltering under one roof three generations, which are separated only by hanging curtains. The living space per head is estimated to be less than two square meters. While defying the imagination of westerners used to spacious and private living, this shortage of housing space has been a chronic problem, as the growth of population has outpaced the rate of housing construction (also see Chen, 1985 for the case of Beijing). Public transportation is becoming increasingly cloqged. With about two million people in Beijing going to work every day by public transport, the busses and trolley-busses have turned into boxes choked with passengers. 1983, people who took the bus increased by 4.5% and the volume of subway transportation by 9.0%, though the capital city's population only showed a 1.7% growth. During peak rush hours in some of these cities, passengers per square meter on public busses get to as many as 10 to 13 people, which exceeds the maxmimum limit of nine persons per square meter set by the state. Being late for work is not uncommon for many because overcrowded busses moving very slowly in

the narrow streets. In the urban districts of these cities, motor vehicles now average 12 kilometers per hour, dropping by 40.4% from 20 kilometers per hour before 1966. A recent survey showed that the average speed of motor vehicles on Shanghai's main streets does not exceed five kilometers per hour. Torrents of bicycles (estimated one per three persons in some of these cities) rush for space with and even outrunning motor vehicles in the streets, causing nightmarish rush hour traffic. An increasing number of mopeds, driven mostly by fashion-oriented youths, has added additional hazards and is in part responsible for the recent rapid increase in road accidents.

Industrial pollution is a constant menace, especially in cities of North China.' Water shortage also has become a threat to daily life in these very large cities. The two reservoirs providing Beijing's water supply have recently fallen below their water margins. To insure industries' access to water, the municipal government designed a plan of conservation that would supply water during limited hours of the day and rotate the supply across different sections of the city. Quite a few enterprises in Tianjin once had to shut down temporarily because of a water shortage. Telephone and telegraph systems in some of these cities are dated and overloaded, with a very low telephones per capita and scarce telegraph services. In consequence, lines frequently are tied up and customers queue up to send telegrams, resulting in delayed communications.

Unemployment has risen in many cities as a result of the joint impact of youths returning from the countryside and large increases in the labor force from the second baby boom (1962-1970). However, the early introduction of successful family planning in some cities has kept their unemployment from rising unmanageably. In Shanghai, for example, the rapid fertility decline of the mid-1960s reduced labor force entry (at age 16) in 1982 to 61% of its 1979 level for the whole city and 41% of the 1979 level for the urban district (Gui and Zhu, 1984). At the same time, those urban youths whom state enterprises are unable to absorb through planned employment procedures have been hired by the growing tertiary sector of collectively- and individually-owned enterprises on either a tenure-track or contractual basis.

Despite these problems, these giant cities have always played critical roles in the national and international economies for China. Together they account for 28.0% of the annual national gross industrial output, although they contain only 8.2% of the total population and occupy only 1.5% of the total land area. Their industrial dominance and locational advantages are fully recognized by the Chinese government. In 1984 five of the 16 (Tianjin, Shanghai, Qingdao, Dalian, and Guangzhou, all located on the coast), together with nine other smaller coastal cities, were opened to direct foreign investment (Chen, 1985c). They also have

been encouraged to create within their administrative boundaries Special Economic and Technology Development Districts which offer a low tax environments and special institutional facilities to attract capital by setting up joint ventures with overseas companies. Chongqin, Wuhan, Shenyang, and Guangzhou have been selected as pioneering cities in urban economic reforms and given provincial autonomy in economic planning and business management. All sixteen have been designated as national or regional urban centers to coordinate economic growth in surrounding areas that have been expanded to cross provincial boundaries. Collectively, these cities will remain the backbone of China's future economic growth.

Government favors for these cities will stimulate their further industrial growth but also may worsen some of their problems. More investments in these cities from the state and abroad could induce an acceleration of their decreased population growth, as the demand for manpower would attract more migrants. As a result, residential housing could become more crowded. Creating more industries could lead to heavier pollution of the urban environment. A larger proportion of investment going into industrial expansion could reduce nonproduction investment and increase strain on municipal infrastructure. In other words, increasing such advantages as market access, better-developed educational systems, skilled labor forces, rich commercial information, and a

strong technological base may offset the efficient accommodation of more demographic growth and needed infrastructure improvements. For example, under the new agricultural policy and government effort to promote consumption, a large number of peasants come into these cities either on bicycle or by their own trucks or tractors to sell privately-grown foodstuffs or self-made handicrafts on the free market. The initial trickle of peasants has turned into a constant flow, thus creating more pressure on the overburdened roads, hotels and other services. The freer commercial exchanges brought about by the economic reforms have attracted more business people from other provinces to these cities, especially Beijing and Shanghai. More and more peasants who have become prosperous are now eager and able to afford to visit and experience the "bright lights" of Beijing and Shanghai. At the same time, the limited childcare in cities like Beijing has attracted rural women from the South, young or middle-aged, to come as babysitters (in some cases also housekeepers) for double-career families. Although each stimulus for temporary migration may not be significant in and of itself, collectively they contribute a lot to the floating population (unregistered) in these cities. The combined floating population in 10 of these 16 cities is estimated to have recently reached a record of 4,833,000, which make up as high as 14% of their total legal residents. 10

These dilemmas, some of which are unintended consequences of policy clashes, may be avoided if China is successful in pursuing its broad and integrated urban planning strategy. In 1980, the Chinese state instituted a comprehensive urban planning policy. It is officially codified as "controlling the expansion of big cities, rationally developing medium-sized ones, and rigorously building up the small cities." (Li, 1983:7). What led to the formulation of this policy was Chinese government's rising concern about various problems associated with increased urbanization occurring hand in hand with rapid modernization. About four or five years ago, the state established the Ministry of Urban Planning and Environmental Protection which has been in charge of designing and coordinating urban development activities. National conferences of mayors have been held to discuss what strategies should be employed to deal with the problems facing their cities. The overarching national policy mentioned above is based upon theoretical principles that hold promise of a unique model of urban development. By disaggregating the abstract and general principles that underlie these policies, we may clarify the rationales that are designed to guide urban growth in China.

First, the policy instrument aims to forestall the emergence of primate cities at the top level of the urban hierarchy, for Shanghai and Beijing are very likely to attain such dominate without rigorous population control.

The demographic explosion of primate cities in the developing countries is a common problem resulting from joint pressures of high natural increase and in-migration. This threat is less severe in China where rural migration into the very large cities has been regulated relatively efficiently because success of family planning in Shanghai and Beijing has greatly reduced their fertility levels (Chen, 1985a).

Simultaneously, suburban growth of very large cities is being facilitated through recent efforts of the government to overcome the urban-rural barrier by building satellite towns.' The objective is gradually to make the city proper the administrative, financial and information center; the satellite towns and rural counties the industrial, science and education, and tourist centers. Rural residents are allowed to run various service businesses in these satellite Export-oriented factories in Shanghai's vicinity towns. have grown from 47 in 1978 to 130 in 1984, generating \$65 million yuan in profits. The very large cities also have begun to channel and disperse some population and industry to the new satellite towns in their suburbs and governed rural counties, which, in comparison to the suburban areas in western metropolises, are presently underdeveloped and have great potential for growth. It is probable that these very large cities will become more metropolitanized by building and absorbing satellite towns in much the same fashion that

large urban centers in the West have engulfed incorporated cities in their suburban areas. This suburbanization will connect cities proper more closely to the rural counties beyond.

Second, with respect to the middle level of the urban system, the Chinese strategy can be thought of as regionalization of central (secondary) cities for the purpose of facilitating integration across geographically-bounded areas. The historical experience of urban development along regional lines in China (Skinner, 1977) has provided structural conditions for this pattern to occur. The sizeable number of secondary cities with disproportionally small populations (the middle two categories in Table 1) indicates that there is a potential pool of candidates to play out that function. The absence of such a middle tier in the urban systems of many Third World countries lends support to the dependency perspective of urbanization: one or two primate cities, created and perpetuated through and after colonialism (Chen, 1985b), have become dominant over small cities and rural areas.

The underlying strategy of strengthening secondary cities on a regional basis can be thought of as a synthesis of central place theory and the countermagnet approach (Richardson, 1984). These cities have been allowed to extend their influence into surrounding areas and beyond via technical assistance 'and commodity export and by coordinating

overall development of the regional economy. They also have been encouraged to compete with Shanghai and Beijing at the national level by expanding their economic and commercial exchanges across administrative boundaries. It is the polarization of primate cities at one end of the urban system and small towns at the other that has created and sustained uneven development in Third World nations. China's vast rural areas and varied geographic conditions imply that the coordinating and stimulating functions of secondary central cities are crucial for achieving an integrated and balanced development.

Third, this policy package proposes what can be conceptualized as the citifying of rural towns. Several purposes and functions of this citification process can be identified: (1) connecting secondary and small cities with the villages; (2) absorbing unemployed rural labor by providing local industrial and service jobs; (3) diversifying and improving the infrastructure (e.g., residential housing, educational institutions, service and recreational facilities) and thereby increasing rural access to urban life. This policy is expected to have two consequences: 1) peasants' departure from the land without leaving their home township, (Xiang), and 2) peasants' entrance into local factories without entering the big cities. If the projection holds true that China's urban population will grow 31.0% from 1980 to 2000 (versus Latin America's 17.3%, North America's 5.7%,

Asia's 34.2%, or Africa's 47%)'1, the large number of rural residents who will become urbanized can only be absorbed by these citified towns. If this policy is smoothly implemented, we will witness an unprecedented major population redistribution in China that will involve total redefinitions of both urbanization and urban places.

The second wave of economic reforms, which aim at more autonomous and decentralized decision-making for administrative authorities in urban areas and individual cities, tends to reinforce uneven growth of cities of varying sizes and locations. For example, the 14 well-endowed coastal cities which recently have been opened to encourage direct foreign investment and joint ventures will develop more rapidly, thereby widening the long-standing gap between coastal and the inland cities (Pannell, 1981). Shanghai is also likely to experience more rapid growth on the basis of its unique economic conditions, although it is not now demographically primate (Ginsburg, 1980; Pannell, 1984; Chen, 1985a). Despite the fact that they are distributed in a uneven manner geographically with the very large and more industrialized cities located on or near the east coast, large Chinese cities conform more to the rank-size distribution than do those in many developing countries. Because of its slower growth, the gap between Shanghai's population and those of other very large cities has narrowed over the last 30 years. However, Shanghai has remained the largest economic center in the country. In 1983 its industrial output accounted for one-ninth, its foreign trade one-sixth, and its port capacity one-third of the national total (Li, 1985). Its recorded annual industrial productivity per worker (28,684 Yuan or about \$11,474) was approximately 46% higher than the second most productive city of Tianjin (19,608 Yuan or about \$7,843).

Second, the labor demand generated by new industrial enterprises in favored cities may become a strong pull for rural population depending upon the structural changes that will take place in their labor markets. Thus, the strategy of selecting some cities for faster development may produce "size-class-jumping", i.e., some secondary cities may move into the top category of large cities. On the other hand, the low aggregate population growth in urban areas and continued control on rural-urban migration tend to forestall upward shifts by larger cities.

We have noted a continued commitment of the Chinese government to intervene to modify and redirect the dynamics of urban growth under intensive industrialization. Although the data presented earlier (Table 1) indicate that it is probably too late to avoid concentration at the top level of the urban structure, current policies are preventing overconcentration of population and resources in very large cities. They offer a potentially promising solution to the dilemma presented by the structure and functions of these

cities, i.e., tradeoffs between allowing their continued growth at the risk of primacy problems and stopping their growth at the cost of suppressing their economic functions. At the core of these urban system planning strategies is the desire to avoid the path of urbanization experienced by most developing countries by pioneering a new pattern of urban growth. Although the outcome of these policies remains to be seen, their general implications may be assessed and more recent measures to remedy, if not to cure, the existing urban malaise should be highlighted.

This comprehensive picture of very large cities in the context of China's urban policies suggests that an effective Chinese model of urban development has yet to crystalize. As a late-comer to urbanization and economic development, China may have the advantage of observing and learning from the experiences of other developed and developing countries. It will continue to face the crucial question of vertical and horizontal functional integration within its very large cities and between them and lower strata of the urban system. The key to integration is to improve the transportation and communications systems.

A host of developments in this respect has occurred recently. Some of these cities have begun operating mini-bus services as an alternative mode of transportation to lessen the pressure on existing public bus systems. Working schedules of some factories and government organizations have been rearranged to reduce the amount of traffic during rush hours. The second line of the existing subway in Beijing (which first opened in 1969) went into operation in 1984. A planned five-year construction project will add a new subway line and extend its service into the city's outskirts. A rigid licencing system has been introduced to reduce the number of mopeds on the road. Tractors are not allowed to cruise into the central city any more. A ceiling has been imposed to limit the number of trucks entering the city during daylight and driving on the major and busy roads. More circumferential bus routes have been created to avoid through-city traffic. More efficient arrangements have replaced some of the older two-way street intersections. Some pedestrian bridges and tunnels have been constructed to alleviate traffic tie-ups. Tianjin has constructed an 18-kilometer beltway around the city to ease traffic conqestion. A short highway is to be built around Shanghai, linking the central city with Baoshan and Jinshan, its two booming industrial satellite towns.

Digital-controlled exchange telephone systems purchased from abroad are to be installed in several cities, e.g., Shanghai, Nanjing, Guangzhou, Dalian and Wuhan. Ongoing prioritized projects include (1) a coaxial 1800-line carrier communication trunk which will link up Beijing, Wuhan and Guangzhou, and (2) multiple-microwave communication cables which will connect Nanjing with Shanghai, Shenyang with Da-

lian, and Jinan with Qingdao. Expressways are planned to be built between Shenyang and Dalian, Beijing and Tianjin, Shanghai and Nanjing and Guangzhou and Shenzhen (the largest of the four Special Economic Zones on China's southern coast) (Chen, 1985c). The last is scheduled to begin in 1985 and to be completed in 1986. The city of Wuhan has founded the country's first regional airline—Wuhan Airline Company. Shanghai is building a new container dock, which, when completed, will handle 200,000 standard containers a year, the largest facility of this kind in the country. These measures should help improve the limited transportation and communication within and among these very large cities, as well as between them and the outside world.

Although these planned and implemented solutions are unlikely to overcome these problems overnight, each of them can function as a quick pay-off intervention and will have a remedial effect on this complex gamut of urban pathologies. However, it is more difficult for China to foster the transfer and flow of resources from coastal to inland cities. In a sense, China is trying to follow the model of the United States, which successfully developed westward from the industrial and financial centers on or near its East coast. Nevertheless, in the United States there was a second coast in the West that, with its rich natural resources and convenient access to maritime transportation, stood not only as a target but as a magnet for development. Although Shanghai

can be perceived as functioning like a "New York in China" in a broad sense by offering both financial and industrial assistance to inland areas, the horizontal transmission of resources and technology from east to west across the wide national urban landscape is predicated on building an extensive network of transportation and communication. Realistically, China has a long way to go to succeed.

The urban system planning strategies essentially are conditioned by China's sociocultural past and unique structural characteristics, including geographic diversity, a large number of port cities on a long shore, a massive rural population, and incomplete colonial penetration. Furthermore, the critical role of a strong state in shaping and pushing these policies is peculiar to China's political system. For all these reasons, these policies are not automatically transferable to other developing countries.

Nevertheless, some components of the Chinese model may be applicable cross-nationally. Regionalizing the structural and functional status of secondary cities as economic coordinating centers is a promising move for balancing the whole urban structure. Increasing the influence of these cities across their tributary areas helps strengthen their positions vis-a-vis primate cities. This is a strategy that may retrieve the missing middle link in many rapidly urbanizing countries whose provincial and regional centers often are bypassed or serve only as stepping-stones for migrants

to the capital or other primate cities. The comprehensive citification of rural towns also may be appropriate for some developing countries, especially those in Asia and Africa which are still largely rural. It is conducive to breaking down the isolation of very large rural sections by generating local economic dynamism and transmitting it to cities. More important, the emergence of a network of rural towns, which have efficient agricultural marketing and flourishing local industries and services, helps retain many potential peasant migrants at the lower levels of the urban system. Otherwise the very limited opportunities provided by underdeveloped towns and small cities make them only transitional stops for the migrants on their way to larger and primate cities. China's strategy of strengthening and building rural towns and expanding some into full-fledged small cities is part and parcel of the more general and multi-dimensional rural economic reforms, which predated the current urban reforms in cities. This experience could become a crucial ingredient in an integrated urban planning policy for some developing countries.

Balanced patterns of urban growth approximating the rank-size pattern are difficult to achieve in many Third World countries where urbanization has already evolved into entrenched primacy. Partial strategies only have a minimal impact and a complete restructuring of the urban system requires centralized governmental effort and huge unavailable

resources. The Chinese experience is a typical mixed bag of both continued problems besetting the nation's giant cities and constantly emerging measures for dealing with them. It is clear that China's modernization relies to a large extent on the industrial capacity and economic functions of these very large cities; on the other hand, it is imperative for China to minimize the price that has to be paid for favoring these cities through trial-and-error urban planning policies.

Given that varied political, cultural and economic factors have shaped the courses and patterns of urban growth and large cities in developing countries, it seems more desirable for each of them to adopt selective urban planning programs which target at its own problems. The potential diversity of governmental and private responses to the pressing problems associated with rapid growth of large cities in Third World countries cannot be covered in a single case-oriented analysis of China. However, the implications of Chinese policies for some general and theoretically relevant issues in comparative urbanization research can and should be seriously considered.

A FINAL LOOK DOWN THE ROAD

Returning to the basic concern implied by the title of this study, we are pressed to raise a seemingly obvious yet difficult question when we attempt to project the demographic and socioeconomic images of the giant cities in China

into the future: Are China's comprehensive urban planning strategy, coupled with its piecemeal and ad hoc approaches, sufficient for monitoring the pulse of these very large cities and ensuring their healthy development? Will the strict population control in the past be effective enough from now on in light of socioeconomic changes so that urban primacy in a demographic sense and its accompanying problems can be avoided? Available demographic projections have presented a rather pessimistic scenario: Shanghai and Beijing's population are predicted to swell to 23.7 and 20.9 millions (including population in their metropolitan areas), respectively, by the year 2000. This will rank them third and sixth then on the list of the 35 largest cities in the world (United Nations, 1981a). To achieve these gigantic sizes, both cities will have to grow at 4.0% and 4.7% per annum. far exceeding their current growth rates (see Table 3). Realization of this scenario may bring a high degree of urban primacy, if cities right below Shanghai and Beijing and those lower on the urban hierarchy grow at a slower pace in the comparable span of time. Although the ongoing tendency is that these other cities have been growing faster than Shanghai and Beijing (Chen, 1985a), continued control of the latter two is highly necessary, particularly in most of the 1980s when rapid increase in marriages of the baby boomers from the early 1960s has begun generating an upswing in the birth rates of these two largest Chinese cities.

A few other factors also could contribute to a faster growth of very large cities in China: (1) The reformed rural economy, which has moved away from the traditional mode of labor-intensive and low-yielding grain production, will continue to drive peasants off the land, thereby amassing the pool of potential rural-urban migrants; (2) Recently loosened control on both between-city and rural-urban migrations may thicken and channel the volume of migrants in the direction of very large cities, especially Shanghai and Beijing, which remain by far the most alluring urban centers in China. Given the retrospective evidence that rigorous population control policies have reduced the growth rates of Shanghai and Beijing to almost the lowest in comparison with cities of similar sizes in the developing world today, we are devoid of a firm ground to take blind faith in the rapid prospective growth rates suggested by pure demographic projections. On the other hand, any major policy shifts concerning population control could add considerable force to the inherent demographic momentum and the large base of giant cities in China. Therefore, it is not unreasonable to assume that a close interaction between the two aforesaid determinants could reverse the growth trend of Shanghai, Beijing and other giant cities in the years ahead.

Aside from speculating about the counterfactual conditionals due to the unpredictability of policy swings in China, the actual conditions very large cities in China face

today present problems that are unlikely to be solved simultaneously. The fundamental one seems to be a lack of parallel development of a largely labor-use urban economy and these cities' ability to absorb more labor force and provide them with adequate service facilities. For example, although Shanghai will probably never repeat the tragic situation of Mexico City, with massive in-migrants jamming in the shanty towns that encircle Mexico's overcrowded capital, it has not been very successful in dispersing some of its population from the overcrowded central city to surrounding suburban areas because of the latter's inferior and unattractive infrastructure. People who have taken up jobs in Shanghai's satellite towns cling to their residence in the central city at the cost of commuting for two hours every day by congested public transportation. So long as infrastructure development in satellite towns of very large cities and cities smaller than them continues to falter, there will be little attraction for industrial firms and service establishments to decentralize and relocate in these areas from the central cities of Shanghai, Beijing and other giant cities. Therefore, the latter group of cities will continue to bear the pressure of concentrated industry and population on their existing municipal functions. This continued pressure will in turn offset efforts for bettering the urban environment and living conditions in these cities.

The Chinese government has pronounced time and again that the years between now and 2000 constitute a crucial leg of the country's intensive modernization journey. The economic weight carried by and recently attached to the very large cities may exceed the heavy load of their own population size. However, faster population growth in these cities could consume an increasing share of the high productivity they will have obtained for redistribution through national mechanisms. Since some basic conditions in very large Chinese cities are intractable and alternative solutions to their problems limited, the most promising approach to minimize the dilemma confronting giant cities in China lies with constant adjustments and fine-tuning of specific urban problems in conjunction with implementing an overall and orchestrated urban planning policy.

Table 1
Distribution of Urban Localities in China, 1982

Locality Size	(1) Number of	(2) % of Total Population in Each Size Class and Over	(3) Cumulated % of Urban Population to Size Class	(4) % of Total Urban Population in Size Class	(5) % of Urban to Total Population in Size Class	(6) Ratio of Urban Population to Rural Populatior in Size Class
>1,000,000	38	•197	.518	•518	. 230	• 339
500,000-999,999	47	• 409	•749	.231	.050	• 052
300,000-499,999	46	.226	.872	• 123	.054	• 085
<299,999	125	.219	1.000	.128	•133	• 153
Total	239	1.051*	xxxxx	1.000	xxxxx	xxxxx

Source: Computed from Statistical Yearbook of China 1982, State Statistical Bureau of China, 1983, p. 107.

^{*}Scale of population concentration = \(\mathbb{Z} \) \(\mathbb{X} \), where \(\mathbb{X} \) is the proportion of the total population in each size category and over. For interpretation and explanation of this measure, see J. Gibbs, "Measures of urbanization," \(\frac{\text{Social}}{\text{Forces}} \) (December) 1966, pp. 172-173.

Table 2
Population of Large Chinese Cities, Selected Years, 1825-1982
(in thousands)

City, Province	182 5 ⁸	19 00^a	1937 ^b	1949 ^b	1953 ^b	1970 ^b	1977 ^c	1982 ^d

Shanghai		837	3,480	4,447	6,204	7,000	10,810	11,810
Beijing	1,350	1,100	1,565	1,672	2,768	5,000	8,300	9,190
Tianjin	175	700	1,067	1,708	2,694	3,600	6,280('75)	7,780
Chongqing, Sichuan		250	281	1,003	1,773	2,400		6,510
Changchun, Jilin			205	605	855	1,200	1,050('78)	5,750
Guangzhou, Guangdong	900	670	1,157	1,413	1,599	2,500	4,970	5,610
Shenyang, Liaoning	180		527	1,121	2,300	2,800	4,200('75)	5,140
Dalian, Shenyang					766	1,650		4,720
Qingdao, Shandong			527	759	917	1,300		4,260
Wuhan, Hubei		450	1,353	1,062	1,427	2,560	3,670	4,180
Chengdu, Sichuan	175	475	481	620	857	1,250		4,020
Nanjing, Jiangsu	200		1,013	1,137	1,092	1,750	3,200	3,740
Jinan, Shandong			437	591	680	1,100	1,100+('74)	3,350
Xi'an, Shaanxi	259			400	787	1,600	1,300(174)	2,940
Lanzhou, Gansu				100	397	1,450	2,000+	2,400
Taiyuan, Shanxi					721	1,350		2,200

Sources: a) Tertius T. Chandler and Gerald G. Fox, 3000 Years of Urban Growth, 1974, p.372.

b) Clifton W. Pannell, "Recent Growth and Change in China's Urban System," in Laurence J.C. Ma and Edward W. Hanten (eds.), <u>Urban Development in Modern China</u>, 1981, pp. 99-103.

c) Laurence J.C. Ma, "Urban Housing Supply in the People's Republic of China," in L.J.C. Ma and E.W. Hanten (eds.), <u>Urban Development in Modern China</u>, 1981, p. 224.

d) Statistical Yearbook of China 1982, State Statistical Bureau of China, Beijing, 1983, pp. 35-102.

Table 3

Population, Density and Rate of Natural Change of Large Chinese Cities for Urban Districts and Suburban (Rural) Counties, 1981-1982

City	Ur	ban District	В	Suburban (Rural) Counties				
	Population (in thousands)	Density*	% Change	Population (in thousands)	Density*	% Change		
Shanghai	6,270	27,261	2.2	5,540	930	0.8		
Beijing	5,550	2,055	2.2	3,640	258	1.4		
Tianjin	5,130	1,200	2.1	2,650	377	1.7		
Chongqing	2,650	1,742	2.0	3,860	464	0.6		
Changchun	1,740	1,559	2.5	4,010	226	0.4		
Guangzhou	3,120	2,320	1.3	2,490	239	1.2		
Shenyang	4,020	1,476	2.6	1,120	223	0.8		
Dalian	1,480	1,150	1.9	3,240	280	1.4		
Qingdao	1,180	4,836	1.9	3,080	538	1.0		
Wuhan	3,220	2,075	1.9	950	325	0.6		
Chengdu	2,470	1,707	1.7	1,550	642	1.3		
Nanjing	2,130	2,457	2.0	1,610	418	1.0		
Jinan	1,320	2,733	1.9	2,030	462	1.0		
Xi'an	2,180	2,532	1.6	760	481	2.3		
Lanzhou	1,430	674	3.5	970	79	2.2		
Taiyuan	1,750	516	2.8	450	114	0.7		

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Source: Statistical Yearbook of China 1982, State Statistical Bureau of China, Beijing, 1983, pp. 35-102.

^{*}Measured in number of persons per square kilometer.

Table 4

Means and Standard Deviations (S.D.) of Selected Demographic and Socioeconomic Characteristics of Large Chinese Cities, 1962

	Wational		City		Urban District		burban) Counties
Characteristics	Average	Mean	S.D.	Mean	S.D.	Mean	S.D.
Population (in thousands)	1,015,410	5,225	2,575	2,853	1,600	2,372	1,440
Population Density (per sq. km.)	106.00	714.00	422.00	3,518.00*	6,410.00	379.00	213.00
Natural Increase Rate (%) (1981-1982)	1.40	1.72	0.49	2.13	0.52	1.15	0.55
Industrial Enterprises per 10,000 Pop.	3.83	5.57	1.43	7.18	1.44	3.58	1.30
Gross Industrial Output per Capita (in Chinese Yuan, 1 Yuan = 0.4 U.S. Dollar		1,579.58	881.91	2,735.79	1,301.68	224.41*	434.89
Farmland per Capita (acres)	0.25	0.16	0.10	0.05	0.03	0.30	0.16
Grain Output per Capita (pounds)	626.52	518.23	229.19	157.51	121.60	979.70	350.51
Nonproduction Investment per Capita (Chinese Yuan)	24.77	107.08	45.62	176.86	53.33	15.32*	24.06
Completed Living Space per Capita (year-end in square meters)	5.60#	0.36	0.11	3.47	0.78	0.07	0.06
Food Services per 10,000 Population	6.18	8.57	4.51	11.17	6.10	4.51	1.57
Public Busses per 10,000 Population	+	•		3.87	1.27	+	
Percent of Employed Labor Force in Retail Service	11.06	5.82	0.75	4.94	0.62	14.63	5.18

Table 4, continued

	National	Ci	City		ban trict	Suburban (Rural) Counties	
Characteristics	Average	Mean	S.D.	Mean	S.D.	Mean	S.D.
Consumption Sale per Capita (in Chinese Yuan)	214.84	473.58	142.34	706.67	171.38	193•1	77.06
Cinemas per 100,000 Population	14.15	15.39	7.50	14.30	5.69	17.6	3 12.98
Public Libraries per 1,000,000 Pop.	1.90	1.89	0.89	2.30	1.25	2.0	2 0.89
College Students per 10,000 Population	11.36	71.00	35.00	122.64	44.64	-	.+
Vocational Schools per 100,000 Pop.	0.03	8.97	3.75	14.39	5.70	4.09	5 4.04
High Schools per 100,000 Population	0.21	9.49	3.63	7.65	2.33	12.62	9.48
dospitals per 10,000 Population	0.65	3.30	1.01	5.20	1.62	1.00	0.32
ospital Beds per 10,000 Population	20.30	35.40	10.11	52.42	9.99	14.4	6.34
Octors per 10,000 Population	12.90	29.34	9.36	46.21	9.82	8.39	3.51
Number of Cases		1	I=16	1	V=16		N=16

Notes: *That the standard deviation is larger than the mean of these indicators is due to the skewedness of the underlying distributions of the cases.

Source: Computed from Statistical Yearbook of China 1982, State Statistical Bureau of China, pp. 35-102.

This measure is called Urban Housing Space per Capita. It is calculated on the basis of the existing housing space per urbanite, instead of the annually completed living space used to compute the indicator of housing conditions for the cities as a whole and their suburb and rural county sections.

^{*}Can't be computed for absence of information.

Table 5

Ranks of Chinese Cities of Over 2,000,000 on Selected Socioeconomic Characteristics,* 1982

Cities	(1) Popu- lation Size	(2) Gross Industrial Output	(3) Grain Output	(4) Food Services	(5) **Labor Force in State Enterprises	(6) Sales for Consumption	(7) Completed Living Space	(8) Colleges & Universities	(9) Hospitals & Clinics	(10) Overall Rank [†]
Shanghai	1 (4.56)	1 (5.25)	11 (1.49)	10 (1.42)	4 (2.62)	1 (3.92)	10 (1.79)	5 (2.07)	1 (3.88)	2 (109)
Beijing	2 (3.54)	4 (2.42)	10 (1.67)	15 (1.02)	2 (3.17)	2 (3.83)	3 (3.06)	1 (4.26)	2 (3.22)	1 (112)
Tianjin	3 (2.99)	2 (2.63)	14 (1.25)	14 (1.09)	7 (2.33)	6 (2.20)	2 (3.15)	10 (1.67)	3 (3.10)	3 (92)
Chongqing	4 (2.50)	14 (1.25)	5 (2.99)	9 (1.50)	9 (2.01)	16 (0.69)	4 (3.00)	15 (0,92)	15 (0.82)	12 (62)
Changchun	5 (2.20)	16 (0.82)	1 (4.81)	13 (1.22)	15 (0.85)	15 (0.81)	16 (0.13)	13 (1.35)	16 (0.10)	15 (43)
Guangzhou	6 (2.15)	10 (1.70)	6 (2.98)	2 (3.25)	8 (2.04)	3 (3.34)	13 (1.20)	12 (1.55)	8 (2.21)	6 (85)
Shenyang	7 (1.97)	8 (1.83)	2 (2.96)	4 (2.99)	16 (0.48)	5 (2.30)	11 (1.65)	7 (1.78)	13 (1.92)	9 (80)
Dalian	8 (1.80)	11 (1.56)	7 (2.08)	16 (0.84)	14 (1.05)	11 (1.39)	15 (0.74)	14 (1.14)	14 (0.83)	15 (43)
Qingdao	9 (1.63)	12 (1.45)	8 (2.00)	12 (1.22)	11 (1.32)	14 (1.00)	14 (1.08)	16 (0.71)	12 (1.59)	14 (45)
Wuhan	10 (1.59)	3 (2.53)	13 (1.28)	7 (2.29)	10 (1.74)	4 (2.62)	1 (3.47)	3 (2.95)	10 (1.87)	4 (92)
Chengdu	11 (1.53)	13 (1.42)	3 (2.60)	5 (2.41)	3 (2.90)	13 (1.27)	6 (2.60)	9 (1.68)	6 (2.41)	7 (84)
Nanjing	12 (1.42)	7 (1.89)	4 (2.58)	8 (1.96)	13 (1.06)	7 (1.92)	8 (2.22)	4 (2.92)	7 (2.27)	8 (83)
Jinan	13 (1.27)	15 (1.24)	9 (1.76)	6 (2.35)	12 (1.31)	12 (1.32)	12 (1.40)	11 (1.59)	11 (1.59)	13 (52)
Xi'an	14 (1.11)	9 (1.76)	12 (1.29)	1 (4.56)	5 (2.41)	8 (1.89)	7 (2.46)	2 (3.85)	4 (2.95)	5 (91)
Lanzhou	15 (0.90)	5 (2.21)	16 (0.44)	3 (2.98)	1 (4.37)	10 (1.66)	9 (2.18)	6 (1.80)	9 (2.08)	10 (79)
Taiyuan	16 (0.83)	6 (2.04)	15 (1.12)	11 (1.39)	6 (2.34)	9 (1.84)	5 (2.97)	8 (1.75)	5 (2.63)	11 (72)

Notes: *Figures are per capita unless otherwise indicated.

Source: Computed from Statistical Yearbook of China 1982, State Statistical Bureau of China, pp. 35-102.

[#]The first number in columns 1-9 is the rank of that city on one particular characteristic. The number in the parenthesis is the standard score plus two.

[†]The number in the parenthesis of column 10 is the total score through reverse addition.

"A CHINESE CITY BUILT IN ONE NIGHT": THE MAGIC AND MYTH OF MIGRATION

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ABSTRACT

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In 1980 the government of the People's Republic of China established one of the four Special Economic Zones (SEZs) for attracting foreign capital and technology in Shenzhen and three locations. Shenzhen's population grew from about 30,000 before 1979 to a fledgling modern city of close to 350,000 in 1985 at an explosive rate of 42.0% per annum. A large number professionals (cadres, technicians, and intellectuals) has migrated to the city via various channels. An influx of manual workers from distant provinces as well as surrounding counties has moved into Shenzhen to fill the jobs in the new factories and service establishments. Using data gathered from a Shenzhen SEZ, this paper (1) presents empirical information on the rapid economic and demographic growth of Shenzhen, (2) examines origins, processes the and characteristics of various groups of migrants to Shenzhen, and identifies (3) the problems associated with and the implications of migration to Shenzhen for the city's future.

"A CHINESE CITY BUILT IN ONE NIGHT": THE MAGIC AND MYTH OF MIGRATION

"Imagine a city being built from scratch. Imagine a marshy coastal strip filled with paddy fields and fishing villages transformed into a megalopolis within a few short years" (Time, 6 January 1986:47).

This image was borne out by reality when explosive economic and demographic growth propelled the tiny coastal town of Shenzhen across from Hong Kong into probably the most dynamic and modern-looking city in China today. Given that population movement in China has been heavily regulated, one may be puzzled by the question of how migration could play any major role in fostering Shenzhen's boom.

The migratory process contributing to Shenzhen's rapid development may be unique; its uniqueness, however, can only be understood by analyzing it in the context of migration and economic development. The analysis of migration tends to emphasize economic factors motivating individuals to move from one place to another (Spengler and Myers, 1977). The dynamic and multifaceted interaction between population movement and economic development has been documented by many studies.

However, the variation of this interactive process across time, location, and context requires the continued examinations of additional cases.

Although examination of a specific case may not make a major contribution to the development and reformulation of theories of migration, it often carries some practical implications for interested policymakers, urban planners, development specialists, and others. Moreover, a well-executed case study enriches the loosely defined field of comparative research (Walton, 1976). This paper is a small contribution to that goal. First, it reviews an overall picture of the rapid economic and demographic growth in Shenzhen. Second, it examines the sources and mechanisms of migration, and characteristics of migrants to Shenzhen in order to clarify the relationship between rapid economic growth and its demographic consequences in China. The paper closes by briefly assessing the problems associated with migration to Shenzhen and how they may affect the city's future.

I. A GROWTH EXPLOSION AT CHINA'S FRONTIER

The history of population movement toward frontier settlements has varied considerably in terms of goals, processes and outcomes among nations and regions. Economic and political considerations for both individuals and governments have played different roles in the settlement of the West by the United States, Siberia by the Soviet Union, and the West Bank by Israel. Following a change in national leadership in

the late 1970s, China moved to rediscover its frontier with a set of new economic ideologies. To attract overseas capital and technology for internal economic growth, the Chinese government in 1980 set up Special Economic Zones (Shenzhen, Zhuhai, and Shantou in Guangdong and Xiamen in Fujian) in four border cities along its south coast (see Map 1).

"Map 1 about here"

The Shenzhen special zone is the largest of the four Special Economic Zones (hereafter SEZ) and has experienced the most rapid economic and demographic growth. Its gross industrial output rose from 4 million Chinese Yuan in 1979, the year before the SEZs were formally established, to 30 million in 1985. Revenue income for Shenzhen SEZ reached 8.6 million Yuan in 1985, a 14-fold increase over 1979 (Huang, 1986). Shenzhen's population rose from about 30,000 in 1978 to nearly 350,000 in 1984 (Shenzhen SEZ Yearbook, 1985).

Although the policy of designating a special zone for growth has resulted in the intensive fusion of economic and demographic forces, the original rationale for setting up the SEZs was primarily economic. According to Deng Xiaoping's definition, the SEZs should play four "window" functions: (1) bringing in foreign capital and advanced technology, (2) absorbing scientific knowledge, (3) introducing modern management expertise, and (4) articulating China's foreign economic policy (see Chen, 1986). There was no clear evidence

at the outset that Shenzhen would become a major national industrial growth pole, despite the fact that subsequent events demonstrate that it had the potential to become one. Shenzhen was too small to grow into a city of the industrial and economic magnitude and complexity that would enable it to compete with cities like Shanghai and Tianjin. In fact, China decided in 1984 to establish Economic Development Zones (EDZ) in 14 cities along the coast (see Map 1). The initially greater size and stronger industrial capacity of these cities as compared with Shenzhen qualify them to be real growth centers (Chen, forthcoming) as instruments of national spatial policy.

It has turned out that Shenzhen represented an unconventional urbanization strategy. On the one hand, it did not have the basic economic and demographic structure to become a metropolis, even with special assistance from the state. On the other hand, Shenzhen's favorable location directly across Hong Kong (see Map 2) and population characteristics (e.g., it was the hometown of 120,000 overseas residents in 54 countries and regions and of 230,000 others currently living in Hong Kong) (X. Liang, 1984) are conducive to its growth into a sizeable border city.

"Map 2 about here"

The favorable characteristics of Shenzhen won the attention and support of China's central and provincial governments in the

form of flexible trade activities and tax benefits. The combination of institutional and monetary support from the state in turn has increased the attractiveness of Shenzhen's investment environment for foreign capital. The various sources of capital investment in Shenzhen SEZ are shown in Table 1.

"Table 1 about here"

These data are revealing. The state invested most of the capital to get development in Shenzhen off the ground, as shown by the combined 72.3% of the first two categories (Rows 2 and 3). The proportion of state investment declined to 10.4% in 1984. Local investment from Shenzhen itself grew rapidly from 16.7% (Rows 4, 5, and 6) in 1979 to 70.4% in 1984, though most of the money came from bank credits essentially controlled by the central government. The proportion of foreign capital investment reached its peak in 1981 when state investment started to decrease sharply. This statistic may be misleading, however, for the absolute amount of capital investment in 1984 was almost double that in 1983. The rapid growth in bank loans accounted for a large share of this increase.

Heavy investment in basic construction and development, coupled with government publicity about the rising importance of the SEZs, have created a new image of Shenzhen as a "promising land". The demographic dimension of the general SEZ strategy began to be revealed. People living elsewhere were

attracted to new job opportunities occurring in an environment consisting of favorable conditions: emerging economic prosperity, freer political atmosphere, warm climate, and proximity to glamorous Hong Kong, just to mention a few. Thousands of people began to show interest in seeking new career and living opportunities in Shenzhen in response to some mechanisms used by the Government for facilitating population movement to the city. This resulted in a unprecedented form of migration of people from different parts of China to this southern border city. Table 2 presents data on rapid population growth of Shenzhen over a six-year span.

"Table 2 about here"

As Table 2 indicates, population in Shenzhen SEZ rose sharply from 1979 through 1984, with a net increase of 120,500 (170.0%) in six years. Shenzhen's small population base led to a limited number of births each year. Consequently, new population growth due to the rate of natural increase was less than 10.0% annually averaging across the period covered by the data (Row 9). In contrast, migration to Shenzhen SEZ accounted for more than 90.0% of the population growth except for 1981 (Row 10). These percentages reflected the influx of about 20,000 new inhabitants on average each year into an area of 327.5 square kilometers. This rate was considerably higher than rates of rural migration to large cities (30-60%) in several developing nations where migration flows largely have

been unchecked (Yap, 1977:241).

Another feature of Table 2 is the increasing proportion of the population in the labor force from 1981 onward. proportion of the population working (Panel B, Table 2) increased rapidly from 32.9% in 1979 to 80.7% in 1984. The largest net increase of working population relative to increases in the total population occurred in 1983 and 1984 (Rows 12 and 14). Two parallel processes seemed to have been operating. First, the data indicate that an increasing proportion of the migrants were job holders. Second, the data suggest a growing number of available employment opportunities for the population as a whole. The nature of the jobs for migrants and local residents may be seen from the differences in the increases in the numbers of males and females, with the former increasingly outnumbering the latter (Rows 2 and 3 in Table 2). Differences in the distributions of men and women across industrial sectors will be elaborated later in the paper.

Data in Table 2 concern only Shenzhen's permanent population, residents who are formally registered with the Security Bureau of Shenzhen SEZ's municipal government. Shenzhen's temporary population (those holding a "temporary residence card") has also grown rapidly. These include (1) mobile construction workers from other provinces and regions, (2) employees from the interior holding a rotational job in their work units' new office or factory in Shenzhen, and (3) peasants from neighbouring counties and regions within

Guangdong Province coming in to sell fresh produce on the local free farm markets. Although data on the distributions of these subgroups in the temporary population are not available, scattered statistics show that the first group (construction workers) makes up the largest share because of the sustained tempo and increasing scale of land development and building construction in the last few years. In 1979 Shenzhen only had one construction company and it employed only 500 workers. number of such workers grew rapidly to 30,000 in 1981, 70,000 in 1982, 94,000 in 1983, and 104,330 in 1984. Coming from 40 counties and 21 cities in 9 provinces, these workers, signed construction contracts with the zone government and came to work and stay for the period needed to complete the project. Of the 146,100 temporary residents in Shenzhen in 1984, these mobile construction workers constituted 71.4% (Shenzhen SEZ Yearbook, 1985:320).

II. SHENZHEN: AN ATTRACTIVE YET UNCERTAIN DESTINATION

The data have indicated that more than 90.0% of Shenzhen's net population growth was due to migration, and the critical question concerns the factors that motivated over 100,000 people, many of whom were established professionals in big cities, to move to a small, unfamiliar and still largely underdeveloped border town? The question is even more intriquing for China, because, other things being equal, there is a lower propensity to migrate in a socialist than in a capitalist society, due to a greater degree of equality of

incomes, the maintenance of full emoployment and extensive social services, and relatively more equal distribution of social infrastructure and facilities throughout the country (Fallenbuchl, 1977:305).

A long-standing anti-urban tradition rooted in predominantly agricultural China, reinforced by the state's rigid registration system, tend to strengthen the idea that migration of massive scale is rarely likely [excepting the rustication movement in the Cultural Revolution (Simmons, 1981; Goldstein, 1985)]. This study of population movement to Shenzhen provides some illuminating evidence, as we shall see, for countering the hypothesis that migration tendency is low in socialist countries by applying a modified push-pull approach to the situation.

What Does Shenzhen Offer?

Most studies of migrant behavior in market economies are concerned primarily with the 'pull' factors at the destination and 'push' forces at the origin (Bogue, 1977). Experts tend to focus on how sensitive and reactive migrants are to economic opportunities (e.g., higher wages, better jobs) which affect individual decisions to move. (Todaro, 1969; Yap, 1977). In essence, most discussions of migration, especially internal migration, suggest an explicit or implicit rationality underlying decisions to move. Insufficient attention has been paid to non-economic, state-mediated, and environmentally-unique factors that are not of central

importance in push-pull terms but that may operate under nonmarket or quasi-market conditions.

The analysis of Shenzhen's experience calls for a sensitive treatment of these variables, within the basic push-pull framework. As a general background, Table 3 shows the socioeconomic characteristics of Shenzhen SEZ in contrast to both the country as a whole and sixteen large cities.

"Table 3 about here"

Table 3 contains information of several measures of industrial capacity and the standard of living in Shenzhen. The information for 1980 (the first year of Shenzhen's status as SEZ), 1982 and 1984, and both the national average and urban districts of 16 very large Chinese cities (with 2,000,000 people or more) in 1982, the only year for which those data are available. (For an analysis of China's very large cities, see Chen, in press).

The data suggest several general features of Shenzhen.

Although a new city, Shenzhen already was more crowded than the nation as a whole, though it compared favorably with the much larger established cities (Row 1). Shenzhen had an increasingly stronger industrial capacity on a per capita basis, exceeding that of the 16 large cities (Rows 3 and 4).

On the other hand, Shenzhen's agricultural component became less and less significant (Rows 5 and 6). This is due to a combination of rapid population growth in Shenzhen and its

priority on industrial development.

Shenzhen seemed to offer more amenities and social infrastructure than the 16 cities, which, in turn, were better than the national average, with few exceptions. Particularly noteworthy are housing, transportation, retail service and purchasing capacity. Shenzhen's residents enjoyed much more living space (Row 8), almost approaching the spacious living of the countryside [13.4 sp. m per person in 1982 according to a national sample survey (China Statistical Yearbook, 1983:499). Per capita access to public busses in Shenzhen was double that for the 16 cities (Row 7). The considerably higher proportion of people in retail service (Row 10) suggests that Shenzhen may have developed wider and more available commodity services. The largest gap between Shenzhen and the 16 cities and the rest of the nation was in consumption sales per capita (Row 9). This is largely accounted for by the facts that the average wage in Shenzhen was about 2.5 times higher than elsewhere and that Shenzhen's prices were largely market-driven rather than state-regulated. Nevertheless, this suggests that Shenzhen is becoming a highly consumer-oriented city.

With respect to the availability of recreational, educational and medical facilities, the data suggest that Shenzhen generally has lagged behind the 16 cities, though it was more developed in these respects than the was the nation as a whole, on average. Despite its brief existence, Shenzhen has closed the gap between it and the 16-city average considerably since 1982, especially with respect to cultural and health

services. For example, Shenzhen's residents' access to hospital beds and doctors in 1984 surpassed that of the 16 cities (Rows 17 and 18), despite its rapid population growth between 1982 and 1984. For a young city, its ecucational system grew rapidly. In 1980 there was only 7 high schools and 1 vocational school in Shenzhen SEZ; by 1984 there were 14 and 7 respectively. There was no institution of higher education prior to 1983. In that year it took only seven months to complete a campus of 58,000 sq. m. for the new Shenzhen University, and its enrollment exceeded 1,000 in less than a year (Shenzhen SEZ Yearbook, 1985:492-8).

Despite this phenomenal growth, Shenzhen has yet to become "a Chinese land of milk and honey." Yet it has developed a variety of strong pull characteristics in its appealing image, new environment, relative prosperity, and unique position in the Chinese system of cities. The appealing image has developed directly as a consequence of Shenzhen's having been designated as a SEZ. More than an eye-catching label, Shenzhen SEZ has been granted greater autonomy than has ever been given to any other area in China, having been allowed to engage various forms of direct cooperation with advanced capitalist countries, to rely primarily on market mechanisms, and to experiment with new ways of organizing economic and social activities with limited interference from higher authorities. To potential migrants, this created an atmosphere that is less politicized, freer of bureaucratic constraints, and replete with more varied economic opportunities. Shenzhen offers a

more appealing prospect to outsiders, particularly when contrasted to the constraints that exist in other Chinese urban places.

Among the benefits of Shenzhen's location are (1) proximity to Hong Kong, (2) its abundant entrepot trade, (3) its more direct contact with Western cultural and economic influence. Specifically, Hong Kong TV programs, heavily Americanized, are readily available in both English and Mandarin and Cantonese Chinese in the average home in Shenzhen. Although "Miami Vice", "Magnum, P.I.", "T.J. Hooker"2, live coverage of Miss Asia-Pacific Pageant, free-wheeling talk shows are not necessarily better than mainland Chinese programs, the variety of less politicized and entertainment programs coming from across the border have been far more popular than Chinese TV programming. This nexus between ecological environment and cultural context (Castell, 1977) has created an attractive social environment. trade with Hong Kong has enriched and diversified Shenzhen's supply of consumer goods as a port of entry (Molotch and Logan, 1985). Although some of these goods are expensive and can only be bought cheaper with Hong Kong dollars, they are at least accessible to its residents in contrast to Chinese cities in the interior.

Since Shenzhen is almost entirely a new town, it has benefited from some degree of overall planning for use of space, housing and a range of social and economic activities (Campbell, 1976). In response to the strip shape of the zone

(see Map 2), planners designed and implemented a blueprint that divided Shenzhen SEZ into multiple modules. Each module is an integrated district, containing a rational allocation different functional zones, industrial and residential alike, and is separated from its neighbours by rivers, orchards, or green belts to enhance environmental quality (Shenzhen SEZ Yearbook, 1985:305). The availability of open land has allowed for the construction of spacious housing blocks of various designs and heights. In 1979 there was only one building as By 1986, in addition to hundreds of high as five stories. smaller buildings, 129 highrises of 18 stories or more either were in use or under construction. Plentiful space and pleasant external environment have made Shenzhen one of the livable cities on China's southern coast. particularly attractive to people who are tired of crowded living quarters, polluted air, and the inefficient services of the large cities in the interior (Chen, in press).

While the benefits are alluring attractions, there are potential costs involved in moving to Shenzhen that can be grouped into three general categories. First, Shenzhen is a new and unpredictable place to many potential migrants. Since people in China traditionally are very immobile and rely heavily on long-term relationships, and established personal and community networks, Shenzhen's fluid structure and rapid growth require difficult adaptations for newcomers. The loss of close contacts with old friends and colleagues is likely to generate feelings of lack of status and being lost among

migrants in Shenzhen. Knowing that Shenzhen SEZ is experimental and subject to policy ajustments that can easily reduce or remove its current benefits, potential migrants are concerned about the possibility of getting stuck in a strange place that ultimately can turn out to be worse their places of origin.

Closely related to these potential costs are what may be called "counter-pull factors" in the hometowns of potential migrants, especially those living in big cities. Places like Beijing or Shanghai, politically bureaucratized as they are, offer an established pattern of life, closeness to family and friends and a sufficient diversity of recreational facilities Due to such factors as inefficient and consumer goods. transportation and absence of extended annual holidays (except for those whose relocations separate them from spouses or parents), relocation to this city on China's southern border can create several inconveniences for those who wish to visit their places of origin. Moreover, a household registration with a big city (especially Beijing and Shanghai) is a major privilege, people are very reluctant to move to a smaller place. These counter-pull factors are strong enough to offset the attractions of Shenzhen and lead many people to find ways of keeping their registrations behind and moving to Shenzhen on "temporary residence cards".

The third type of costs arises from the fact that Shenzhen's benefits are uneven due to its newness. It is a place where you may have to give up something in order to gain

something. For example, some of those already in Shenzhen feel that they have lost continuity in their professional development due to the lack of research facilities, though they are satisfied with a higher salary. Some are worried about the highly limited college education for their children available locally, though they may be happy with their new careers in Shenzhen. Some have chosen to move to Shenzhen for its benefits only as a second choice because they could not secure a job in places like Beijing and Shanghai which offer them more comprehensive packages of benefits.

Volume, Sources, and Processes of Migration to Shenzhen

In view of the fact that there are both costs and benefits associated with moving to Shenzhen, the next set of logical questions is (1) how many migrants reside in Shenzhen?

(2) Where have they come from? (3) What are the mechanisms through which have they moved to Shenzhen? Unfortunately, data on the volume of migration are scant even though we know that over 90.0% of the net population increase has been accounted for by migration. Scattered statistics, however, can help us piece together the approximate numbers of different types of migrants and the means by which they have entered Shenzhen. Because the SEZs were set up primarily for agencies involved in foreign trade and factories with overseas capital and equipment, there was an overriding need for two broad categories of work force from outside the SEZs—professionals (cadres, technicians, etc) and manual workers—which had to be

supplied from outside.

Several :channels through which professionals may move to Shenzhen can be identified. These, in a sense, are innovations in China's traditional personnel system, which transfers from one place to another primarily professionals The first of these new mechanisms is called assignment. "transfer through consultation and selection". From 1981 on, officials of the Shenzhen municipal government personnel developed a list of positions to be filled every year. Then a crew of recruiters would travel to different parts of identify appropriate candidates through recommendations by connections. The candidates were approached Once about transfering to a new job in Shenzhen. candidates agreed to move, Shenzhen SEZ's personnel agency would work out the transfering procedures with the candidates' work unit. The number of people who were recruited to Shenzhen SEZ this way has been relatively small (S. Fang, 1984).

In 1982 a more innovative and effective method, which was termed "recruitment through examinations and invitations", was introduced. Recruiting teams from Shenzhen were sent to large cities like Beijing, Shanghai, Tianjin, Wuhan, Nanjing, Xi'an, and to other places in Guangdong Province. Job positions were advertised openly in these cities' newspapers. The applicants were given tests on their field of specialization by qualified professionals. Those who passed were made offers which included promises of spacious housing and, sometimes, a position for a spouse. Those who accepted these offers were

assisted in moving to Shenzhen without any interference from the recruit's prior work unit (Shenzhen Personnel Bureau, 1984). A greater number of professionals was brought in Shenzhen in this fashion, while a few eminent scholars and movie stars came to Shenzhen at special invitations and for lucrative offers.

Still another way of bringing needed professionals to Shenzhen is "borrowing and offering joint appointment." Hiring firms in Shenzhen sign contracts with counterparts in the interior to bring some people to work for a specified period of time. Joint appointments have been commonly utilized by academic institutions in Shenzhen. The professionals who have moved to Shenzhen in this way live there on "temporary residence cards". Thus, they belong to the city's nonpermanent population.

These state-mediated inducements have been used to sustain an open door for in-migration of professionals for the last few years. In 1978 (before the SEZ was set up), there were only 6,466 professionals in Shenzhen. In 1984 the number reached 26,767, a net increase of 20,301. These who have moved in are younger and better educated than the indigenous professionals. The average age of the professional group was 35.0 in 1984 in comparison with 43.4 in 1978, while those with a junior college degree and above made up 27.1% of the total group, compared with 8.8% in 1978 (Shenzhen SEZ Yearbook, 1985:545).

Sources and processes for recruiting manual workers to Shenzhen differ from those developed for professionals.

Moreover, a considerably larger number of manual laborers was needed to staff the newly established industrial plants and service organizations. While there is no comprehensive information on the places of origin of professionals, a recent sample survey¹ by Guangdong Social and Economic Development Studies Center (hereafter abbreviated to GSEDSC) provided those data for recruited workers (see Table 4).

"Table 4 about here"

As can be seen, in contrast to the professionals most of whom came from big cities in the interior, the majority of manual workers came from smaller places within Guangdong Province (84.95%). Although this reinforces the provincial favor of the SEZs, the primary reasons for recruiting from these areas were to save the costs of long-distance moving and to avoid problems in migrants' adaptation to the local culture. All the places of origin listed under Guangdong are not far from Shenzhen. It should also be noted that Baoan, of which Shenzhen was the county seat before the SEZ was set up, supplied the second largest proportion of workers (13.16%).

Workers entered Shenzhen in three ways and, thus, contributed differently to the city's overall population. The first category includes permanent employees who have been transfered from a state-owned enterprise outside Shenzhen to a receiving unit in the city. Workers coming through this more traditional channel tend to have their home residence in big

cities and distant provinces, and end up in state-owned enterprises in Shenzhen SEZ.

A second category encompasses "contractual workers" who have been recruited through an innovative employment mechanism introduced by Shenzhen in 1983. An employer in Shenzhen wanting to hire contractual workers submits a plan to the zone's labor department for approval, which then allows the employer to recruit in designated areas outside Shenzhen. These workers have to apply and pass tests on basic reading ability and technical skills before they are hired on probation for six months. They are not permitted to move their formal registrations from their places of origin. Those who have met the qualifications at the end of the trial period are given a contract, which usually lasts from

three to five years, while those who have not qualified or are unwilling to sign a contract must return home.

The third group includes temporary and seasonal workers who are hired to work and live in Shenzhen on "temporary residence cards". Although the need for such workers varies from firm to firm and time to time in Shenzhen, their employment is subject to the approval by the zone's labor department. Almost all construction workers fall into this category. The combination of second and third groups already includes half of the work force in Shenzhen (50.5%).

Manual workers have entered Shenzhen in the following proportions: (1) transfer and assignment (49.1%), (2) direct recruitment by factories (21.1%), (3) introduction by friends

and relatives (20.8%), (4) private consulting (1.7%), newspaper advertisement (0.3%), and others (7.0%) (GSEDSC, 1985). The migration of permanent workers in state-owned enterprises has speeded the net increase of permanent population in Shenzhen. So did the majority of contractual workers who are usually employed by Sino-foreign joint ventures, though a certain percentage of them is counted with the temporary population while on probation. The rapid growth of temporary population in Shenzhen has been fueled primarily by the influx of temporary and seasonal workers.

After Migration to Shenzhen

Since workers in Shenzhen primarily are settled and temporary migrants, we also wish to know how the labor force is distributed now and, more interestingly, how incoming migrants have fared. Table 5 presents a general profile of a number of characteristics of workers in a variety of industries.

"Table 5 about here"

First of all, the data show that workers in electronics (48.7%) constituted almost half of the total labor force, with the garment industry being a distant second. This clearly reflects Shenzhen SEZ's stated priorities in developing electronics and textile industries to compete in the international market. In fact, close to 70% of the zone's total industrial output in

984 was contributed by the electronics industry.

Second, Shenzhen's labor force was young, especially those workers in such new industries as electronics, textiles and precision instruments, while the average age of workers in older and traditional industries (e.g., chemicals, construction materials) was higher. The young working population reflects Sherzhen's entire population. The 1982 census showed that the median age of Shenzhen's population (22.1) was lower than the national average of 22.9, while its percent of population working (80.7%) was higher than the nation's 57.5%. The young age dependency ratio of Shenzhen's population (0-14/15-64) was 35. %, compared with 54.3% of the nation as a whole. hig. ar proportion of people in the work force in Shenzhen also was mirrored in the lower old age dependency ratio (65+/15-64) of i's population (6.3%), relative to the nation's 7.9% (J. Liang et al., forthcoming; Shenzhen SEZ Yearbook, 1985).

As Table 5 reveals, female workers in Shenzhen tended to concentrate in the electronics and garment industries, whereas male workers far outnumbered females in industries such as chemicals and construction materials, reflecting the differiential physical demands of these industries. Due to the heavy concentration of female workers in electronics, the total sex ratio (M/F) is 0.78:1.

Total income of Shenzhen workers varies a great deal across industries and is 2.0 to 2.5 times higher on average than that outside the zone. The educational level of the labor force, however, is quite low, as the average score of workers

in all the industries (4.7) falls below finishing senior high school. Workers in rubber and plastics only have an average level of education just over senior high school (5.9), while, on average, construction workers have less than junior high school education (3.3).

The higher wages and lack of constraints in Shenzhen's dynamic environment has attracted many younger people. Given the suggestion that rural migrants are better off economically in cities of destinations than in the country and tend to stay in the urban setting (Yap, 1977; Simmons, 1981), it might be assumed that workers who migrated to Shenzhen are highly contented with or at least happy about the working and living conditions in a place that is too small to accommdate everyone who might want to be there. The available data tell a different story (see Table 6).

"Table 6 about here"

Unexpectedly, the mean scores (Col. 8) of the sampled respondents (see Footnote 1) were lowest on economic and career opportunity items. For example, 63.1% of the respondents didn't care about promotional opportunities. A higher proportion of worker respondents were either unsatisfied with or didn't care about economic conditions measured in benefit services, salaries, and bonuses (Rows 9, 10, and 11), while an insignificant proportion said they were very satisfied. On the other hand, respondents' scores on relationships with peers,

personnel departments, and bosses (Rows 1, 2, and 3) were the highest. For example, 73.6% and 52.4% of the respondents were satisfied with their relationships with peers and bosses, respectively. These data indicate that a new environment may not make it difficult for people to get along with one another and with their superiors.

Whether workers in Shenzhen are happy with their present working conditions also can be examined with information on people's future plans. When the same sample of workers was asked what they would plan to do in the future, 10.6% answered that they would like to continue the present job; 26.1% was interested in getting jobs requiring more technical skills in Shenzhen SEZ; those intending to switch to other jobs but stay in Shenzhen SEZ constituted 25.8%; a small proportion (2.7%) wanted to seek the same job outside Shenzhen SEZ; 2.0% aspired to find more technical jobs outside the zone; 4.6% hoped to secure different jobs outside the zone; while the remaining 28.2% had either no response or didn't know for other reasons (GSEDSC, 1985:24). As a whole, 62.5% planned at least to stay in Shenzhen, while only 9.4% thought of leaving.

Attractive as Shenzhen may be due to its privileged status, it has yet to become a "perfect" home for those who have settled there. Moreover, there seems to be a sense of uncertainty among Shenzhen residents, for any policy shift regarding the SEZs could take away the benefits they have been enjoying. To a great many outside, however, Shenzhen SEZ is still perceived and pursued as a "treasure island", which

offers a number of things for daily living that now are missing . elsewhere in China.

III. PROBLEMS AND PROSPECTS

Thanks to heavy investment from the state and the encouragement of migration, Shenzhen may indeed be hailed as "a city built in one night". Such explosive demographic growth in one restricted area has no parallel in China's recent history. However, it has been substantially initiated and regulated by the Chinese government at both national and provincial levels. This intent onal external facilitation has complicated in many ways the lationship between voluntary individual migration based on r ional calculation and the strong draw of economic forces. This paper has revealed some of the complexities and myths conce ning migration to Shenzhen. The lack of more specific data, however, has limited the analysis.

The large volume of migrant population to Shenzhen has provided a badly needed labor force for industrial development in Shenzhen. To summarize, 97% of all the professionals in Shenzhen today came from the interior, while 92% of the manual work force entered Shenzhen from the same source (S. Fang, 1985). Has the experience of Shenzhen suggested that China should remove or at least considerably loosen its control over population mo ement and let people move where they are most needed (M. Fang, 1986)? The answer may be a "No", as there have already been serious concerns about the problems associated with a strong demographic response to a booming city

based-economy. Population growth in Shenzhen tends to run ahead of the new and fledgling infrastructure in the city. Recently, the shortage of public toilets has caused a series of complaints which made the headline of the local newspaper. The living conditions of a growing temporary population in Shenzhen are another concern. For example, many construction workers live in wooden shacks that lack convenient facilities. Shenzhen's rising trade and consumption fervor also has attracted a large number of businessmen, some of whom have taken advantage of the SEZs' flexible policies to engage in smuggling and illegal trading practices (Shenzhen Tegu Bao, 29 December, 1985: 1).

A major effort to impose population regulation and control began early in 1986, aiming to disperse and keep away illegal residents in Shenzhen without "temporary residence cards". A "control" line (a wire fence stretching 84.0 kilometers and an 86.2-kilometer patrol road) was put into use on April 1, 1986. Although the state intended the 135-million-Yuan line to prevent smuggling and illegal economic activities, it serves to check and stop people trying to come in without visas and identification cards (Zhu, 1986). Shenzhen SEZ's long-term plan allows its population to grow only to 450,000 by 1990 and to 800,000 by 2000 (Shenzhen SEZ Yearbook, 1985:306). This implies an annual growth rate of 15.3% to 1990 and 5.9% to 2000 (calculating on the basis of 450,000 in 1990). Although somewhat lower that the average growth rate of 18.0% for the last six years, these projected rates are considerably higher

than growth rates anywhere else in China or in any country.

The rationale behind this planned population growth, similar to the conception of optimal city size (Richardson, 1981), is that Shenzhen's economic system, dynamic as it is, is only capable of supporting a finite population. It is understandable that critics are concerned about Shenzhen degenerating from a "gold town" to a "ghost town" (Chang, 1985) if unchecked population inflow and an overheated economy eventually exhaust all the gold. However, Shenzhen's attractive image has been created and will persist for some time. Its relatively higher wages are perhaps the biggest magnet, in contrast to the enterprise zones in many developed and developing countries where concessive wages are prevalent (Goldsmith, 1984). For example, joint venture companies and wholly-owned foreign subsidiaries in Shenzhen SEZ offer higher pay to young female workers on their assembly lines than they can possibly get at home. Yet the contractual employment structure which is becoming prevalent in Shenzhen offers only limited security. More importantly, both Shenzhen residents and those who may be thinking of moving to Shenzhen are concerned about the long-term security and stability of the SEZ policy itself. This cloud of concern and doubt may well dim the promise that Shenzhen SEZ has shown thus far.

The creation of the SEZs in China has attracted a lot of international attention. Japanese businessesmen who have visited the SEZs suggested that they could become key connecting points along the Western Pacific rim which is

emerging as the central focus of world economic growth in the .

1980s. Hong Kong industrialists now regard Shenzhen as a barometer of their confidence in China's open-door economic policy. Therefore, the migrated residents in Shenzhen are joined by those beyond China's borderline in hoping that "the city built in one n ght" will last for a long time.

NOTES

- 1. The sample was targeted at three subpopulations in Shenzhen SEZ, Zhuhai and Shekou (a small industrial district located within Shenzhen Municipality). Since the much smaller SEZ of Zhuhai only make up 7.0% of the total sample size, the sample should be seen as representative of Shenzhen. The sampling strategy of probablity proportionate to size (PPS) employed. First, all the industries in the SEZ economy were grouped into 13 sectors. The total number of workers in each was obtained, and the proportion of workers in each industrial sector to the total was calcualted. The 1,100 subjects to be drawn were assigned proportinally to each industrial sector and subsample size for each was computed. Then the sample size was divided into clusters with 10 subjects in each being numbered. Finally, the subjects were drawn according to random number table. Each draw of a number determined a sampling unit. the drawn numbers constituted the total N (GSEDSC, 1985).
- 2. The colorful translations of the titles of these action shows appealed to the taste of residents in Shenzhen. For example, a particular episode of "Magnum, P.I." was titled "A Miraculous Detective Storms a Den of Evils". Listings of such Hong Kong TV programs in Shenzhen's daily newspaper has helped maintain their level of popularity.

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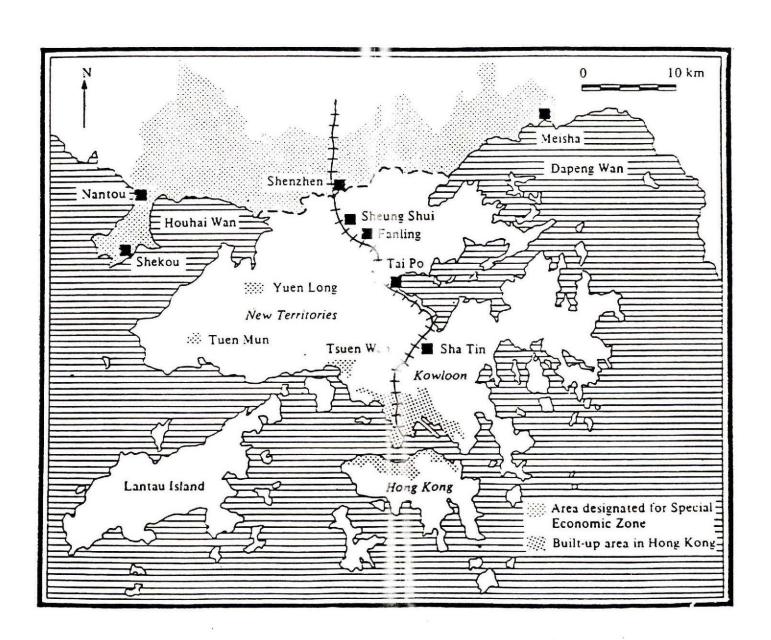
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Map 2

Location of Shenzhen Special Economic Zone



Source: C.F. Lai (1985), p. 65.

Table 1

Sources of Capital Investment in Basic Construction and Development in Shenzhen, 1979-84

Sources	1979	1980	1981	1982	1983	1984
Total Investment (in 1,000 US\$)	4,988	12,487	27,037	63,265	88,593	163,670
State Revenue Allocation	47.8%	26.4%	8.4%	7.4%	4.9%	1.2%
State Ministries & Provinces	24.5	10.5	9.0	9.2	7.8	9.2
Zone Government Investment	12.5	7.8	12.3	10.1	8.8	13.0
Bank Loans	NA	5.6	11.7	32.3	37.9	44.1
Local Enterprise Investment	4.2	6.5	7.4	7.9	11.3	13.3
InteriorEnterprise Investment	NA	NA	1.1	3.1	4.3	3.0
Foreign Capital Investment	11.0	43.2	50.1	30.0	24.9	16.2
<u>Total</u>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: a. Yang (1984), Table 1, p. 38.

b. Shenzhen Special Zone Yearbook (1985),pp.592-3.

Table 2

Total and Working Population Growth in Shenzhen Special

Economic Zone, 1979-84

Demographic Features	1979	1980	1981	1982	1983	1984
Delinog Laprite Teacores		1000	*			
A. Total population						
(1) Population (permanent)	70,900	84,100	98,300	128,600	165,000	191,400
(2) Male population	34,500	42,000	49,100	65,000	95,500	108,300
(3) Female population	36,400	42,100	49,200	63,600	69,500	83,100
(4) Sex ratio (2)/(3)	0.95:1	1.00:1	1.00:1	1.02:1	1.37:1	1.30:1
(5) Births per annum	1,524	1,561	2,186	2,460	1,872	1,937
(6) Deaths per annum	360	338	412	412	414	414
(7) Net natural increase (5)-(6)	1,164	1,223	1,774	2,048	1,458	1,523
(8) Total net increase		13,200	14,200	30,300	36,400	26,400
(9) % net growth due to (7)/(8) natural increase	. 	9.3%	12.5%	6.8%	4.0%	5.8%
(10) % net growth due to migration		90.7%	87.5%	93.2%	96.0%	94.2%
B. Working population						
(11) Total working population	23,300	26,500	38,500	66,800	107,600	154,500
(12) Net increase		3,200	12,000	28,300	40,800	46,900
(13) % population working (11)/(1)	32.9%	31.5%	39.2%	51.9%	65.2%	80.7%
(14) (12)/(8)		24.2%	84.5%	93.4%	112.1%	177.7%

Source: Calculated from Shenzhen Statistical Yearbook (1985), p. 581.

Table 3 Socioeconomic Characteristics of Shenzhen in Comparison with the National Average and Sixteen Large Cities (Urban District), 1980-84

Characteristics	National Average	16 Large Cities		Shenzhen Special Z	one	
	(1982) ^a	(1982) ^a	(1980) ^b	(1982) ^b	(1984) ^b	
(1) Population density (per sq. km.)	106.00	3,518.00	256.79	392.67	584.43	
(2) Natural increase rate (%)	1.40	2.13	1,58	1.80	0.85	
(3) Industrial enterprises per 10,000 population	3.83	7,18	28.66	25.27	31.82	
(4) Total industrial output per capita (in Chinese Yuan)	542.24	2,735.79	1004.04	2815.86	9480.25	
(5) Farmland per capita (acres)	0.25	0.05	0.12	0.05	0.03	
(6) Grain output per capita (pounds)	626.52	157.51	364.65	175.86	68.0J	
(7) Public busses per 10,000 pop.	NA		NA	6.84 ('83)	7.42	
(8) Ifting oper cupica (sq. m.)	5.60	3.47#	NA	10.80 ('83)	11.80	
(9) Consumption sales per capita (in Chinese Yuan)	214.84	706.67	1359.69	3430.33	9139,39	
(10) % labor force employed in retail service	11.06	4.94	12.25	20.20	22.70	
(11) Cinemas per 100,000 population	14.15	14.30	13.08	29.55	34.48	
(12) Public libraries per 100,000 pop.	0.19	0.23	1.19	0.78	0.52	
(13) College students per 10,000 pop.	11.36	122.64	NA	13.09 ('83)	36.00	
(14) Vocational schools per 100,000 por	0.03	14.39	1.19	3.89	3.66	
(15) High schools per 100,000 pop.	0.21	7.65	8.32	7.78	7.31	
(16) Hospitals per 10,000 population	0.65	5.20	0.95	0.70	0.57	
(17) Hospital beds per 10,000 pop.	20.30	52.42	30.20	28.54	59.72	
(18) Doctors per 10,000 population	12.90	46.21	29.49	38,26	61.65	

Note: "This measure is living space per capita completed by the year-end, rather than the living space in use.

Sources: a. Adapted from Chen (in press, table 3).

b. Calculated from Shenzhen Statistical Yearbook (1985), pp. 581, 582, 583, 585, 587, 601, 606, 611, 612, 613, and 614.

Table 4

Places of Origin of Manual Workers in Shenzhen Special Zone, 1985

Place of Origin (Province, region, city or county)	Percentage
Guangdong	7.15
Guangzhou (Canton)	5.14
Shenzhen	A. (5)
Baoan	13.16
Shaoguan City (including suburban counties)	3.57
Zhuhai City (")	2.32
Shantou City (")	10.81
Fuoshan City (")	3.14
Jiangmen City (")	3.83
Zhanjiang City (")	1.92
Maoming City (")	2.53
Hainan Island	1.48
Meixian Region	8.28
Huiyang Region	18.83
Zhaoqing Region	2.79
Beijing	2.40
Sichuan	2.20
Henan	1.70
Other places	7.53
No response	1.22
Total	100.00%

Source: Adapted from "A report on the preliminary analyses of the questionnaires distributed among the SEZ workers." Guangdong Social and Economic Development Studies Center. August 1985, p. 19.

Table 5

Industrial Distribution (%), Income, Education, Age, Sex Ratio of Workers in Shenzhen Special Zone, 1985

Industry	(1) % Distribution	(2) Age	(3) Sex Ratio (M/F)	(4) Monthly Income	(5) Education [#]	(6) Standard Deviation
Electronics	48.7	25.0	0.63:1	194.4	5.4	8.3
Garment	11.7	24.6	0.40:1	164.0	4.2	6.9
Chemical	0.9	34.0	9.00:1	187.3	5.2	11.1
Furniture & Cosmetics	2.7	33.4	5.50:1	258.5	4.4	8.1
Construction materials	5.4	36.2	4.40:1	260.5	3.3	11.0
Transportation equipment	5.4	31.6	3.40:1	198.1	5.1	9.5
Machinery	1.8	30.3	2.30:1	142.8	4.8	6.9
Rubber and Plastics	0.9	27.3	2.30:1	224.6	5.9	7.4
Food processing	6.3	29.3	1.00:1	237.9	4.0	8.9
Paper making	1.8	33.5	0.90:1	147.2	3.5	9.7
Scientific & precision instrument	1.8	21.6	0.67:1	183.0	5.4	3.4
Multiple-producing industry	3.6	27.3	0.97:1	163.2	5.0	9.4
Others	8.1	21.3	0.19:1	184.4	5.1	3.3
Average	100.0%	28.9	0.78:1	195.8	4.7	8.0

Source: Same as Table 4 in the present paper.

Note: The education score was computed by assigning 0 to no education, 1 to not completing grade school, 2 to completing grade school, 3 to not completing middle (junior) school, 4 to completing junior middle school, 5 to not completing senior middle school, 6 to completing senior high, 7 to finishing vocational high school, 8 to graduating from junior vocational college, 9 to college graduation, and 10 to post-graduate education.

Table 6
Workers' Satisfaction with Social Environment, Working and Living Conditions in Shenzhen Special Zone, 1985

	(1) Very Unsatisfied	(2) Unsatis- fied	(3) Don't Care	(4) Satisfied	(5) Very Satisfied	(6) No Response	(7) Total %	(8) Averag Score
Variables 1#		2	3	4	5			\overline{x}
(1) Relationship W/peers	0.7%	2.1	16.8	73.6	6.2	0.6%	100.0	3.8
(2) Relationship W/perso	on- 2.2	6.5	26.9	44.7	1.4	18.4	100.0	3.5
nel department (3) Relationship W/bosse	es 3.0	9.9	32.2	52.4	1.7	0.4	100.0	3.4
(4) Working conditions	3.2	18.5	22.6	34.2	0.9	20.7	100.0	3.1
(5) Work intensity	6.0	23.8	30.1	38.0	0.9	1.2	100.0	3.
(6) Materialistic condi- tions	3.3	28.3	27.6	38.3	1.1	1.4	100.0	3.
(7) Non-materialistic conditions	4.8	25.0	34.8	32.8	0.9	1.7	100.0	3.0
(8) Opportunity for promotion	4.5	15.4	63.1	13.1	0.4	3.6	100.0	2.
(9) Renefit services	6.5	36.3	28.0	27.2	0.5	1.5	100.0	2.
(10) Salaries	11.3	37.7	21.2	29.1	0.5	0.2	100.0	2.
(11) Bonuses & other fringe benefits	10.6%	35.8	24.9	25.5	0.4	2.6%	100.0	2.

Note: This is a standard five-point Likert scale. Column 8 contains the mean score of responses to a particular item. Source: Same as Table 4 in the present paper.

ABSTRACT

This paper reports a comparative analysis of primacy in the broader context of urbanization in less developed countries (LDCs). Three rank-size models are constructed to estimate the population distribution of large Chinese cities and those in several other developing countries with distinctive patterns of urban hierarchy. Recent data on large cities in China are further presented. Some general explanations of the historical development, recent growth tendencies, and the largely neglected issue of migration related to very large Chinese cities are provided in light of the historical processes of comparative urbanization in other LDCs.

This paper has been accepted for publication in Urban Studies and is currently undergoing fairly extensive revisions.

A COMPARISON OF URBAN PRIMACY:

THE SPECIAL CASE OF CHINA

INTRODUCTION

Contemporary urban growth has been sweeping the international landscape, with large cities, especially those in less developed countries
(LDCs), continually exploding into metropolises of apocalyptic magnitude
(Fox, 1984). Projections indicate that twenty to forty years from now
there will be 93 cities of over five million people, almost three times
the 34 such cities of 1984. Twenty of them will have populations of more
than 15 million, with Mexico City topping the list with 30 million residents. It is projected that 25 mega-cities (with 10 million people and
over) will have emerged by 2000 (United Nations, 1981).

Will we be able and prepared to handle the great challenge posed by a host of vexing political and socioeconomic problems that will arise in step with many urban centers of such magnitude? The rapid approach of this bleak and intimidating urban horizon is of great concern and interest to scholars, government policymakers, and urban planners (see Dogan and Kasarda, forthcoming for a major intellectual undertaking to assess the multiple dimensions of an unfolding metropolis era). In practical terms, meeting the challenge of rapidly expanding giant cities requires short-term expedient response and long-run strategic planning; however, both predicated on comparative research to clarify the nature and scope of this continuing trend toward human concentration in urban areas. Although this urbanization process is worldwide, there is considerable variation among individual countries, a fact that makes it necessary to examine these existing giant cities in the context of each nation's urban

system and its historical, geographic, political, and socioeconomic development. Urban primacy and its related issues, although having been scrutinized by many studies and even labelled value-laden, remain a key area of inquiry that could lead to a better understanding of the underlying process and latent dimensions of giant cities today across national and spatial boundaries.

Despite the fact that Berry (1961) has documented the absence of urban primacy in China, recent projections show that Shanghai will grow from 16.3 million in 1985 to 23.7 million in 2000 and Beijing from 13.7 to 20.4 million. This will rank them third and sixth on the list of the first 20 mega-cities in the world at the turn of the coming century. land on the top rung of the global urban hierarchy, however, requires both cities to grow at over 4.0% per annum until 2000. Not only does this expected growth rate much exceed the pace at which Shanghai and Beijing have been growing in the recent past (Chen, forthcoming), neither city's population (Shanghai with 11.8 million in 1982 and Beijing with 9.2 million in 1982) has reached its population in 1980 (Shanghai's 14.3 million and Beijing's 11.4 million) projected by the United Nations. Although the baseline figures used for projection may have been overestimated, the past growth rates and current sizes of China's number-one and number-two cities demonstrate a unique process of growth up to the present, which will definitely affect their future course and prospective positions in the national urban and economic systems. Thus, the question of primate city dominance in China and its implications remains open.

In what ways is the growth pattern of Shanghai and Beijing unique?

How does this process and the future of these two cities compare with

such cities in developing countries that are predicted as being among the top 20 mega-cities by 2000 (e.g., Mexico City, São Paulo, Cairo, and Bombay)? This paper addresses these questions by conducting a rank-size comparison of city distributions in China with Mexico, Brazil, Egypt and India, as well as the United States (for a special reason). Recent data on a class of large Chinese cities will be presented in conjunction with historical-comparative interpretations of the urbanization processes in China and those LDCs. The analysis is intended to suggest a less dramatic (and perhaps less gloomy) scenario of the growth tendencies of Shanghai and Beijing and other very large Chinese cities. This focused case investigation in a comparative framework should cast fresh light on some theoretical and policy issues regarding urban primacy and urbanization in LDCs.

SOME THEORETICAL AND METHODOLOGICAL CONCERNS

Even since Zipf's (1941) pioneering work on the inherent structural integration and hierarchical ordering of cities, rank-size analysis has been a standard approach to the study of intra- and international urban systems. The narrow and abstract concept of a lognormal relationship between rank and size of cities also has taken on wider and specific dimensions in its empirical application to correlations between city size and political and control and economic development (Davis and Golden, 1954; Berry, 1961, 1971; Cola, 1984). The rank-size rule also has been related to theories of social change and economic growth. For example, urban primacy in developing countries, dependency theory argues, is a historical outcome of earlier colonialism and has been hindering the development process in LDCs: one or two primate cities exert political control and

enjoy an economically exploitative relationship with smaller cities and rural areas (Frunk, 1969; Morse, 1971; Portes, 1977). At the general theoretical level, the diffusion and generative functions of primate cities postulated by modernization perspectives contrast with the dependency argument (see Chen, 1985) for a brief review of this literature). Such subjective and even ideologized positions are suggested by the general association between the rank-size city distribution and the development process in western societies, on the one hand, and primacy and the urbanization experience in the Third World, on the other.

Although studies have revealed the variation and specificity of rank-size and primacy both within and across national boundaries of industrialized and developing countries (Davis and Golden, 1954; Berry, 1961; Berry and Horton, 1970), these system-inclined analyses tend to deal with a large number of both LDCs and developed nations. Thus, they are constrained from delving into a more in-depth and case-oriented discussion of the historical and contemporary forces that account for either the expected or unexpected primacy in the urban system of a certain country. There also has been a limited effort to compare an illuminating case of urban growth to a typical pattern of urbanization hypothesized to have been experienced by several developing countries. This has the potential to lead to more revealing and interesting explanation of why urban primacy occurs in some LDCs but not in others and to identify factors that have contributed to this divergent phenomenon.

In this study we examine the case of China against a number of developing countries that are assumed to possess urban system characteristics of such countries. This approach should permit a more rigorous and

focused discussion of both intra- and international variation in urban primacy and thus bridge macro cross-national analysis of urbanization and historical-descriptive studies of large individual Chinese cities and those in other LDCs (Kapp, 1974; Gernet, 1977; Conniff et al., 1971; Wibel and de la Cruz, 1971).

COMPARATIVE MODELING OF RANK-SIZE DISTRIBUTIONS

To match China's huge population size and extremely large cities of Shanghai and Beijing requires a careful selection of comparable cases. Brazil, Egypt, India, and Mexico are chosen for (1) their large populations by either global or regional standard, and (2) their huge capitals and other large national urban centers. The United States is included to provide a case of more integrated urbanization (associated with most developed countries) for reference. About 40 largest cities (except Egypt which has data on only its top 20 cities) in each of these countries are used for estimating the expected rank-size distributions of their cities. Rather than following the conventional rank-size method of drawing just one 45-degree downward line across the observed cases, we construct three mathematically derived rank-size models for each country to increase the scope of comparative explanatory power. From a methodological viewpoint, a comparison of the three models may reveal their differential efficiency and functions in predicting the varied patterns of rank-size distributions of large cities.

"Figure 1 about here"

Figure 1 graphically presents the plots of three predictive models against the actual city distributions of each of the six countries. Each

of the three negative slopes is based on a mathematical model written from the theoretical assumptions of the rank-size relationships¹ (see iA note 1 for description of the mathematical reasoning and formulas underlying these three models). Model 1 takes the largest city as the starting-point for prediction, which is illustrated by the fact that the first data point (largest city) sits on the upper tail of the solid line (Model 1). Model 2 takes into account the reciprocal rank intervals and the differences between the expected and actual population across all cases (Appendix A-Table 1 illustrates the application of this method and the calculations behind it to the top 16 Chinese cities of over 2,000,000 people). Model 3 derives from an empirical test of the negative rank-size slope and involves (1) finding the slope via a lognormal bivariate regression and (2) exponentiation of the resultant log values.

These graphic representations of rank-size suggest that the distribution of Chinese cities is more smooth and flat than those of the other countries. Differing degrees of primacy are noted for Mexico and Egypt, as their first and second largest cities depart more sharply from other cities with respect to a straight line than do the first two largest cities in the rest of the case countries. This is consistent with the original city distributions of these two countries (in unlogged values): Mexico City is shown to be much larger than the other cities. Both Brazil and India resemble the United States, with their cities falling along a gentle slope and clustering around the predictive lines. This pattern is similar to that observed by Berry (1961) twenty years ago.

Table 1 contains a statistical summary of this graphic analysis.

"Table 1 about here"

The figures in the Table (columns 3, 4 and 5) show the degree of deviation from the rank-size distribution in percentage terms. The larger the figures, the more the predictive lines of the models deviate from the actual observations. It is clear that the three models predict differently for different countries, with Model 3 predicting better for all countries but Brazil. This is reflected in the smaller values, which indicate less The very high R2 for the bivariate regression underlying deviation. Model 3 also suggests a close association between the predictive slopes and observed distributions. Model 2 has a better prediction than Model 1, with the exception that the slight reverse between the two models is true for Brazil and the United States whose city distributions fit Model 1 more closely. Model 1 is far off in estimating the Chinese and Mexican distributions, although the observed cases fall along the opposite sides of the predictive lines of the model (see Figure 1). The identical high values associated with Model 1 and 2 for China, Egypt, and Mexico are misleading without a clarification. The 32.6% of Model 1 (col. 3) and 21.1% of Model 2 (col. 4) reflect the fact that Shanghai is not a primate city, with its actual (unlogged) population being 34.8% of the expected size in Model 2. Cola (1984) provides a confirmation for this result by using a different procedure. Beijing is 177.0% more of its expected size in Model 1. In contrast, these figures reflect extreme urban primacy for the second largest cities in these two countries are Egypt and Mexico: 91.4% and 50.7% smaller than their expected size in Model 1, while Mexico City and Cairo, their largest cities, are 137.9% and 160.7% more of their expected sizes in Model 2. The graphic illustration of this point is more striking, as we see in Figure 1 that Chinese cities fall flatly above Model 1 and part of Model 2, whereas Egyptian and Mexican cities from the second case on drop sharply below Model 1 and only overlap with : portions of Model 2 and 3's predictive lines.

Is urban primacy in Mexico and Egypt an isolated phenomenon? How is related to the general level of urbanization in these two countries across time? Figure 2 plots the relationship between Primacy Index² and the level of urbanization in the six countries at two points in time.

"Figure 2 about here"

The six countries can be grouped roughly into three patterns. India and China are very similar with low levels of urbanizations and absence of primacy. Both show a slow process of increased urbanization, while India's Primacy Index (PI) remain the same (.35) for ten years, China's PI declines a little from .22 in 1977 to .19 in 1982. Contrary to expectation, Brazil's PI show almost perfect rank-size as the United States up to 1980, an indication that São Paulo is not predominant in the Brazilian urban system, though the United States is more urbanized, as expected. While there was no temporal change in the PI for Brazil, the PI for U.S. experienced a slight dip (to be treated in more detail in conjunction with Table 2). Both Egypt and Mexico exhibit differing degree of urban primacy, with their PIs far exceeding .50. Mexico is shown to be a more extreme case and its high primacy is accompanied by a fairly high level While demonstrating a level of urbanization that lies of urbanization. halfway between China and India and the other three countries, Egypt's PI is quite high. PIs for Egypt and Mexico show greater changes than other countries, but in opposite directions.

These empirical results are unexpected in some ways and not in others. First, they confirm in a degree the findings of earlier investigations (Berry, 1961; Berry and Horton, 1970), indicating that China, India, and Brazil have more lognormal city distributions not too different from that of the United States. Mexico was and remains a typical case of primacy, and the primacy observed in Egypt is consistent with Davis and Golden's (1954) earlier description of that country as overurbanized. A surprising aspect of our study is that China not only fails to demonstrate primacy, but tends toward under rank-size, with its PI staying considerably below .50 (see Figure 2). This prompts questions as the underlying forces that have shaped this growth pattern of large cities in China.

Before examining the Chinese case in more detail, we will set up a comparative framework by briefly considering the reasons for the absence and presence of primacy in the other countries. Berry (1961) has suggested that the long history of urban growth in China and India accounted for their rank-size. India has urbanized slowly over this century until the 1970s. The percent of Indian population living in urban areas only grew by 37% from 1951 to 1981 (Jones, 1983), which is considerably slower than China's 71% increase for the same period of time. At the same time, rural-urban migration toward any one single city in India has been moderate and less concentrated. Slow industrialization and steady improvement in agricultural production have helped maintain the tenacious character of the occupational structures of the country's urban and rural econo-The combination of these factors has contributed to the dampening Record to March & March 19-15 of primacy. - The physical accompanies of the physical production on the

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Berry and Horton (1970) have attributed Mexico's primacy to its dual economy shaped by colonialism. The colonial influence reflected in political control, commercial concentration, and consumer marker structures have boosted Mexico City to its dominant status. Its overwhelming influence also has been facilitated by the relative isolation and underdevelopment of the second largest city--Guadalajra (Wibel and de la Cruz, 1971). With its extreme concentration of government and manufacturing activities and location in an area where rural population density is high, Mexico City holds out a pull factor of both attractiveness and nearness to migrants (Greenwood et al., 1981). Massive migration toward Cairo has fuelled the capital city's primacy directly and indirectly because of a large proportion of women of childbearing age in the migrant stream (Davis and Golden, 1954). The large influx of refugees into Cairo during the wars with Israel was another factor contributing to the city's primacy (Abu-Lughod, 1976). A more basic cause for the steady and thick rural-urban migration is that, as Egypt has been passing through the transitional stage from agriculture and livestock production to medium and small-scale industrialization, diminishing returns on agricultural production, declining income in the countryside and other factors have constituted continually increasing "push" forces behind the rural exodus (Al-Qutub, 1984).

A host of factors, including Brazil's vast size, its shifting cash economic base from sugar to mining and finally to coffee in the Rio de Janerio and then in the Sao Paulo area, have forestalled Sao Paulo's primacy. More important, extreme mobility in the Brazilian labor force hindered a stable urban growth pattern (Conniff et al., 1971). Migration

and the figure of unban growth. Perplo to an absonce of a carpely and consecusty should wide them of in Brosses, a personal governt's policy of personal includes from dominate unban center, plus an equilibrate market forces, have bounded about several and markaine (suffered) a few years (Kannappan, and integral

1985). Recent research also shows that Sao Paulo's prominent position:
has been weakened by decentralization of resources into its hinterland.
Across Southeast Brazil where São Paulo is located, free standing cities have emerged to compete with Sao Paulon for labor and capital by exploiting growing local opportunities (Hamer, 1985). Relocation of industries from the Southeast to Northeast also has chipped away some weight and prowness of São Paulo (World Bank, 1984). Berry (1961) has attributed the rank-size city distribution in the United States to its integrated urban system and highly developed economy. It also is important that the continued shift of population and industry movement from the Northeast to the "Sun-Belt" regions has deterred New York's primacy.

Table 2 summarizes some of the demographic dynamics behind urban growth and primacy change in these six countries.

"Table 2 about here"

It reveals at the aggregate level a pattern that lends support to the discussions just presented. Specifically, several pieces of information are worth attention with regard to how urban primacy evolves in the contexts of the general urbanization process and the structure and growth of national population. First, in Brazil, the United States, India, and China, the largest cities have a slower growth rate than the secondest largest cities, with São Paulo and New York experiencing negative growth in a comparable period of time through 1980. Consistent with the past trend, a recent forecast projects respective negative gains of 5.9% in population and 5.2% in employment for the New York-New Jersey SMSA be-

tween 1980 and 2000 (Holdrich, 1984). Second, although their largest cities constitute the same proportion (1.2%) of their total populations, India and China diverge in having drastically different growth rates for first, second and the next 15 largest cities. However, the proportional differentials are similar, as their second and next 15 cities grow faster than or at least as fast as the first cities (col. 3, 4, and 5). and the United States show very similar patterns of growth for their first, second, and the next 15 cities and thus a counter-primacy tendency, even though they have dissimilar actual growth rates. Third, Mexico and Egypt, the two countries with severe primacy, show a descending order of growth rates from their first to second and next 15 cities. indication of their primacy is that Mexico City and Cairo make up a much higher proportion (13.6% and 13.9%) of Mexcio and Egypt's national population (col. 6). These specific growth rates correspond largely to the three patterns identified in Figure 2: China and India fall into one category; the United States and Brazil are paired in another; and Mexico and Egypt form the third.

WHY IS URBAN PRIMACY ABSENT IN CHINA?

Following the previous comparative analysis of primacy, the remainder of this paper is devoted primarily to providing some explanation for the absence of primacy in China. By situating the Chinese case in comparative-historical perspectives, we will not only be able to examine the cultural, political and economic distinctiveness and specificity of urbanization in China, but also duly emphasize more generalizable political, economic and geographic constraints that may bear on the urbanization processes in other LDCs.

Diachronically-grounded explanations of China's urban growth have been given mostly by Sinologists of a historical and anthropological. Enterthing the most convincing and generally accepted ones are (1) a robust regional integration around several urban centers, which prevented any one from becoming nationally predominant (Skinner, 1977); (2) a late, limited and incomplete colonial penetration, which failed to gain comprehensive control over the city-ports until the end of the 19th century (Murphey, 1974); and (3) a lack of transportation network across varied geographic areas, which handicapped communications flow and commercial transfers on a national scale. Instead of adding more items to this list, we will consider some explicit or implicit parallels between the Chinese case and the other countries under study.

Although China has had a long history of urban culture, it did not experience an integrated development of one consistently dominant national center. This is primarily due to the temporal and temporary shifts of imperial capitals and the coordinating administrative functions and commercial activities that accompany them and a number of large citie, which grew rapidly and almost simultaneously. Hangzhou and Kaifeng had over one million people and well-developed political and infrastructure institutions by the 13th century (Gernet, 1977), while none of the cities in Western Europe even came close to them at that time. Guangzhou (Canton)'s flourishing overseas trade in silk, tea and cloth helped support a population close to one million by the early 1800s. Later it was surpassed by Shanghai, which had developed the largest trade and commercial base in China in the late 19th century by attracting foreign businesses. Shanghai's population, however, did not pass that of Beiing and become

the largest in the nation until 1937. Beijing was the largest city in the world until 1750 and only dropped to twelfth place in 1900 because of its unique status as the imperial capital for two dynasties from the mid-1600s to the early 20th century. Both Nanjing and Xi'an grew more rapidly than Shanghai in earlier historical periods because they were once centers of imperial administration and culture.

These periodic switches of major national centers created several large cities rather than fostering the continued growth of one dominant center. None of them monopolized the overall administrative and commercial functions, and this is probably the reason none of them achieved the primacy of Mexico City. The earlier urbanization in China is historically analogous to the shift of Brazilian dominance from Rio de Janerio to Sao Paulo, though the immigration that also was a factor in Brazil was not a factor for China.

Late and limited colonial influence in China did not reach much beyond the port-cities of Shanghai, Tianjin and Guangzhou, thus stimulating their rapid growth at a moderate cost of smaller cities and rural areas beyond. This contrasted markedly with Mexico where Mexico City's favored position permitted it to grow at the expense of the rest of the urban and rural places. The urban structure in china, shaped by its unique historical forces, was further molded by strong government policies after the Revolution of 1949. The status of Beijing (Peking at the time) as the capital of the People's Republic helped it grow faster (5.3%) per annum than Shanghai (3.0%) most of the last 30 some years. The government's policy of creating and promoting new, strategic industrial sites led to rapid growth of some provincial capitals and major inland cities. For

example, the oil refining industry established in Lanzhou (the capital of the Northwest Province of Gansu) was an important determinant for its growth from a city of 100,000 in 1949 to a large regional urban center of 24,000,000 people in 1982 (Chen, forthcoming). More rigorous population control since 1970 has generated a new growth pattern of large Chinese cities. This is partially illustrated by recently released data.

"Figure 3 about here"

All 44 cities plotted in Figure 3 have populations of over 1,000,000 million (28 of them with less than 2,000,000 and 16 with more than 2,000,000). A general growth pattern is clearly noticeable from two angles: (1) cities with 1,000,000-2,000,000 people tend to grow faster as a group than those of more than 2,000,000, with most of the former group stacking above the mean (2.10%); (2) Shanghai, and Beijing to a lesser degree, grow slower than most of the smaller cities, dropping considerably below the average. This provides evidence for a declining Primacy Index for China discussed earlier in the paper. To provide a more detailed statistical picture, we have calculated means and correlational coefficients for two subgroups these cities. Cities of 1,000,000--2,000,000 people show an average growth rate of 2.3% and a correlation of .03 between size and growth rate, 2,000,000-and-plus cities have a much lower mean of 1.8% and a negative correlation of -.34, suggesting that the larger they are, the slower they The inclusion of Shanghai, Beijing and Tianjin into the first set of cities (28 cases) turns the correlation around to -.26. These data suggest that the recent growth of 43 cities (excluding Shanghai) is likely to narrow the demographic gap between China's largest city and the class of cities below it. Moreover, that these cities include all the provincial capitals (except Tibet) and major regional centers means that a more even distribution of large cities across the national landscape is possible.

These facts suggest that the introduction of certain interventionist policies can modify an inherited pattern of urban growth shaped by colonial history, even though the latter's impact is a limited factor in the Chinese case. The lack of strong urban planning policies and strict population control in some LDCs, such as Mexico and Egypt, has strengthened the dominant positions of primate cities established during the colonial period. This observation leads to the role of rural-urban migration, the other key element in the urbanization process in LDCs. Coupled with natural increase, internal migration to large, primate cities has been a powerful force driving their rapid growth.

The role of migration in population change in large Chinese cities is difficult to specify, as there is almost no data on the migratory movement of China's population compared with some scattered information on the country's general urban structure. Although it is probably safe to assume that there was no free, voluntary migration in and out of very large Chinese cities due to tight population control via permanent household registration, we had no firm ground to rule out the possibility that the growth rates of very large cities in China has not been affected in any way by certain population movements. Fortunately, we have recently obtained some information on migration in Beijing for the last 25 years. This information, in conjunction with some growth statistics of Beijing

and Shanghai recently used by Chinese demographers, will permit us to lift up a mysterious corner of a hitherto concealed issue—the role of migration in determining population growth of Beijing relative to natural increase across time. A clearer picture thus obtained of the complete demographic dynamics in the second largest city—Beijing—will assist us in better addressing particularities of the primacy issue in China.

"Figure 4 about here"

Looking at the Figure, we are struck by how strong an effect migration has had on the fluctuations in population growth of Beijing. Although our migration data only start from 1959, we may be led to believe that the very high growth rate of Beijing in the late 1950s had a lot do with large numbers of people migrating into the city. In contrast to the rate of natural increase, which has been declining gradually except a sharp upturn in 1963, the city of Beijing experiences three brief periods of negative growth due to large-scale net out-migration. Although it is not quite clear that what factors caused the first emigration, the years in which it occurred (1960-1962) lead us suspect that it might have been tangled up with two historical events. First, the nation-wide famine resulted in a phenomenal reduction in birth rate and an increase in death rate (see Ashton et al., 1984), as shown by the drop in natural in-This external shock onto the normal demographic process could have generated a lot of fluidity in the population. Second, at that time a large number of state cadres was dispatched to the countryside to "purify" the contaminated class composition and erroneous trends alleged to exist in rural areas.

The Cultural Revolution, which started in 1966 and peaked around 1969, was chiefly responsible for the two net losses of Beijing's population in less than five years. The initial phase of the movement of sending urban youths down to villages and remote provinces led to the first wave of out-migration in 1966. That the larger number of Red Guard members left Beijing to make political contacts in other provinces might also have played a part then. The movement of sending youths and cadres to rural areas reached its zenith in 1969 and thereby produced a -32.16%. -3.2% change via out-migration, the highest of all years. Since then population growth by migration has been slightly positive until 1979 when it turned into a big jump, as a large number of urban youths returned to the capital city.

The direct impact of migration on population growth in Beijing aside, the age of these migrants has had a strong indirect effect. Due the nature and target of the forced, collective migratory movement, Beijing lost 236,353 of its registered residents of 15-39 years old in 1969, which caused a drastic change in the composition of the childbearing population. In 1979 when the largest volume of immigration (16.64%) took place, 83,252 people of the same age range returned to the city. The tremendous loss and gain of population of childbearing age 10 years apart contributed to an increase in fertility rate from 2.1% in 1969 to the lowest level of 0.9% in 1976, as indicated by the change in natural increase. This fertility decline could have been an outcome of the lingering effect of the 1969 out-migration. On the other hand, that fertility rate in Beijing rose from 1.4% in 1979 to 1.9% in 1982 is partially attributable to returned migrants giving birth to children, although an in-

creasing number of marriages between childbearing people from the babyboom generation of the early 1960s might have had a stronger effect (Wei, : 1984).

Compared with other developing countries, such as Egypt where cityward migration, especially to capitals, continues to raise the rate of natural increase directly and indirectly by modifying the age structure of the childbearing population. In the Chinese case, the rare, sporadic and historically accidental migration of an involuntary and collective nature in and out of very large cities, exemplified by Beijing, has produced only a limited and largely noncumulative effect. More important, this effect produced by migration has been efficiently offset by rigorous family planning, a topic to which we now turn.

Population control in Beijing and Shanghai formally began as early as the late 1950s and has since then had an increasingly stronger impact on the growth rates of these cities. In the 1950s, Beijing's population grew at an unusually high rate of 16.3% per year, with a peak of It started to decline from the early 1960s and registered an average growth of 19.0% per year for the 1960-1970 decade, de-3.6% spite a sharp rise to 35.9% in 1963. For Shanghai, the 1950s was the the record decade of population growth: rate of natural increase from 1950 to 1957 averaged 33.7%, with two peak years of 45.5% and 39.6% for 1954 and 1957, respectively. Total fertility rate (TFR) for the 1950s was 4.75. The 1960s saw a rapid decrease of natural increase to 14.0% and TFR to 2.83 (Shen et al., 1984). In contrast, Mexico City had a rate of natural increase of 32.0% and an in-migration growth of 18.0% in the 1960-1970 period and ended up with a 50.0% annual growth rate. Sao Paulo's 55.0%

annual growth rate was partitioned into 22.0% (due to natural increase) 2.7% and 33.6% (via in-migration) (United Nations, 1985). In the same decade, Beijing's low growth rate of 11.2% per annum was only matched with a -8.1% net out-migration. In 1970s both Shanghai and Beijing experienced their lowest population growth as a consequence of intensified family planning. Natural increase in Shanghai decreased further to 5.2% and TFR 0.8% to 1.44, while Beijing's rate of natural increase averaged 7.5% per year, regardless of increased in-migration at the tail end of the decade. Natural increase in the urban district of Shanghai (shown in Figure 4) came down even more dramatically and stayed at an extremely low level of 0.7% about 3.0% from 1964 on.

Slow population growth of China's first and second largest cities has essentially resulted from an earlier introduction and sustained implementation of family planning. In very large or primate cities of LDCs, massive in-migration and high fertility tend to move in the same direction and reinforce each other. In China, these two processes happened to have counterbalanced each other, as indicated by the case of Beijing. From 1961 to 1970, Beijing experienced mostly net out-migration when the rate of natural increase was still relatively high. Thus, the city did not lose as much population as it would have with three streams of out-migration. Opposite to the situation in the 1960s, when growth rate via migration shifted to the positive, natural increase stayed low with the exception of 1979. As a result, overall growth rate of Beijing did not bounce back to a very high level.

DISCUSSION

What has this comparative empirical inquiry told us in addition to pointing out the absence of primacy in China? Has China learned or is learning a useful lesson from the negative experiences of urban primacy in other LDCs? After 1949 the Chinese government adopted an anti-urban policy, which was largely motivated by its discontent with the political corruption, moral degradation, and rampant commercialism typified by Shanghai before 1949 (Chen, 1985). The policies favoring small cities and rural development, on the other hand, were not very successful in facilitating an alternative type of modernization. By comparison, more rapid industrialization has been achieved in some Third World countries, although they have paid the price of uneven progress between "booming" primate cities and declining small towns and rural areas.

Viewing China's post-1949 course of urban growth from a comparative-Z reverse historical angle, we note that a complex interaction among traditional cultural factors, contemporary policy impact, and modified demographic forces has created and maintained a distinctive top echelon of the urban structure. Regionally-based urban growth facilitated an emergence of a dozen of sizeable cities at an earlier time. Semi-colonialization did not permanently settle down in and consolidate one major port-city into the central base for inward expansion.

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Earlier government-initiated population programs have been continually successful in containing the internal fertility of very large cities, although the latter did register high growth rates in the 1950s by absorbing a large number of people from outside. Since the 1960s the absolute size of these giant cities, especially Shanghai and Beijing, has

been steadily increasing due to their incorporation of surrounding rural counties. Nevertheless, the impact of family planning in these cities has been so powerful that their relative growth has been much slower in comparison with cities of similar size in other LDCs and smaller cities in China. Migration control has been another factor in slowing population growth of these cities in two ways: (1) It not only prevented many people from moving into Shanghai and Beijing; and (2) It drove some people out through politically-motivated mechanisms.

By comparison, the colonial pattern of city growth in some LDCs (e.g., Mexico and Egypt) was only reinforced by the independent governments' lack of appropriate urban planning policies. They were later than China in introducing population control programs. Although Mexico, for example, has experienced a fertility decline since the early 1970s when it began encouraging small familie (E. Murphey, 1985), the rate of natural increase in the country's primate and very large cities has been continually pushed up by the considerable pressure from in-migration.

What has happened in China after 1980 indicates that it is not adequate to take an either/or, clear-cut perspective on the ongoing and prospective courses of urbanization. The policymakers have adopted a more hybrid approach to urban planning (Chen, 1985. On the one hand, they continue to follow the strategy of decentralizing the pattern of urban growth by placing heavy emphasis on developing medium-sized and small cities. This reflects a lingering affection for the traditional view: it costs less for infrastructure development and tapping resources in small cities and therefore giant cities are avoided (Berry, 1971). On the other hand, current policymakers and urban planners in China have begun to

turn to some of the theoretical premises of modernization theory concerning urbanization by trying to pursue a cost-efficient and expedient
:
strategy.

Two major steps have been taken in this direction: (1) creating alternative regional growth centers as central places to trickle down their capital and technology and (2) placing a priority on developing 14 coastal cities to attract direct foreign capital and joint ventures (Ghen, 1985b, forthcoming). This selective development strategy risks creating conditions that may engender a much faster growth of a small number of cities, especially the very large ones that are endowed with rich resources, favorable geographic locations, educated labor force and strong technological bases. Shanghai, as one of the 14 cities on the coast, will certainly take the lead in pursuing the export-oriented internation-This may further widen the gap between Shanghai's mighty inal trade. dustrial capacity and the rest of the nation on average, which is currently indicated by the lopsided ratio of Shanghai's gross industrial output to the national average (8.19:100).

Whether the resources and technology of these large cities and those enjoying the coastal trade advantage can filter down to small cities and towns or flow horizontally to inland areas depends on strengthening one of the weakest links in China's national economy-building an extensive network of communications and transportation (Chen, forthcoming). In the meantime, however, these giant cities like Shanghai and Beijing have already begun facing immediate and long-term problems.

First, both Shanghai and Beijing, which we have examined closely, have entered a period of increased fertility. The internal demographic

momentum is the principal determinant, as the growing segment of the childbearing population getting married is giving rise to higher birth rates at the aggregate level. In Shanghai the most reproductive age group of women (20-34) is estimated at 1,870,000 in 1982, constituting 56.1% of the total number of women of childbearing age. This proportion is 19.2% higher than childbearing women of this age range (36.9%) in 1972 and nearly 10.0% higher than the national average of 46.6% in 1982. Therefore, birth rate of Shanghai will probably rise faster compared with the rest of the nation (Shen et al., 1984). In Beijing the picture is no more comforting. Natural increase has already climbed back up to 11.7% in 1982 (see Figure 4). A recent municipal plan being designed is to keep Beijing's population at around 10 million by 2000, which implies that the city will have to grow at a rate as low as 4.7% per annum. The recent rise of natural increase and its continued tendency renders this long-term goal unrealistic.

Second, as Simmons (1983:30) has argued, the goals of development strategy in a country ultimately determine the spatial distribution of the population and changes in that distribution. The policy of favoring a small number of well-endowed cities will exert pressure to loosen the safety valves on population migration and labor force mobility, as demand for labor, especially the skilled, will become much more uneven across different geographic locales over time. The cities in the coastal areas carry strong "pull" factors that allure labor force from elsewhere. In fact, the post-Mao rural economic reform, successful as they may be in boosting the agricultural economy, has already created problems for population distribution. Diversification of agricultural production and es-

tablishment of free farm markets in large cities have led to an increasingly large and continued influx of peasants who from come from nearby and distant rural areas to sell their products (Chen, forthcoming). On average, the number of such "semi-and-temporary" migrants amount to nearly one million in certain very large cities annually. Beijing, for example, contains about 900,000 floating population on a daily basis.

Given this unfolding trend driven by social and economic changes, the Chinese government has recently re-employed the strategy of developing and building up small cities and rural towns. The rationale is to use them as a widespread net to catch peasants who have left the land and are potential migrants to large cities. A recent policy regarding population redistribution has allowed about 60 million rural residents (7.5% of the 800 million agricultural population) to move their village registration to small cities and towns. The successful implementation of this policy will considerably thin out the stream of rural migrants who may eventually reach very large cities such as Shanghai and Beijing. Compared with most developing countries where migrants tend to cross or bypass small cities as stepping stones toward primate or capital cities, the Chinese strategy aims at fostering a faster process of urbanization at the lower levels of the urban hierarchy.

CONCLUSION

This study has documented the absence of urban primacy in China and offered some explanations for this phenomenon. Recasting the comparison of these six countries into the dependency framework of urbanization identified earlier in the paper, China stands out as a deviant case. If we accept the historical correlation between colonialism and urban prima-

cy, as the theory suggests, we note an abnormal association between historical conditions and urban growth in the Chinese context forged and compounded by a variety of interactive forces. This type of deviation raises the serious question of how to supply meaningful links between general theories and specific cases in comparative urbanization research. Even countries on the same continent and with similar historical dynamics of political economy have developed different urban hierarchies: while urban primacy exists in extreme form in Mexico, Columbia has an integrated urban system confroming largely to the rank-size rule. Although Bogota is a metropolis of six million people with many administrative and industrial activities, there are several secondary cities with more than two million people that carry different major influences (e.g., Medellin's textiles, coffee growth and manufacturing near Cali). The diverse realities of urban growth and city distribution in Third World countries prompt for continued concrete case studies that examine in a comparative context a complicated interplay among demographic, historical, economic and geographic factors responsile for how urbanization has been proceed ing

The Chinese case demonstrates an urbanization process with multiple and peculiar features. This requires us to move beyond a restricted analysis of urban primacy. As McGee (1971) has pointed out, in the majority of Asian nations the cities are only part of a much larger nation and in many cases represent only a small portion of a country in demographic and territorial terms. China's more rationalized and responsive strategies have replaced the formerly ideologized and rigid urban policies by paying attention to factors other than mere control of demograph—

ic growth in very large cities. This directs our research orientation to the roles of economic and geographic factors in shaping the future urban development in China.

New problems have already emerged as research agendas: (1) The relationship between the absence of Shanghai's demographic primacy and its economic centeredness and dominance in the context of increased urbanization; (2) the degree to which secondary urban centers (many of which are included in our 44 cases) will function as competitors and countermagnets to Shanghai and Beijing in the national economy; and (3) the highly possible pattern of a more regionally-oriented urban growth around cities or clusters of cities in varied geographic areas. The increasing availability of demographic and urban data on China since its 1982 national census should make these new questions about China's urban growth answerable in the future.

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 Based on the theory of rank-size rule (Zipf, 1941) and (Browning and Gibbs, 1961), we constructed three different mathematical models to predict the city distributions in these six countries.

where $\overset{f \wedge}{P}_i$ represents the expected populations, $\overset{f \wedge}{P}_i$ is the population of the largest city, while R_i denotes the ranks of the individual cities.

Model 2 can be written mathematically from Table 1 in the Appendix:

$$\frac{S}{i} \stackrel{?}{P}_{i} = P_{o} \left(\sum_{i} \frac{1}{R_{i}} \right)$$
(2.1)

where
$$P_0 = \frac{(\sum_{i} P_i)}{(\sum_{i} 1/R_i)}$$
 $P_0 = P_1$ (2.2)

To get the average expected populations, we divide Equation (2.2) over the individual ranks one by one across the cases:

$$\hat{P}_{i} = \frac{\frac{(\sum P_{i})}{(\sum 1/R_{i})}}{R_{i}}$$
(2.3)

Model 3 is built by first using a log-linear bivariate regression to empirically test the theoretical assumption of the rank-size rule:

$$\ln P_i = a + b \cdot \ln R_i \tag{3.1}$$

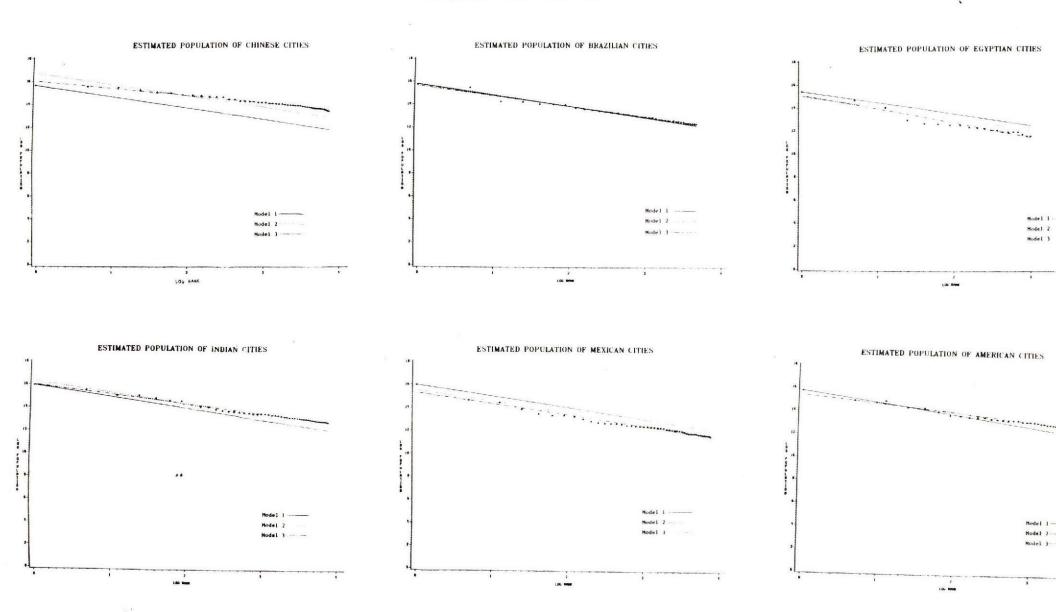
where a (intercept) is expected to approximate $\ln \hat{P}_o$ (P_1) and b (slope) should be equal to -1. The actual regression coefficients for the six respective countries confirm this theoretical proposition, as the estimated slopes for China (-0.6420), Brazil (-0.9265), Egypt (-1.2367), India (-0.8355), Mexico (-0.9633) and the United States (-0.7285) are very close to -1 in varying degrees. The log-linear regression equation is then transformed to a predictive model for the expected population via exponentiation:

exp
$$(\ln P_i) = \exp (B_o + B_1 \cdot \ln R_i)$$
 (3.2)
where $B_o = a$; $B_1 = b$;
 $P_i = \exp (B_o) \cdot \exp (B_1 \cdot \ln R_i)$ (3.3)
 $P_i = \exp (B_o) \cdot R_i^B 1$

2. This procedure is used because it includes more cities, although the method can be employed to calculate the ratio of the largest city to a smaller number of cities next to it in size. Under the assumption of rank-size rule that the size of any city is equal to the largest city divided by its rank, the quotient of the first city's population (in our case Shanghai) divided by the sum of the populations living in cities ranked two through eleven should be close to .50 (1/2 + 1/3 + + 1/11 = 2) (Arriaga, 1975:64). The standard interpretation of this statistical measure is that the higher the Index of Primacy, the greater the concentration of the population in the first city in relation to the other cities.

Figure 1

Plots for Predictive Rank-Size Models for City Population Distributions, China
Compared with Five Other Countries



Sources: Same as (a), (b) and (c) in Table 1.

Table 1

Predictive Rank-size Models of Population Distribution of Large Cities in China,
Compared with Five Other Countries

	(1)	(2)	(3)	(4)	(5)	(6)
Country, Year	N	Total Population*	Model 1	Model 2	Model 3	R ²
China ^a , 1982	48	80,348,800	32.60	21.08	4.28	.98
Brazi1 ^b , 1980	39	31,029,687	6.47	6.65	7.14	.98
Egypt, 1976	20	11,967,431	26.27	21.09	13.65	.94
India, 1981	48	51,997,879	14.60	9.56	3.68	.99
Mexico ^c , 1979	48	25,510,074	30.33	13.64	12.85	.97
u.s.A ^b , 1980	48	38,382,250	10.81	11.57	6.37	.97

Sources: a. 1982 Statistical Yearbook of China, State Statistical Bureau of China, Beijing, 1983, p. 108.

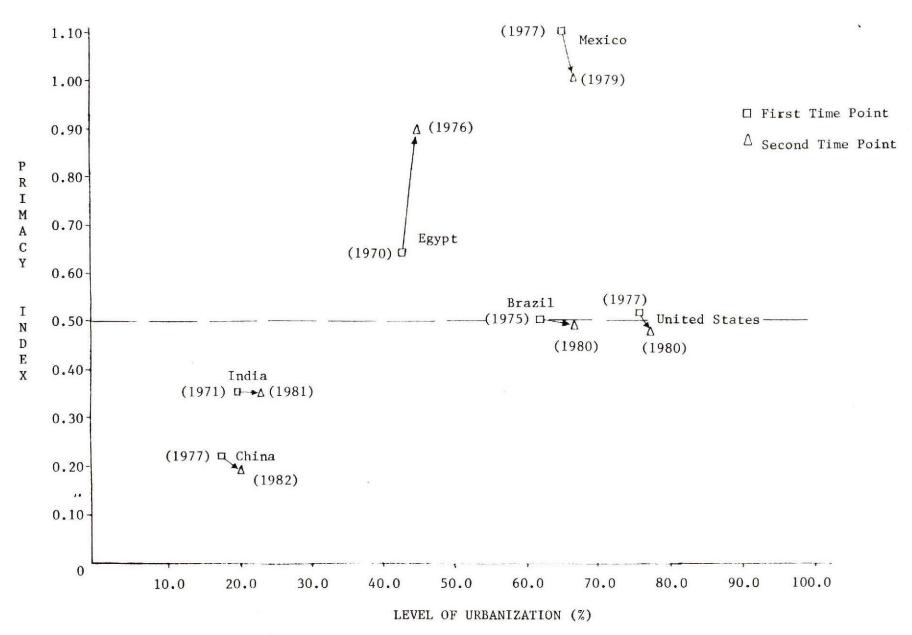
Note: *The figures in this column do not include populations in the greater metropolitan areas. For example, the figure for China is the sum of the populations in the urban districts (see Chen, forthcoming for definition) of the 48 cities. The total population of the 16 cities in Appendix-Table 1 includes people living in the surrounding rural counties under the cities' jurisdiction.

b. The Europa Yearbook 1984, Volumes 1 and 2, Europa Publications LTD, England, pp. 1212, 1515, 1680, and 2569.

c. The Statesman's Yearbook 1984-1985, 121 edition, John Paxton (ed.), ST. Martin's Press, p. 847.

Figure 2

Primacy Index by Level of Urbanization for Six Countries



Sources: 1) Same as (a), (b) and (c) in Table 1 of the present paper.

2) Demographic Indicators of Countries: Estimates and Projections as Assessed in 1980, United Nations, New York, 1982.

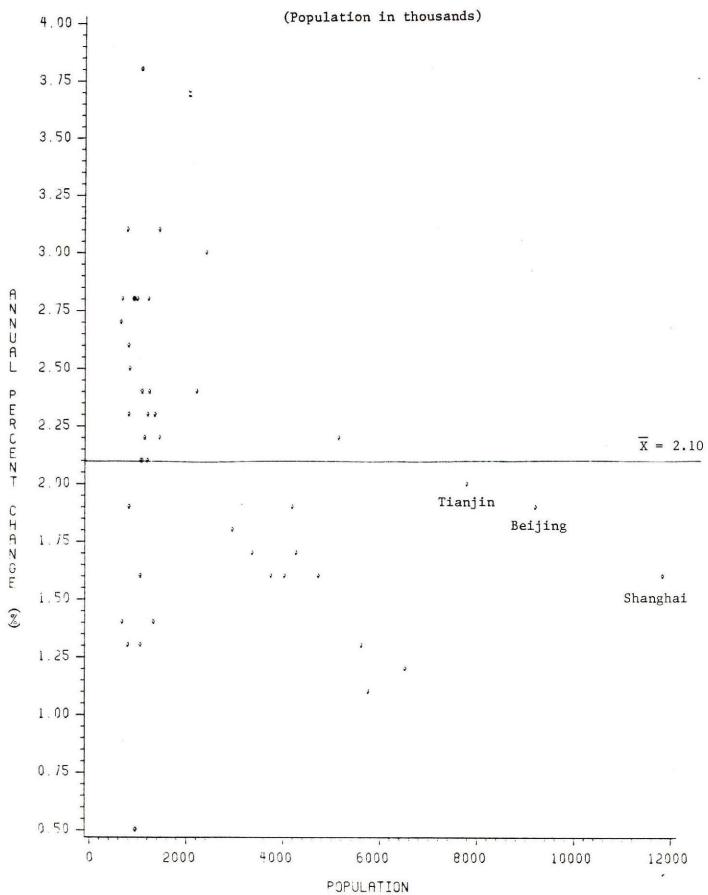
 $\hbox{ Table 2}$ Comparative Statistics on the National, Urban and Large-city Populations of Six Countries

	(1) Growth of	(2) Growth of	(3) Growth of	(4) Growth of	(5) Growth of Next 15	(6) Percent of Largest City
Country, Time Period	National Population Per Annum (%)	Urban Population Per Annum (%)	Largest City Per Annum (%)	Second Largest City Per Annum (%)	Cities Per Annum (%)	of Total Population
China, 1977-1982	1.9	2.4	1.8	2.1	1.8	1.2
Brazil, 1975-1980	2.3	4.3	-0.5	1.0	2.0	5.9
Egypt, 1970-1976	2.3	2.9	6.4	2.2	1.8	13.9
India, 1971-1981	2.3	4.0	3.3	4.6	4.2	1.2
Mexico, 1977-1979	3.1	4.4	2.3	13.2*	5.0	13.6
U.S.A., 1977-1980	1.1	1.1	-1.1	-0.6	0.4	3.1

Sources: Same as (a), (b) and (c) in Table 1 of the present paper.

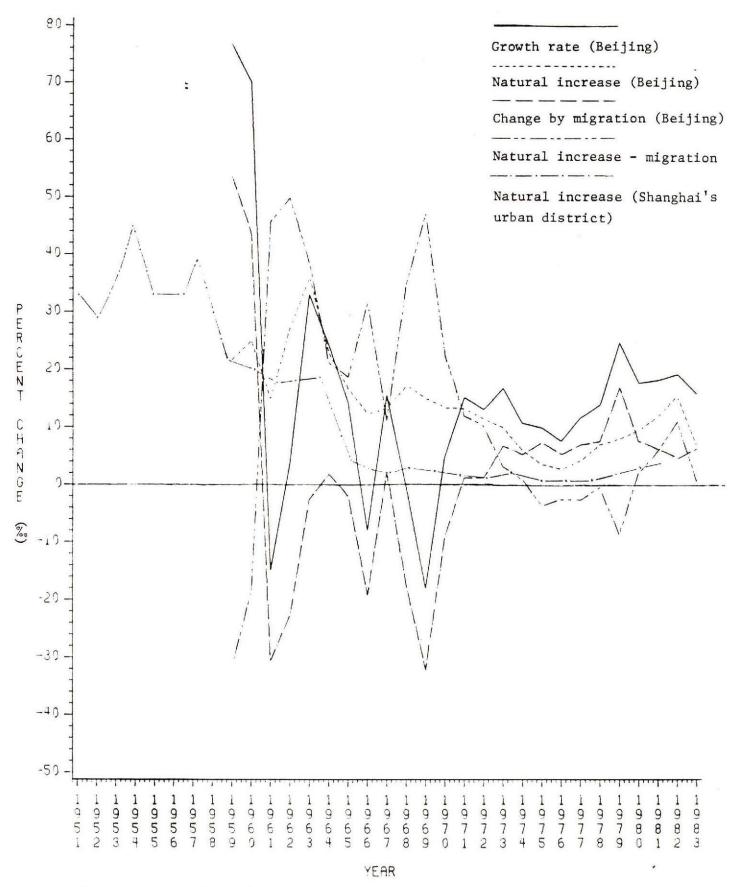
Note: *Although being listed as the second largest city, Netzahuacoyotl is in fact the suburb of Mexico City. Therefore, the annual growth rate of the largest Mexican city is much higher than the way of presenting it here should we use the metropolitan area as the unit of calculation and observation.

Figure 3
ANNUAL PERCENT CHANGE OF LARGE CHINESE CITIES 1981-1982



Source: 1982 Statistical Yearbook of China, State Statistical Bureau, p. 108.

POPULATION GROWTH OF BEIJING AND SHANGHAI 1951-1983



Sources: a. Registration statistics, Municipal Bureau of Security, Beijing, 1984.

b. Renkou Yianjiu (Population Studies), Volume 1 (January), 1984, p. 26.

APPENDIX B

for

A COMPARISON OF URBAN PRIMACY:

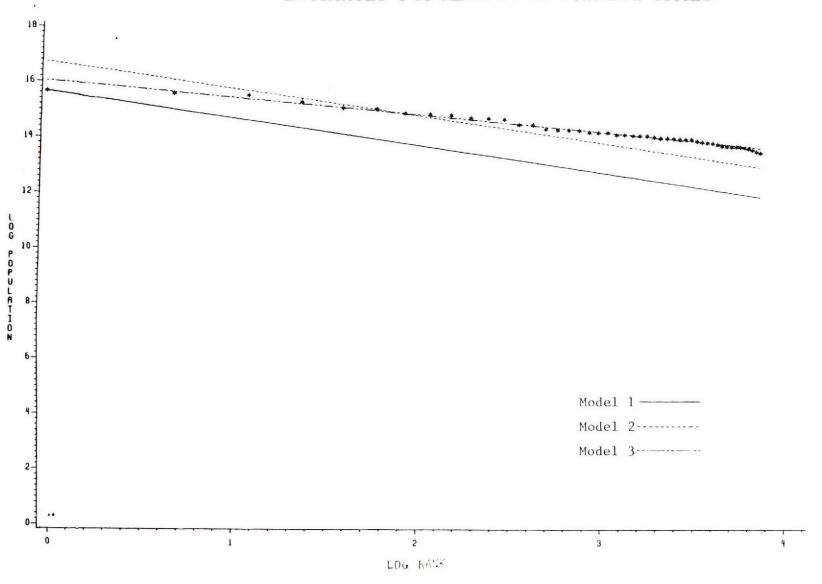
THE SPECIAL CASE OF CHINA

Xiangming Chen

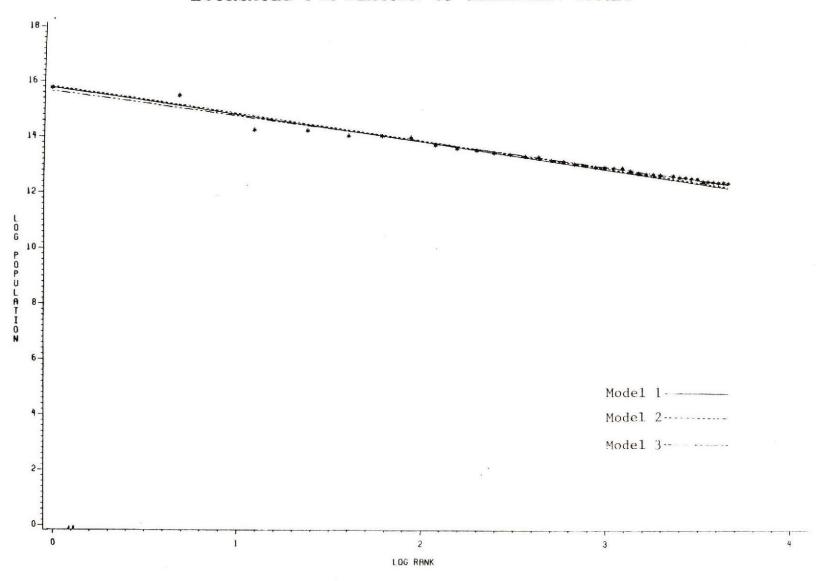
Department of Sociology
Duke University
Durham, North Carolina 27706

The attached are the six respective plots in Figure 1 of this paper in their original size. They are included for their better readability as separate figures to facilitate convenience for readers and the prospective review process when the paper is submitted for publication. Due to their length, they are not included as part of the text.

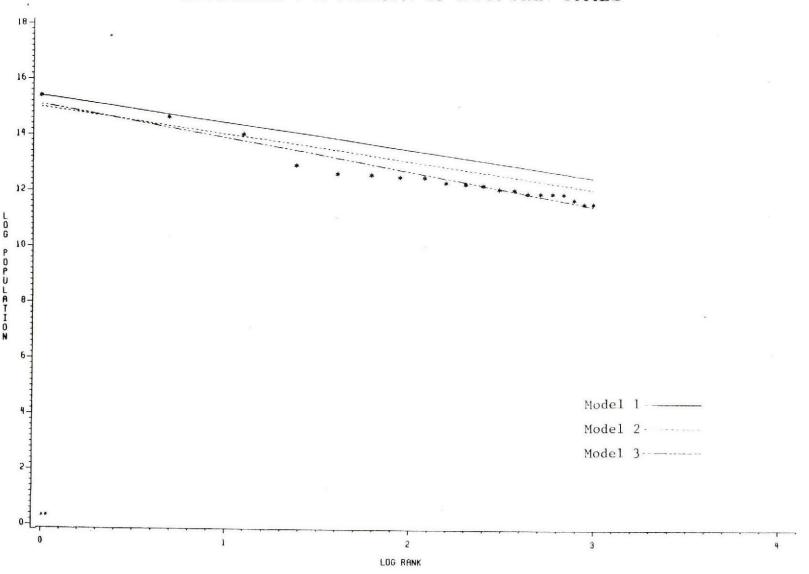
ESTIMATED POPULATION OF CHINESE CITIES



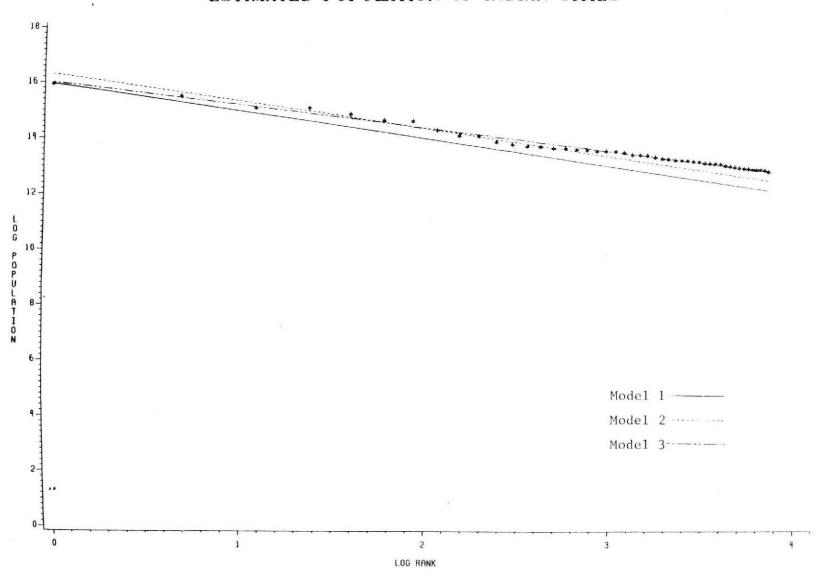
ESTIMATED POPULATION OF BRAZILIAN CITIES



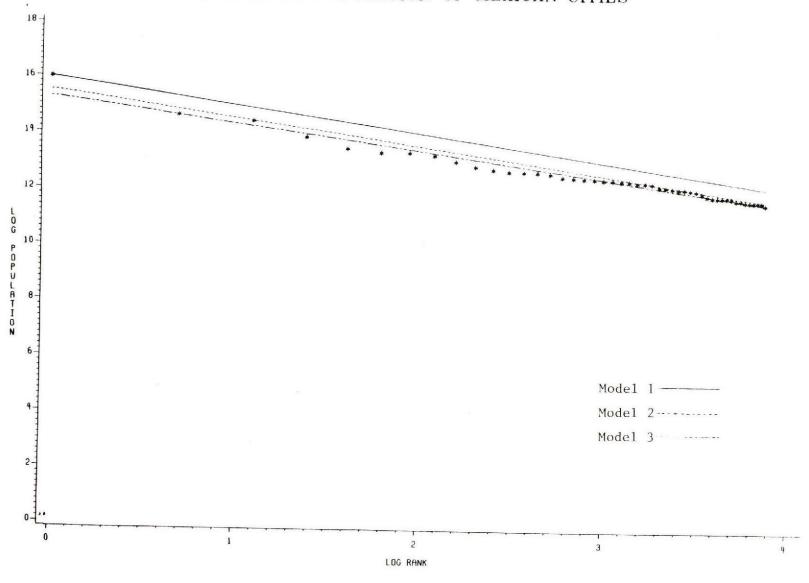
ESTIMATED POPULATION OF EGYPTIAN CITIES



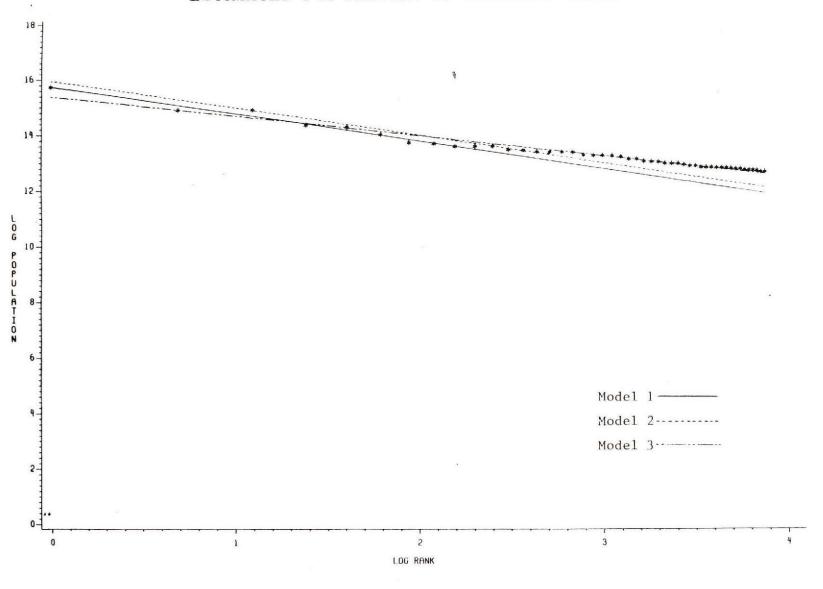
ESTIMATED POPULATION OF INDIAN CITIES



ESTIMATED POPULATION OF MEXICAN CITIES



ESTIMATED POPULATION OF AMERICAN CITIES



Appendix A-Table 1

Application of the Rank-Size Rule Method to Very Large Chinese Cities (population over 2,000,000), 1982

Cities	(1) Rank of Population Size	(2) Reciprocal of Rank	(3) Actual Population Size	(4) Expected Population Size	(5) Difference Between Expected and Actual Size	Difference as % of Actual Size	Difference as % of Expected Size
Shangha1	1	1,00000	11,810,000	24,728,381	12,918,387	109.4	52.2
Baijing	2	.50000	9,190,000	12,364,194	3,174,194	34.5	25.7
Tianjin	3	.33333	7,780,000	8,242,796	462,796	5.9	5.6
Chongqing	4	.25000	6,510,000	6,182,097	327,903	5.0	5.3
Changchun	5	.20000	5,750,000	4,945,677	804,323	14.0	16.3
Guang zhou	, 6	.16667	5,610,000	4,121,398	1,488,602	26.5	36.1
Shenyang	7	.14286	5,140,000	3,532,627	1,607,373	31.3	45.5
Dalian	8	.12500	4,720,000	3,091,048	1,628,952	34.5	52.7
Qingdao	9	.11111	4,260,000	2,747,599	1,512,401	35.5	55.0
Wuhan	10	.10000	4,180,000	2,472,839	1,707,161	40.8	69.0
Chengdu	11	.09091	4,020,000	2,248,035	1,771,965	44.1	78.8
Nanjing	12	.08333	3,740,000	2,060,699	1,679,301	44.9	81.5
Jinan	13	.07692	3,350,000	1,902,184	1,447,816	43.2	76.1
Xi'an	14	.07143	2,940,000	1,766,313	1,173,687	39.9	66.4
Lanzhou	15	.06667	2,400,000	1,648,550	751,441	31.3	45.6
Taiyuan	16	.06250	2,200,000	1,545,524	654,476	29.7	42.3
E	x X/N (16)	3.38073	83,600,000 5,225,000	83,599,976 5,224,999	33,110,778 [*] 2,069,424	570.5 35.7	754.1 47.1

Note: *The Index of Redistribution is calculated by divding this sum into the total population and then by two. This represents the per cent of city dwellers who would have to move from one city to another one to bring about a perfect correspondence between the urban hierarchy and the rank-size rule. The per cent for China is 19.8.

Source: Computed from Statistical Yearbook of China 1982, State Statistical Bureau, China, 1983, pp. 35-102.



复新特圣地名至

The World Bank 1818H Street N.W. Washington D.C. 20433 U.S.A. June 15,1986

Dear Mr. Cukok:

May I give you a great greetings, I trust that all is well with your work. I am sure that you are quite busy after your visiting in China.

Herewith I enclose five photographs which you had taken at Hangzhou. Please deliver three of them to Mr. Hamer, Mr. Bertancl and Mr. Deferranti. These photographs should symbilize the good coorperation and friendship between us. Of course, our coorperation is only the beginning, I belive that we will achieve more and more successes on our coorperation and great levels of understanding day by day. With reference to information requested, we would be collecting them and making them avilable as far as possible. It would be mailed out to The World Bank prior to the visiting of the main World Bank mission in late August or early September. But, a longer period of time will be required in collecting some of these informations which should collected by both of The World Bank and China, during a certain time we want to study and investigate some projects, such as Trip Survey, Origin-destination Survey of Traffic and Scholars Reports. I consider it is difficult that all informations which will be done in both of urban sector study and project-study should be provided perfectly in a short time. We would ask you to accept our apolgies.

In order to carry out our study work as soon as possible, we hope that The World Bank would provide a proposal

working plan for us, including study program, schedule, the responsibilities of both sides and some relative aspects. No doubt, it will make us to do well in preparation and the study work will be more efficient.

Thank you very much.

Your Sincerely, Li)Jiahong

Income Differentials in Rural China

Everyone interested in the distribution of income in rural China will be grateful to E. B. Vermeer for his recent article. He has assembled for us a great deal of useful data from the 1930s to the present and spiced his commentary with trenchant criticism and shrewd observation. There are a few points I should like to raise, however, lest the unwary reader should interpret the vigour with which statements are made as evidence for their reliability.

Vermeer is correct when he says that "data published . . . since 1979 for the first time make it possible to describe and analyse the influence of institutional change and economic development."2 Until very recently descriptive statistics on the distribution of income in rural China were scarce and even now the available data do not permit an accurate description of the distribution of income for China as a whole. Prior to 1979 statements about the degree of inequality in the Chinese countryside had to rest on fragmentary evidence reinforced by careful analysis based on a judicious selection of assumptions.

In my opinion the best study in the 1970s was undertaken by Azizur Rahman Khan.3 This study was prepared in 1975 and 1976 and was published in 1977. The purpose of Khan's research was to show that China was the great exception to the generalizations that were emerging from our research on the rest of Asia.4 In most countries of Asia the degree of inequality in the rural areas was high, income distribution was becoming worse and in many instances the poorest groups were becoming further impoverished. None of these things seemed to be happening in China. Indeed Khan concluded that, " In comparison to its own past and to the contemporary developing countries in Asia the degree of income inequality in rural China is remarkably low."5 At the same time " it must be conceded that a fairly high degree of inequality still exists in rural China."6

Nothing that has been published since by reputable scholars refutes these judgments and one wonders why Vermeer attempts to dismiss the work of his predecessors as " wishful constructions of a very high degree

of income equality in rural China, such as made for example by Azizur Khan."7 No doubt each writer likes to distinguish his contribution from that of others, but the cause of understanding is not advanced by exaggeration.

Khan's intention was to reach a conclusion that was generally correct, not to produce a specific figure that would measure accurately the degree of inequality. Yet his numerical analysis did yield a statistic that was indicative of the range of incomes in rural areas. Khan concluded that " the per capita income (excluding collective consumption) of the top quintile is only about 3.6 times higher than that of the bottom quintile."8 Presumably it is this that Vermeer regards as a "wishful construction of a very high degree of income equality." Vermeer himself, however, combines a few reasonable assumptions with official Chinese data to conclude that "the richest quarter would receive 47 per cent of the total distributed collective income, as against only 12.2 per cent for the poorest quarter of farmers." This implies that the per capita income of the top quartile would be about 3.9 times higher than that of the bottom quartile, a ratio not so different from Khan's.

II

Khan conjectured that "there are strong reasons to believe that within the commune system the distribution of income from private plots is less unequal than the distribution of collective income." Vermeer asserts, in contrast, that "Azizur Khan's opinion that the income from private undertakings would be a corrective factor on inequalities is not correct."11 Vermeer, however, presents almost no data and even less analysis to support his assertion.

Fortunately considerable information does exist which sheds some light on this important topic. On the whole the available evidence is more consistent with Khan's inspired guess than with Vermeer's undocumented assertion. The reasons adduced by Khan for the equalizing role of the private sector and its household economy appear not to be entirely correct, however. Research by myself and colleagues suggests that the relative importance of the private sector varies over the life cycle, being greatest in those households with a large number of infants or elderly persons.12 The private plot is usually less important than other private sector activities, notably, pig-raising, poultry and handicrafts; the collective sector appears not to be competitive with the household economy for labour but instead appears to be complementary to it. This, at least, seems to have been the case in 1978 to 1980; it is possible, of course, that the recent changes in policy as regards the private sector have altered the validity of these conclusions,

^{1.} E. B. Vermeer, "Income differentials in rural China," The China Quarterly (March 1982).

^{2.} Ibid. p. 1.

^{3.} Azizur Rahman Khan, "The distribution of income in rural China," in ILO, Poverty and Landlessness in Rural Asia (Geneva, 1977).

^{4.} Perhaps at this point I should declare an interest. The research programme on rural poverty at the ILO was conceived by me and when the programme was completed Khan and I edited the papers for publication.

^{5.} Azizur Rahman Khan, op. cit. p. 274.

^{6.} Ibid. p. 276.

^{7.} E. B. Vermeer, op. cit. p. 11.

^{8.} Azizur Rahman Khan, op. cit. pp. 274-75.

^{9.} E. B. Vermeer, op. cit. p. 13.

^{10.} Azizur Rahman Khan, op. cit. p. 272.

^{11.} E. B. Vermeer, op. cit. p. 17.

^{12.} See Keith Griffin and Ashwani Saith, "The pattern of income inequality in rural China," Oxford Economic Papers (March 1982), p. 173.

A study of 27 households at the level of the production team of Tang Tang Commune in Guangdong shows that "other income" (which possibly includes private sector income) is positively related to the dependency ratio and inversely related to the number of workpoints earned in the collective economy. This "other income" clearly helps to reduce inequality among households.¹³

A second study of 23 households of a production team in Shujing Commune, Shanghai Municipality indicates clearly that collective income per head is higher the lower is the dependency ratio, i.e. the size of household divided by the number of wage earners. (See Table 1.) Households in which three-quarters or more of the members are wage earners (and hence have a dependency ratio of 1.33 or less) enjoy a higher than average per capita collective income whereas households in which only half the members are wage earners (and hence have a

Table 1: 23 Households from a Production Team of Shujing Commune, Shanghai Municipality, 1980

Household Number	Collective Income per head (yuan)	Dependency Ratio	Private Income as percentage of
20	745 - 7		Collective Income
22	662 · 5	1.00	17.0
23	468	1 · 00	0.0
3		1 · 33	19.2
6	465	1 · 20	22.9
7	460	1 · 50	0.0
	452 · 2	1 · 25	19-7
11	421	1 - 33	24.0
16	412.6	1 · 50	20 · 2
13	403	1.50	19.3
10	378 · 8	1.25	22 · 1
2	376 - 7	1.00	12 1
8	372	1 · 33	30.2
17	351	2.00	35 · 8
1	341	1 · 33	20.5
14	323	1 · 67	38-3
18	322	2.00	
4	319	2.00	15.5
19	313	1.67	11.6
12	311		22 · 1
5	310	1.50	8 · 2
21	300	2.00	8 · 1
15	275	1 · 50	13.9
9	272	2.00	33 · 9
	212	2.00	17.5

Source:

Elisabeth J. Croll, The Chinese Household and Its Economy: Urban and Rural Survey Data, Queen Elizabeth House, Contemporary China Centre, Resource Paper, Oxford, 1982, Tables 20 and 49.

dependency ratio of 2.0) fall below the median collective income. This is not very surprising. More noteworthy is the finding that households with a high dependency ratio tend to obtain a higher proportion of their income from the private sector. Compare, for example, the six households with a dependency ratio of 2.0 with the six households with a dependency ratio of 1.25 or less. In the former, private sector income is 20.4 per cent as large as collective income while for the latter it is noticeably lower at 15.6 per cent. Finally, there is just a hint in the data from Shujing Commune of an inverse relationship between collective income per capita and the ratio of private to collective income. Correlation analysis, however, showed that while the regression coefficient was negative it was not statistically significant. Hence the equalizing effects of the private sector, if any, would appear to be rather weak, but there certainly is no support from this sample for the contrary view that the presence of a private sector tends to accentuate inequality arising from differences in dependency ratios.

Let us turn now to a third study in another commune in a different region of the country, the Suzhou Municipality. This, too, is a prosperous region thanks to the presence of an important city, but the degree of prosperity in the rural areas is not as great as in the Shanghai Municipality. A fairly large survey was conducted in Zhang Qing Commune, Suzhou Municipality and the results of this survey shed more light on the role of the private sector in the Chinese countryside. Leven of the 163 teams in the commune were sampled, as well as 96 households

Table 2: Collective and Private Income in Zhang Qing Commune, Suzhou Municipality, 1980

Team	Mean Collective Income per capita (yuan)	Mean Private Income per capita (yuan)	Private Income as a percentage of Collective Income
1	337 · 4	55 · 1	16.3
2	283 · 5	53 · 2	18.8
3	255-1	26 · 2	10.3
4	248 · 1	35.4	14 · 3
5	223 · 5	28 · 4	12.7
6	221 - 9	45.3	20 · 4
7	216.0	16.5	7.6
8	207 - 2	35.8	17:3
9	205 · 3	61 - 7	30 · 1
10	166.6	53.6	32 · 2
11	148 · 1	25.6	17:3

Source:

Alison Ansell, Roger W. Hay and Keith Griffin, "Private Production and Income Distribution in a Chinese Commune," Food Policy (February 1982).

^{13.} Keith Griffin and Ashwani Saith, Growth and Equality in Rural China (published for the ILO by Maruzen, 1981), pp. 47-51.

^{14.} Alison Ansell, Roger Hay and Keith Griffin, "Private production and income distribution in a Chinese commune," Food Policy (February 19. ?), p. 11.

Income Differentials in Rural China

from the sampled teams. It was possible to obtain from the survey information on collective income and on private income from crop and livestock production (but not private income from handicrafts, etc.) (See Table 2.)

Analysis at the team level indicates that when private income is added to collective income, inequality diminishes. For instance, the Gini coefficient of collective income is 0.12, whereas the coefficient of collective plus private income is 0.11. Similarly, the coefficient of variation declines from 0.22 to 0.20 when private income is combined with collective income. These are not dramatic changes, perhaps, but they point in the expected direction.

Further support is provided by an analysis at the household level of the 92 households from which reliable data were obtained. (Three households were excluded because of allegedly negative private income and one because the information was incomplete.) The test consisted of a regression equation in which private income as a percentage of collective income (PY/CY) was regressed on collective income per head (CY/N). The regression coefficient turned out to be negative, as anticipated, indicating that the lower the level of collective income per head the greater the relative importance of the private sector.15

Finally, there are hints in the scattered regional data that the private sector may help to reduce inequalities not just at the local level but interregionally as well. 16 This is a highly speculative proposition at the moment, but there is enough evidence to suggest that the topic merits further investigation. It would be a pity if Vermeer's strongly expressed opinions were to dissuade other scholars from following a possibly fruitful line of research.

III

Vermeer ends his article with a reference to "growing differentials" in rural areas.17 It is not difficult to think of several reasons why inequality in the distribution of income might have increased in recent years or why it might be expected to increase in future. Vermeer, however, makes no attempt to develop a coherent argument on this subject, nor does he present the data to substantiate his claim of growing differentials. The latter is not surprising since the required data simply do not exist.

Research by Ashwani Saith and myself at three communes - Wu Gong and Qie Ma in Hebei and Evergreen in the Beijing Municipality - has shown that there is a clear tendency for the distribution of income within

15. The equation is the following:

 $PY/CY = 35 \cdot 85 - 0.07$ (CY/N); $R^2 = 0.14$

* = significant at 1 % level

17. E. B. Vermeer, op. cit. p. 33.

a commune to improve over time.18 Moreover, we have tried to show with the aid of a simulation model that this tendency toward reduced inequality is endogenous, that is, that it arises because of the structure of the commune system. 19 In addition, there are of course numerous policy interventions which by design or by accident reduce inequality further.20 Our conclusion is that a combination of endogenous forces and welldesigned policies has ensured that inequality at the local level does not rise significantly and more often than not it falls.

These conclusions were obtained before the introduction of new policies in rural areas in 1981 and 1982. It is possible that these new policies will alter fundamentally the way the rural economy functions and lead to widening differentials of income, but this is a topic for future research. The evidence up to the beginning of the current decade suggests that incomes at the local level gradually were becoming more equal.

This leaves us with the question of regional inequality. The data Vermeer has collected for us are extremely valuable²¹ although they do not enable us to discuss past trends or future prospects. After reviewing a number of policies that are likely to affect the interregional distribution of income we conclude that "on balance, it is likely that regional inequalities will increase somewhat, especially in the short run when supply elasticities are low, but it is unlikely, say, by the beginning of the next decade regional differentials will be noticeably different from what they are today."22 Time will tell whether Vermeer's pessimism or our qualified optimism is more nearly correct.

KEITH GRIFFIN

Reply by E. B. Vermeer

Keith Griffin's comments fall into three parts: (a) A defence of recent studies of rural income distribution prepared by A. R. Khan and himself or still to be published; (b) criticism of some of my comments in The China Quarterly, March 1982; and (c) a presentation of 1980 income data of 27 households in a Guangdong team, of 23 households in a Shanghai team, and of 11 teams in a commune near Suzhou, with conclusions.

To start with the last item, I fail to see why by 1982 we should confine our research to, or draw any wider conclusions from, such small and unrepresentative samples. Average per capita collective income in these three samples is very high indeed. Suppose one of the criteria used in the selection of these particular teams was a high degree of socialist consciousness and collective economic success, and suppose an

19. Ibid. Chaps 4-6.

^{16.} Keith Griffin, "Economic organization and performance in rural China," in preparation.

^{18.} Keith Griffin and Ashwani Saith, Growth and Equality in Rural China, loc. cit. pp. 29-36.

^{20.} See ibid. Chap. 7 for a discussion of some of these policies.

^{21.} E. B. Vermeer, op. cit. Table 5, p. 20.

^{22.} Keith Griffin and Ashwani Saith, Growth and Equality in Rural China, loc. cit. p. 144.

important yardstick for these would be a subordination of private interests to collective pursuits. Then what would be the significance of these biased data for our study of the relationship between collective and private income in China?

My objection to the "wishful construction of a high degree of income equality" made by Khan was spelled out in a footnote. I did not object to any outcome, but to the way it was reached. There is such a difference in scope of basic data (and a time difference of some 15 years) that a comparison with the 1979 data presented by the Ministry of Agriculture is pointless. Khan and Griffin in their conclusions often fail to distinguish between income inequality within a collective unit and within China as a whole.

Griffin misreads me, therefore, on the question of whether distribution of private income corrects differentials in collective income. I wrote that "Khan's arguments may be valid within a village unit, but are certainly outweighed by other elements when applied to China as a whole " (p. 17). I mentioned a few such elements and might add some more, such as different economic possibilities arising from proximity to large cities or to transportation routes, linkages with local industries, all of which help to boost both collective and private local economies. Information on this important topic is, in my view, scarce, and one should define what one is talking about: net collective income versus which categories of gross or net private income, absolute or relative differentials, within a collective unit (team, brigade or commune) or between larger areas, in what period, etc. The percentage of income generated by the private sector may well be and have been larger in poor areas than in rich areas, and smaller in absolute terms at the same time. Apart from economic organization (such as the present dabaogan system) natural resources such as timber or medicinal herbs might favour the inhabitants of poor mountain areas in Yunnan over poor plain areas in Hebei. So there is no obvious relation between poverty and high private income. Other factors may be at work in the model villages studied by Griffin: rich communes often have collectively organized activities which are private elsewhere, send their children to school instead of letting them contribute to private household income, and may be less motivated to supplement their income by extra individual work (which might bring political trouble as well). For a valid picture for the whole of China, however, we should be concerned about not only the richest 5 per cent or poorest 20 per cent of the rural population. The national, provincial and district data for recent years supplied by the SSB and Ministry of Agriculture (such as can be found in Chinese economic journals, or in the World Bank document China: Socialist Economic Development) do point to growing differentials in income. Griffin's vehement denials of " undocumented assertions," " not surprising since the required data simply do not exist " indicate that I have upset firm convictions - which is what science and scholarship are all about.

Griffin and Saith, in *Growth and Equality in Rural China*, ILO 1981, p. 142, offer the hypothesis that "private sector economic

activities at the household level tend to widen regional differentials." In the present Comment, Griffin sees "hints in the scattered regional data that the private sector may help to reduce inequalities not just at the local level but interregionally as well." I am afraid he will have to choose.

16

10 million or more of the past few years, as the flood of youth returning from rural districts diminishes and employment is found for them.

To sum up, in urban areas of China today, school-leavers make up the largest group of jobless persons looking for work, as they did 25 years ago. Most of them are looking for their first jobs, which school-leavers have found difficult to obtain throughout these years because of rigid bureaucratic control of job assignments. In addition, starting in 1978 and continuing to the present, millions of so-called educated (i.e. literate) youth "sent down" years ago to rural communes and state farms have returned to the cities and have been looking for work. They have more than doubled the number of jobless young people. Although the number of jobless youth looking for work can be expected to decline somewhat by 1985, it will remain far above the 1957 level.

The Staff of Life: Living Standards in China, 1977-81*

W. Klatt

"Living standards have improved, but levels are low and not even." These words are contained in an appraisal by two senior members of the State Statistical Bureau of the People's Republic of China, which seems to be the first detailed account in years, written for the benefit of foreigners who are interested in the well-being of the people of China. Other, briefer statements have been available lately, but none of such authenticity. In this respect, December 1978 can be taken as the point of departure: since then, not only have major political and economic changes occurred, but the non-Chinese world has been allowed to participate in these changes and to take account of their successes and failures. Even the language in which official reports are made astonishes.2 Admittedly, reforms had preceded the third plenary session of the 11th Central Committee of the Chinese Communist Party held in December 1978. The plenum was the occasion when China's policies underwent a dramatic shift from Hua Guofeng's doctrinal concept to a more "pragmatic" approach, with problems being tackled as they arose. Strategy and tactics were revised, following a re-evaluation of major political events, organizational change at the highest political level, a reassessment of Mao's role in the history of the People's Republic and the revision of economic targets. A stable future seemed to be guaranteed by the election of Hu Yaobang to the Politbureau and - a little later - the appointment of Zhao Ziyang as premier in overall charge of modernization, as Deng Xiaoping interpreted this concept. Within a few months Hua Guofeng's modernization projects suffered some drastic amendments and his 10-year Plan in particular was abandoned. In its place, the plenum considered the "eight-character charter" of readjustment, reform, consolidation and improvement. In the countryside, which still provides work and a home for the largest number of men and women, agriculture was given the highest priority - but this time in earnest and not, as during the previous two decades, merely as a

When splendid isolation had befallen China after 1957, analysts were

2. Xinhua News Agency, 29 April 1982.

^{*} This is an abridged version of a paper written following research on wages, prices, incomes and living standards in China between 1977 and 1981. I am indebted for invaluable received from Professor Kenneth Walker and Dr Roderick MacFarquhar; from colleagues and former colleagues in three continents, some of whom prefer not to be the Universities' China Committee, whose financial assistance made possible a trip to China in September/October 1981.

^{1.} Li Chengrui and Zhang Zhanji, "Remarkable improvement in living standards," Beijing Review, 26 April 1982.

reduced to what the late Professor Eckstein once called "economic archaeology." We now have it on the authority of Premier Zhao Zivang that " in the years after 1958 and during the ' great cultural revolution,' the output figures were considerably inflated and the problem of waste was quite serious "..." this problem continued after the smashing of the gang of four "; " last year [1981] the figures were less inflated than in the past." By now, data released officially are as good as Chinese statisticians can provide. Official sources cannot yet provide, however, the numbers of draught animals, the output of oilseeds or the degree of farm mechanization in 1966-69.5 Meanwhile, new analytical problems have arisen. When, as first Party secretary of the province of Sichuan, Hu Yaobang began to experiment with the introduction of "market socialism," it became clear that new aspects would have to be considered in any analysis of China's economic - and indeed political performance. Living standards were given a higher priority than economic growth. Therefore, urban wages, rural incomes and prices at farm- and factory-gates and at retail and free market levels became determining factors, and so objects of any investigation into China's present performance and its prospects in the future. These then will be the subject of the following examination of facts and figures as they have emerged from Chinese official sources in the years from 1977 to 1982.

Rationing and Other Central Controls

When in October 1949 Mao Zedong proclaimed victory, the Chinese Communist Party devoted its energies first and foremost to the stabilization of the economy and the political neutralization of the countryside. The two went hand in hand. Observers later often marvelled at the degree of equality which was achieved in a country which had seemed ungovernable until the creation of the People's Republic. It is rarely recognized to what extent a complex system of central controls contributed to this achievement. In spite of many vacillations the system which was then introduced is still in operation today. This applies in particular to food controls. No other country in the modern world has had, without interruption, a system of rationing of the main items of daily consumption for three decades. Added to this, the mobility of land was frozen, following a confiscatory land reform and the reamalgamation of individual holdings in mutual-aid teams, collectives and finally communes. The mobility of labour is controlled by work permits, residence passes and ration cards, valid only at the place of issue. Last but not least, financial transactions by all individuals and institutions are strictly supervised by way of fiscal and monetary checks which leave little to chance.

The system introduced in China in the early 1950s and in operation, with few changes, until Mao's death and beyond, showed all the signs of

an inflexible regime working under conditions of stress. It was governed by the preferences of politicians at the expense of the choice of consumers: it aimed at high growth rates in defiance of the need for balanced development; and it caused increasingly the familiar distortions of planned economies, which tend to use, as regulators, administrative tools rather than economic yardsticks and to disregard, in particular, the values of scarce and ample goods and services in an ever-changing society. The tendency to cling tenaciously to the outdated, 19th-century views of Marx and his disciples did not help in a period of transition from agrarian to industrial society. Great talents were wasted in the process during the debate of the mid 1950s, when men like Chen Yun, Sun Yefang, Xu Dixin and Xue Muqiao argued about issues6 which in the Soviet Union agitated, at about the same time, men like Strumilin or Liberman. The Great Leap Forward and the Cultural Revolution were the manifestations of political expediency, winning the argument every time over economic rationality. Only after the death of the "great helmsman" and the removal of the "gang of four" did it become possible to reopen a political and economic debate which had been unwise, if not downright dangerous, for almost two decades.

In spite of significant changes, the essential ingredients of the system which was created in the 1950s are still in evidence, even if some of the central controls have been relaxed or delegated by the Centre to regional and local authorities. Although Xue Muqiao has argued that " in some socialist countries no such measures have ever been adopted,"7 a system of strict rationing of such key consumer goods as cereals, vegetable oils and cotton goods is being retained, even if the allocation of other items is now the exception rather than the rule. Rationing of grains and vegetable oils was introduced locally in late 1953 and applied nationwide in the summer of 1955. It has been in operation ever since. Sugar and cotton goods were rationed in 1954 and the controlled allocation was eventually extended to include pork and household coal. Other items were rationed for limited periods and in certain localities rather than permanently and nationwide, but these as well as sugar and pork were de-rationed recently, though they may again be incorporated in the system of controlled allocation if and where demand exceeds supply.

Originally, for the purposes of rationing of basic daily necessities, the urban population was grouped in nine categories, but - judging by recent verbal accounts in some of China's major cities - the system seems to have been somewhat simplified lately. So as to make state controls workable, consumer goods were classified originally in three different categories. Among them, foodstuffs were - and still are - the most tightly controlled commodities in an all-embracing Ministry of Commerce, which will continue to have important supervisory and controlling functions. According to information available in the autumn of 1981, urban grain rations range from 15 catties a month for children

7. Xue Muqiao, "China's socialist economy" (Beijing, 1981), p. 168.

^{3.} Alexander Eckstein, The National Income of Communist China (New York: Free Press of Glencoe, 1961), p. 11.

^{4.} Hongai (Red Flag), 1 April 1982.

^{5.} Zhongguo nongye nianjian (Agricultural Yearbook), 1980 (Beijing, 1980).

^{6.} Jingji yanjiu (Economic Research), 1955; also: Cyril Lin, "The reinstatement of economics in China today," The China Quarterly, No. 85 (March 1981), pp. 1-48.

under five years to 50 catties a month (300 kilos a year) for heavy industrial workers and military personnel, whilst cooking oil seems to be uniformly rationed in urban areas at 1 catty per head per month (6 kilos a year). The ration of cotton cloth has lost much of its significance since artificial fibres have become available in steadily increasing quantities. The purchase and sale of foodstuffs are closely integrated. The so-called personal responsibility system represents an attempt to carry out what Xue Muqiao preached when he wrote: "We must change the practice of basing the purchase plan on the production plan and the marketing plan on the purchase plan. The purchase plan should be based on the market needs and the production plan should be based on the purchase plan."

Urban Wages

The urban industrial working class and its cadres had provided most of the activists and many of the victims of the Cultural Revolution. In the circumstances, it was only natural that the post-Mao leadership should try, as one of its first measures, to give some inducement to these citizens to accept the new order rather than follow the old ways. Thus, as a first step, in 1977 workers earning the lowest wages were upgraded, reducing the wage disparity to 1:2.5. Approximately half the urban working population benefited from this measure which reduced the disparity between low- and high-income earners. Other adjustments were to follow, including a wage increase in 1978 for a selected few highly skilled workers, foremen and managers, and another one in 1979.

China's wage structure was framed in 1956 when the Soviet system was adopted. The majority of workers and employees were grouped in eight wage categories with a disparity range between minimum and maximum pay of approximately 1:3. Skill was thus underpaid and initiative discouraged. In certain trades a larger number of ranks (up to 30) and a wider spread (up to 1:18) were introduced, but the basic principle of optimum equality remained unaffected. However, so as to improve the performance of industrial and office workers, piece-rates and bonus payments were introduced, but these tended to induce greater quantity of output rather than high quality standards. Thus the familiar shortcomings of the Soviet wage system showed themselves in Chinese industry, commerce and the bureaucracy. This was particularly the case in periods such as the Great Leap Forward and the Cultural Revolution, when the concept of equality overruled all other considerations.

During the period of the first Five-year Plan, nominal and real wages improved slightly, but after 1957 wages were held practically stable for two decades. In view of mild increases in the cost of goods and services, this meant a slight decline in terms of real incomes. Labour productivity improved, at a rate of about 3 per cent a year, but the gains which accrued from this development were almost wholly reaped by the state. Only by increasing the numbers of those working in each family – and

that meant female labour in the main – could living standards be modestly improved. Thus almost a whole generation of urban workers failed to participate in any of the benefits which industrialization was supposed to bring. Not all was negative, though. Certain social services, such as universal primary education, free health care for the workers (though not for their dependants) and modest old-age pensions, based on seniority and the final year's earnings, were introduced. These were no mean achievements in a country which had known none of these services in the pre-revolutionary past.

The institutional side of the wage system need not detain us here. Whilst actual data of wage payments, family incomes and their use was limited,9 fortunately, this situation - like so much else - has changed in recent years. We now have official information on the size of the labour force, its composition, its total wage bill, and its average income. Household surveys provide some additional information on such important aspects as work participation and dependency rates. These and other data allow an overall estimate of the present urban wage structure, its main components and their orders of magnitude. The officially-released statistics make possible an assessment of the degree of change which has taken place. After the wage reform of 1979 the urban wage pattern was still basically what it had been in 1977, but its aim in this case was differentiation rather than equalization. Again, almost half the urban work-force was affected. Some were the same people who had benefited in 1977, but the emphasis was on higher pay for more and better work. Piece-rates and premium payment for overtime work, which had been unacceptable to the leaders of the Cultural Revolution, were favoured once more. However, as group solidarity continued to operate, it proved difficult to introduce new disparities only two years after the increments to the low-income groups had reduced the gap between minimum and maximum pay. The wage reform measures were, like previous ones, directed chiefly at the workers in the public sector, but the urban collectives followed suit, though with some delay and at a generally lower level.

Not only for financial reasons are jobs in state enterprises most sought after. They carry a certain status and give employees advantages in placing their children in similar jobs and in educational institutions not readily open to the less privileged. Employment remains firmly in the hands of job centres, without whose consent – rarely granted – a change

9. Christopher Howe, China's Economy (London: Paul Elek, 1978); also, Wage Patterns and Wage Policy in Modern China (Cambridge: Cambridge University Press, 1973). Charles Hoffmann, The Chinese Worker (Albany: State University of New York Press, 1974). Susan L. Shirk, "Recent Chinese labour policies and the transformation of industrial organization in China," CQ, December 1981. Jan S. Prybyla, "Key issues in the Chinese economy," Asian Survey, September 1981. Larry M. Wortzel, "Incentive mechanisms and remuneration in China," Asian Survey, September 1981. Michel Korzec and Martin King White, "The Chinese wage system," CQ, June 1981. Eduard B. Vermeer, "Social welfare provisions and the limits of inequality in contemporary China," Asian Survey, September 1979. Carl Riskin, Workers' Incentives in Chinese Industry: A Reassessment of the Economy, Washington, 1975. Chen Ting-chung, "An analysis of wage adjustment, Studies on Chinese Communism," December 1971.

^{8.} Xue Muqiao, "How can we affect planned management of the national economy?" Renmin ribao, 15 June 1979.

of position is still practically impossible. The unemployed are not given public financial support. In fact, they are officially regarded as merely waiting for a job. Women (36 per cent of the urban work-force) are also discriminated against, in that they get the less well-paid jobs. The same applies to temporary workers who, moreover, do not qualify for social security benefits or pensions. Regional cost-of-living allowances continue to be in operation. They amount at most to 30 per cent. Sickness, injury, disability and maternity benefits remained unaffected by the wage reform of 1979; neither did pensioners benefit, though the pension ceiling was raised to a maximum of 85 per cent of final pay in exceptional circumstances. There are not many to whom this applies.

It is not intended to burden the reader here with any but the absolutely essential numerical information. However, a few orders of magnitude would seem to be called for so as to place the urban labour force, its income and expenditure and its overall living standard in proper perspective. Considering the rapid increase since 1952 in China's industrialization, the urban labour force would seem relatively small at little more than 100 million workers and employees in 1980-81 compared with a total labour force of approximately 425 million. These figures exclude some 4.5 to 5 million members of the armed forces, many of whom fulfil tasks which are normally carried out by civilian engineers or rural reclamation workers. In towns and cities the work participation rate is higher and the family dependency rate is lower than in the countryside, where family planning has never been as effective as it has been in urban areas.

Of the total urban labour force some four-fifths are employed in enterprises of "the people," i.e. in the public sector proper, whilst the remainder are engaged in so-called collective enterprises of various kinds. In the period between 1977 and 1981 the numbers thus employed increased disproportionately, due to their ability to absorb a substantial portion of the urban unemployed. The average increase of their income kept slightly ahead of that in the public sector, thus reducing the income gap somewhat between those engaged in the public sector and the members of urban collectives who, however, remain barred from public sector benefits. Thus employment in people's enterprises remains a privilege. As time goes on the service sector is likely to gain in size and status. As a result, income disparities may well shrink in this area, though they will hardly disappear altogether.

Information on workers' employment in different industries is scarce. Thus, no more than orders of magnitude can be presented, which are derived from widely scattered sources. Estimates of the distribution of the urban work force and wage bill are therefore tentative and open to revision. The bulk of the work force and its earnings are bunched together within a narrow range of income disparities. Even so, there is a substantial number of workers at the lower end of the income scale who still do rather badly for themselves unless they are members of families with a high work-participation rate. At the other end of the income scale

a small group of cadres, bureaucrats, managers and professionals are fairly well-off.

Retail Prices and Urban Living Standards

Wages are worth as much as they buy. Thus retail prices are an integral part of any assessment of living standards and any changes which they undergo in the course of time. Here the evidence is fairly ample, though official organs of state are still not very forthcoming with authentic information. However, any observant traveller can obtain all he needs in order to relate prices to wages. There are also a good many publications on the subject which deserve to be consulted. 10 In terms of purchasing power, Chinese wages - in spite of marked improvements in recent years - still allow only modest living standards. Where 1 kilo (2 catties) of rice or wheat flour costs the equivalent of more than one hour's wage and a working family of four consumes at least 2 kilos of cereals a day, and where a kilo of sugar, vegetable oil, chicken or pork costs the equivalent of between four and eight hours of a worker's wage, the bulk of the working family's income is spent on foodstuffs and other essentials. Little is left over for such "luxuries" as wristwatches, bicycles, sewing machines or radio sets. Many members of urban working-class families are still without a bicycle and without a wristwatch. In this context, international comparisons of worktime required for basic commodities are telling. Even in areas as different as the island of Taiwan or, say, the Soviet Union, the average industrial wage allows purchases, apart from daily necessities, which for the time being remain beyond the reach of most urban dwellers in the People's Republic of China. Within the food basket this applies in particular to protein foods which are still exorbitantly expensive by international standards. Whereas in China a family food basket absorbs about three-fifths of the average urban wage packet, in Russia the proportion is one-half, in Japan about one third and in the United States less than one-fifth. Thus China has still a long way to go before a moderately adequate and well-balanced living standard can be guaranteed.

In this connection, the construction of a national food balance and a food basket, based thereupon, can be of use. This technique should not be presented as if it were as reliable in the case of China as it is in countries in which planners and nutritionists can base their calculations on firm data. In the circumstances, it is advisable to disregard both excessively modest and optimistic estimates.¹¹ In 1982 official estimates

^{10.} Tong-eng Wang, Economic Policies and Price Stability in China (Berkeley: University of California Press, 1980). Isabelle Tsakok, Inflation Control in the People's Republic of China (unpublished thesis), Harvard, 1976. Ta-chung Liu and Kung-chia Yeh, The Economy of the Chinese Mainland (Santa Monica: Rand Corporation, 1963-64). Dennis L. Chinn, "Basic commodity distribution in the People's Republic of China," CQ, December 1980. Isabelle Tsakok, "Inflation control in the People's Republic of China," World Development, 1979. Jan S. Prybyla, "A note on incomes and prices in China," Asian Survey, March 1975. Nai-Ruenn Chen, "The theory of price formation in Communist China," CQ, July-September 1966.

11. Vaclav Smil, "Communist China's food," Issues and Studies, April 1980; also,

of the nutrient value of the Chinese diet were released by the State Statistical Bureau in Beijing,¹² but unfortunately these are not of much use. In the light of what is known from official sources about the consumption of important foodstuffs, such as grains, sugar, meat and eggs, it would appear that the Chinese statisticians apply nutrient conversion factors which substantially exceed those used by national and international statisticians and nutritionists elsewhere in the world. Whilst evidence of malnutrition is rare in China nowadays, the stunted build of a good many bodies suggests that the composition of the urban diet leaves something to be desired.

Following the increase of farm prices in April 1979 (dealt with in a later section), the Chinese authorities found that a full subsidy from public funds would exceed their financial capacity. Thus, instead of overburdening the exchequer, the prices of eight non-staple foodstuffs were fixed at higher levels from November 1979. Against this, grains, cereal products and vegetable oils continued to be sold at previous prices. In these cases, the difference between farm-gate prices and retail prices was met by the state. This additional expenditure contributed substantially to the budget deficit of the last few years. The prices of milk, poultry and vegetables were not fixed centrally, but they were to be readjusted "in line with local circumstances." In practice, this meant increases in the state retail shops by about one-fifth, though prices increased considerably more in the open markets, particularly in the case of vegetables which, even in conditions of strict control, fluctuate a great deal according to season. So as to make up to some extent for the price increases, all urban workers were granted a food subsidy of 5 yuan a month. This concession, though welcome, was not sufficient to meet the increased food bill of non-working family members.

As the newly fixed prices did not reflect market conditions any more than in the past and controls were no longer enforceable as rigidly as before, supply and demand became factors to be reckoned with in the nation's markets. Hoarding and speculation drove prices up for some time, and it took more than a year before a reasonable degree of price stability was restored. By then commodities in ample supply, such as pork and chicken, were in fact sold in some places below officially fixed levels. Against this, vegetables tended to exceed price levels which government and consumers considered as reasonable. A great deal of public effort was therefore directed at bringing prices under control and restoring price ratios to something resembling former conditions. In the meantime, particularly during the seven months' interval between the changes of farm-gate prices and those charged in retail shops, anomalies occurred which are all too familiar to the connoisseur of official price-

fixing. These were meant to be eliminated by the price increases introduced in November 1979, but other anomalies remained. Thus the state authorities were obliged to issue decree after decree in 1980 and 1981, trying to reintroduce some measure of control without wholly strangling the initiative which the limited opening of the markets had created.

The rate of inflation between 1979 and 1981 has been given officially at approximately 15 per cent. Foreign observers, who tend to watch the extra-mural activities of the natives rather than their day-to-day affairs, have given much higher estimates, and the prices of non-staple foods have indeed been excessive at times. The real price trend can best be checked when prices and wages are correlated. When this is done, it emerges that the cost of staple foodstuffs has declined, in terms of purchasing power, by about 20 per cent during the years from 1977-78 to 1980-81. Against this, the cost of protein foods has declined little, if at all. In sum, there has been some improvement in the purchasing power of urban wages, and this is demonstrated by the increased meat consumption and the possession of wristwatches, bicycles, sewing machines, radios and television sets. Some of the improvements in living standards are unquestionably due to a further increase in the rate of work participation. This is borne out by the results of urban family budget surveys which were suspended for 14 years but have been carried out again since 1978.

Though the sample is small and manifestly not wholly representative, the results are telling just the same. The employment rate increased between 1978 and 1981 from 46 per cent to more than 56 per cent. The wage inducement encourages even more women to take on jobs than in the past. Hand in hand with the higher employment in working-class families, the dependency rate of non-working members of families declined, during the period under review, from 2.16 to 1.77. This means that nowadays each worker supports, apart from himself/herself, less than one other member of the family. This has led to greater savings and larger purchases of both essentials and "luxuries." Incomes below 25 yuan per capita account now for a much smaller proportion of the total sample than in 1979. One-fifth of it now has more than 50 yuan per capita. Even so, slightly more than three-fifths of the income is still spent on foodstuffs. Whilst workers' incomes differ little, there is a substantial disparity within the incomes of whole families and thus of each family member. In other words, families with high work-participation rates do particularly well, whilst families with high dependency rates are among the most disadvantaged.

Agricultural Characteristics

Satisfaction with the amount and type of information available nowadays about the urban work force, its wages and its living standards is marred by the recognition that the same cannot yet be said about the rural scene. The data given in official statements and in professional

[&]quot;China's food," Food Policy, May 1981. FAO, Food Balance Sheets, Rome 1980; also: Monthly Bulletin of Statistics, November 1979. W. Klatt, "China: food balance (projection) 1977/78," in "Economic survey of the PRC," The Far East and Australasia 1978-79, London, 1979; also, Table 7, "Food balance 1980-81," in the Appendix at the end of this paper.

^{12.} Beijing Review, 7 June 1982; food intake 1981: 2,666 calories, 79 g protein, 41 g fat.

^{13.} Xinhua News Agency, 31 October 1979.

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journals are often vague, inconsistent and at times even misleading. These are severe allegations, but anybody who has tried to unscramble conflicting statements is bound to come to the same conclusion. Moreover, regional and local information is not presented in the uniform manner which is a precondition of comparison in a country the size of a sub-continent, where four-fifths of the population are still "peasants." If there are differences in the manner in which factual information is made available on rural affairs, as against that concerning urban dwellers, there are good reasons for this even today, when agriculture is genuinely treated as a matter of high priority in China. 14

In principle, agriculture does not differ from other occupations, but it has certain characteristics which are relevant to any assessment of the rural scene. Farming has to take account of space and weather as limiting factors. For these reasons alone agriculture rarely gives as high a return per unit of labour as do those activities which take place in confined space and which are unimpeded by the hazards of nature. Public funds often have to make up for these disadvantages. Another significant feature of the rural scene is seasonal fluctuations. They are the cultivator's greatest curse. They also affect the processor and trader of farm products. For the consumer, they can mean both variety and scarcity of food supplies. With the best will in the world, supply and demand are not easily brought into line. Price flexibility is thus a major ingredient of any meaningful market control. The fluctuations in temperature and precipitation cause irregularities not only in output, but also in the requirements of labour and material inputs and thus, ultimately, in farm income and expenditure. Under-utilized or overextended human and material capacities are the rule. Scarcity and surplus of resources exist side by side - often even within one and the same community. As the Great Leap Forward showed, unplanned transfer of labour can do harm beyond expectation.

The art of farming lies in overcoming the most serious of these impediments. Modern technologies can extend the frontiers of the rural realm provided they are applied as a well-balanced "package." In China, the rules of balanced development have not always been observed. The excessive emphasis on grain as "the key link" at the expense of alternative crops in a system of arable rotation or the predominance given to the use of nitrogen to the almost total exclusion of potash fertilizers are only two of many examples which could be given. However, the most elementary error lies in the misinterpretation of the role of size in farming operations. Owing to the constraints caused by distance and space, economies of scale are less significant within agriculture than outside it. Marx and Engels did a disservice to their followers by not sifting the evidence available in their day. Lenin and his followers never understood this special circumstance either. Otherwise the creation of mammoth farms, in which the all-important nexus

14. W. Klatt, "Agrarian issues in Asia," The Far East and Australasia (London, 1982). William L. Parish and Martin King White, Village and Family in Contemporary China (Chicago: University of Chicago Press, 1978).

between crops and animal farming was broken, would never have taken place. Fifty years of Soviet farming have proved the fallacy of this misunderstanding about the role of size in farming. The scaling down in China of production and market organizations from commune to brigade and production team is a belated recognition of this error.

Furthermore, in agriculture - unlike industry - the producer, besides being a consumer of his own product, can also be the processor of intermediate and finished products which, again, he may either consume or sell. There is practically no limit to the alternatives in production, utilization and marketing open to the cultivator. If the state tries to interfere unduly with his options, the cultivator - or the chairman of the commune on his behalf - will go to any length to, say, trade surplus pig manure for badly needed cement over distances which in a market economy would be financially ruinous. In short, agriculture is far less controllable by central and regional authority than are industry and commerce. In fact farming resists planning to the extent of being almost unplannable. The commune seemed to be the only effective administrative structure with which to keep a certain degree of supervision over the activities of the individual producer or the "extended family" of the production team. In spite of many manifestations to the contrary, nowhere else in the nation is the relationship between the public and private domain as precarious as it is in the countryside. As for the cadre, who is the representative of central or local authority, he acts either as the enemy or the "pal" of the community. In either case he is unlikely to be the best guardian of the politician's or planner's intentions. One-third of rural production brigades have no electricity yet, and about one-quarter of them have no access to an all-weather road. This leaves local cadres very much on their own.

When the first relaxations were introduced in the countryside in 1979 and the size of the private plot was allowed to be extended from 5 per cent to a maximum of 15 per cent of the communally farmed area, some commentators thought this to mean a re-privatization of the land. This was a misreading of the intentions of China's communist leadership which, in the meantime, has made it clear beyond any possible misunderstanding that "the land belongs to the state and the collective; a unit or individual cannot seize, buy, sell or lease land; only the state can requisition land so as to meet public needs."15 The ownership of land is certainly an important issue. However, experience throughout the world has shown that land ownership is not the main precondition of successful farming, provided that those who own the land, whether landlords or the state, lease it out to the "tillers" under satisfactory conditions and interfere as little as possible with their decisions as to the use of the land and its product. It is on this issue that the agricultural policies of China are ultimately judged.

^{15.} Xinhua News Agency, 21 May 1982.

Rural Incomes

The features listed in the previous section apply to the members of some fifty-odd thousand communes. When institutional changes were considered in December 1978 in two discussion papers on "questions concerning the acceleration of agricultural development" and on the "work of the rural people's communes,"16 the existing arrangements affected some 175 million families in the countryside which embraced a total population of about 800 million, and provided a labour force of about 300 million. There was thus no other equally important section of the Chinese people. Organizationally the rural population was grouped in three layers, of which the communes provided the civil and paramilitary administration. They also organized large-sized non-agricultural enterprises, employing some 30 million rural workers. At the middle layer, i.e. the production brigades - some 700,000 all told - education and health as well as small work-shops and accounting units were located. The five million production teams, which formed the third layer, each embraced some 35 families consisting of some 150 souls and providing some 60 workers. These were the loci operandi of the country's traditional villages and hamlets.

The whole organization was top-heavy, with a bureaucracy of well over 10 million cadres (functionaries).17 Some of those at commune and brigade headquarters were paid-up members of the Party. Many were insufficiently educated to keep the books and to implement complicated modernization programmes, such as reclamation projects, irrigation and drainage schemes, hybrid seed and fertilizer applications and pest and disease controls. Yet all this was urgently necessary. There are, of course, immense regional differences in climate, soil condition, crop rotation, livestock farming and environmental requirements in a country of continental dimensions, and no blanket nationwide programme can hope to cover widely varying contingencies; and yet this was what was usually practised in the absence of trained personnel. In this respect, as in others, state farms never played a role in China comparable to the one they have in the Soviet Union. There are a mere 2,000 of them in the People's Republic with a labour force and an arable area amounting to no more than 4 and 3 per cent respectively of the total rural working population and the arable land.

It was one of the chief purposes of the December 1978 plenum to do away with unrealistic projects, such as premature large-scale farm mechanization or the adoption of the Dazhai model. Experiments had meanwhile been going on, under such names as "market socialism" and "responsibility (contract) system," in provinces as far apart as Sichuan and Anhui. They had been fostered by Zhao Ziyang and Wan Li, the two provinces' respective first Party secretaries. Both these men are now among Deng's closest advisers at the centre of government and Party in Beijing. In 1978 the most pressing task was the restoration of

trust between authority and "peasant" and of equity between earnings in town and country. This was indeed the subject which was given immediate attention early in 1979 when the foundations were laid for higher incomes and living standards in the rural areas. In the past the cultivator's remuneration consisted in the main of work-points earned in the course of the year. The rate for the job usually ranged from nine to 10 work-points a day for able-bodied men working some 250 days a year. Those doing more or better work were entitled to a larger number of work-points and thus to higher pay settlements at the end of the season; these are now made quarterly. The fixing, in public, of income differentials often caused friction disproportionate to the differences in work performance. Moreover, payment in kind, i.e. in the form of grain and cooking oil, accounted for anything up to two-thirds of total income. Thus here - as in urban labour markets - a strong element of equalization in fact worked against individual initiative and effort. These were largely reserved for the private plot.

Before, during and even after the Cultural Revolution, the information on rural incomes was scant. It was also uninformative, since it covered merely the collectively distributed net income, derived from basic accounting units. This meant that it excluded payments to the exchequer, into welfare and reserve (investment) funds and the like, as well as income earned from selling produce from the private plot, such as pork and pig manure, and from sideline production, such as basket work, and from labour engaged in outside the collective sector. As a result, by comparison with urban earnings, rural incomes looked even more meagre than they were anyway. Moreover, provincial data were hardly available, and where they were published, they were at times incomprehensible. It did not always seem that incomes in cash and kind were treated in the same manner by different authorities, or indeed by the same authorities at different times. Even the State Statistical Bureau was not consistent in its reporting about the rural scene. Thus, in its communiqué on China's economic performance in 1980 it gave per capita income " derived from the basic accounting units of the collective economy,"18 but in its communiqué on China's 1981 economic plan it quoted average annual income " including income from farming and sideline production and from redistribution."19 The two sets of data were not only of different orders of magnitude, but they tended to go their independent ways as policies towards the public and private sectors changed. Thus the difference in reporting was hardly designed to assist any consistent analysis of the situation.

In the past few years information has become available not only about cultivators' net income from the collective – in cash and in kind, but also from sideline production and other activities, and from employment on public works or in commune enterprises. This material is derived from sample surveys which cover about one-quarter of rural counties in all provinces except Tibet. However, only one in every 10,000 families takes

^{16.} Issues and Studies, August 1979.

^{17.} Xinhua News Agency, 28 April 1979.

^{18.} Xinhua News Agency, 30 April 1981.

^{19.} Xinhua News Agency, 29 April 1982.

part in these surveys. In the circumstances, a substantial margin of error cannot be ruled out, particularly since individual provinces, in which the surveys take place, do not always present their findings in the same manner. Nevertheless, in the absence of any better data, these surveys must be taken as the basis of any rural incomes, their trends and their disparities - both within the countryside and in any comparison with urban incomes. The results leave no doubt about the massive improvement which rural incomes have experienced since the change of policy was decided upon at the end of December 1978. In the subsequent three years they increased by more than two-thirds. Since savings, repayments of debts and remittances to relatives almost doubled, expenditure increased by slightly less. As income in kind is apparently still calculated at 1978 prices, the improvement might have been even greater than the data suggest. On the other hand, since some retail prices of commodities purchased in the rural areas increased and the prices of most farm requisites and implements did not decline by 10-15 per cent, as was originally intended, in constant prices the improvement in incomes and living standards was slightly smaller than the presentation in current prices implies.

During the period in question (1979-81), the composition of income and expenditure underwent some substantial changes. All of these were for the better. The income share derived from the allocation of farm produce, i.e. payment in kind, whilst increasing in absolute quantities. declined from more than one-half to less than one-third of total income. Thus, in 1981 commune members could dispose of almost two-and-ahalf times as much cash as three years earlier. At the same time, the share of income earned during work in the communes or brigades declined from over two-thirds of total income to a little over one-half. Simultaneously, the composition of commune members' expenditure changed. Whereas they spent less than two-thirds on foodstuffs altogether, their outlay on non-staple foods increased by more than twothirds. This indicated an improvement of their diet. The cultivators spend more on industrial household goods, such as watches, sewing machines and bicycles, which Zhao Ziyang had once found to be the cultivator's most desired goods. As a sample survey carried out in Shaanxi province in 1980 revealed, the possession of wristwatches (i.e. 39 per 100 households) is still something of a novelty in the villages around Xian.20

The rather patchy information from the provinces, which is still given, more often than not, in the incomplete form of net income from January-February 1981. David M. Lampton, "New 'revolution' in China's social collective work, exclusive of non-collective activities, suggests that there policy," Problems of Communism, September-December 1979. Peter Nolan, "Inequality are significant differences in income levels between rich provinces, such of income between town and countryside in the People's Republic of China in the midas Heilongjiang or Liaoning, and poor provinces, such as Gansu of rural China," in Poverty and Landlessness in Rural Asia, 1LO, Geneva, 1977. Nicholas R. Guizhou, the poorest of them all. In the agriculturally favoured areas, Lardy, "Economic planning and income distribution in China," Current Scene, income from collective work can be two to three times as high as in the November 1976. Marc Blecher, "Income distribution in small rural Chinese

be reduced in the poor areas by earnings from private plots or public works. The really rich are the market gardeners and pig breeders among the communes and the private entrepreneurs. They benefit from their location on the outskirts of large towns and cities. There is no shortage of industrial consumer goods in these places. Those having per capita incomes from all sources of less than 150 yuan accounted in 1981 for one-fifth of the national sample, compared with almost two-thirds three vears earlier. Against this, more than one-fifth had at their disposal more than 500 yuan per capita, or well over twice the national average. As long as " growing rich " meets with public approval, this trend is likely to continue.

Income Disparities

The question of income disparities within rural communities and between them and the urban areas has been the subject of a large number of investigations.21 Some of these were based on observations made in the rural areas of China by foreign scholars and visitors, whose samples tended to be small and not necessarily representative. As Professor Domes once calculated, "during the eight years from 1969 to 1976, travel reports covered at best 0.26 per cent" of the communes which were in operation at the time.22 Normally, the traveller does not see the out-of-the-way commune or brigade which can only be reached at considerable expense. Nowadays large numbers of foreigners and overseas Chinese visit the People's Republic; yet proportionately fewer and fewer of them manage to see much of the rural scene. As a rule, town-dwellers - being in part young persons who have returned with unpleasant memories from the countryside - act as guides. Thus, Chinese town-dwellers show foreign town-dwellers what they consider to be important urban sites. The visits to one or two communes or brigades are often as representative as what Potemkin showed Catherine the Great during her inspection tour in the southern parts of Tsarist Russia. This does not make the question of income disparities any less relevant. Within rural production teams they are of no great significance, since the uniform allocation of grain and cooking oil and the predominance of payment at time-rates eliminate much of the differential. In so far as disparities do exist, they are - as in the case of urban workers - due mainly to differences in work participation and family dependency rates.

21. Eduard B. Vermeer, "Income differentials in rural China," CQ, March 1982. William L. Parish, "Egalitarianism in Chinese society," Problems of Communism, 1950s," World Development, 1979. Azizur Rahman Khan, "The distribution of income in communities," CQ, December 1976. Martin King White, "Inequality and stratification in poorer parts of the country, and the differential can by no means always China," CQ, December 1976. Martin King White, "Inequality and stratification in China," CQ, December 1975. Charles Robert Roll, The Distribution of Rural Income in China (unpublished thesis), Harvard, 1974.

22. Jurgen Domes, Sozialismus in Chinas Doerfern (Hanover, 1977), p. 134.

The picture changes greatly when the incomes of various brigades or communes are compared. Here the distance from "the market" and the uncertainties of nature become determining factors. Since rents were abolished as soon as the distribution of the land had been completed and as taxes have become an unimportant part of the cost structure, regional differences tend to make themselves felt almost to the full, even if their impact is alleviated by the allocation of funds for public services, such as health and education.

Different authors have come to different conclusions on this subject. Lately, Griffin and Saith concluded on the basis of a rather small sample23 that "inequality in rural China is remarkably small"; that inter-commune inequality is rather low; and that it tends to diminish in the course of time. Against this, E. R. Lim, in his monograph on the same subject, recorded substantial income inequalities, due mainly to regional differences.24 He did not adhere to the view that resource transfer from rich to poor regions had any major effect on income disparities. As he saw it, the absence of migration from rural to urban areas aggravated the situation. Basing himself on the restricted concept of distributed collective income, he recorded a ratio of about 2:1 between the richest and the poorest provinces. As for smaller areas such as counties, he found that in the triple-cropping areas on the outskirts of large cities per capita incomes of 200-300 yuan were earned, whilst some counties in poorer areas, such as Ningxia province, might have had incomes of about 30 yuan. These might be seen as exceptional cases, were it not for the fact that regional data, which have become available since the increases in farm-gate prices, confirm these disparities. Although some provinces publish data derived from their contributions to the national income surveys, they are not always presented in a consistent Farm-Gate Prices manner, and comparability is thus impeded. There does, therefore, seem to be a case for tidying-up the presentation of factual information in this all-important sector.

In mid 1981 the worker/peasant income disparity was quoted at 1.74:1 in 1980, as against 1.98:1 in 1977.25 These figures tallied with what had been conventional wisdom in former years. As these ratios clearly referred to the area around Beijing, the question must be asked how in these conditions urban migration could have been held at relatively low levels. This is, of course, a matter which has wider

23. Keith Griffin and Ashwani Saith, The Pattern of Income Inequality in Rural Chins (mimeogr.), Oxford, May 1980.

24. E. R. Lim, Income Distribution, Poverty and Human Resource Development: The Chinese Experience (mimeogr.), Washington, February 1980.

25. Beijing (City) Radio, 21 May 1981.

their accounts, there is the not insignificant difference in living space. Urban dwellers are nowadays said to have at their disposal 5 square metres each. That is only half as much as in the case of people in the country. Even if it is little more than a mud hut without plumbing, the cultivator can regard it as his own. Unlike the town-dweller, he is likely to have space for his tools, his stores and his livestock. This is no trifling matter, even if the difference cannot be quantified.

There is one other aspect worth taking into account: the employed urban worker can call hardly more than 60 days in the year his own. In the countryside, there has always been more leisure-time even if, due to lack of work, some of it may well be involuntary. Since the increase in multi-cropping and the creation of rural industrial workshops, the average number of days worked in the countryside has grown to, say, 250 days a year. If incomes are related to working days, the urban/rural income disparity is close to 1.5:1 - not an unreasonable ratio, which may get even closer as time goes on. Rural people have lately sunk their savings into putting up new buildings - often on communal land - or renovating old ones. Thus in any comparison between rural and urban living standards these intangible assets - time and homestead - deserve to be taken into account. Admittedly, social services, such as pension rights and health care, are underdeveloped or non-existent for some members of the village communities, but in principle rural households can rely on the "five guarantees," though the family is still expected ultimately to step in, if necessary. Even so, however modest the public provisions are, they provide a greater degree of security than was available in prerevolutionary China.

During the past few years, the relaxation of controls, the extension of the private plots and the stabilization of taxes and obligatory deliveries have substantially improved farm output and commune members' incomes. These changes of policy were discussed and agreed upon during the Party plenum in December 1978. For the first time in two decades effective steps were taken to better the "staff of life." At the highest level, Zhao Ziyang and Wan Li actively associated themselves with the new policies. Leading members of the Academy of Social Sciences, of the Planning Commission, of economic departments at the universities and implications. We are looking here at a potentially volatile political of other institutions reviewed critically the record of the past, 26 without situation. If the comparison is repeated nationwide on the basis of recent necessarily coming to definitive or agreed conclusions. The most decisive family income surveys, the results resemble those in Beijing. The change came with the increase, after the spring harvest of 1979, of farmquestion still remains unanswered as to whether like is compared with gate, i.e. obligatory delivery prices, most of which had not been altered like. Leaving aside some products, such as herbs, mushrooms, fodder for a dozen years. The effects were almost immediate in practically every and firewood, which cultivators can collect without ever showing them in area of farming. However, whilst the new rules were made public,27 essential information on the absolute levels of obligatory delivery prices before and after the reform was withheld.

^{26.} Yang Jianbai and Li Xuezeng, "The relations between agriculture, light industry and heavy industry in China," Social Sciences, Beijing, June 1980. 27. Renmin ribao, 24 December 1978.

The Chinese authorities have never been forthcoming with data on procurement and above-quota prices. On this occasion, the State Bureau of Commodity Prices made known the relative (percentage) increases which came into effect as from 1 April 1979.28 In the absence of unit prices, any quantitative analysis is dependent upon sifting through thousands of pages of general as well as specialized publications. The outcome of searches of this kind - even when they are supported by friends at universities, libraries and United Nations agencies - is bound to be patchy and far from satisfactory, since specifications such as, say, live weight or carcass weight, husked or unhusked grain, raw or refined sugar, as well as quality grades, are often lacking in the original sources. In the circumstances the results of any such analysis must be regarded as tentative and open to correction.

The reform of procurement prices in the spring of 1979 had been preceded in the course of the previous 30 years by no less than seven farm price increases, whilst the prices of farm requisites had been reduced 10 times. As a result the price index of farm products had increased by 130 per cent, whereas that of farm requisites had declined by almost 50 per cent, causing - so it was claimed - a great improvement in the " terms of trade " in agriculture. This argument is somewhat spurious since goods traded in the open markets were ignored whilst most of the industrial commodities needed in farming were available in small quantities only. A properly "weighted" statistical index would show a rather modest

The official procurement prices were raised for 18 groups of farm products. In the case of grains, vegetable oils and cotton - the " first category "agricultural products - the procurement prices were increased by 20 per cent, 25 per cent and 15 per cent respectively, in so far as deliveries did not exceed fixed quotas. Above-quota deliveries were rewarded by bonuses which ranged from 30 per cent for cotton to 50 per cent for grains and vegetable oils. However, these quantities formed part of the over-all planned delivery programme and were thus not available to communes and their members for disposal in the open markets. " Market socialism" was to supplement, not to supplant, economic planning. At a meeting of the State Planning Commission, Chen Yun, one of the most senior members of the Party's Central Committee and the grey eminence of Chinese economic planning, made it crystal clear that the market had a merely auxiliary function as against the supreme position of the plan.29 Price changes continued to be made by administrative fiat and not as a result of any substantive knowledge of supply and demand. Farm price changes therefore entailed political risks, particularly because of the involvement of the livestock sector, whose products fell into the second category of commodities. Price increases of 26 per cent for pigs and of 20-50 per cent for other animal protein products amounted to an open invitation to change the pattern of production in line with the new price ratios. Price fixing for "third

category" products, such as fruit and vegetables, were left to the

It was, of course, the intention of politicians and planners to break the supremacy of grain as "the key link." However, the reaction of communes, brigades and cultivators could hardly be anticipated with any degree of accuracy. In the circumstances, it would have seemed prudent to make known publicly what farm-gate prices had been before the reform and what they were to be thereafter. But this was not to be. Instead, price control directives were issued in rapid succession, when it became clear that producers and consumers had taken advantage of the new price ratios. In addition to stricter price controls, certain bonuses were offered for good behaviour and penalties were inflicted upon those who contravened the regulations. However, the temptation to benefit from the opportunities offered was too great to be resisted, when, for instance, the feeding of 4 to 5 units of grain to pigs or poultry yielded a net return at least twice as great as that earned by delivering the grain directly. It was hardly surprising that there was an immediate response, revealed in increased livestock numbers and meat supplies. The costs incurred, in terms of budget subsidies and foreign exchange, were substantial. Interdepartmental consultations with the Ministries of Finance and Foreign Trade had clearly not been as thorough as the

Little has been published over the years about farm-gate prices, their relations to each other, to domestic retail prices and to world market quotations, though some collections of data and assessments of their significance were made for the time of the first Five-year Plan and the years prior to the Cultural Revolution.30 As to the changes which took place in 1979, the full implications will only become known in a few years' time when the areas under different crops, the numbers of livestock and the quantities of farm inputs have been adjusted wholly to the new situation. For the moment, it seems clear that the relatively modest improvements in farm-gate prices achieved what they set out to do, but price ratios caused quite a few unexpected dislocations. Though no longer "the key link," grain continues to be the mainstay of humans and animals, and competition between the two has become keen. There are, of course, other areas where rivalry for the allocation of scarce resources exists. At present, oilseeds, sugar crops and cotton are doing rather well financially. This is largely due to the relative price advantages sained in spite of unchanged prices for inputs. When these decline the position should improve further. By comparison, vegetables seem to be at a disadvantage, and this is reflected in high and strongly fluctuating retail prices. Recently it was revealed that formerly "they [the peasants] could exchange 50 kilogrammes of vegetables for 20 kilogrammes of rice,

^{28.} Xinhua News Agency, 24 October 1979.

^{29.} Xinhua News Agency, 25 January 1982.

^{30.} Nai-Ruenn Chen, Chinese Economic Statistics (Edinburgh: University Press, 1967). Dwight H. Perkins, Price Formation in Communist China (unpublished thesis), Harvard, 1963; also, Market Control and Planning in Communist China (Cambridge, Mass.) Harvard University Press, 1966). Thomas B. Wiens, "Agricultural statistics," in A. Eckstein, Quantitative Measures of China's Economic Output (Ann Arbor: University of Michigan, 1980).

but with the new prices they get 2 kilogrammes less "31 - even small marginal changes can thus upset the balance of advantage. At current price ratios, milk, wool and tobacco also seem to lose out. Further state intervention at farm-gate level can therefore be expected in the future. This may affect, *inter alia*, the price of paddy, which is unduly low by comparison with other grains.

In spite of recent price changes, the "terms of trade" remain unfavourable for the farm sector as a whole. Farm requisites and other manufactured goods carry a heavy mark-up between factory-gate and farm-gate. Since this is one of the main contributors to the exchequer's revenue, it cannot easily be reduced unless other sources of revenue can be tapped. As long as present taxation policies are preferred to a rational, progressive form of taxation in industry, commerce and agriculture, farming will remain a relatively expensive - and in certain circumstances unprofitable - undertaking which needs to be underpinned by obligatory delivery and above-quota prices. One or two examples may illustrate the irrational nature of the existing system. Only since the price reform of 1979 can one unit of paddy be exchanged for approximately one unit of nitrogen fertilizer. This ratio was in operation in Taiwan some 20 years ago, when the Joint Commission on Rural Reconstruction began to use price ratios so as to influence the direction of farming. Nowadays, at least twice as much fertilizer can be bought for each unit of grain, and three times as much in the case of more valuable arable crops. Another example, from the Chinese professional press, may be quoted: some 5.5 tons of rice can buy a 20 hp tractor in Japan, whilst in China the ratio is 35.5 tons of rice against a 28 hp " East is Red" tractor.32 Thus, in comparison with manufactured goods, the mark-up of farm products is modest in the extreme and needs urgent reconsideration. This would, of course, have to be done in the light of the political implications which any such changes are bound to have.

At the retail level, grains and vegetable oils are sold at a loss. The state subsidy, which makes up for this, has been calculated to amount to 150 yuan for every urban dweller during the years 1979–81.33 Or, to put it in a different way, during this period some 44,000 million yuan were spent on subsidizing the purchase prices of farm products.34 Countries as widely different in their policies as Japan and Sri Lanka experienced considerable difficulties when they tried to reduce or abolish rice subsidies. Chinese planners must be aware of the fact that problems of this nature still lie ahead of them. International comparisons of farm prices – unlike those at retail level – are notoriously complicated since almost all countries subsidize their rural communities in one form or another. Moreover, official foreign exchange rates rarely reflect the purchasing power of farm products in different countries. Even so, a

large importer and exporter of farm products and foodstuffs, such as China, is bound to compare its price structure with that in the world markets. If a comparison of this kind is made, China's rice price looks unduly cheap, whilst oilseed, sugar, meat and eggs appear relatively expensive at official exchange rates. In the circumstances, food grain imports must seem attractive to Chinese trading organizations. As for Chinese manufactured goods, at official exchange rates they look like losing the country money in foreign markets. Much will thus have to be done in the years to come if producer and consumer prices are to correspond approximately to domestic factor costs and scarcity values and, where relevant, to world market quotations. It would be frivolous, though, to suggest that the correction of irrational prices and price ratios will be an easy operation.

The Future

The changes instigated in December 1978 have had far-reaching effects throughout the People's Republic. Leaving aside the traumatic memories of the recent past which have yet to be absorbed by the body politic, in the economic and social sphere the reforms which have been carried out look like showing signs of permanency. Rates of economic growth have been brought down to realistic levels; consumer goods are contributing a larger share than producer goods to the gross domestic product (though artificial prices still tend to distort the true situation); accumulation funds are being reduced to manageable proportions; and the capital investment allocated to the rural areas has been increased substantially. In agriculture, where in 1978 crop production accounted for more than two-thirds and animal husbandry for hardly one-eighth of total output, a shift towards industrial crops and animal protein is clearly discernible. The communes are changing their character in the course of the separation of administrative functions from those of management. The responsibility (contract) system, though covering by now most of the countryside, is still on trial, but for all practical purposes it is taking the place of the former labour-day and work-point systems. The "iron rice bowl," i.e. security of employment for life, is slowly being withdrawn from some of those the nation can do without. Thus encouraging changes have been made in many areas, but much remains to be done, and there is by no means full agreement among those in authority about how far to go. This applies, inter alia, to the one-child family programme which is known to be unpopular with commune members whose private plots need plenty of manual labour. As the villagers say, "the more labour force you have, the more income you can gain."35 There is also bound to be disagreement over the amount of preferential treatment which cultivators should be given in comparison with urban workers.

It would be presumptuous to suggest that we, who have failed in so

^{31.} Zhang Jinfu, "Upholding planned economy in agriculture," Beijing Review, 22 March 1982.

^{32.} Yang Jianbai and Li Xuezeng, "The relations between agriculture," p. 207, also, Jingji yanjiu, pp. 20, 21, December 1978.

^{33.} Xinhua News Agency, 12 March 1982.34. Xinhua News Agency, 12 December 1981.

^{35.} Jingji yanjiu, 20 June 1982, also, Ashwani Saith, " Economic incentives for the one-child family in rural China," CQ, September 1981.

many of our own endeavours, would have the right answers to China's open questions. Even so, a glance at comparative international data tends to reveal certain opportunities which have not so far been taken. Here are a few selected comparisons: whilst the People's Republic hardly lags behind Japan and the United States in the yield of paddy rice, there are great differences in the yields of other grains, industrial crops and animal products and in the productivity of farm labour, whether measured in relation to arable crops or livestock products. The fattening of pigs takes twice as long in China as in western countries, whilst the slaughter rate is half as high; yet, with the aid of artificial insemination, the existing pig breeds could be changed within a decade so as to do away with these impediments. China's nutrient ratio of chemical fertilizers is N (nitrogen): P,O, (phosphates): K,O (potash) equal 1:0.20:0.05, compared with about 1:1:1 in the case of Japan and 1:0.5:0.5 in the United States; yet at least one-sixth of China's arable land is in need of potash. Its almost total absence from the plant nutrient composition has detrimental effects on leafy crops such as cotton, sugar cane, potatoes, pulses and grass. (Natural manure, which has a favourable nutrient ratio of about 1:0.8:1, is primarily used on private vegetable plots, though commune members are obliged to hand some over to the public sector.) As for another sphere of chemical opportunity, any visit to a few communes or production brigades reveals an astonishingly large presence of pests and diseases, such as white aphids, leaf hoppers, weevils, stemborers, viruses and other enemies of arable crops, which are often neither identified nor controlled. Lack of know-how is aggravated by the absence of suitable counter-measures. Other examples could be added; suffice it to say that there are opportunities galore to improve China's farm output and farm labour productivity.

Ultimately, solutions will have to be sought by a combination of technological advances and the removal of present anomalies in the pattern of prices and price ratios for all factors of production. In the absence of a land rent, abolished some 30 years ago, of realistic rates of interest and capital depreciation, and of true transport and energy charges, this will be far from easy, particularly since every adjustment in the cost of factors of production carries the danger of causing dislocations elsewhere. Even so, it might be worth experimenting, for instance, with a two-price system in which differences in quality are the determining factor, instead of the present system, which is designed to differentiate primarily between the prices paid for products delivered within and above fixed quotas. Thus, the segregation, by price, of, say, first-quality rice and pork from the poor qualities which still provide the bulk of the domestic market supply, could save China subsidies, open overseas markets and yield precious foreign exchange. Possible negative social consequences of such changes would, of course, have to be weighed carefully against economic advantages. The intention to let the market assist the planners is a laudable one, but - as the last few years have shown - it is not easily practised. In the western world, we have long been accustomed to staying the invisible hand of the market forces,

if this was thought necessary. As a result, public corporations and private enterprises have learned to accept a precarious co-existence within the framework of various forms of the mixed economy. There is no reason why a similar arrangement should not be possible where "market socialism" is adopted by central planners. It has to be admitted, though, that an experiment of this kind does not yet appear to have succeeded anywhere else in the communist world. If in the People's Republic politicians and planners managed to merge two systems as inherently antagonistic as central planning and market socialism, it would indeed be a unique success.

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Urban School-leavers and Unemployment in Man 1983

China*

John Philip Emerson

Introduction

What is unemployment in China? For 20 years after the Great Leap Forward was officially credited with having achieved full employment in 1958. this question could not even be raised in the People's Republic of China. From the founding of the People's Republic in 1949 and up to 1958 unemployment problems had been prominently featured in the Chinese press. In 1978 unemployment again became a topic of discussion. The reappearance of unemployment as an acceptable subject of debate was a further indication of how much of Maoist ideology had been officially discarded since the death of Mao Zedong two years earlier. One Chinese summed up these changes as they related to employment problems in this way2:

Employment is a major economic as well as a major social problem. But from 1958 until the destruction of the "gang of four," problems of employment virtually constituted a taboo which could not be discussed in public. After the smashing of the "gang of four" and especially after the third plenary session of the 11th Party Congress (December 1978), a new employment policy was decided on. This was a strategic decision of immense significance.

Rates of Unemployment in Cities and Towns

This article analyses unemployment in the non-agricultural sector of the economy of China. Unemployment estimates given by Chinese in the past few years vary greatly from 10 million⁴ to 25 million⁵ for the same year in China's cities and towns. Unemployment as high as 20 million

*During the typing of the final revision of this article John Depauw called the author's attention to Yuko Akiyoshi Nihei, "Unemployment in China: policies, problems, and prospects," China Newsletter (a bimonthly English language publication of the Japan External Trade Organization (JETRO), Tokyo), May-June 1982, pp. 14-20. This is a valuable article, which anyone with a serious interest in the subject will want to read.

1. Zhao Lukuan (Chinese People's University), "Zai lun laodong jiuve wenti" (" More on the problem of employment"), Renkou yanjiu (Population Research) (hereafter cited as RKYJ), No. 4 (October 1981), p. 19.

2. Ibid. p. 18.

3. In this article unemployment is defined as the jobless portion of the labour force that is looking for work. The labour force equals the number of people at work plus the number of the unemployed. Here the labour force is divided into agricultural and non-agricultural sectors. The rate of unemployment is the number of unemployed given as a proportion of the labour force. Comparable data on the agricultural sector are not available.

4. State Planning Commission Vice-minister Gu Ming's 11 October 1979 statement is cited in British Broadcasting Corporation, Summary of World Broadcasts, Pt. III: The Far

East, 24 October 1979, W1054/A2.

5. Given in Cui Quanhong's article on employment and the Four Modernizations published in the unofficial Sihua luntan (Four Modernizations Forum), No. 1 (15 September 1979), and translated in U.S. Joint Publications Research Service (hereafter cited as JPRS), 74, 970 (21 January 1980), pp. 69-70.

yields a non-agricultural sector unemployment rate of 17-18 per cent, which is considered very high in most economies. If actual unemployment is as low as 10 million, the rate falls to 8.5-9.0 per cent, still high by most standards. The actual rate probably is nearer the lower end of this range, since unemployment rates compiled for selected provinces and major cities (Liaoning, Heilongjiang, Shandong, Shanghai and Tianjin) cluster close to 10 per cent. Shandong, with only 9.95 per cent of its population urban in 1979, is one of the least urbanized provinces of China. It claimed the lowest urban unemployment rate of any province, 2.3 per cent in 1979.

Ten per cent unemployment means that on the average there would be one jobless person in every five urban households, assuming that each household has two of its members in the labour force. Given a level of even 10 per cent unemployment, it is easy to see why discussions of employment problems are of immediate concern to so many urban Chinese, particularly to recent school-leavers. They are very real problems and cannot be wished away. Such concerns explain in part the heavy press coverage of the issue of unemployment in China since 1978.

How Reliable are Estimates of Urban Unemployment?

Before turning to the question of the quality of statistics on unemployment, let us consider briefly the probable reliability of official Chinese statements made for public consumption. It is probably safer to regard all such statements as at best incomplete and therefore distorted than to accept any of them at face value. There are many reasons why people in authority in China give incomplete answers to questions. Perhaps the commonest is fear of reprisal for telling the truth, if the actual facts differ from official policy. Another is fear of losing face, if one gives answers the questioner considers unsatisfactory. In such cases the respondent may hedge his replies in the hope that he can fool the questioner. In so doing he necessarily gives answers that are incomplete, if not downright inaccurate. Other reasons may include ignorance, laziness or at times simply the impossibility of giving complete factual answers.

These reasons also explain why public statements in Chinese sources are often nothing more than reiterations of official Party or government policy that bear little relation to actual conditions. For example, between 1958 and 1978 the standard answer to questions about differences in wages paid to men and women was that equal pay was given for equal work regardless of sex in China. This reply simply stated Party policy on wages, but it ignored actual inequalities in wage payments to men and women in China.

Keeping this caveat in mind, let us consider several recent statements on past unemployment in China attributed to Kang Yonghe, director of the State Bureau of Labour. Kang is a veteran labour leader who has worked for the Chinese Communist labour movement, at least since 1937. It hardly seems possible that his knowledge of labour conditions in China can be questioned. Yet the following is attributed to him.

Q: Didn't China eliminate unemployment long ago? Why are there still many people waiting for jobs?

A: In 1949, when New China was founded, there were about four million unemployed in the cities, a problem left over from the old society. At that time, the People's Government encouraged these people "to help themselves through productive labour" and provided them with jobs in public works as a kind of relief. The unemployed were organized and assigned to jobs, and unemployment was practically eliminated during the periods of national economic rehabilitation (1950–52) and the First Five-Year Plan (1952–57). Between 1957 and 1966 there was essentially no unemployment problem. 10

Kang's statements on the elimination of unemployment in the years 1950-52 and 1953-57 and the absence of unemployment in 1957-66 are contradicted by a great number of official statements, press dispatches and official studies on employment published in those years. For example, Minister of Agriculture Liao Luyan referred to "more than one million unemployed" in 1956. This number included only those registered as unemployed with municipal labour bureaus. Omitted were many others who for one reason or another preferred not to register as unemployed, viz. rural-to-urban migrants, school-leavers and many adults with working experience. In 1956 it was estimated that it would take five to seven years to solve the problem of urban unemployment. In addition, the 20 million industrial workers discharged in 1961 after the collapse of the Great Leap Forward certainly must have constituted a major employment problem.

However, there does not seem to be any reason to dispute what Director Kang has to say about the composition of urban unemployment at present. He writes that three groups of city people accounted for most of those who were looking for work in 1981: (1) secondary school graduates; (2) people earlier unable to work because of illness; and (3)

^{6.} For 1979, 94 million people are estimated to have been employed in the non-agricultural sector, according to John Philip Emerson, "The labor force of China, 1957-80," in U.S. Congress, Joint Economic Committee, John Hardt (ed.), *The Four Modernizations* (Washington, D.C., 1982), pp. 235-37. This chapter is hereafter cited as Emerson, 1982.

^{7.} Article by Liu Xun, Zhu Yuanzhen and Sun Keliang in Guangming ribao (Clarity Daily) (hereafter GMRB), 16 August 1981, translated in Foreign Broadcast Information Service, Daily Report, People's Republic of China (hereafter cited as FBIS), 1 September 1981, p. K11.

^{8. &}quot;Director Kang Yonghe of the State Bureau of Labour on employment questions," on Population and Other Problems (Beijing, 1981), pp. 61-66.

Donald W. Klein and Anne B. Clark, Biographic Dictionary of Chinese Communism: 1921-1965 (Cambridge, Massachusetts: Harvard University Press, 1971), Vol. I, pp. 429-

^{10. &}quot;Director Kang Yonghe," p. 62.

^{11. &}quot;Explanations of the draft 1956-67 national program for agricultural development," New China News Agency (NCNA), 25 January 1956; translated in 1219 (31 January 1956), p. 24.

^{12.} From Art. 39 of "Draft 12-year national program for agriculture," NCNA - English, 26 January 1956, in SCMP, No. 1219 (31 January 1956), p. 14.

^{13.} Figure cited by Deng Xiaoping in his 16 January 1980 speech at a national cadre convention in Beijing, published in *Zhengming (Contention)* (Hong Kong), 1 March 1980, and translated in *FBIS*, 19 March 1980, Supplement, p. 23.

young people who had returned from assignments to rural areas.14 Former secondary school students make up the majority of those looking for work, according to Kang. This claim is supported by a great number of press reports in local as well as national Chinese newspapers on successes achieved during the past few years in giving jobs to young people who had left school. These were usually first jobs. Of Kang's three groups of unemployed the first consisted for the most part of recent school-leavers and the third of Red Guards and others who had been summarily dispatched to rural areas after leaving school, some of them before the Cultural Revolution began in 1966 and most of the rest at the end of the 1960s and in the early 1970s. Although Kang does not mention it, these two groups were heavily sex-biased. Women make up 70 per cent of young people "waiting for work," according to reports.15 This imbalance reflects preferential hiring of men, and thus continues the traditional bias against economic roles for women outside the household in Chinese society.

Inconsistencies in Definitions

Next, let us examine the consistency of definitions of employment and unemployment in China, since an evaluation of each is a prerequisite to an overall appraisal of the quality of unemployment data. Among Chinese who have written recently on unemployment there appears to be little agreement either on a theoretical definition of employment or unemployment or on the definition of employment used by the labour bureaus and other bodies involved with the problem at the working level. Sun Jingxin of the State Council Population Census Office writes that there is no agreement on what constitutes employment in China. 16 The author goes on to give his opinion that a definition of urban employment should comprise permanent (guding) employment, temporary (linshi) employment, including the various kinds of employment organized under " street labour service companies " (jiedao laodong fuwu gongsi), and self-employment (geti laodongzhe) in the Chinese population 15 years of age and older. This apparently inclusive definition the author claims is the only one that will satisfy the requirements of "promoting simultaneously the following three kinds of employment: (1) that arranged by labour departments; (2) employment organized voluntarily (by local groups such as street committees); and (3) self-employment, under unified state planning and guidance." Finally, the author gives the percentage shares of each of these three categories, plus those waiting for employment. Permanent workers account for 85 per cent, temporary workers for 6 per cent (not including workers recruited by street organizations), street organization recruits plus the self-employed 3 per cent, and those waiting for employment (as the Chinese say) 6 per cent of the urban labour force.¹⁷

In practice, however, the definition of urban employment that is used in many provinces is not an inclusive one, according to the proceedings of an August 1981 conference on standards for defining the employed population:

In terms of types of work systems, permanent workers, collective workers, temporary workers, transferred workers, and self-employed labourers all ought to be counted as members of the employed population. But, in fact, labour departments in many places, when they collect employment statistics, often count as employed only personnel of [establishments] owned by the whole people or of large collectively owned [units], and omit the others from employment figures and count them as " waiting for employment."

Since unemployment was not publicly discussed for more than 20 years, it is not surprising that as yet no standard definition of unemployment has been agreed upon. The definition of unemployment currently used by the Census Bureau in the United States – jobless members of the labour force actively looking for work – was agreed upon only after years of debate among government officials, leaders of labour and civic organizations, and labour economists. Although unemployment had been a reality in China since time immemorial, few studies addressed the subject before or after 1949.¹⁹

Statistical Biases in Unemployment Estimates

Recent unemployment figures published in China indicate that large numbers of jobless people in urban areas are looking for work. But differences in the definitions of employment and unemployment in China, just noted, introduce marked statistical biases into local unemployment figures. For any given locality such figures may exaggerate or understate the actual size of unemployment, depending on the definitions of employment used. From the kinds of omissions in employment figures cited above (e.g. self-employment) it appears that unemployment is often substantially overstated in urban areas, perhaps by as much as 50 per cent. ²⁰ On the other hand, failure to list as unemployed all those who are looking for work understates the number who are actually unemployed. Women from households with several employed persons may constitute a substantial share of this kind of unaccounted unemployment. ²¹

17. Ibid. p. 36.

18. Renmin ribao (People's Daily) (RMRB), 3 October 1981, p. 5.

19. John Lossing Buck is one of the few writers on the pre-1949 economy of China who tried to measure unemployment by means of field samples. For this, see his Land Utilisation in China (Chicago 1937), pp. 288-301.

20. If a city lists 10% or more of the urban labour force as "waiting for employment" (i.e. unemployed), when half or more of those so listed actually have jobs, the number of unemployed has been overstated by 100% or more. This order of magnitude is suggested by the shares of employment attributed to the kinds of employment, permanent, temporary, etc., given above in the text. See RMRB, 3 October 1981, p. 5.

21. This form of discrimination against women is discussed in detail, as it was practised through 1957, in Marina Thorborg, Women in Nonagricultural Production in Post-

14. "Director Kang Yonghe," p. 61.

See, for example, the item entitled "Zhao gong zhong bu ying zhong nan ching nu"
 In recruiting men should not be favoured and women slighted"), Gongren ribao (The Daily Worker), 7 March 1982, p. 1.

^{16.} Sun Jingxin, RKYJ, No. 2 (29 March 1982), p. 35.

In addition to unemployment figures that are inconsistent because of the absence of a standard definition of unemployment, lack of usable statistical data on the urban population of China²² makes it impossible to construct a consistent series that shows changes in the size of the urban population over time, that is to say, changes in the population base from which most of the non-agricultural labour force is drawn. Data on non-agricultural population and labour force probably are no better. Some provinces report urban and rural population figures; others give non-agricultural and agricultural population figures.²³ The criterion used to distinguish non-agricultural from agricultural population is whether a particular individual is registered as eligible to receive urban grain rations, according to an account of the August 1980 conference on standards for defining the employed population.²⁴ It seems likely that this criterion is currently being used, not because it provides an accurate basis for measurement, but simply for want of anything better.

In conclusion, because of the deficiencies in basic population and employment statistics, it appears that at present China cannot make internally consistent estimates of unemployment in urban areas. Prospects for improvement in urban unemployment statistics appear slim, if it is assumed that the State Statistical Bureau is in fact responsible for the quality of unemployment data. The Bureau has the ultimate responsibility for the 1982 census of population. This task places extremely heavy burdens on its small staff now and for the next few years as data collected during the census-taking are processed. In these circumstances it seems unlikely that the Bureau will have reliable statistics on current employment and unemployment before 1984 at the earliest. On the other hand, if it has little or no say in the compilation of unemployment figures, but merely publishes data that the State Bureau of Labour passes on to it, the chances for improvement in these figures appear even less likely, given the lack of statistical expertise in the Bureau of Labour.

Looking for Work

The groups that make up most of existing urban unemployment and the reasons for the existence of such unemployment are basically the same as they were 25 years ago, after which unemployment officially

Revolutionary China, dissertation written in partial fulfilment of the requirements for a Doctorate of Philosophy, University of Uppsala (1980), pp. 85-90.

ceased to exist in China, as noted at the start of this article. Most of those looking for work in cities and towns are recent school-leavers looking for their first jobs and older school-leavers who have returned from rural areas since 1978. Members of the latter group originally were sent to rural communes and state farms, where they were to become part of the peasant labour force, in accordance with the Party policy of "going up to the mountains and down to the villages" (shangshan xiaxiang). The reported total number of youth dispatched to rural areas has varied over the years, but the number quoted most recently is 17 million to which, if family members are included, 5 to 10 million more must be added. 26

The unexpected, precipitous return of large numbers of youths from rural areas, starting at the end of 1978 and continuing through 1979 into 1980, greatly increased the number of people looking for work in cities and towns. It also increased the pressure on local authorities to find jobs for the unemployed. City after city was flooded with thousands and thousands of conspicuously idle youth (sometimes described as mobs by urban residents) who roamed the streets or camped in front of municipal Party or government headquarters demanding jobs, ration cards and other perquisites of registered urban residents.²⁷ Sending these youth back to the communes they had left was not an acceptable solution either to the youth or to Party leaders.

A look at past changes in the institutional framework of job hunting will help to explain why for the last 20 years urban youth have experienced so much trouble in finding their first jobs. China has few modern institutions that channel urban youth into gainful employment, paradoxical as this may seem in a country that claims to run its economy according to the provisions of state economic plans (including labour plans). By the end of the First Five-Year Plan period in 1957 demographic and legal changes and economic events combined to produce what seemed to economic planners to be a chronic excess of labour supply over demand for labour in urban areas. During the years 1953-57 non-agricultural employment had grown at an annual average rate of 1.3 per cent. But the urban population during this period had

^{22.} An outline of urban population statistics for China, giving the names of a number of tables of urban population statistical data currently used by the State Statistical Bureau (SSB), is contained in Wang Weizhi (comp.), Renkou tongji (Population Statistics) (Beijing 1981), pp. 35-39, but to date none of these tables with figures has appeared in published sources. The present official urban population time series is discontinuous, since urban population totals for recent years are not comparable to those the State Statistical Bureau published for the 1950s. For this, see Emerson (1982), p. 230.

^{23.} Examples of such reporting are the provincial population data published in Zhongguo baike nianjian 1980 (Chinese Encyclopedic Yearbook 1980) (Beijing 1980), pp. 62-115.

^{24.} RMRB, 3 October 1981, p. 5 confirms what is said in Wang Weizhi, Renkou tongji, p. 33.

^{25.} Thomas P. Bernstein, Up to the Mountains and Down to the Villages (New Haven: Yale University Press, 1977), treats this subject more fully than any other author has to date.

^{26.} Kang Yonghe, "Zhongguo chengzhen de laodong jiuye" ("Employment in cities and towns in China"), RKYJ, No. 1 (29 January 1982), p. 17, gives 17 million, as does Wu Youren, "Guanyu woguo shehuizhuyi chengshihua wenti" ("Problems of socialist urbanization in our country"), Renkou yu jingji (Population and Economy), No. 1 (15 September 1980), p. 20.

^{27.} A firsthand account of the return to the city from rural districts of large numbers of Shanghai youth is given in Thomas B. Gold, "Back to the city, the return of Shanghai's educated youth," The China Quarterly (hereafter cited as CQ), No. 84 (December 1980), pp. 755-70.

^{28.} Labour planning never became an effective working routine in China during the First Five-Year Plan period (1952-57). It was abandoned during the Great Leap Forward years (1958-60). Thereafter no attempts were made to restore it until 1978. For labour planning from 1952 to 1960, see John Philip Emerson, "Employment in mainland China: problems and prospects" (hereafter cited as Emerson, 1967), U.S. Congress, Joint Economic Committee, John Hardt (ed.), An Economic Profile of Mainland China (Washington, D.C., 1967), pp. 435-37. For labour planning since 1978, see Emerson, 1982, pp. 235-37.

grown at 5.7 per cent per year, more than four times as rapidly. Much of the urban population growth resulted from the addition of eight million peasant migrants to Chinese cities. Some of these migrants were attracted by levels of urban living that were much higher than those they knew first hand in their native villages; others were driven to migrate as a consequence of the social and economic dislocations that the land reform and socialization of agriculture entailed. Most migrants were in the working ages. They took jobs that urban residents, mostly schoolleavers, otherwise could have filled. Under the policy of devoting most investment resources to capital intensive heavy industry, the number of new jobs was small relative to the number possible had labour intensive light industry been given the lion's share of investment. In light of these considerations Party leaders and economic planners in 1957 and early 1958 foresaw little prospect of providing jobs in urban areas for urban youth entering the working ages (16-60 years of age for men and 16-55 years for women).29

Several alternative employment measures were considered and implemented at the time. One was to return peasant migrants and their dependants in cities and towns to their native villages. From 1955 to the present the Party has tried to do this intermittently with indifferent success. Although government prohibitions against rural-to-urban migration have become stricter over the years, peasants have continued to enter cities to do non-agricultural work. Between 1966 and 1976 the influx totalled 13 million, according to one writer. The continuing severity of the problem is indicated by the promulgation at the end of 1981 of a State Council notice on strict control of the flow of peasants into cities and of a prohibition against peasants becoming non-agricultural population. 32

One may ask why large numbers of peasants have continued to migrate to cities since the mid 1960s despite large-scale urban unemployment. Hunger and crushing rural poverty provide a general answer. As just noted, most migrants know that cities offer much higher levels of living than their rural communes ever can provide. Earning an average urban wage is probably the biggest single step a peasant can take to narrow the gap between rural and urban incomes. In addition to higher cash income, a job in a state-owned plant offers a variety of subsidized welfare benefits that amount to more than half the basic wage of an

29. This paragraph summarizes John Philip Emerson, "Chinese Communist Party views on labour utilization before and after 1958," Current Scene, Vol. I, No. 30 (2 April 1964), pp. 1-4.

30. Emerson, 1967, pp. 420-22 summarizes government efforts to control rural-tourban migration through 1964. Some additional details are given in John Philip Emerson, "Manpower absorption in the nonagricultural branches of the economy of Communist China, 1953-58," CQ, No. 7 (July-September 1961), pp. 69-84.

31. Kang Yonghe, "Zhongguo chengzhen de laodong jiuye," p. 17.

32. "Guowuyuan guanyu yange kongzhi nongcun laodongli jincheng zuogong he nongye renkou zhuanwei feinongye renkou de tongzhi " ("State Council notice on strict control over rural labour entering cities to work and agricultural population becoming non-agricultural population"), dated 31 December 1981, Zhonghua renmin gongheguo guowuyuan gongbao (Gazette of the State Council of the People's Republic of China), No. 27 (374) (10 February 1982), pp. 885-87.

urban worker.³³ Besides these material incentives to peasant migration to cities, educational opportunities, health facilities and welfare benefits available to registered urban residents and far superior to what peasants find at home are examples of urban levels of living that rural communes cannot hope to match.

Prior to the socialization of the economy, virtually completed in 1956, to a considerable extent demand for labour still determined how many people were hired. Outside the state sector people were still free to look for jobs in private and co-operative enterprises, and employers in these enterprises were free to hire whom they pleased. More important was the fact that as late as 1955 more than 13 million people, or more than one-third of total non-agricultural employment, was still self-employed in handicrafts, traditional means of transport (carts and junks), and traditional types of trade (stalls, peddling, etc.). In other words, people were hired as they were needed, or could provide themselves with work.

But in 1957 and 1958 traditional avenues to employment were all but closed off, as socialization transformed the great majority of cooperative and private establishments and individuals into state-owned enterprises. Jobhunters could not apply directly to such establishments for employment, nor could state enterprises hire directly the people they wanted. The state labour bureaus alone had the power to make job assignments and made them almost always without regard to the wishes of either employer or employee.³⁵

However, state enterprises frequently bypassed the labour bureaus by signing contracts with rural communes to hire gangs of peasants. The contracts specify so many men for so many months at so many yuan per month. This is called the contract-labour system. It originated soon after the universal formation of agricultural producer co-operatives in China in 1956 and has continued to the present in a variety of forms.³⁶

The enterprise hiring contract workers pays them at rates lower than the wages of permanent workers of the enterprise. In addition, the enterprise is not liable to pay the substantial subsidies that are required to finance the enterprise's share of a variety of welfare benefits that accrue to permanent workers, such as retirement, health care, housing, travel, burial and others.³⁷ The enterprise clearly benefits in cash terms from hiring contract labour. Such hiring also enables it to obtain the kinds of

33. Average wages and values of welfare subsidies in *yuan* are given below under "The importance of jobs to urban youth."

34. Bureau of the Census, John Philip Emerson, Nonagricultural Employment in Mainland China: 1949-1958, International Population Statistics Reports, Series P-90, No. 21 (Washington, D.C., 1965), pp. 83, 128, 140 and 141. This report is hereafter cited as Bureau of the Census, 1965.

35. Even scarce technical specialists and professionally trained personnel were often or perhaps generally given job assignments that had little or nothing to do with their job experience, training or educational background. Some details are given in Bureau of Economic Analysis, John Philip Emerson, Administrative and Technical Manpower in the People's Republic of China, International Population Reports, Series P-95, No. 72 (Washington, D.C., 1973), pp. 73-85.

36. Emerson, 1982, pp. 251-52.

37. For additional details on subsidies that accrue to non-agricultural workers, see "The importance of jobs to urban youth" below.

workers it wants to a far greater extent than hiring through labour bureaus allows.

Construction work is an obvious example of the demand for contract labour. Hiring of contract labour satisfied construction firms' needs for specified numbers of workers on fixed term projects and was an ideal way to meet demands for temporary labour. The contract-labour system still allowed construction firms to observe the government ban on permanent rural-to-urban migration.

The contract-labour system apparently has worked well for more than 20 years. But it also made contract-labour peasants aware of the advantages and opportunities available for making a living in cities and towns. Since urban levels of living, as noted above, are generally much higher than those in rural communes.38 it was only natural that many contract workers tried to stay on in cities after the expiration of their contracts by obtaining other gainful employment. If one accepts a reported total of 13 million rural-to-urban peasant migrants between 1966 and 1976, it appears that many contract workers did succeed in remaining in cities.39

In summary, institutional changes in the 1950s narrowed employment opportunities for youth in urban areas. The socialization of all enterprises destroyed all but a few traces of a labour market that brings together prospective employers and employees. Labour bureaus monopolized job assignments in urban areas except for labour contracts signed under terms of the contract-labour system. Peasants entering cities to work under contract to city enterprises reduced the number of jobs open to city youth. 40 Peasant migrants who succeeded in staying on in cities took jobs away from the same youth permanently.

In contrast to the severe institutional restrictions on job opportunities for urban youth, the employment reforms begun in 1979 opened up a wide variety of jobs to these same youths. Many of these jobs had been eliminated many years before, when socialization of the economy did away with most forms of self-employment. Following Xue Muqiao's lead in advocating these and other reforms designed to modernize the economy,41 dozens and dozens of writers of varying professional

38. It costs three times as much to raise an urban youth as it does a peasant youth in China, according to a recent survey. This is a crude measure of the differences in goods and services available per capita in urban and rural areas of China. For the survey results, see Yu Wang's article on population, education, and the economy, RKYJ, No. 2 (April 1981), pp. 4-10, esp. p. 10.

39. In Emerson, 1982, p. 250, the author accepted as true official statements that the official prohibition against rural-to-urban migration was working successfully in preventing migration. He has changed his mind since the appearance at the start of 1982 of Kang Yonghe's statement that urban areas absorbed 13 million peasant migrants between 1966 and 1976. For this, see Kang Yonghe, "Zhongguo chengzhen de laodong jiuye," p. 17.

40. Emerson, 1982, p. 251.

backgrounds have elaborated on the need for drastic reform of hiring practices in urban areas.42 Publication of their articles was part of the nationwide campaign to establish new enterprises to fulfil unmet consumer demands for various kinds of goods and services that had become moribund or had completely disappeared under one form or another of official proscription. Collective ownership or private ownership (generally meaning self-employment) were the forms of ownership most often recommended for these new enterprises to provide consumer goods and services, because neither required much capital investment. They were generally labour intensive and service orientated.43

In addition to consumer services narrowly defined, construction, transport and industrial activities were to be expanded for the benefit of consumers. Construction was to include enterprises engaged mostly in light contracting and carpentry for the repair and construction of dwellings, while transport activities were to centre on short distance intra-city hauling, such as moving the household effects of individual families or the offices of small businesses.44 Manufacturing was to include a great variety of products (both heavy and light industry) which were to be made in plants under collective ownership (i.e. plants responsible for their own profits and losses).45

Success of the New Policies

What have the new employment policies achieved? According to Kang Yonghe, 29 million people were hired as workers and employees, most of them in urban areas, during the four years 1977-80,46 or more than seven million per year on the average. Such sustained non-agricultural employment increases, amounting to nearly 9 per cent of the urban labour force in some years, are unprecedented in the history of the People's Republic. However, it should be noted that probably about 16 million, or more than half of the total gain is attributable to labour turnover in state-owned plants.47 The creation of new jobs accounts for

42. See, for example, Chengzhen jiti jingji yanjiu (Urban Collective Economic Studies) Beijing, 1981. This is a collection of 10 reports and 18 studies presented at a conference held in Shenyang in January 1980 on the urban collective economy.

43. A redefinition of services as a branch of the economy was given in the official State Statistical Bureau journal, Tongji (Statistics) (hereafter cited as TJ), No. 3 (10 August 1981), p. 10. According to this definition, services include trade, material supply, (prepared) food and drink, hotels, hostels, trades engaged in repairing consumer goods, barbering, bath-houses, photography, cleaning and dyeing, sewing and other service trades orientated towards the resident population. For the old definition, which included only hotels, bath-houses, barbers, photographic studios and cleaning and dyeing establishments, see Bureau of the Census, 1965, p. 154.

44. Xue Muqiao, BR, No. 33 (13 August 1979), pp. 13-15.

45. In her "Recent Chinese labour policies and the transformation of industrial organization in China," CQ, No. 88 (December 1981), pp. 578-79, Susan L. Shirk reports on differences between big collective industrial enterprises and state-owned industrial plants. Other examples of collectives are described briefly in " Urban collective economy: development or eliminate it," BR, No. 35 (31 August 1979), pp. 9-14.

46. Kang Yonghe, " Zhongguo chengzhen laodong jiuye," p. 17.

^{41.} In 1979 Xue Muqiao was perhaps the most outspoken critic of the existing labour bureau monopoly of job allocation, as his remarks in Beijing Review (hereafter cited as BR), No. 33 (13 August, 1979), pp. 13-15, make clear. He is a highly respected advocate of the need for basic reform of the entire economic system of China, adviser to the State Planning Commission (SPC), and director of the SPC's Economic Research Institute.

^{47.} Labour turnover accounts for a growing share of employment in an economy, as the working population ages and more members retire or die each year. Also part of labour

the remainder. As the working population of China ages, labour turnover will continue to provide employment for increasing numbers of new entrants to the urban labour force. However, even when labour turnover is taken into account, the achievements in providing new urban jobs in China since 1976 are impressive.

Comparing the shares of new jobs attributable to the three classes of enterprise ownership - state, collective and private (including selfemployment) - reveals the importance of urban collective enterprises in creating new jobs in the past few years. Of the 13 million new jobs created during the years 1977-80, collective enterprises provided 12 million or 92 per cent,48 while the number of self-employed grew by less than one million. During these years, according to contemporary accounts, state-owned plants reached the saturation point level,49 implying serious overstaffing. Most of the job openings found in these plants resulted from labour turnover, that is the replacement of older workers as they retired, by family members of the next generation.

In late 1981 self-employment totalled 810,000 people in more than 400,000 establishments, less than 3 per cent of the 29 million people newly hired during the years 1977-80.50 Even if in the next few years selfemployment expands to four or five times its size in 1981, it will account for no more than 15 per cent of new jobs, assuming the numbers of jobhunters and job openings in urban areas remain constant for the next few years at the 1977-80 average level of about seven million per year. Such people probably will be older, more experienced, with special skills that are in demand; for example, tailors, music and foreign language teachers, and people with traditional brush and related skills, to name but a few.

At present and for the foreseeable future trade, food and drink, consumer service enterprises, most of which are collectively owned, offer the greatest promise of new jobs. This is partly because of a steep

turnover is the number of people who give up work and leave the labour force. But this number is thought to be negligible in China, even among young mothers, and so need not be considered here. Implementation of the substitution system (dingti zhi - see Emerson, 1982, pp. 252-53 for details) has sharply increased numbers of people retiring in the past few years in urban areas. The total number of workers and employees grew by only 13 million between 1977 and 1980 from 91 to 104 million (given in Bureau of the Census, The Growth of the Chinese Labour Force: 1952-1980, by John Philip Emerson, Appendix Table 1, forthcoming in the International Population Reports, Series P-95), leaving 16 million to be accounted for by labour turnover. Chinese authorities to date, it should be noted, have said nothing in published materials to indicate that they are aware of the importance of labour turnover in providing employment openings.

48. Employment data by state and collective ownership and by branch of the economy for 1979 and 1980 are given in Zhongguo gongshang chiye minglu (Checklist of Chinese Industrial and Commercial Enterprises) (Beijing, 1981), pp. 1-3.

49. E.g. see Changsha Hunan Provincial Service in Mandarin, 2315 GMT, 8 October 1980, Hong Kong; translated in FBIS, No. 208 (22 October 1980), P-2.

50. Priscilla Stowe, U.S. Department of State, supplied the data on self-employment. For the virtual elimination of the non-agricultural private sector by the end of 1958, see Emerson, 1982, p. 263. A detailed study of self-employment in China, entitled " Zhongguo xianjieduan geti jingji yanjiu" ("Studies of self-employment in China today"), published in Jingji wenti tansuo (Economic Studies Inquiry), Supplement No. 1 (15) (March?), 1982 (Kunming?), 99 pp., gives more data on self-employment in China than any other work known to this author.

reduction in the number of such enterprises during the 20 years of neglect after 1958, as Xue Muqiao has repeatedly noted,⁵¹ and partly because of the leadership's commitment to provide more consumer goods and consumer services to the Chinese people.52 Employment in these branches of the economy (trade and services) as a share of total nonagricultural employment fell from about 22 per cent in 195753 to less than 10 per cent in 1978.54 A recent forecast suggests a possible recovery to 25 per cent, implying a potential employment increase of more than 25 million people in these branches.55

The Chinese press has widely publicized municipal labour service companies as very successful providers of jobs. These companies originated in mid 1980 as part of the government youth job programme. They generally consist of a municipal headquarters, district branches and neighbourhood stations. Distinct and separate from the local labour bureaus, they function as labour brokers, bringing together people in need of various services and those able to provide these services. They also run job-training programmes.56 At the very least labour service companies represent a government commitment at the grassroots level to provide school-leavers and other urban youth with jobs. At the end of 1981 there were 2,300 labour service companies, which had organized 32,000 urban collective economic units, and had given employment or training to 2.35 million people.57

The Importance of Jobs to Urban Youth

What does it mean to get a job in the cities and towns of China today? Why has the Chinese press given so much publicity during the past three years to the problem of assigning school-leavers their first jobs? Besides birth, marriage and death, getting one's first job is the most important event in the lives of most urban Chinese. For many, perhaps most urban Chinese, the first job is often the last - a lifelong occupation that ends only with retirement or death. Obtaining a job is a " must " today for both men and women who plan to marry.

Given the importance of a job to urban Chinese, parents will use any

51. E.g. Xue Muqiao, BR, No. 33 (17 August 1979), pp. 13-14.

52. Enterprises established to satisfy consumer wants form the most important parts of very successful provincial employment programmes. For example, expansion of trade (including food and drink) and services were the first two of Liaoning's six avenues to employment, a programme that raised the number of workers and employees by 40% during the four years 1977-80, according to an article on Liaoning in RMRB, 14 June 1981, p. 1.

53. Bureau of the Census, 1965, p. 128.

- 54. An article by Bao Guangchian, RMRB, 13 August 1979, p. 2, gives 9.5% as the service trades' share of the total number of workers and employees in 1978. This overall figure is supported by data for dozens of Chinese cities analysed in terms of economic functions in Wu Youren, " Guanyu woguo chengzhen renkou laodong goucheng de chubu yanjiu" ("A preliminary study of the labour structure of city and town population in China "), Dili xuebao (Acta Geographica Sinica), Vol. 36, No. 2 (June 1981), pp. 128-32.
- 56. The principal functions of labour service companies are spelled out in a front page article on the Tianjin company in Tianjin ribao (Tianmin Daily), 19 July 1980.

57. Kang Yonghe, "Zhongguo chengzhen de laodong jiuye," p. 18.

influence they command to secure any conceivable advantage to help their children in finding work. This process of looking for the best job possible begins long before a child leaves school. The concern of parents for the first jobs of their children is not wholly altruistic. If the children are unmarried and live with their parents, once employed, they bring home wages which add to the overall family income.

Higher wage levels, many more welfare perquisites, and much greater job security are the principal reasons why Chinese value permanent jobs in state-owned enterprises much more highly than any other type of employment. In 1980 the average wage of workers and employees in state-owned enterprises was 803 yuan, nearly 30 per cent higher than the average wage of 624 yuan paid in collectively-owned establishments. Moreover, the real value of the wages paid to permanent workers in state-owned enterprises is even greater. In 1978, for example, permanent workers in state-owned enterprises enjoyed subsidized benefits that averaged 526 yuan per worker. This figure is 82 per cent of the average wage of 644 yuan paid to permanent workers in state-owned enterprises in that year. Workers in collectively-owned establishments enjoy few of these subsidies.

Once hired as a permanent worker, it is almost impossible for a person to be fired. Such jobs are described by the metaphor "iron rice bowl" (tie fanwan), that symbolizes an irrevocable employment bond, once a person has been formally hired. Though it is now fashionable to denounce "iron rice bowl" employment in the Chinese press, such criticisms only bear witness to the strength and vitality of this institution.62

Let us consider the hardships Chinese endure as a matter of course in order to work in state-owned enterprises. A person living on one side of Beijing and working on the other, for example, may for years spend four hours or more each day commuting to and from work, because, once assigned, neither place of work nor habitation can be changed. Husbands and wives who are assigned work in different cities often live and work apart for years and see each other for only a week or two of leave each year, because neither can secure a transfer. The recurrence

58. For details, see Susan L. Shirk, "Recent Chinese labour policies," pp. 576-79.

of reports of such cases in the Chinese press do not suggest that the situation has improved much, if at all, in recent years.

With the socialization of China's economy, job mobility in China over the past 25 years has existed only in the form of reassignment, usually involuntary or through pressured "volunteerism." Shanghai has become well known over the years for the large number of professionally and technically trained people it has sent to other parts of China, especially Xinjiang. Such assignments almost always mean a change for the worse for the workers transferred, since they entail a shift from the city to a rural commune, state farm or sub-standard border region.

Future Prospects

One of the two urban unemployment estimates cited near the beginning of this article, 25 million 1978, is two-and-one-half times as large as the other, 10 million for the same year. The magnitude of the difference between these two figures is closely matched by two estimates of unemployment in rural areas in 1978, one of 90 million and the other of 40 million, indicating very high levels of unemployment of between 15 and 33 per cent among Chinese peasants. Evaluation of the validity of these figures is beyond the scope of this article. However, there is no reason to think that the very large differences in unemployment estimates for either urban or rural districts will soon be resolved.

Whatever unemployment in the cities and towns of China actually was in 1978 or later, it is clear from many reports that it was larger than the number of unemployed for whom employment could be found in any one year. This accumulated backlog of jobless people looking for work in urban areas is not expected to be eliminated at least until 1985, according to Kang Yonghe. A target total of 30 million new jobs between 1980 and 1985 was announced as a national goal for urban China at a Party conference on employment held in the summer of 1980. During these same years middle school graduates in urban areas will total 18.65 million, or 3.1 million per year on the average. Most of these school-leavers will be looking for work. In addition, each year there will probably be at least several million other jobless people looking for work – young people returning from rural areas, increasing numbers of discharged servicemen, and miscellaneous groups. However, the total number of young people looking for work will decline far below the

64. Cui Quanhong, Sihua luntun, No. 1.

^{59.} Susan L. Shirk, Career Incentives and Student Strategies in China (Berkeley and Los Angeles, 1982), passim.

^{60.} Communiqué of the State Statistical Bureau of the People's Republic of China on Fulfilment of China's 1980 National Economic Plan, dated 29 April 1981 (Beijing, 1981) p. 31 (Chinese text) and p. 54 (English text).

^{61.} This figure is cited in Xiang Chiyuan, "Zhongguo de jingji fazhan he renmin de shouru fenpei" ("Economic development of China and income distribution among the people"), in Xu Dixin (ed.), Zhongguo guomin jingji fazhan zhong de wenti (Problems in the Development of China's National Economy) (Beijing, 1981), p. 61. The author is indebted to Professor Nicholas Lardy for calling his attention to this source on subsidies associated with the wages of workers in state-owned establishments.

^{62.} Susan L. Shirk, "Recent Chinese labour policies," pp. 575-90, gives many details on recruitment, wages, and bonuses in China today.

^{63.} Job mobility disappeared 25 years ago with the socialization of the economy. It is practically impossible to change one's place of work, once assigned to a job.

^{65.} Qimeng (Enlightenment), undated; translated in JPRS, 73,987 (9 August 1979), p. 69.

^{66.} In RMRB, 29 June 1981, p. 1, 10 provinces were reported to have given employment to all those looking for work in 1979, and that 14 other provinces would do the same in 1980.

^{67.} Kang Yonghe, "Zhongguo chengzhen de laodong jiuye," p. 18.

^{68.} Yuko Akiyoshi Nihei, "Unemployment in China," p. 15.

Article by Lin Lu, Dongxiang (Trend) (Hong Kong), No. 12 (16 September 1979),
 According to appropried plans the size of the Dongxiang (Trend)

^{70.} According to announced plans, the size of the People's Liberation Army is to be reduced by more than one million by 1985.

10 million or more of the past few years, as the flood of youth returning from rural districts diminishes and employment is found for them.

To sum up, in urban areas of China today, school-leavers make up the largest group of jobless persons looking for work, as they did 25 years ago. Most of them are looking for their first jobs, which school-leavers have found difficult to obtain throughout these years because of rigid bureaucratic control of job assignments. In addition, starting in 1978 and continuing to the present, millions of so-called educated (i.e. literate) youth "sent down" years ago to rural communes and state farms have returned to the cities and have been looking for work. They have more than doubled the number of jobless young people. Although the number of jobless youth looking for work can be expected to decline somewhat by 1985, it will remain far above the 1957 level.

The Staff of Life: Living Standards in China, 1977-81*

W. Klatt

"Living standards have improved, but levels are low and not even." These words are contained in an appraisal by two senior members of the State Statistical Bureau of the People's Republic of China, which seems to be the first detailed account in years, written for the benefit of foreigners who are interested in the well-being of the people of China. Other, briefer statements have been available lately, but none of such authenticity. In this respect, December 1978 can be taken as the point of departure: since then, not only have major political and economic changes occurred, but the non-Chinese world has been allowed to participate in these changes and to take account of their successes and failures. Even the language in which official reports are made astonishes.2 Admittedly, reforms had preceded the third plenary session of the 11th Central Committee of the Chinese Communist Party held in December 1978. The plenum was the occasion when China's policies underwent a dramatic shift from Hua Guofeng's doctrinal concept to a more "pragmatic" approach, with problems being tackled as they arose. Strategy and tactics were revised, following a re-evaluation of major political events, organizational change at the highest political level, a reassessment of Mao's role in the history of the People's Republic and the revision of economic targets. A stable future seemed to be guaranteed by the election of Hu Yaobang to the Politbureau and - a little later - the appointment of Zhao Ziyang as premier in overall charge of modernization, as Deng Xiaoping interpreted this concept. Within a few months Hua Guofeng's modernization projects suffered some drastic amendments and his 10-year Plan in particular was abandoned. In its place, the plenum considered the "eight-character charter" of readjustment, reform, consolidation and improvement. In the countryside, which still provides work and a home for the largest number of men and women, agriculture was given the highest priority - but this time in earnest and not, as during the previous two decades, merely as a slogan.

When splendid isolation had befallen China after 1957, analysts were

^{*} This is an abridged version of a paper written following research on wages, prices, incomes and living standards in China between 1977 and 1981. I am indebted for invaluable help received from Professor Kenneth Walker and Dr Roderick MacFarquhar; from colleagues and former colleagues in three continents, some of whom prefer not to be singled out for special mention; and from Mr A. S. B. Olver and Brigadier G. B. Hickey of the Universities' China Committee, whose financial assistance made possible a trip to China in September/October 1981.

Li Chengrui and Zhang Zhanji, "Remarkable improvement in living standards," Beijing Review, 26 April 1982.

^{2.} Xinhua News Agency, 29 April 1982.

China's Economic Growth Since 1949 – An Assessment*

Shigeru Ishikawa

Introduction

Western economists who are interested in the analysis of the contemporary Chinese economy are currently confronted with challenging analytical tasks arising from two remarkable events. The first is the new post-Mao government's attempt to reform the economic system of centralized, physical planning that characterized the Mao regime in the direction of a system of decentralized and marketorientated planning (referred to as " reform " policy). Side by side with this systemic reform, the previous development policy of high growth and high investment, which gave top priority to heavy industry, is being replaced by a new one which aims at securing a steady increase in personal consumption and in which investment allocation is weighted in favour of light industry and agriculture. Of these new strategies, the latter is already being rigorously put into force (and even accompanied by a drastic deflatory effect), starting with an interim measure to reduce the over-inflated production of heavy industry in favour of raising that of light industry and agriculture (referred to as "adjustment" policy). The former component for the systemic reform of the economy is still at an experimental stage, but Chinese planners and economists appear to be very busy in discussing and preparing even more comprehensive reforms.

The second event is that, since early 1979, the new government has discontinued the policy, enforced after 1960, of withholding the publication of economic statistics and other information and has begun releasing data. The extent of publication is not as yet comprehensive, and seems to depend on the speed of building up staff and facilities of the State Statistical Bureau, both of which were drastically reduced during the period of statistical blackout. On the basis of the statistics already published, however, many of the gaps in our knowledge of China's

economic changes in the 1960s and the 1970s may already be filled in, and it has become possible for us to have some broad understanding at least of China's current economic problems set in the context of the whole period of the People's Republic.

These two events, though both of a different nature, are nevertheless closely interrelated from the economist's point of view, since a proper evaluation of the new economic strategies and their prospects is possible only after the newly-published economic statistics are carefully examined and thus the current economic problems are reasonably well comprehended.

This article is mainly concerned with the task arising from the second event. It attempts to examine the statistical and other information thus far revealed, on a basis of which a tentative assessment of China's economic growth since 1949 and the factors underlying it may be made. Emphasis is placed on the macroeconomic aspect, though for an exploration of the underlying factors various other aspects should not be overlooked. In terms of growth phases, those under the Mao regime are given priority in the article.

Under the heading "Growth performance and underlying factors" nine topics will be examined:

- 1. output growth and structural transformation;
- 2. population growth and employment;
- 3. wages and personal consumption;
- 4. investment and its effectiveness;
- 5. incentives and work efforts in industry;
- agricultural production, marketing and incentives;
- 7. local industries an aspect of dualistic development;
- 8. foreign trade and technology import; and
- 9. the causes of economic fluctuations.

The section following on from this entitled "The overall growth process" attempts to clarify the interrelationship of the findings of 1 to 9 and thereby to outline the overall macroeconomic growth process of the economy under the Mao regime. An attempt to explain this growth process requires investigations of the underlying multi-dimensional factors relating to a macroeconomic growth mechanism, economic structure, economic system and strategies and even social and political situations. Finally, the discussion concludes by indicating the implications of the findings brought out in the preceding section for the current programme of economic reform and, moreover, for the economic performance of China during the post-Mao period.

Growth Performance and Underlying Factors

- 1. Output Growth and Structural Transformation. The statistical data recently released enables us to derive directly annual values of major output indicators for the entire period of the People's Republic such as national income, total values of agricultural and industrial production
- 1. The concept of national income used in this paper is consistently on the lines of the

In the process of preparing this paper I have benefited greatly from discussions I had with the Chinese economists and planners in China during September and October 1981. My trip to China was arranged under the programme for the exchange of scholars which was agreed upon between the Chinese Social Science Academy and the Japan Association for the Promotion of Science. I wish to express most sincere appreciation to both organizations as well as to those who taught me in China, in particular to Dr Dong Fureng of the Economics Research Institute. I also would like to thank Professors Wlodzimiernz Brus, Dong Fureng, Reiitsu Kojima, Nicholas Lardy, Leo A. Orleans, K. N. Raj, Thomas Rawski and Sueo Sekiguchi for useful comments on an original draft of the article. Of course, I am solely responsible for any errors and mistakes that may remain. I also wish to note that in conjunction with the preparation of this article, I prepared a paper entitled " China's economic system reform: underlying factors and prospects " for presentation at a conference on " China in Transition " held at Queen Elizabeth House, Oxford, between 7 and 10 September 1982. The latter article discusses the institutional and organizational aspects of China's economic growth in the entire period of the People's Republic, which are touched on only briefly in the present article. As for the factors relating to these aspects, the readers are requested to refer to it.

and the amount of food grain production. Since an annual population series has also become available, the same output series on a per capita basis can also be derived. Following familiar methods of observing output growth, we can calculate on the basis of these data two sets of the trend annual rates of growth of these variables, as shown in Table 1. The significance of the periodization used in this table is obvious in so far as Phase III is concerned, as it is the period under the post-Mao government and also under the recent attempt to bring about major economic reform. The period that was under Mao's leadership and prior to the same economic reform is divided into the pre-Cultural Revolution phase (Phase I) and the Cultural Revolution Phase (Phase II). We are here simply interested in checking on whether and how the economic performance of Phase II was very poor as it is often officially claimed to be.

The table, however, indicates that the trend annual growth rates of all the indicators were fairly high, when compared with other developing countries, both in Phases I and II. Exceptions to this were the negative growth rates of per capita food grain and agricultural output exhibited in Phase I. The growth rates of Phase III for national income, light industrial production and agricultural production are higher than in the previous phases. This, however, may be simply due to the favourable initial impact of the "adjustment" policy which is, in effect, once-and-for-all, and the final assessment can be made only some years later. As a result of this steady increase in output, the population increase of over 400 million was made possible in the past 30 years. Yet the per capita national income of China remained very low by international standards.²

One important reservation regarding the output performance observed above is that, in Phase II, China's practices of compiling industrial output statistics allowed counting in the value of final gross output the output of those products which are rejected and also the output of those products the technical qualities of which are not inferior but are unsaleable as the consumer demand simply did not exist. The amount of such products was very large during the Great Leap years. The emergence of the same phenomenon was frequently reported in the past few years in the official publications with the remarks that the industrial output figures of the state-owned enterprise sector in Phase II and after included

Industry, Agriculture and Food Grains, and Population: Absolute Amounts

			Phase I (1952-66)	(57-66)	Phase	Phase II (1966-76)	Phase	Phase III (1976-80)	Annual rate
				Annual rate		Annual rate		Annual rate	of growth:
		1952	9961	ofgrowth	9261	ofgrowth	1980	of growth	1952-80
	1. National Income (NDMP)								
	- billion yuan, 1970							3 07 0	(3 3) 1 7
1150	prices	65.4	151.0	6.2 (4.0)	245.60	5.0 (7.0)	338-90	8.4 (8.3)	(0.0)
7	Total value of industrial								
0.00%	production - billion	2 20	144.0	12 6 (10.6)	126.10	8.5(11.3)	499.20	11.2 (11.2)	10.9 (9.8)
1	yuan, 1970 prices	5/17	•	(0.01) 0.71	01.070				
3	Heavy industry								
	production - billion	Ċ	,	16 2 7 1 4 4)	183.10	9.7(13.6)	264.80	9.7 (13.6)	13-0(11-3)
1	yuan, 1970 prices	ò	5.7	10.3 (14.4)	103.10	(0.51)			
4	Light industry production								
	- billion yuan, 1970		-	1		2000	234 40	13.2 (12.6)	9.5 (8.4)
	prices	18.7	72-3	10.2 (7.4)	143.00	(6.0)0.7	4	(0.41) 7.01	
5	Total value of								
	agricultural production -		1	;		6000	02 671	5.4(6.1)	3.4 (3.4)
	billion yuan, 1970 prices	63.6	4.7	2.9 (1.4)	131.70	3.4 (3.8)	107:70	(1.0)	
9	Amount of food grain								
	production -			,		4 670 6	218 22	2.7 (3.8)	2.4 (2.5)
	unprocessed, million tons	163.9	213.9	1.9 (0.9)	286-30	2.0 (2.4)	77.016	(0.0)	i
7					0. 500	4000	47.74	1.3(1.3)	2.0(2.0)
	average million persons	568.2	735.6	1.9(1.7)	926-19	(4.7) (7.4)	10.076	(6.1) 6.1	
00	Per capita national								,
	income - yuan in 1970					9 55 5	247 00	7.07.13	4.0 (3.5)
	prices	115.0	205.3	4.2(2.3)	265.20	7.0 (4-4)	8.1	(1)	
6	Per capita food grain						00 500	1403.40	0.4 (0.5)
	output - unprocessed, tons	288.0	291.0	0.1(-1.0)	309.00	0.6(1.0)	370.07	(4.7) +. 1	(0.0)

growth between the years at both ends of the phase indicated. Each figure thod. l as a compound annual rate of growth between the years at both ends of the phase indicated. Each ristinated by the least squares method.
for Figure 1, Wang Weizhi, Renkou tongji (Population Statistics) (Beijing: Qunzhong Publishing, 1981).

official Chinese one of the net domestic material product (NDMP). See my National Income and Capital Formation in Mainland China (Tokyo: Institute of Asian Economic Affairs, 1965), pp. 5-9. According to the State Statistical Bureau, the adjustment which the Bureau makes in order to convert the value of national income in the Chinese concept (NDMP) to the value of GDP in the western concept, is to add to the value of NDMP the values of the service industry income and depreciation of fixed capital assets, which amount to 7% and 6%, respectively, of the NDMP value. Net factor income accrued abroad is said to be negligible; hence the value of GDP is almost equal to the value of GNP. It follows that per capita NDMP in 1980 in current prices, of 371 yuan, corresponds to per capita GNP of 419 yuan in current prices.

^{2.} Converting the above value of per capita GNP of 419 yuan to US\$ value, using the average official exchange rate in 1980 of 1.5 yuan = 1 dollar, it is only 279 dollars. Compare this with the per capita GNP of other low-income developing countries as derived in The World Bank, World Development Report 1981 (August 1981), p. 134 using the same method.

China's Economic Growth since 1949-An Assessment

an "empty" portion (shuifen) of considerable extent. The relative weight of the empty portion and how it varied over time are not easy to confirm, although it appeared significant in the late part of Phase II and the early part of Phase I.4 Therefore, the rate of industrial growth in Phase II should perhaps be discounted to some extent. Regarding the relative output performance of Phase III, another reservation is necessary, namely that it has to be evaluated in comparison with the relative input performance. (A detailed discussion of this is given in subsection 4.)

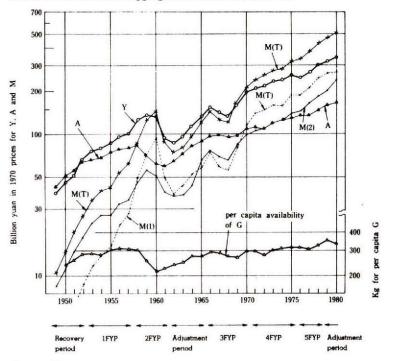
The second significant output performance was the considerable transformation of the industrial structure that took place during Phases I and II. In particular, a well-balanced and large-scale, modern, heavy industrial sector emerged. As a familiar indicator of the structural transformation used in the Chinese literature, the relative weight of heavy industrial output⁵ in the "combined total value of industrial and agricultural production" may be cited. This increased, as is easily calculated from the figures in Table 1, from 9.6 per cent in 1952 to 30.2 per cent in 1966 and 40.0 per cent in 1976. The relative weight of the total value of machine-building industry production to the total value of entire industrial production was 11.4 per cent in 1952, 17.3 per cent in 1965 and 27.7 per cent in 1975. Converted to comparable ratios in western countries, these are found to be the highest ratios among the developing countries.6 The absolute size of production in the machinebuilding industry is in particular far greater than that of any other developing country.7

Concerning structural transformation, at least one reservation is necessary, about the often-reported emergence, in recent years, of serious industrial bottlenecks relating to energy and other intermediate goods. Especially serious was the shortage of electricity which continued to Phase III and which was said to affect seriously the operation of about one-third of the entire factories in the country.

Thirdly, however, it should be noted that the yearly growth paths of

- 3. Li Chengrui and Zhang Zhuoyuan, "Several problems on proceeding with socialist modernization construction at a high speed," *Jingji yanjiu*, No. 2, 1979; and Song Ligang, "On the economic importance of varieties and qualities of commodities," *Renmin ribao*, 26 December 1976.
- 4. Song Ligang, "On the economic importance," estimates that the ineffective industrial products amounted in 1976 to as much as 30% of the total value of industrial production.
- 5. China's industrial classification involving the division into heavy and light industry was revised somewhat in 1963. Producer goods industries, formerly all classified as heavy industries (Ishikawa, *National Income*, pp. 82-85), are now not necessarily done so, e.g. intermediate goods for the manufacture of textile goods are now all classified as consumer goods.
- 6. China's concept of industry comprises, in addition to manufacturing, the excavating industries and electricity, gas and water supply. Estimating the value of these additional industries as 10% of the total industry in the Chinese concept, the percentage of machinery output to manufacturing output turns out to be 30.7% for 1975. Compare this with the figures of 35.8% for Japan, 20.4% for India, 19.8% for Republic of Korea and 12.1% for the Philippines for around 1976.
- 7. S. Ishikawa, "The machinery industry development and the underlying factors with special reference to China's experience" (mimeographed) 1982.

Figure 1: The Yearly Growth Path of the Chinese Economy with Violent Fluctuations: Selected Aggregative Indicators, 1949–80



Notes and Sources:

Notations: Y, "national income" in the Chinese concept which is crudely similar to the concept of "Net domestic material product." This applies throughout this paper. A, total value of agricultural production. M(T), total value of industrial production. M(I), total value of heavy industrial production. M(2), total value of light industrial production. G, quantity of national food grain production. FYP, Five-Year Plan of national economic development. Annual series in 1970 prices is derived as follows: as for A and M, the published figures are indicated in the fixed prices of the year for either 1952, 1957 or 1970. The figures of the years prior to 1969 in the 1952 or 1957 fixed prices are converted to those in 1970 prices by linking the former to the latter at the years 1957 and 1970. As for Y, the published figures for the years in the 1970s are known to be all in current prices. But the annual growth rate figures or the real values expressed as index numbers with that for 1940 taken as 100 are now officially available. Food grains comprise apart from grains (unprocessed) soya beans and sweet potatoes. The quantity of potatoes was measured as 1/4 of the natural weight before 1964 and as 1/5 of it after 1965. No adjustment is made.

Xue Muqiao et al. (eds.), Zhongguo jingji nianjian, 1981 (Almanac of China's Economy, 1981) (Beijing: Jingji Guanli Zazhi, 1981). Yang Jianbai, Lun gongye yu nongye de guanxi (Beijing: Zhongguo Shehui Kexue Chubanshe, 1981). S. Ishikawa, National Income and Capital Formation in Mainland China (Tokyo: Institute of Asian Economic Affairs, 1965).

these output variables exhibit big fluctuations, as is shown in Figure 1. Two troughs are clearly observed; one is the trough covering the years from 1958, 1959 or 1960 (depending on the indicators) to 1966 and corresponding to the period of a post-Great Leap economic disaster. The scale of fluctuation in this trough was almost unprecedented in the his-

tory of any country in peace time.8 The other is the trough between 1966 and 1969, reflecting the turmoil phase at the beginning of the Cultural Revolution.9 When an economic fluctuation of such a big scale takes place, observation of output growth using a trend growth rate for an arbitrarily defined phase should only be made very carefully. As an example, the yearly growth path of per capita availability of national food grain output shown in Figure 1 suggests that, for this variable, Phase II still constitutes part of a long and slow recovery process which started in 1960 and ended only in 1978.

2. Population Growth and Employment. A recently revealed annual series for population indicates an inconsistency compared to an independently estimated series of annual birth and death rates, and this suggests that there is still a need for general improvement in the quality of China's demographic data. (The population figures in Tables 1 and 2 are taken from the former series.) Even so, both series show two important facts: the first of these relates to the absolute decrease in the size of population in 1960 and 1961, associated with the Great Leap disaster, though the rates of decrease were very small, namely -1.5 per cent and -0.5 per cent respectively. The second is the rapid population change which followed this Leap period. According to the Chinese series. this period of negative growth was followed by one of recovery in which the natural increase reached a peak rate of 3.35 per cent in 1963. Thereafter the rate gradually decreased though with some fluctuations. It then exhibited a steady decline from 2.10 per cent in 1973 to 1.2 per cent

8. The scale of the first trough is comparable to that often observable in a war economy. For example, the trough which occurred in Japan at the time of defeat in the Second World War is compared with that in China in the following table in terms of the width and deepness of the trough.

	The year when the trough starts	The year when the trough ends	Duration of the trough years	Deepness of the trough*
1. Japan†				
Real national income	1939	1952	13	50.6
Per capita real				
national income	1939	1956	17	53.8
Per capita real				
personal consumption	1937	1953	16	44 - 8
2. China				
Real national income	1959	1966	7	64 · 3
Per capita real				
national income	1959	1966	7	64 · 3
Per capita food				
grain consumption	1956	1975	19	69-4

Notes:

Table 2: Total, Urban and Rural Population and Population Migration between Urban and Rural Districts: 1949-79 (year end: million people)

A. Whole co	The Control of the Co	***	n I Istinu
	Total population	Urban population	Rural population
1949	541-67 (100-0)	57.65 (10·6)	484-02 (89-4)
1957	646.53 (100.0)	99.49 (15.4)	547·04 (<i>84</i> ·6)
1960	661-69 (100-0)	127.70 (19.3)*	533.98 (<i>80.7</i>)
1965	726-42 (100-0)	101.70 (14.0)	624·70 (86·0)
1975	919.70 (100-0)	111.71 (12.1)	807.99 (87.9)
1979	970-92 (100-0)	126-82 (13-2)	842.30 (86.8)
Average an	nual growth rate (%)		
1949-57	2.2	7.1	1.5
1957-60	0.8	8-7	-0.8
1960-65	1.9	-4.5	3.2
1965-75	2.4	0.9	2.6
1975-79	1.4	3.6	1.0
(1957-75)	2.0	0.7	2.2
	i Special City		
(with annua	al growth rate in brack	ets)	
		Metropolitan	
*	Entire city	districts	Suburban hsien
1949	7.73 (3.4)	4.52} (4.3)	3.21 \ (2.0)
1957	10.10}	6.34 \ (0.5)	3.76)
1960	— } (0·3)	6.44)	$-\langle (1\cdot7)\rangle$
1977	10.86 } (2.1)	- { (−0·5)	-(,,,
1979	11.32 (2.7)	5.91)	5.417

Composition of increased population in metropolitan districts

Natural increase	by migration
1.18+	0.64
1.25	-1.68
2-43	-1.04
	1.25

Notes and Sources:

* This ratio was described with reference to the year 1961 (p. 56), which is clearly a mistake. It is taken here to refer in fact to 1960. In the same source (p. 59) the ratio of nonagricultural population to total population reached the highest point in 1959 and 1960, i.e. 20% and thereafter declined to a 15% level in 1967 and 1978.

† Estimated by Ishikawa. The average annual rate of natural increase during this period is shown as 3.34%. The derived rate of increase for the whole period is multiplied by the average size of population for 1949 and 1957.

The Shanghai data indicate that the entire 30 years covered in fact consisted of three periods of large population inflow and three periods of large population outflow. The latter periods were (1) 1955-56 in which a policy of city population dispersion was enforced (with gross outflow amounting to 1.18 million people and net outflow to 0.60 million); (2) 1958-65 which comprised a readjustment policy period after the Great Leap Forward and a period of defence construction, interior construction, agriculture support and "down to village" movements (gross outflow 1.50 million people and net 0.76 million); and (3) 1968-77 in which similar movements were enforced (net outflow 1-0 million).

For whole country, Xue Muqiao et al. (eds.), Zhongguo jingji nianjian, and Wang Weizhi, Renkou tongji. For Shanghai: Zhang Changgen, Liu Minghao and Hu Yanzhao, "The population of Shanghai city: its present situation, problems and our recommendations," Renkou yanjiu (Population Research), No. 2, 1981.

[.] Measured as the percentage of the value in the year at the bottom of the trough to the value of the starting year of the same trough.

⁺ The figures are taken from Institute of Economic Research, Hitotsubashi University, Kaisetsu Nihon Tökei (Annotated Japanese Statistics), Iwanami Bookstore, 1961. The original sources are from Japanese Government Economic Planning Agency. A reservation is that the deepness of the trough is measured with the assumption that 1946 was the year of the bottom of the trough. Apparently, 1945 was that year, but statistics were not compiled for that year.

^{9.} It was known recently that in 1970-72 there was another attempt to introduce the economic strategy of the Great Leap type. Statistically, however, this period is not distinct.

in both 1979 and 1980, reflecting the success of a population planning campaign during the 1970s.10

The population statistics also indicate a change in the distribution of total population between the rural and urban areas. Some essential figures are shown in Table 2 for both the whole country and for Shanghai. It should be noted that 1960 was the first year in which the urban to total population ratio for entire China increased from a very low level of 10.0 per cent for 1949 to the highest average annual level, that is, 19.3 per cent. The same ratio then gradually decreased until it reached the lowest point, probably in 1977 after which it again increased. Yet in 1979 it was still 13.2 per cent. Moreover, the trend of the changes in the population structure from 1960 up until the end of Phase II was one of a net outflow of urban population into the rural areas.11 This trend is particularly manifest in the figures for Metropolitan Shanghai and is in sharp contrast to the familiar post-war trend in most of the other developing countries in which the population of cities, in particular the metropolitan cities, rapidly increased with the influx of a large number of rural migrants without any immediate possibility of being productively employed, thus resulting in a huge expansion of the slum or squatter population.12

Turning to the trend in the changes in the number of people employed, Table 3 indicates that there was a continuous increase in the absolute number employed in agriculture, but a decrease in the proportion of the total employed population. Conversely, the number of people employed in non-agricultural work increased both absolutely and proportionately. At first glance, it may appear that this latter trend is contradictory to the trend of "deurbanization" of the urban population in so far as the period 1960-77 is concerned. However, this apparent contradiction may be explained by a significant difference between the trends in the changes of the labour force participation ratio in the agricultural and nonagricultural sectors as indicated by Tables 3 and 4,13 a difference which will be considered in greater detail below.

10. Wang Weizhi, Renkou tongji, pp. 76 and 86.

11. It is likely that the "deurbanization" trend during 1960-76 is at least partly a simple statistical phenomenon due to the change in the definition of urban areas. The reason is as follows. Although Liu Zheng et al., Renkou tongjixue (Population Statistics), Chinese People's University Press, 1981, pp. 64-65, described the existing definition of urban areas according to the familiar 1955 rule, Wang Weizhi, Renkou tongji, pp. 35-36 indicated that there is a new 1963 rule and described the existing definition according to that rule: the lower limit of urban areas in terms of the size of total population as well as the non-agricultural population was somewhat larger than the former rule. Therefore, if the latter is valid, the urban population ratio for the post-1963 period is likely to be shown somewhat smaller than the ratio calculated according to the 1955 rule.

12. The proportion of the total population which was occupied by those residing in the slums and the squatters was 45% in Bombay (1971), 67% in Calcutta (1971), 26% in Karachi (1971), 35% in Manila (1972), 29% in Seoul (1974) and 8-15% in Bangkok (1974). United Nations (ESCAP), Economic Survey for Asia and the Pacific, 1978, Table 74.

13. The difference seems to apply to that between the urban and the rural sectors. See Tang Yunqi, "Discussion on labour employment policy of our country," Renmin ribao, 4 July 1981, which reported that, first, the number (including himself) fed by each worker or staff in the urban areas was 3.2 in 1957; it decreased to about 1.8 in 1980 and secondly, the number of employed females in the urban area increased remarkably during the past 22

Table 3: Total Number in Employment Compared with Numbers Employed in Agriculture (million people)

	(1)	(2) Proportion of (1) to	(3)	(4)	(5) Proportion
	Total number employed	total population:	Number of those in agriculture	Proportion of (3) to (1):	of (3) to agricultural population:
1952	207.29	36.0	173-17	83.5	35.2
1957	237.71	36.8	193-10	81.2	35.8
1960	_		170-19	-	33.6
1962	259.17	38.4	212.78	82-1	37.9
1965	286.70	39.6	233-98	81.6	38.7
1970	344.23	41.7	278-14	80.8	20
1975	381.68	41.4	294.90	77.2	39.6
1978	398.72	41.6	294-26	73.8	37.6 36.3

Sources:

Zhongguo nongye nianjian 1981 and Zhongguo jingji nianjian 1981.

In this connection, however, it should be noted that the deurbanization trend in 1960-77 was achieved in fact by a series of artificial measures enforced under the strong political influence of the Communist Party to prevent a rural population influx into the cities and to promote the sending down of the urban population to the rural areas.14 Moreover, these measures were designed to protect the urban employment policy from any disruption which might follow from an uncontrolled inflow of rural labour. From 1957 onwards this policy was called a "full employment with a low wage," one aimed to ensure as high an employment figure as possible by promoting the "sharing of three peoples' meals by five people."15 It was to be implemented by the municipal Labour Bureaus which, in each urban centre, had exclusive powers to employ and reallocate all non-agricultural workers. The unemployed, which numbered more than a million in 1957 disappeared soon thereafter.16 Towards the end of Phase II, however, the population movement control, as well as the "fuller employment" part of the 1957 policy, appeared to become increasingly difficult to maintain.17 This

14. See remarks attached to Table 2.

17. Evidence is indirect. For instance, Mr Kang Yonghe, director of the State Labour

years: the proportion of female to total workers and staff was 12% in 1952; it increased to nearly 30% in 1979.

^{15.} Deng Xiaoping's report on Zhengfeng movement in Zhonghua renmin gongheguo fagui huibian (Collective Laws of the PRC), Vol. 6, September-December 1957; Sun Ping, Why is it necessary to enforce a rational wage system," Xuexi, No. 23, 1957 and Xue Muqiao, "Statement on a labour employment problem in the urban area," Renmin ribao,

^{16.} This is a registered number of those seeking jobs. Sun Ping, " A labour employment problem," Lao dong, No. 21, 1957.

became manifest with the advent of Phase III as the measures for sending the urban population down to the countryside were discontinued and urban unemployment became open and undisguised.

This means that in especially Phases I and II the agricultural sector was continuously compelled to absorb both the urban residual population and also the surplus rural workforce denied the opportunities to migrate to the urban area in search of industrial employment. The contrast between the increasing trend of labour productivity in industry shown in Table 6 and the decreasing trend in agriculture shown in Table 7 (measured in grain output; see below) was partly a consequence of this.

3. Wages and Personal Consumption. Important indicators of economic performance, from the welfare point of view, are the changes over time in wages (or in labour remuneration in the people's commune sector) and in per capita personal consumption. These are examined in Table 4. The figures suggest, first, that in the non-agricultural sector the real wages of workers decreased somewhat in Phases I and II. This was due to the increase in the labour participation ratio of families and it is possible that the per capita income of "workers and staff" households derived from earned wages increased to some extent. Owing to the same factor, per capita real consumption per head in the non-agricultural sector exhibited a similar rising trend.18 In the agricultural sector in the same phases, real labour remuneration per employed person in the people's commune rose to a small extent; and since the labour participation ratio in this sector did not systematically change in either direction, per capita real family income derived from labour remuneration from the communes followed a similar trend, as did per capita real personal consumption. During Phase III in the modern sector there were considerable increases in both basic wages rates and bonuses,19 while in the agricultural sector there were upward revisions of the procurement prices of agricultural products (mostly in 1979). In the modern sector, despite an increase in the cost of living index, both the wages and per capita income of families in real terms thus improved considerably. In the agricultural sector, however, similar improvement

Administration, said in a press interview that in the period of the First Five-year Plan the unemployment phenomenon was basically solved; during 1957-66 in general no unemployment problem existed; that the recent employment issue had arisen mainly due to the turmoil of the 10 years beginning in 1966. At that time, the national economy was brought to the verge of disintegration, and this affected employment. Another cause was inadequate development of commerce, the catering trade and other service industries. This resulted in several million people losing employment opportunities, though urban population increased quickly: Beijing zhoubao (in Japanese), 12 February 1980.

18. These are, indeed, similar to what happened in workers' households in the Soviet Union during 1928-37 and 1944-50: Janet G. Chapman, Real Wages in Soviet Russia since 1928 (Cambridge, Mass.: Harvard University Press, 1963), pp. 165-75; Abram Bergson, The Real National Income of Soviet Russia Since 1928 (Santa Monica: The Rand Corporation, 1961), pp. 251-53.

19. In addition to the increase in wage rates and bonuses, which together constitute "average wages," "allowances" (butie) under various titles increased significantly. I thank Professor Lardy for directing my attention to this fact.

might have been impeded by a more significant rise in the cost of living index.²⁰

Table 4 also shows the extent of differentials in wages and per capita income, or in per capita consumption between the two sectors. This is one aspect of the "equity indicator" of China's economic performance. Wages and per capita incomes were much higher in the non-agricultural sector than in the agricultural sector and this differential did not decrease over time. Behind these changes was an even wider and ever increasing labour productivity differential between the two sectors. (Because of the shortage of data we are not yet able to discuss confidently more general aspects of personal income distribution.)

4. Investment and its Effectiveness. Turning to the performance of the factors in output growth, Table 5 has been prepared around the rate of domestic investment in national income and the marginal outputinvestment ratio of the entire economy. As preliminaries, it should be noted that among columns (1), (2) and (3) there is a relationship expressed by $\Delta Y/Y = I/Y' \times \Delta Y/I$. The reason why equality is shown by is clear from remarks attached to the Table. When ≠ is replaced by an equality notation, this relationship becomes formally identical to the familiar Harrod-Domar type growth equation. In the recent Chinese literature $\Delta Y/I$ has been publicized as an indicator most comprehensively reflecting the effectiveness of investment. It should also be noted that columns (4), (5) and (6) are interrelated in such a way that $\Delta Y/V = \Delta K/V$ × ΔΥ/ΔΚ. In this equality, the marginal output-state capital construction investment ratio (AY/V) is in fact the most crucial determinant of the marginal output-domestic investment ratio (AY/I), as state capital construction investment constitutes the most important component of domestic investment. The equality suggests that this ratio in fact comprises (a) the ratio in which that investment is converted to the fixed capital assets (AK/V), and (b) the ratio in which the same fixed capital assets bring about an incremental output (\Delta Y/K).

From this table it is observed, first, that leaving aside the Second Five-Year Plan the following adjustment period in which all variables exhibited violent fluctuations, the rate of domestic investment increased steadily from the First Five-Year Plan period up to the most recent years. The rate during the Fourth Five-Year Plan period and after was very high by comparison with those of developing countries.²¹ The marginal

21. For international comparisons, the rate of domestic investment in the Chinese National Income concept should be converted to that in the western one. See footnote 1 and notes attached to Table 5. For 1979 the rate of domestic investment in the Chinese concept was 34%; when converted to the western concept it was about 31%.

^{20.} This statement is based on an observation of figures of columns (8), (9) and (10), Table 4, and the observation is crucially affected by the assumption underlying the complication of the rural cost of living index. This assumption is that the grains distributed by production teams to members have invariably been priced according to, or proportionately to, the state procurement price of grains. This seems to be valid at least until 1979. See Xue Muqiao, Zhongguo shehui-zhuyi jingji wenti yanjiu (Studies on the Problems of China's Socialist Economy) (Beijing: Renmin Chubanshe, 1979), pp. 134-35.

Table 4: Labour Remuneration and Per Capita Consumption in the Agricultural and Non-agricultural Sectors (yuan)

	Annual	(1) ' "average of " workers	(2) Labour participation		(3) income from		(4)	(5)
1952 1957 1965 1976 1977 1980 2. Agri	and staff ente 446* 637* 629b 605* 602d	" of the state rprises (581)" (523)" (501)" (629)"	ratio of the workers and staff households 0.304c 0.294c.e 0.547c	worker hous 194h 185h —	wages in the s and staff seholds (177)n (154)n	of non-	consumption agricultural culation (187) ⁿ (197) ⁿ (268) ^{n,f}	Cost of living index of the workers and staff households 100.0° 109.6° 120.3° 120.8°.f —
		6)	(7)		8) emuneration		(9)	(10)
1952 1957 1965 1976	tion from	emunera- n the P.C. yed person — (98) ⁿ (96) ⁿ (111) ⁿ	Labour participation ratio of the member household — 0·358i 0·387i 0·376i.i 0·363i.k	from the P. of the hous 40.51 52.31 62.81	(35)n (37)n (42)n	of agi	consumption ricultural ulation (69) ⁿ (71) ⁿ (83) ⁿ	Cost of living index of the rural household 100.0m 114.8m 140.7m 150.2m,f
1980	230 ⁱ	(126) ⁿ	0·363j.k	65·0l 83·4l.m	— (46) ⁿ	152c.s	(83) ⁿ	183·1m.s

Notes and Sources:

a Zhongguo jingji nianjian 1981, p. IV-179 (Zhengji's article).

b Ibid. p. III-24 (Fang Weizhong's article).

c Ibid. p. V1-25.

d State Statistical Bureau's annual communiqué of the plan fulfilment for 1978.

^{° 1964.}

f 1975.

^{8 1979.}

h Derived by $(1) \times (2)$.

i Derived by (8)÷(7), j Taken from Table 3.

k 1978.

Zhongguo nongye nianjian 1981, p. 41.

m Compiled by combining two index numbers of the State Statistical Bureau: Retail Price Index of Manufactured Products in the Rural Area and Index of Procurement Prices of Agricultural and Farm Subsidiary Products (Zhongguo jingji nianjian 1981). The weights of 32:68 are used in this compilation of the estimates from the State Statistical Bureau's survey on the household expenditure of the people's commune numbers for 1978 (Renmin ribao, 3 January 1981).

n The real series deflated by the cost of living index.

"Average wage" is an official concept comprising "standard wages," "bonuses" (these two constitute "basic wages") and "subsidiary wages." It does not include "fringe wages." Labour remuneration from the people's commune is what is paid for the member's labour in collective work according to the "labour days" worked. It does not include the income derived from working on a private plot or from other sideline activities. Labour participation ratio in (2) is taken from the workers and staff household expenditure surveys of the State Statistical Bureau, while that in (7) is taken from the macroeconomic data as the people's commune comprises nearly the whole of the agricultural sector.

Per capita consumption in (4) and (9) is derived from the national income data. As for the assumption behind the compilation of the cost of living index in (10), see footnote 17 of the text.

Table 5: Rate of Domestic Investment and Marginal Output-Investment Ratio of the Economy: Each Five-year Plan Period

	Ξ	(3)	(3)	(4)	(5)	(9)
				Marginal		Marginal
	Rate of	Annual growth	Marginal	output-capital	Rate of fixed	output-fixed
	domestic	rate of national	output-	construction	capital asset	capital asset
	investment	income	investment ratio	investment ratio	formation	ratio
	I/Y.	AY/Y:%	AY/I	AYIV	AK/V	AY/AK
1 FYP (1953-57)	0.242	6.8	0.350	0.595	0.834	0.717
2 FYP (1958-62)	0.308	-3.1	0.010	0.014	0.714	0.020
Adjustment period						
(1963–65)	0.227	14.5	0.570	1.087	0.871	1.248
3 FYP (1966-70)	0.263	4.8	0.260	0.431	0.595	0.724
4 FYP (1971-75)	0.330	2.6	0.160	0.266	0.614	0.433
1976-79	0.334	6.1	0.208	ı	ı	0.340

Y indicates the available national to (consumption + domestic investment + exports-imports).

Y indicates the available national income, which is equal to Y - (exports-imports).

X in column (1) is measured in fixed prices, whereas Y (and Y') in other columns are in current prices.

FYP = Five-year Plan.

(1) Paper by Pei Yuanxiu and others in Guangming ribao, 23 June 1980; paper by Dong Fureng in Wuhan Daxue bao (Zhexue shehui-kexue-ban), No. 1, 1980; paper by Zhong Renfu in Renmin ribao, 15 May 1980.

(2) Pei Yuanxiu et al., Guangming ribao; Dong Fureng, Wuhan Daxue bao.

(3) Pei Yuanxiu et al., Guangming ribao, 9 February 1981.

(4) Paper by Lin Semun et al. in Jingji yanjiu, No. 6, 1980.

(5) Paper by Lin Semun et al. in Jingji yanjiu, No. 6, 1980.

(6) Paper by Zhou Shulian in Renmin ribao, 2 March 1981.

(6) As for the value of 1976–79, paper by Huang Zhenji et al. Guangming ribao, 4 April 1981. The values for other periods are derived by dividing the values of (4) by those of (5). The value for 1 FYP is given in Huang Zhenji et al. as 0.520, however.

output-domestic investment ratio, however, systematically declined sufficiently to outweigh the rate of increase in the rate of domestic investment. The consequence was that the average annual rate of growth of national income did not show any increasing trend over the successive Five-Year Plan periods.

On the other hand, the marginal output-state capital construction investment ratio also decreased systematically side by side with the decline in the marginal output-domestic investment ratio. Inspection of columns (4) and (5) indicates that this was caused both by the decline in the rate of fixed capital assets formation and by the decline in the marginal output-fixed capital assets ratio.

The above tendencies, observable in the whole economy as well as in the entire state sector, seem to be observable in the state-owned industry sector, too. Table 6 assembles available statistical data relating to these tendencies, although the variables and the reference years in this table are not the same as those in Table 5. Table 6 shows that, favoured by the continuous top priority given to state capital construction investment, both the capital-labour ratio and the gross output-labour ratio of this sector systematically increased in Phases I and II. However, the gross output-capital ratio decreased considerably during the same period, and so did the profit-capital ratio.

One has to be very careful about the possibility that the declining tendencies over time of the marginal output-domestic investment ratio (ΔY/I), the marginal output-capital construction investment ratio (ΔY/V), the gross output-capital ratio in the state industrial enterprise sector (O/K₁) or (O/K₂ + F) and the profit (plus tax)-capital ratio in the same sector (R/K_1) or $(R + T)/(K_2 + F)$ are each a net result of a number of interacting factors. For one thing, the output-capital ratio often tends to decrease simply as a result of the progress of capital accumulation that accompanies the increase in the capital labour ratio. On the other hand, the development of the district and xian level heavy industries (referred to as " five small industries") that was especially rapid during the early 1970s was reported to have accompanied a large financial deficit.22 Moreover, we were only recently informed that during the mid 1960s a huge-scale investment took place associated with construction in the interior, with the aim of building national defence and its supporting industries (called Disanxian jianshe, or "third front construction ").23 The amount of capital construction investment spent on this was reported to have reached about half the national total capital construction investment for 1964-75, and only 51 per cent of it was converted to fixed capital assets. Moreover, the locational conditions were bad and linkages between the factories constructed were only poorly developed; hence the effectiveness of the investment was very low.

23. Ding Hua and Wu Xingguo, "Correct the orientation of capital construction to increase the economic returns from investment," Jingi yanjiu, No. 1 (1982), p. 45.

^{22.} Li Yue and Chen Shengcheng, "The proportions of large, medium-sized and small enterprises in our industrial makeup," Zhongguo shehui kexue, No. 1 (1981), p. 68.

Output-Capital, Profit-Capital and Other Related Ratios of the State Industrial Enterprises under the Independent Accounting System Fable 6:

	Gross output-capital r	t-capital ratio	Capital-labour ratio	ır ratio (yuan)	Profit () capitu	Profit (plus tax)- capital ratio	Gross output-
1952 1957 1965 1975	O (1) 1.34 1.38 0.98 0.98 1.05	$\begin{array}{c} 0 \\ \overline{K_2 + F} \\ (2) \\ 1.34 \\ 1.40 \\ 0.98 \\ 0.99 \\ 1.02 \\ \end{array}$	K ₁ L (3) 3,157 4,582 9,090 9,512 11,485	K ₂ + F L (4) 3,113 4,518 9,063 10,064 11,554	R K ₁ (5) 0-190 0-236 0-209 0-150 0-162	R+T K ₂ +F (6) 0.254 0.347 0.298 0.227 0.248	0 L (7) 4,167 6,336 8,943 9,994

depreciation; F, working capital determined by certain norms; L, total number of workers and staff; R, profit and T, tax.

O in column (7) is clearly stated as measured in 1970 fixed prices. But the measurement standards of O for columns (1) and (2) are not stated explicitly.

In Tian Shui and Wang Minxu, "On some problems on the effectiveness in use of fixed assets," Catcheng yannin, No. 4, 1980, more detailed information on the annual figures for column (5) is shown; 0.236 in 1957, 0.103 in 1961, 0.242 in 1966, a gradual decrease during the years of the Cultural Revolution until Off the entire state industrial enterprises numbering 83.8 thousand units in 1979, those under the independent accounting system are known to be about 60 Zhongguo jingji nianjian 1981.

The available information is grossly insufficient to evaluate how these factors individually or in combination affected the declining tendencies of the above four indicators. However, regardless of how significant the combined weight of these factors was, another factor also played a role in bringing about these tendencies. This was the declining output effect of the investment in the state industrial enterprise sector due to systemic and planning defects. This is corroborated by a large amount of qualitative information revealed after 1978. These defects include (i) the de facto autonomy of the provincial and local governments in determining their own capital construction projects, which resulted in the expansion of the aggregative scale of the projects beyond the national capacity of capital construction and accordingly in the prolongation of the average construction period of the projects; (ii) a system of free use of all the fixed capital assets by the state enterprises, which entailed a growing tendency for a low rate and inefficient use of these assets at the enterprises; (iii) the lack of sufficient decision-making power on the side of the individual state enterprises in determining inputs and outputs and in financial matters, which resulted in the enterprises' loss of interest in increasing productivity and profit (the increase in the "empty" portion in industrial output disbursed in subsection I was also caused by this factor); and (iv) various kinds of deficiency in planning and programming techniques and practices, which brought about the duplication or lack of co-ordination of related projects and the emergence of serious bottle-neck industries.24

Next, at least a few words are in order about the allocation of investment funds among sectors and industries. First, it has now become clear that during Phases I and II the heavy industry sector was continuously the largest single claimant upon state investment funds, and the allocation to the light industries and agriculture was very small: on average for the years 1950-79 the allocation coefficients for these sectors were 50.9, 5.9 and 11.2 per cent respectively.25 This suggests that the coefficient of allocation of total domestic investment for the investment goods sector during Phases I and II was extraordinarily large.26 The " readjustment " policy adopted in Phase III aims to change this pattern by significantly reducing the allocation to the heavy industries and

25. Kang Zhixin, "China's capital construction in 1980," Zhongguo jingji nianjian 1981, pp. IV-142.

for Soviet Russia and India.

26. The investment goods sector here refers to the concept in which the national economy is divided into two production sectors: the investment goods sector and the consumption goods sector. Intermediate goods are separated into either investment goods or consumer goods according to the final direction for which they are used. This sectoral division is identical to that used in the Fel'dman model referred to later. In my paper, "Capital accumulation in mainland China," in E. F. Szezepanik (ed.), Economic and Social Problems of the Far East (Hong Kong: Hong Kong University Press, 1962), coefficients are estimated for the First Five-year Plan period and for the years 1952-58: these are 43.5% and 45.6% respectively. They are compared with the available estimates

^{24.} Examination of these kinds of information was made in my article in S. Ishikawa (ed.), 1980-nendai no Chūgoku Keizai (The Chinese Economy in 1980) (Tokyo: Japan International Affairs Institute, 1980), pp. 14-16.

increasing that to the light industries and agriculture, but the actual results achieved by 1980 were not very significant.

Secondly, a large allocation coefficient of domestic investment to the investment goods sector does not necessarily entail a low level of consumption in the medium and long run. If the marginal outputinvestment ratio is kept unchanged, it is likely that while the larger allocation coefficient for the investment goods sector results in a lower consumption level in the immediate future, it brings about a higher consumption level in the medium and long term side by side with a larger per capita national income. This is in fact the essence of the economic growth model under the centralized, physical planning system which is linked to the name of G. A. Fel'dman²⁷ - a model which fits China's economic system better than the Harrod-Domar model described above. However, the reality was that, despite a very large coefficient of allocation to the investment goods sector, the rate of increase in national income did not increase and the consumption level remained nearly constant during Phases I and II. As is easily seen, the declining marginal output-investment ratio was, in this case, at least one of the main causes of that.

5. Incentives and Work Effort in Industry. Hard data for assessing the trends in these fields are lacking, but some tentative statements may still be worthwhile. As mentioned earlier, the wages and employment policy of the urban sector, which started in the First Five-Year Plan period, was one of "full employment with low wages." This policy, in turn, was essentially one of egalitarianism in providing both work opportunity and work remuneration, though for the latter a principle of "payment by work" was adhered to. 28 Such a policy, when fully implemented, was conditional upon the government's appeal to the workers and staff for adherence to a strict work discipline and an intensive work effort being received positively. However, in the 1970s as the full employment became increasingly difficult to maintain and, moreover, as the government's appeal for strict work discipline itself lost force under the

28. E.g. adoption of an 8-grade wage scale system in 1956, with the ratio of the highest to the lowest wage scale being on an average $1:3\cdot 2$.

impact of the Cultural Revolution ideology, the work discipline within factories weakened and absenteeism increased²⁹; the total sum of individual work effort must have been reduced considerably.

In Phase III, the direction of the incentive policy changed drastically towards increasing wages and offering bonuses. The effect, however, was complicated and as of early 1982 it seems still premature to make a definite evaluation.

6. Agricultural Production, Marketing and Incentives. Turning to the factors underlying the output growth of agriculture observed in Table 1, as the analysis based on the existing limited data is not straightforward, the following statements are made simply as a summary of my previously published works.³⁰

(a) FACTORS OF PRODUCTION AND INPUTS. The output growth of agriculture as a trend since 1949 was achieved largely through landsaving and labour-using technological changes that fitted the prevailing factor endowments of China. Before the mid 1960s the type of capital investment which played a catalyst's role in these technological changes was mostly one which took place with the utilization of local labour and local materials (or by what is called in China "accumulation by labour "), for example, flood control and irrigation works of very labour-intensive type and accumulation of farm-yard manures. After that the investment came to depend increasingly on the capital and current inputs of industrial origin: for example, modern and larger-scale engineering works for the agricultural infrastructure, pump sets, mechanical threshers, tractors and power-tillers, chemical fertilizers and pesticides, although these modern inputs were still used in combination with the locally supplied inputs on the basis of "accumulation by labour."

On the other hand, the supply of cultivated land decreased during this period, as is clearly reflected in Table 7 in the case of the area of cultivated land under good grains. The above capital investment, however, evidently contributed to a significant increase in the yield per hectare of arable land. The increase in the multiple cropping index resulting from the same capital investment must have contributed to the increase in land productivity, in particular in the lower Yangzi River delta and North China Plain. But in the national total, the contribution of the increase in that index was relatively minor.

29. Deng Xiaoping's speech at the Ninth National Representative Conference of Chinese Federation of Labour Unions, 11 October 1978, in *Renmin ribao*, 12 October 1978. Also, in the Central Committee of the CCP's Decision on Several Problems in Speeding Up Industrial Development, there is an article on "Discipline" (*Renmin ribao*, 4 July 1978). The comment on that article points out that, due to the disturbance caused by the "gang of four," there exist at present serious phenomena of weakened labour and financial discipline, and anarchism, all of which exert a harmful influence.

30. S. Ishikawa, "China's food and agriculture – performance and prospects," in Erwin M. Reisch (ed.), Agriculture Sinica (Berlin: Duncker and Humblot, 1982); S. Ishikawa, "On labour absorption in China's agriculture," S. Ishikawa, S. Yamada and S. Hirashima (eds.), Labour Absorption and Growth in Agriculture – China and Japan (Bangkok: ILO-ARTEP, 1982).

^{27.} As for the Fel'dman growth model, refer to Evsey Domar, Essays in the Theory of Economic Growth (Oxford: Oxford University Press, 1957), Chap. 9 (" A Soviet model of growth "). As Fel'dman was an economist who worked in the Soviet State Planning Commission in the 1920s, his model naturally had a close familiarity to the Marxian Reproduction Scheme or, to be more precise, a version of it which is restated to explain the so-called "principle of priority-development of the production goods sector." In China, Liu Guoguang, "A preliminary discussion on the quantitative relationship between the rate and proportions of socialist reproduction," Jingji yanjiu, No. 11, 1962 [reproduced in his Shehui zhuyi zaishengchan wenti (Beijing: Sanlien Book Store, 1980)] discusses the question of the allocation of the products of the production goods sector between the different sectors in relation to the resulting levels of income and consumption, and reaches a similar conclusion to that of Fel'dman. The constraints on the choice of the allocation coefficient which arise from the minimum consumption requirement and which are not touched upon the original Fel'dman model (see my paper, "Capital accumulation") are however, taken into account by Liu: see Cyril L. Lin, " The reinstatement of economics in China today," The China Quarterly, No. 85, March 1981, which provides a good account of Liu's article and other related discussions.

Table 7: Increase in Food Grain Production and the Contribution of Changes in Yield, Land Area and Labour Force

- 1			1952	1957	1965	1970	1975	1978
	 Food grain production 	million tons	163.90	195.05	104.66			
	Arable area under food	index million ha	84.00	100.00	02.98	123.00	284·50 145·90	304.7
	Yield per ha of arable	index kg	11	100.00	96.40	91.30	82·51 88·20	76.8
	Paddy yield per ha of	index kg	2,411.00	100.00	103.30	2,809-00 137.90	3,448.00 165.10	3,966.0
	sown area 5. Multiple cropping index	index %	89.60	100.00	109.30	11	3,514.00	3,978.0
	Application per ha of chemical fertilizer	index kg of nutrient	0.70	3.30	92.90 18.70	139.60 97.80	146.70 102.70	156.90
	Total number employed in agriculture+	index	21.20	100.00	571.80	1	1,632.70	3,309-10
	Food grain output per employed person	kg index	89.70 946.00 93.70	100.00 1,010.00 100.00	121.20 83.10 87.40	144.00 86.30 87.80	152.70 96.50	152.40

* for 1979. † as for the absolute number see Table 3. For items except for 6, He Gang et al., Zhongguo nongye nianjian 1981 (Chinese Agricultural Yearbook) (Beijing: Nongye Chubanshe, 1981). For

The increase in labour input, which was made possible by the above technological change, was also significant. The rate of increase was, as shown in Table 7, about 50 per cent during 1957-75 in terms of the number employed in agriculture, but it must have been much higher in terms of the labour days worked per annum. It should be noted, however, that with the increase in labour input, labour productivity did decline. This is shown in Table 7 in terms of the food grain output per employed person which was lower than 1957 in three bench-mark years: 1965, 1970 and 1975. The decline in the labour productivity must have been more pronounced in labour day terms. As may be recalled, the nature of technological change that took place was such as to allow a much larger application of labour without diminishing the marginal productivity of labour compared with before. Apparently labour was applied beyond that point.

While the above assessments are based on the trend observations, somewhat different assessments are needed when we observe yearly fluctuations. For example we have seen earlier how different is the yearly growth path of per capita food grain output from that of the trend growth rates of Phases I and II, respectively. Likewise, the yearly growth path of food grain output per employed person in the two phases was characterized by a sharp decline from 1958 to 1961 followed by a gradual recovery towards the end of Phase II, although in terms of "labour day," the marginal productivity of labour in Phase II is very likely to have declined.31 And, in order to explain these fluctuations from the input side, we have at least to answer the question as to how, in the years of the sharp decline in labour productivity in food grain production, the capital assets such as cultivated land irrigation facilities and draught animals decreased and how in the years of the slow recovery of labour productivity they increased. Unfortunately, the available data (and hence our analysis) are still insufficient.

(b) MARKETED RATIO OF OUTPUT. Some of the recently published statistics on the marketed ratio of food grains through the state organizations are summarized in Table 8. On the whole, they indicate that the marketed ratio was very low and it even decreased steadily throughout Phases I, II and even III both in gross and net terms. (The net ratio excludes from gross marketing the amount of food grains reallocated back to the agricultural sector.) During the early 1950s the marketing of food grains through the free markets was still allowed. According to my previous estimates, this amounted in 1953 to as high as 7.1 per cent of total output. 32 If this is included in the calculation, the decrease in the marketed ratio was more pronounced. The low and decreasing marketed ratio of food grains was basically determined by the low and declining labour productivity observed in Table 7. Under this productivity condition, the largest and even increasing portion of the

31. See esp. Ishikawa, "On labour absorption in China's agriculture."

^{32.} S. Ishikawa, "Resource flow between agriculture and industry - the Chinese experience," in Developing Economies, V-1, March 1967.

Table 8: The Marketed Ratio of Food Grains and Its Changes Over Time 1953-79: Three Versions

(1)	ng Co-operative's source (unit: tho (2) Gross amount procured and taxed (in kind) by the	(3) (2)	(4) Net amount procured	(5) (4)
Total grain 1953 1978 Changes du	138,000 256,550	state 39,200 46,500	(1) % 28·4 18·1	and taxed (in kind) by the state 29,875 31,200	(1) % 21-7 12-2
1957-66 1967-76 1977 1978		a little increase + 5,000 —2,000 basically no change	>20.0	-1,500 5,000 -3,500	
State Statistica	il Bureau source	e in 1957 (unit: thousand tons of tra	ide grain: food gi	rain includes soya beans)	
Grain year 1953-54 1954-55 1955-56 1956-57	(1) 142,530 145,430 158,360 165,890	(2) 41,500 45,135 42,995 41,715	(3) 29·1 31·0 27·1 25·1	(4) 24,373 22,833 25,021 18,746	(5) 17·1 15·7 15·8 11·3

C. A source which appeared in a Beijing The ratio of food grains gross pro	procured and taxed to	Tax and procurement net of grain reallocated to rural districts as a % of production
1953	25.9	-
3 FYP period (1966-70)	22.6	_
4 FYP period (1971–75)	20-8	
1979	16.5	12-0

The figures in lines A, B and C sometimes conflict, especially the amount of grain sent back to the rural areas (which is identical to the difference of the Notes and Sources: values between columns (2) and (4)) for 1953 or 1953-54 in A and B. Nevertheless, the figures in A, B, and C are shown side by side as indicating the trends

described in the text.

A: Zhang Lifen, "A discussion on limited applicability of the law of value to the development of food grain production," in Shanxi caijin xueyuan xuebao, No. 8, 1980.

**The structure of controlled procurement and controlled marketing in our country," Tongji gongzuo, No. 19, 1980.

B: Editorial Staff of Tongji gongzuo, "Basic situation of controlled procurement and controlled marketing in our country," Tongji gongzuo, No. 19,

1957.
C: Huang Guoxiong, "Explorations of the measures for increasing the marketed ratio of agricultural products," Beijing shangxueyuan xuebao, No. 1, 1981.

output had to be self-consumed by the producers. Side by side with the decrease in the net marketed ratio of food grains, the foreign food grain trade balance became negative after 1960. For many years after this time foreign net imports varied between two to five million tons per annum, but in Phase III it steadily increased and in 1979 it surpassed the 10 million-ton level.³³

Some statistics are also now available for some bench-mark years on the ratio of the value of those farm products procured by the state commercial organizations to the national income produced in agriculture. This ratio increased from 0 · 265 in 1952 to 0 · 415 in 1957 and then after some fluctuations it finally reached 0 · 420 in 1975 and 0 · 448 in 1979.34 The published figures on the government's procurement of farm products often pose a problem as to whether or not they include the value of the products surrendered as tax in kind and later transferred to the state commercial organizations for sale. If they do not include such values, the tax in kind should be added to arrive at the whole marketed ratio, and we know that this portion decreased steadily over time as a proportion of agricultural income. Moreover, the selling of farm products on the free market was considerable in the 1950s. As a percentage of agricultural income it was 19.0 per cent in 1952 and 12.6 per cent in 1957. Therefore, the marketed ratio total agricultural output is most likely to have declined over time significantly during Phases I and II.

(c) INCENTIVES AND THE BEHAVIOUR OF PRODUCTION TEAMS. Here we are interested in the behaviour of production teams (as the basic decision-making units of the people's commune) relating to the above output and marketing performance, and in the incentive system that regulates such behaviour. The hard data, however, are insufficient. For instance regarding food grain productions we have seen that the marginal productivity of labour in labour day terms is very likely to have declined in the 1970s, despite the significant technological change which took place.³⁵ There are, however, no reliable data to permit us to investigate whether the large labour input bringing about this result was caused by the voluntary decision of production teams in response to increasing amounts of surplus labour, or by coercive orders from the government to increase marketed produce.

We have somewhat harder data relating to the factors behind the marketing performance. (i) In the second half of the 1960s and the 1970s before 1979, despite only a minor increase in the government procurement prices of food grains (as well as other major crops), the

material production costs of grain rose significantly. The result was that the larger the increase in the amount of food grains produced, the poorer became the production team (that is, the smaller became the labour remuneration per "labour day"). (ii) In the years 1965-75, as the prior index of industrial goods sold at the rural market decreased considerably, the commodity terms of trade changed in favour of agriculture. From the point of view of the incentives for marketing food grains, a more relevant index is the so-called single factoral terms of trade,36 which is identical to the commodity terms of trade index multiplied by the index of labour productivity, in this case, of the agricultural sector. It measures the change in the purchasing power over industrial goods per "labour day," applied to the production of marketed food grains. A cursory check suggests that, due to the decrease in labour remuneration per "labour day," this index moved against agriculture during the same period.³⁷ (iii) Evidence also indicates that in the production teams in which the opportunities for subsidiary farm production existed (and in particular the commune and brigade industries), the financial loss caused by the production of food grains was more than offset by the gains obtained from these non-agricultural activities. However, as is suggested clearly by recently published crossprovincial data for 1979,38 the development of commune and brigade industries in each province has not taken place in such a way that the larger the per labour agricultural output (in the narrow sense, that is, deducting the output value of brigade industries), the more prevalent was the development of these industries; hence the greater financial loss incurred in the provinces, which placed greater priority on grain production, thereby tended to be compensated more or less substantially.

From these data it may be concluded that, at least during Phase II, an inflexible policy for agricultural prices was one of the essential causes for the low and even declining rate of marketed food grains.³⁹ However, one cannot necessarily conclude that profitability in the market economy sense is a major determinant of the marketed ratio, let alone a major

^{33.} The substantial increase in food grain imports in Phase III is officially said to have been based on a deliberate policy to "make food grain imports steadily and in a large amount so that it becomes possible to readjust the irrationally based production structure of agriculture and to let the peasants take rest and build up their strength ": Wang Yongxi et al., "Views on strategic problems in China's agricultural development," Jingji yanjiu, No. 11, November 1981.

^{34.} Zhongguo nongye nianjian 1981.

^{35.} As the prices of agricultural products remained almost stable in Phase II, this trend in the marginal productivity of labour can also be considered as measured in value terms.

^{36.} On this concept, compare Jacob Viner, Studies in the Theories of International Trade (New York: Harper and Brothers Publishers, 1937), p. 559.

^{37.} An illustrative computation of this index for 1975 with 1965 as the base year is as follows:

General index of procurement prices of agricultural and farm subsidiary products (SSB): Pe 111:1

^{2.} General index of retail industrial products sold in the rural areas (SSB): Pm

^{3.} Index of the distributed income per "labour day" for 2,163 production teams of 23 provinces jointly surveyed by Ministry of Commerce, Ministry of Food and Agriculture and National Federation of Supply and Marketing Cooperatives (0-70 yuan for 1965; 0-56 yuan for 1976): R 80.0
4. Commodity terms of trade: Pe/Pm 119.8

^{5.} Single factoral terms of trade: (Pe/Pm)/R
As for the source of line 3, refer to Ishikawa, "China's food and agriculture," Table 7.

^{38.} Zhongguo nongye nianjian 1981.

^{39.} In a private communication, Rawski has drawn attention to a recent study of Nicholas Lardy and considered that the policy of provincial and even sub-provincial "self-reliance" in food grains was an important cause in this declining marketable ratio.

determinant of output. On the reasons for this, only a few comments will be made.

First,40 the low level of the marketed ratio indicates that China's agriculture was still essentially of a subsistence nature. The behaviour of the member families of production teams vis-à-vis this subsistence production portion was for survival and many of the current and construction activities for agricultural production were simply an extension of this behaviour. If the community solidarity of production teams was strong and if the officials of the commune level and those in local government were unselfish and impartial, the scope of these activities would have been extended to a wider area of the locality, still on the basis of "labour accumulation." As a result, technological changes of the labour-using and land-saving type would have been accelerated and even with the given low product prices (fixed, however, so that the prices would compensate reasonably for labour) agricultural output would have increased by exploiting the existing surplus labour. This is actually what happened in Phases I and II in connection with the huge subsistence production portion. The increase in agricultural population of more than 300 million people was thus fed.

Secondly, even with regard to the marketable portion of agricultural products, once a product price level assuring a "normal" labour remuneration is attained, a further increase in the marketed ratio may result, not only resulting from the further price rise but also from some non-price measures, for example, those based on the moral appeal of commune and government officials to production teams for renewed efforts in joint works and joint production, for their own future welfare. When the mutual trust between production teams and the upper-level officials exists, joint investment is likely to materialize and an increase in the marketed ratio is likely to be promoted thereby. This possibility, though seemingly disturbed in the 1970s often by the coercive attitude of the local officials towards production teams, 42 might be remembered, especially in the light of the present situation in which a substantial procurement price rise of the main agricultural prices of the kind that took place in 1979 has come to be considered officially as not to be repeated because of financial constraints. 43

40. The discussion of this paragraph is essentially a summary of my article in Ishikawa (ed.), 1980-nendai no Chūgoku Keizai and " China's economic system reform: underlying factors and prospects."

41. The analysis of these alternative situations in terms of the same theoretical formulation, is made in my paper, "Personal income differentials in China and their

determinants," Ajia Keizai (Asian Economies), 17-6 June 1976.

42. Of the various forms of the production responsibility system which is currently being introduced in rural China as a substitute for the existing People's Commune system, the most elementary type is what is called baochan-daohu or baogan-daohu, a form that is essentially very close to the family farm. This form is stated as suited to low productivity and low management-capability areas. It is interesting to note that this form should be applied also to areas in which the productivity level is not low, but there is a condition to the effect that member peasants do not trust local officials because of their past bureaucratism. Central Secretariat, CCP and Research Team of the Central Party School, " Survey on a few types of the production responsibility system currently in operation in rural areas," Renmin ribao, 1 September 1981.

43. Wang Yongxi et al., "Views on strategic problems."

7. Local Industries - An Aspect of Dualistic Development Policy.44 The economic performance of the industrial sector has been discussed above without touching on what the Chinese call a "Walking on two legs policy." However, the former has in fact been affected considerably by the latter, although the published statistics are still insufficient for a quantitative assessment of the degree of its effect. Under China's centralized planning system, scarce resources such as capital, main equipment and materials, and educated manpower were mostly mobilized and reallocated by the central government to priority sectors. Mainly because of this the non-priority sectors tended to be left as low labour-productivity and low wage sectors. The non-priority sectors consisted of a great number of medium and small enterprises covering a wide range of industry, transport, commerce and services, and even the entire agricultural sector may be considered as one of them. (The resulting industrial structure is a variant of the so-called dualistic structure.) The activities of the non-priority sector, however, could be promoted by a deliberate policy even under the given dualistic structure. One such policy which was in fact implemented was to provide a subsidy of a certain amount to the non-priority sectors to induce a much larger amount of local investment, and another was to encourage the party and government officials who were responsible for these sectors to display leadership in promoting the production and investment activities of that sector. In either case, the outcome was to stimulate the productive use of local resources otherwise left either unused or under-used. (This was another essential aspect of the "Two legs policy," which more generally may be called a dualistic development policy.)

This dualistic development policy was started during the Great Leap Forward, but it resulted in a failure. It then was implemented in the post-1970 years of Phase II in connection with the development of "local industries "supporting directly or indirectly the increased production of agricultural producer goods. A great number of medium and small sized firms were established with the capital investment of either provincial, district, or xian governments or of the people's communes or brigades. The products were locally distributed without being subject to central control. The local industries were symbolically called "Five small industries," denoting any combination of five industries out of the iron and steel industry, the chemical fertilizer industry, coal mining, the power industry, the cement industry, the agricultural machinery and implements industry and so on. By around 1975 the output of local industries had increased considerably and their weights in the total output of each industry were 33.0 per cent for coal, 37.0 per cent for electricity, and 60.0 per cent each for cement and chemical fertilizer, although the statistical scope of "local industries" was sometimes not entirely clear and was shown as if it were identical to that of small-scale enterprises. As the equipment and technologies used were older-style

^{44.} The methodological aspect of the discussion in this subsection is based on my paper: " A note on the choice of technology in China," The Journal of Development Studies, 1X-1, August 1972. As for the factual aspect, see my paper referred to in footnote 24.

compared with those in central state enterprises, production costs were mostly higher than national, unified produced prices and the resulting losses were subsidized locally. Yet, under the prevailing conditions where these products were in short supply, the local industries played a crucial role in satisfying the growing local demand for them.

In Phase III this policy of subsidizing local industries (and thereby of maintaining "self-reliance" in the supplies of agricultural producers' goods) was substantially revised and a large number of the existing local enterprises were closed down because they were inefficient. The question is: were the closed-down enterprises technologically and managerially inefficient or were they ousted because their production costs became higher than the national prices and as local industrial production continued to expand in the 1970s available local resources became increasingly smaller? Probably both elements existed but the available information is still not sufficient for an overall evaluation.

8. Foreign Trade and Technology Import. China's foreign trade expanded tremendously in the 1970s after the slow and fluctuating growth of the 1950s and 1960s. The amount of exports and imports increased from 2.26 and 2.33 billion U.S. dollars (in foreign market prices), respectively in 1970 to 18:12 and 19:39 billion U.S. dollars in 1980. Discounting the world inflation factor, the real annual rate of increase for these 10 years is considered to be about 9 per cent for both exports and imports.45 Side by side, the commodity structure changed. The emergence of oil as a staple export commodity was one aspect and as a result China was able to withstand to a considerable extent the oil shock which occurred in and after 1973. The import of food grains became chronic and substantial. It was in Phase III that China's policy regarding the acceptance of foreign loans, credits and even joint ventures located within the country was significantly liberalized. In Phase II, however, the deferred payment method was actively relied on to accelerate the volume of turn-key imports.

However, China's economic system remained semi-closed to international trade in the sense that the basic aim of the system was to achieve a domestic equilibrium (or optimum resource allocation within the framework of the domestic economy) and exports were made available only to the extent that was necessary for import substitution, in particular, of heavy industrial products. The foreign trade expansion in and after the 1970s, though rapid, was still aimed at accelerating the import substitution of heavy industrial products within the framework of this system. The policy was weak in that, although a comprehensive system of heavy industries was built up, its technological level was in

45. These figures are obtained from the World Bank. Regarding the world inflation factor, refer also to the following IMF index for unit value of world exports and imports (with 1975 = 100) in *International Financial Statistics*, Supplement Series No. 2 IMF

Export 40·1 46·5 139·3 178·0 178·0

most fields far behind international standards. Therefore, the export substitution of industrial products for primary products could not proceed quickly, while the necessity of importing high-technology industrial products increased.

The crux of import substitution was the importation of whole plants involving the transfer of new technologies. Due to foreign currency shortages and ideological disputes over the legitimacy of reliance on western technology, the import of these projects was made only intermittently. The most successful was the importation of whole plants from the Soviet Union during the First Five-Year Plan period. Together with these, the advanced technologies of the 1940s and 1950s were transferred to China and on a basis of the technological knowledge which China had accumulated before 1949, these technologies were well assimilated and diffused (in the form of copied plant) to different localities of China, where a number of the same type of plants were built. The importation of whole plants thereafter was made twice, first during 1962-65 and secondly during 1973-76. These related to the advanced technologies of the 1960s and 1970s in the fields of chemical fertilizers, petro-chemicals, synthetic fibres and metals. It is not clear how these technologies were internally diffused thereafter, but it appears that no plant diffusion of a scale similar to that of the 1950s was seen. What is very clear now is that, leaving aside the imported plants and equipment in these most up-to-date industries, the plants and equipment in most industries are of 1940s and 1950s vintage and almost no replacements or renovations have been carried out on them since their construction.46 In Phase III the government resumed the importation of the whole plants, at first on a wide industrial front, but later on a limited scale. Prime importance has now been placed on renovation of existing plants, also on a basis of foreign co-operation.

9. Causes of the Economic Fluctuations. In this section we turn from the analysis of the factors behind the trend growth to the causes of the fluctuations in the yearly growth path which we have seen in the first section. As was remarked there, these fluctuations are most distinctively characterized by two troughs: one corresponding to the post Great Leap economic disaster period and the other corresponding to the turmoil phase of the Cultural Revolution period. The main causes of the fluctuations may therefore be obvious. Thus, the Great Leap was largely an attempt to introduce a series of drastically new policy measures, replacing the existing ones (which had been transplanted from Soviet Russia during the First Five-Year Plan) without first making a sufficient test of their validity and effectiveness. In a sense the test was made in a trial and error fashion while the policy alternatives were actually in the process of being implemented. The Cultural Revolution was mainly caused by an ideological dispute over the orthodoxy of socialist construction principles. The main causes of the fluctuations may

46. S. Ishikawa, "The machinery industry development and the underlying factors with special reference to China's experience."

therefore be a special case of policy formulation and implementation using the "trial and error" method on a gigantic scale and a political and ideological struggle into which even the total economy becomes seriously entangled.

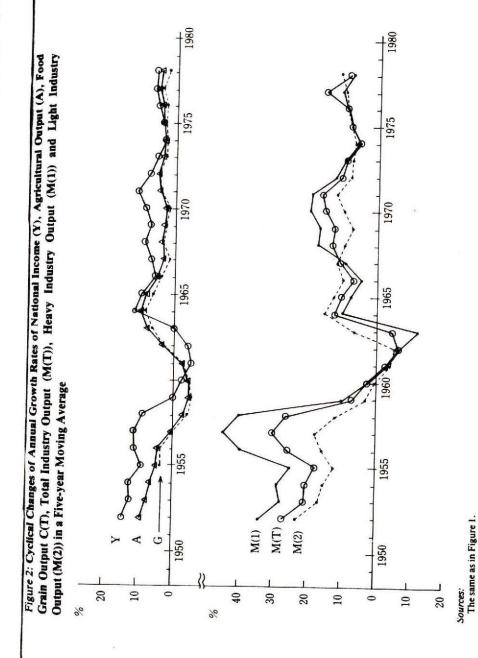
Behind these fluctuations, however, a mechanism similar to what are identified in the capitalist countries as " equipment investment cycles " and "construction investment cycles" may have been in operation and may have exerted an influence. In order to check on this question, a spectrum analysis was attempted on annual series of six variables (national income, industrial and agricultural output, and grain production) for 32 years (1949-81) to examine the frequency or period of various cycles. 47 The main cycles observed are then contrasted with the actual paths of annual growth rates calculated as moving averages of varying length. The result of the spectrum analysis indicates that for most variables (in particular heavy industry output) only the cycles of 16 years are significant. The actual cycles corresponding to these theoretical ones are not easy to identify, but they may be broadly observed in the paths of annual growth rates in the five-year moving average as shown in Figure 2. Qualitative descriptions may also be given as follows, focusing on the industries. The first cycle observable for 1952-62 (or 63) may be explained with reference to the capital construction investment induced by the introduction and diffusion of the Russian industrial technologies of 1940s and 1950s vintage48; and the second cycle, observable for 1962-78, may be explained by the construction associated with the spread of the same kind of technologies into the interior of China (accelerated by the "third front construction"). The second and third waves of technology import in 1962-65 and in 1973-76 were weak in their spread effect, but as they had their own growth effect when they were imported and embodied in the new plant, they might have also contributed to raising the level of the second cycles.

But, however valid these explanations are, the two cycles are distorted significantly by the troughs brought about by the two political disturbances and the mistaken style of policy formulation. The combined weight of these two seems to have been much more important in the entire process of fluctuations than the combination of technology import and diffusion.

The Overall Growth Process

The above assessment of China's economic growth performance in the whole period of the People's Republic has been made with respect to certain main sectors and related aspects. In this section it is desirable to make clear how the performances of these main sectors and aspects were interrelated and thus to outline the overall growth process of the Chinese economy. The latter task involves a systematic identification of the

^{48.} The trough for industries that is observable with the bottom in 1955 is considered to reflect the end of the recovery period from the destruction of war and civil war.



^{47.} I am indebted to Professor Takeaki Kariya for advising me to use spectrum analysis for the analysis of this part.

underlying factors of this overall process. For two reasons, however, this is not an easy task to fulfil.

First, under conditions in which the economic system and the basic lines of economic policy are kept stable and the basic economic structure remains unchanged, macroeconomic perception and an analysis of the overall economic growth performance and the underlying factors, would by themselves provide a reasonable answer to the above question. However, when these conditions are not met (as was the case in China in the period under question) the economic growth process has to be studied not simply in terms of a macroeconomic relationship, but by taking into consideration all the important factors in various other dimensions, namely, the following five-dimensional underlying factors:

- Factors in the economic system (the ownership patterns of various production and management units, the system of economic control and planning, the degree to which the market economy and the traditional institutions are allowed to operate, and so forth).
- Factors in basic economic policy (determination of the targets of economic and social development, the speed and main course by which these targets are attained, the principle of incentive price formation, and so forth).
- Factors in economic structure (factor endowments, the structure of the productive forces, the state of interdependence of individual economic units and localities, and so forth).
- 4. Government capability of economic planning and policy formulation. This includes the capability to adapt the existing economic system and policy lines to changing economic conditions. It is in fact a part of the factor endowments in (3).
- 5. Political and social situations surrounding the economy.
- 6. Factors in the macroeconomic growth mechanism.

Secondly, as an additional complication, both the economic growth performance and the underlying factors in these different dimensions underwent significant changes during the period under question. The assessment of overall growth performance must accompany an explanation of these inter-temporal changes.

In the remainder of this section, a study is made (confining attention to Phases I and II) of (a) the interrelationship between the individual performance of the main sectors and aspects of the macroeconomic dimension, and (b) of the interactions of the multi-dimensional factors behind the overall growth performance. In the process of this study investigations are made to clarify and explain why the economic performance was in general better in the earlier days of the combined period of Phases I and II, than in the later years of that period. The reason why the performance of Phase III is not considered in this section is, as stated before, that the performance of this phase is still difficult to assess bearing in mind the recent attempt at fundamental systemic and policy change. The problems and prospects of this phase will be touched on in the last section on a basis of this section.

Intersectoral Macroeconomic Relationships. First, the macroeconomic interrelationships among the individual performance of the main sectors and aspects (focusing on Phase II) are summarized as follows:

i. THE CENTRALIZED INDUSTRY SECTOR. This sector, in particular the investment goods sub-sector, received an extremely high proportion of investment funds which were mobilized through the centralized planning mechanism and which constituted a large proportion of national income. The central planning mechanism aimed in the intermediate and long run at bringing about both a high rate of growth of national income and a steady improvement in the people's consumption standard. The sector also received a high priority in the allocation of scarce foreign currency with the similar expectation of the central planning mechanism as above. However, for various reasons, the marginal output-capital ratios in this sector decreased considerably over time and hence the expected rise in the growth rate of national income and in the people's consumption standard was not realized. For the same reasons the expected increase in the allocation of investment goods to other sectors, in particular to the agricultural sector, did not take place. Meanwhile, although the supplies of labour from the agricultural sector were potentially " unlimited "49 as there remained significant "surplus labour" in that sector, the supplies were actually made possible only to the extent that marketed grains were available, supplemented by imports. Thus, potentially "unlimited" labour from agriculture was actually "limited" and this presented an additional constraint to the growth of the centralized industrial sector.50

ii. THE LOCAL INDUSTRY SECTOR. This sector was successful in producing and supplying locally an increased amount of agricultural producer goods largely on the basis of the use of locally available resources with little opportunity costs. Only a small amount of centrally allocated resources were used, mainly for inducing an increase in the use of local resources. The sector thus met the requirement of the agricultural sector which, after the mid 1960s, became dependent on ever increasing supplies of modern inputs for promoting output. It appears, however, that with the expansion of the local industrial production through this method, a phase of sharply increasing costs occurred in some localities and branches, where the local industries even came to compete with the central industries for centrally allocated resources.

iii. THE AGRICULTURAL SECTOR. The increase in output in this sector relied more crucially than in the local industry sector on the mobilization

49. This adjective is used here with reference to conditions of "unlimited supplies of labour" in Arthur Lewis, "Economic development with unlimited supplies of labour," The Manchester School of Economics and Social Studies, May 1954.

50. There are two cases in the period of the People's Republic in which the increase in the urban workforce without adequate preparation for food provision to it brought about acute food shortages in urban areas: one during the Great Leap and the other during 1970-72. Yang Jianbai and Li Xuezeng, "China's historical experience in handling the relations between agriculture, light industry and heavy industry," Zhongguo shehui kexue (Social Science in China), No. 3, May 1980. Apart from these extreme cases, the food supply constraint was fully effective even in more normal years; hence, the strong and persistent control to prevent rural residents from moving into the urban area.

of local resources, in particular local labour, in both capital investment and current production. The supplies of non-agricultural resources were largely confined to those from local industries. The growth of agricultural output was very large mainly because of the increase in land productivity which was achieved but most of this was used for increased consumption within the agricultural sector following the huge increase in the agricultural population. The ratio of the marketed portion was low and it remained unchanged or rather decreased, as the very low level of the output per unit of agricultural workforce did not improve. Any significant increase in the marketable output was severely constrained by a shortage of centrally allocated investment.

iv. FOREIGN TRADE. Progress with import-substitution was not as successful as had been expected by the planners. First, in view of the shortage of marketed food grain, a considerable amount of foreign currency obtained from traditional and newly developed (oil) exports was diverted to food grain imports every year. Secondly, the import of a series of whole plants, with high technologies, during the 1960s and the 1970s required the continuing import of parts and components for maintenance and repairs which became additional claimants upon foreign currency. In contrast to the whole plants imported in the 1950s, which were technologically almost completely assimilated and reproduced, those in later years were still not sufficiently absorbed. Given the present level of technological capability, the foreign currency constraint had even more effect on the growth of the centralized industry sector along the lines of more sophisticated manufacturing technologies.

v. INTERSECTORAL FLOWS OF THE FACTORS AND PRODUCTS. All of these flows were controlled either by planning or by administrative rules or discretion. These controls and regulations were effective in the sense that there were formally or informally no substantial spontaneous movements. Especially effective was the control over population movements between sectors and over labour force movements and, together with the successful family planning, overall economic planning was made much more orderly than it would otherwise have been. Controls and regulations always discriminated strongly in favour of priority sectors. Under the severe constraints coming from the extreme shortage of resources for investment, foreign currencies, vital material inputs and even consumer goods, these were likely to be one of the effective ways of achieving speedier economic development. But this expected outcome was not actually brought about.

vi. OVERALL GROWTH OF INCOME AND CONSUMPTION. As an overall consequence from the above, the achieved growth rate of per capita national income in this phase was not very bad. Per capita personal consumption did not improve significantly, though it did not decrease. However, performance was far poorer than expected in the original development strategy of the central planners.

Secondly, it should be noted that the interrelationships between the

main sectors and aspects in the earlier period of Phase I contrasted with those of Phase II. The same pattern of investment funds allocation for the centralized industry sector resulted in building up a strong foundation for overall industrialization. Handicrafts and other local small factories supplied traditional farm implements to agriculture. The pattern of agricultural investment and production that was essentially similar to that of Phase II, though with less reliance on centralized resources, worked well in agriculture and supported the early phase of urbanization cum industrialization. Traditional staple exports supported a large scale importation of machines and industrial intermediate goods, in particular a series of whole plants which constituted the basis of the industrialization programme in the First Five-Year Plan. The imported whole plants were technologically well assimilated and reproduced elsewhere in large numbers. This provided the technological base of the later industrialization in China even in Phase II.

Finally, we have to ask the question as to how the large-scale economic fluctuations caused by the Great Leap disaster and the Cultural Revolution came into the above picture of the overall macroeconomic growth process. Perhaps the immediate answer is found in their effects, by which a demarcation between the first period (in which the generally favourable growth process was in operation) and the second period (in which the generally unfavourable growth process ruled) became extremely vague. In other words, the above extraordinary fluctuations cut short the otherwise greater length of the first period. Their effects were, however, not confined to that. The fluctuations brought, moreover, a number of serious after-effects which impinged upon the overall growth process in the second period, such as one reflected in the deep and slow-recovering trough in the yearly growth path of per capita food grain output indicated in Figure 1. Some of these after-effects may have to be counted as additionally significant macroeconomic factors that explain this unfavourable overall growth process.

Interactions of the Multi-dimensional Factors. An explanation of the above macroeconomic growth process in terms of the interactions of the previously mentioned multi-dimensional factors seems best attempted by exploring first certain macroeconomic growth mechanisms, that is, factors in (6), and second the impact of other dimensional factors, that is, factors in (1) through (5), (p. 274) upon the working of this macroeconomic mechanism.

Exploration of a macroeconomic growth mechanism underlying the above growth process is itself too complicated a task to go into in this article. But the mechanism may be essentially expressed as a composite model⁵¹ integrating (a) a Fel'dman-type growth model under centralized physical planning which focuses on the growth of the modern industrial

^{51.} I have attempted to construct such an integrated model of socialist economic growth with the aim of using it for a hypothetical economic projection of China. S. Ishikawa, "A hypothetical projection of Chinese economy: 1966-1981," The Developing Economies, VIII-3, September 1970.

sector; (b) a model of dualistic industrial development with the small enterprise sector based on the use of the low opportunity-cost local resources; (c) an agricultural development model in a densely populated, semi-subsistence region; and (d) a model of technology transfer and assimilation in a semi-industrialized economy.

Turning to the second task, the impact of each of the other dimensional factors upon the working of the above macroeconomic growth mechanism was significant. This is described as follows:

i. THE POLITICAL AND SOCIAL SITUATIONS. The impact of these factors was direct and most significant when they were related to the changes in the international situation, for example, that which led to the huge expenditure on "third front construction." In other cases, the impact was indirect. For example, the changes in the political influence or prestige of the Communist Party affected the operation of the mechanism through their impact on policy determination such as that relating to the control over rural-urban population migration. The situation which reduced the mutual trust between the local cadres and the masses affected it through the impact upon the working of the system and the policy lines (for example, on the feasibility of local labour-intensive irrigation projects). Ultimately, political and ideological struggles within the leadership affected it through their impact upon the nature and direction of the system and policy revisions.

ii. ECONOMIC STRUCTURE. While the economic structure was significantly transformed during Phases I and II, in particular through the formation of a large-scale heavy industry complex and a modern and high land-productivity agriculture based on the cash capital and current inputs, the Chinese economy still remained essentially underdeveloped. And the impact of such an underdeveloped economic structure was most explicit and significant in very severe constraints it put on savings, foreign currency earnings, food supply and industrial employment. While the impact was implicit in Phases I and II, weak interdependence among individual economic units and localities (that is, another characteristic of economic underdevelopment) seems to have placed limitations on any attempt to use price policy as a major determinant of resource allocation, for example, in the agricultural sector where a large-scale subsistence portion remained.

iii. GOVERNMENT CAPABILITY OF ECONOMIC PLANNING AND POLICY FORMULATION. In a number of cases, the failure to achieve a reasonably appropriate allocation of capital construction investment among the sectors and the failure to recognize and correct the grossly unbalanced growth process, were due to the insufficiency of this capability. A further result was the failure to detect and correct the utterly inappropriate pricing of staple agricultural products, which resulted in the situation "the greater the increase in production of food grains, the poorer the production team becomes." The government's ability to revise major economic policy lines or the economic system when the necessity for it

arose was even less than the above suggests. Such incapability induced the identification of a reasonably appropriate course of the policy line or system revision, to be subject to the "trial and error method of a gigantic scale" (as in the case of the Great Leap) and in some other cases it invited political and/or ideological intervention in determining the policy line or system revision (as in the case of the Cultural Revolution).

iv. ECONOMIC SYSTEM AND ECONOMIC POLICY LINES. The centralized physical planning system and the high-growth and high-accumulation policy based on it often resulted, as indicated in the previous section, in the interruption of a normal operation of the economic growth mechanism and hence in the prevention of an expected rise in per capita income and consumption. However, the same policy lines and system did work well and in harmony with the economic growth mechanism in the early period of Phase I. The study on the underlying causes of these events involves a deeper investigation of the Chinese economic system and policy lines and their appropriateness to the economic structure. I have attempted such a study elsewhere, 52 and here only two points are made as a summary.

(a) Between an economic system (and economic policy lines based on, and well suited to, it) and an economic organization, there is a certain "correspondence" relationship in which, if the system is appropriate to the structure, the economic growth mechanism based upon it operates well and the normal and gradual structural transformation takes place as a result. If the system does not fit to the structure, the reverse consequence arises. The favourable economic performance of the earlier period is accounted for as the first case where the "correspondence" relationship existed, and the unfavourable economic performance of Phase II was partly caused by the second case with "miscorrespondence."

(b) When the suitability of the system (and policy lines) is questioned in comparison with the structure, it is not enough to examine the system's characteristics simply in terms of the conventional typology of socialist economic planning (that is, whether the system is a centralized, physical planning type, a decentralized, price planning type or a certain mixture of both). The essential elements of the Chinese system in Phases I and II were those of a centralized, physical planning system plus certain remaining elements of the traditional Chinese society relating to the family and village community, plus elements of the new institutional devices which seem to have originated from the Chinese traditional system and which were based on egalitarianism and non-material incentives. When, in the above, the existing system turned out to be inappropriate, it is possible that a major, or at least one, cause was the fact that elements of the traditional society and of the new system growing out of it were disrupted by the temporary political and social situation.

^{52.} S. Ishikawa, "China's economic system reform: underlying factors and prospects."

Also see Ishikawa, "China's food and agriculture: performance and prospects."

Concluding Remarks

The investigation of the previous section was confined to the overall growth process in Phases I and II and excluded Phase III. The reason for this is that China's economic performance in Phase III has only been an initial and incomplete reflection of the economic system and policy revisions (the "reform" and "adjustment" policies) started early in the phase, and the system and policy revisions have not yet been finally formalized. This means that an assessment of the actual and prospective economic performance of Phase III is difficult to attempt without appraising the current economic reforms.

What, then, does the analysis of the last section imply for the nature of and prospects for the current economic reform? In this concluding section, we wish to try to answer this question. Three points are noted briefly.

- 1. The poor economic performance in Phase II was found to be a combined result of the multi-dimensional factors that were shown in section 3. The economic system and the policy reforms still only relate to two of these factors, as far as overcoming the economic difficulties which emerged in Phase II are concerned. Thus, the upgrading of the government's capability in economic planning and policy formulation seems particularly important. The "trial and error method of a large scale" for testing the viability and effectiveness of a new economic system and new policy lines should be avoided at all costs, as should the use of political and ideological issues in the determination of a new system and new policy lines. Prospects for the economic performance of China in Phase III vary greatly according to one's view of this factor.
- 2. The above "correspondence" relationship between the system (and the policy lines) and the structure has an implication that even if an economic system is at one time appropriate to the existing economic structure, it tends to become obsolete as structural transformation takes place. Hence the necessity arises in due course to reform the same economic system. We consider that, just for this reason, reform of the current economic system is necessary, and when carefully formulated it should be successful. We also consider that the basic direction of the reform is towards the introduction of a mechanism of economic adjustment by price and other market-type instruments, to a substantial extent. However, it should be cautioned that there may be some factors in the existing system and policy lines which have not yet become obsolete. The fact should also be noticed that, due to the economic underdevelopment of China, there still remains a large area in which the market mechanism does not work well. In this area in particular, the factors related to the traditional and traditional-related system should play important roles.
- '3. In the above, we have noted the importance of paying utmost effort to avoid "the trial and error method of a large scale." However, under the present situation in which a rapid development of statistical and planning facilities and techniques cannot immediately be achieved, a

"trial and error method at the margin" seems inevitable for exploring the state of a proper macroeconomic balance or the form of a viable institution or organization. This may even be useful. While on the basis of available data it is difficult to say definitely, it is likely that the frequent and sometimes zig-zag type policy changes that occurred in Phase III relating to the allocation of investment funds among sectors, the foreign currency allocation among projects and regions, and other policy measures, are the result of applying this type of the trial and error method. Therefore, the prospects for the definite patterns of the system and policy lines should also be considered from rather a longer-term perspective which goes beyond short-term policy fluctuations.

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The Preliminary Results of China's 1982 Census*

John S. Aird

On 27 October 1982 the State Statistical Bureau (SSB) issued a communiqué giving the eagerly awaited preliminary results of China's third national population census, taken as of 1 July 1982. The figures consisted mainly of national data based on responses to eight of the 19 items on the census questionnaire - those that could most easily be tabulated manually by local census personnel within a short time. In December the State Council Population Census Office and the SSB Population Statistics Division published a 55-page pamphlet giving both national and provincial figures on the population by sex; by rural, urban, municipal and town residence; by educational level and literacy; on births, deaths and vital rates in 1981; on households by type and residential status; on average size of household; and national data on minorities. National figures have also been provided on the frequency of overcount and undercount in the population totals and error rates in the data on age, sex, and births and deaths in 1981. The most interesting of the national data are given in Table 1, together with comparable figures from the 1953 and 1964 censuses and from other sources for more recent years. Selected provincial data are given in Table 2.

The Urban Population Figures

The census contains a few surprises and one major anomaly that raises serious questions as to the accuracy of the census population totals. Among the surprises, the most conspicuous is the census urban population total of 206.6 million, which is larger by about 68 million than the urban total for year-end 1981 released in August 1982.2 The new figure increases the urban proportion from 13.9 per cent to 20.6 per cent. However, the number of urban places in 1982 was said to be an even 2,900, well below the 3,452 for 1979 cited as recently as November 1982,3 not to mention the 5,568 at the time of the 1953 census.4 In

^{*} The views expressed in this article are those of the author and do not constitute or reflect official positions of the U.S. Government.

^{1.} State Statistical Bureau (SSB), "Communique on major figures in the 1982 population census," Xinhua-English (Beijing), 27 October 1982, Foreign Broadcast Information Service (FBIS), Daily Report, China, No. 208 (27 October 1982), pp. K2-5; and State Council Population Census Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha de zhuyao shuzi (Important Data from China's Third Population Census) (Beijing: Zhongguo tongji chubanshe), 1 December 1982.

^{2.} A year-end 1981 figure of 138.70 million was given in SSB, Zhongguo tongji nianjian 1981 (Statistical Yearbook of China 1981) (Beijing: Zhongguo tongji chubanshe), August 1982, p. 89.

^{3.} Zhu Zhuo, "Zhongguo de renkou zengzhang yu fenbu" ("The growth and distribution of the population of China"), Dili zhishi (Geographical Knowledge), No. 11 (November 1982), p. 4.

^{4.} Morris B. Ullman, Cities of Mainland China: 1953 and 1958, International

Table 1: National Demographic Data for China from the 1953, 1964 and 1982 Censuses and Other Recent Figures

Type of Data	1953 Census	1964 Census	1982 Census	Other Recent Data
Total Population	582,603,417	694,581,759	1,008,175,288	996,222,244*
Sex Ratio	107 - 56	105 - 46	106 · 28	105 · 23*
Urban Population				
Old definitions	77,257,282	97,910,000		138,700,000ª
970	13 · 26	14.10		13 - 92*
New definition	-	127,103,041	206,588,582	_
9/0	-	18.30	20.58	-
Minority Population	35,320,360	39,923,736	67,233,254	54,800,000b
970	6.06	5.75	6.67	5 · 72b
Illiterate and				
Semi-literate	_	263,354,820	235,820,002	_
% of total	_	37 · 92	23 · 39	
Education Level				
Primary	_	195,824,459	355,160,310	
Junior middle		32,346,788	178,277,140	
Senior middle	-	9,116,831	66,478,028	0
College	_	2,875,401	6,016,969	_
Vital Rates				
Birth rates	37°	39 · 34c	20.914	16.98°
Death rates	14c	11 · 56°	6.36d	6.34e
Natural increase				
rates	23°	27 · 78°	14.55d	10.64°
Post-enumeration				
Survey Results (9	(6)			
Overcount	0.139	0.0377	0.071	
Undercount	0.255	0.0391	0.056	_
Net error	-0.116	-0.0014	+0.015	_

Notes and Sources:

* Registration data for year-end 1981; figures do not include the military.

10万世 年 1800年 1800年 1800年

1953 census – SSB, "Communiqué of results of census and registration of China's population," Xinhua (Beijing), 1 November 1954, American Consulate General (Hong Kong), Current Background, No. 301, 1 November 1954, pp. 1-2.

1964 and 1982 censuses – SSB, "Communiqué on major figures in the 1982 population census," Xinhua-English (Beijing), 27 October 1982, FBIS, No. 208 (27 October 1982), pp. K2-5.

1981 population total - State Council Population Census Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha de zhuyao shuzi (Important Data from China's Third Population Census) (Beijing: Zhongguo tongji chubanshe), 1 December 1982, p. 11.

1981 sex ratio and urban population total - SSB, Zhongguo tongji nianjian 1981 (Statistical Yearbook of China 1981) (Beijing: Zhongguo tongji chubanshe), August 1982, p. 89.

1978 minorities total - Zhou Qing, "Some perceptions concerning minority population

developments in China," Renkou yanjiu (Population Research), No. 3 (29 May 1982), Joint Publications Research Service, No. 81, 460, 5 August 1982, p. 76.

1980 vital rates – Li Muzhen, "Zhongguo renkou wenti zhongdian zai nongcun" ("The focal point of China's population problem is in the rural areas"), Renkou yu jingji (Population and Economy), No. 6 (25 December 1982), p. 3.

1953 and 1964 vital rates - Zhang Huaiyu et al., Renkou lilun gaishuo (Introduction to Population Theory) (Zhengzhou: Henan renmin chubanshe), April 1981, p. 83.

September 1981 it was revealed for the first time that the 1964 census had counted an urban population of 97.9 million, but the 1982 census communiqué revised the figure upward to 127.1 million. Obviously there has been a change in the definition of "urban" which has increased the size of the urban population while reducing the number of urban places.

Up to this point, the particulars of the new definition have not been made entirely clear in any published Chinese source. A recent article by Li Chengrui, director of the SSB, who was also in charge of technical planning and management of the 1982 census, refers to a State, Council regulation on the establishment of municipalities and towns which stipulates that places with 3,000 or more inhabitants of whom at least 70 per cent are non-agricultural and places with 2,500 to 3,000 of whom at least 85 per cent are non-agricultural may be established as towns, and that places with 100,000 or more and places with less than 100,000 that contain provincial "leadership organs" may be established as municipalities. Under this definition, Li says, China has 2,664 towns and 236 municipalities. He also notes that there are two ways of defining the urban population in China, one of which includes the entire resident population in the municipalities and towns and the other excludes those residents who receive their rations under the rural distribution system. The 1982 census used the more inclusive definition. 6 This definition does not include the population in rural counties under the administrative authority of the larger municipalities, according to the 27 October communiqué, but how the urbanized area of a municipality is distinguished from its rural hinterland is not explained. Presumably the number of urban places has been reduced by increasing the minimum size limits, which in the 1950s had included some places of less than 1,000 population.7 In general, the new definition probably comes closer to what would be considered urban in other countries and gives a more realistic measure of the extent of urbanization in China, but the urban census figures and any subsequent figures that follow the new definition will not be comparable with previous urban figures, making it difficult to trace historical urban growth over the past 30 years.

b Data for 1978.

c Registration (not census) data for the year indicated.

d Census data for 1981.

e Registration data for 1980.

Population Reports, Series P-95, No. 59, Foreign Manpower Research Office, U.S. Bureau of the Census, Department of Commerce, Washington, D.C., August 1981, p. 8.

^{5.} Li Chengrui, Population Censuses in China, Beijing, SSB, September 1981, pp. 4-5.
6. Li Chengrui, "Cong renkou pucha gongbao kan zhongguo renkou de xianzhuang - jian lun zhongguo renkou tongji shuzi de zhunquexing" ("The Chinese population as shown by the population census communiqué - some comments on the accuracy of Chinese population statistics"), Jingji yanjiu (Economic Research), No. 12 (20 December 1982), pp. 31-32.

^{7.} There were 193 "towns" with less than 1,000 inhabitants in 1953 and 727 with populations of 1,000 to 2,000. See SSB, "Guanyu chengxiang huafen biaozhun ruogan

Table 2: Provincial Data from the 1982 Census

			% Annual				%	%		%
Province,			Average			%	Senior	Junior	%	Illiterat
Region or		Density	Growth Rate	Sex	%	College	Middle	Middle	Primary	or Semi
Municipality	Population	(per sq. km.)	Since 1964	Ratio	Urban	Graduates	School	School	School	literate
China	1,0003,937,078	105	2 · 1	106 · 3	20.6	0.4	6.6	17.8	35.4	23 · 5
Beijing	9,230,687	549	1 · 1	102 · 4	64.7	3.6	17.6	29 · 1	26.2	12-4
Tianjin	7,764,141	687	1 · 2	103 · 1	68 - 7	1.6	13.3	28 - 5	30.8	13.9
Hebei	53,005,875	282	1 · 7	104 8	13.7	0 3	7.5	19.3	36.4	22 · 3
Shanxi	25,291,389	162	1.9	108 - 5	21.0	0.4	7.4	21.9	38.8	18.0
Nei Monggol	19,274,279	16	2.5	109.0	28.9	0.4	7.5	19.3	32.8	22.4
Liaoning	35,721,693	245	1.6	104 · 2	42-4	0.7	9.3	27 · 6	35.7	12.9
Jilin	22,560,053	120	2.0	105.0	39.6	0.6	10.8	20.9	36.0	16.2
Heilongjiang	32,665,546	69	2.7	104 · 9	40 · 5	0.5	9.4	22 · 2	35.5	16.1
Shanghai	11,859,748	1,913	0.5	99 · 3	58-8	2.4	20 · 3	28-0	25 · 2	14.3
Jiangsu	60,521,114	590	1.7	103 · 4	15.8	0.5	7.0	20 1	32.6	14·3 27·2
Zhejiang	38,884,603	382	1.8	107 - 7	25.7	0.3	5.2	17.8	39-4	24-2
Anhui	49,665,724	356	2.6	107 · 8	14.3	0.3	4.0	14.2	29.7	33 4
Fujian	25,873,259	213	2 · 4	105 - 9	21 · 2	0.5	5.7	12.6	36.3	26-3
Jiangxi	33,184,827	199	2.6	106 - 5	19.4	0.3	5.5	13.3	38.6	22.0
Shandong	74,419,054	486	1.6	102 · 9	19-1	0.3	5.9	17.7	33.7	28.0
- Henan	74,422,739	446	2.2	104 · 1	14-1	0.0				
łubei	47,804,150	255	2.0	105 - 5		0.2	6.3	19.2	31 · 2	26.9
Iunan	54,008,851	257	2.1	103 · 3	17.3	0.4	7.5	18 7	35.6	23.3
uangdong	59,299,220	280	2.1	104 · 6	14.4	0.3	6.5	17.3	43.0	17.6
uangxi	36,420,960	158	2.5		18.7	0.4	7.9	16.9	40.6	16.4
			2 3	107 · 3	11.8	0.3	6.5	15.7	38 · 8	17.2
ichuan	99,713,310	176	2 · 1	106.6	1.4.0					
uizhou	28.552.997	162	2.1	100.0	14.3	0.3	4.0	15.5	41 · 4	23 - 4

Yunnan

Xizang

Shaanxi

Gansu

Qinghai

Ningxia

Xinjiang

28,552,997

32,553,817

28,904,423

19,569,261

3,895,706

3,895,578

13,081,681

1,892,393

162

83

141

43

5

59

8

1.6

2.9

2.6

2.3

1.9

2.5

3.4

3.5

3.3

State Council Population Census Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha de zhuyao shuzi (Important Data from China's Third Population Census) (Beijing: Zhongguo tongji chubanshe), 1 December 1982, pp. 6, 7, 13, 14, 23 and 24.

105 - 2

102 · 8

97.8

107 - 4

107 - 2

106.0

106.2

106.0

19.7

12.9

9.5

19.0

15.3

20.5

22.5

28 · 4

0.3

0.2

0.4

0.6

0.4

0.7

0.5

0.5

3.0

2.8

1.2

7.9

6.3

5 · 1

5.3

6.4

11-4

10.2

3.6

19.4

12.2

14.0

15.5

17.5

28.8

29.3

16.5

32.7

27 - 7

25.7

25.7

33.8

32 - 1

33.7

51.8

24.7

34.9

31.9

28.9

20.9

Sex Ratios

The new national sex ratio indicated by the 1982 census is also a small surprise. Sex ratios in China have traditionally been comparatively high, due in part to under-reporting of females and in part to high maternal mortality, female infanticide, and the neglect of female infants and children prior to the 1950s. In the early 1950s the government made a determined effort to eliminate female infanticide and improve the health of mothers and children, and, as a result, there were indications that the sex ratio was gradually falling. The 1953 census showed a sex ratio of 107.6 males per 100 females and the 1964 census a sex ratio of 105.5. According to registration data, the national sex ratio dropped below 105 by the late 1960s but was again over 105 by 1975 and had reached 105.2 by year-end 1981.8 Compared with these figures, the 1982 census sex ratio is definitely at a higher level.

The main reason for the rise is that the census data include the military component of 4.24 million, which is predominantly male and has been excluded from the registration totals in recent years, but this is not the whole explanation. Another factor is the resurgence of female infanticide and the abandonment of female infants, caused by the enforcement of the one-child family limitation in a country where the preference for male offspring is still very strong, especially in the rural areas. In November 1982 a writer in the China Youth Daily said that "many readers "had recently written to the newspaper to report that many girl babies were being drowned or left on street corners by their parents. He added that in some rural communes during the past two years the sex ratio among newborns has risen as high as 3:2 (or 150 males per 100 females) and that unless this phenomenon is checked immediately a serious imbalance in the sexes could result.9 A national magazine subsequently revealed that the sex ratio is out of balance in China at ages zero to three or four, and a provincial newspaper cited data from a street in Wuhan municipality and a village in Hubei province showing that the sex ratio rises sharply from age zero to age four, in the latter case reaching 503!10 The implication is that the killing of girls is not limited to the first year of life. The 1982 census provided further evidence on this point. It found a sex ratio of 108.5 among the births reported for 1981 instead of the expected ratio of around 106, and in the three provinces which included age among their manual tabulations

abnormally high sex ratios are apparent at ages zero through two.11

The recent upsurge in female infanticide and in the abuse, divorce and killing of women who bear female infants is evidently regarded as a serious matter by the Chinese authorities. Protection of female infants and their mothers was mentioned in the circular designating January 1983 as a national family planning propaganda month, 12 and Premier Zhao Ziyang drew a round of applause when he condemned infanticide and mistreatment of mothers in his report on the Sixth Five-year Plan at the Fifth National People's Congress. 13 However, the authorities have taken steps to strengthen the enforcement of the one-child family policy in 1983, which may well result in a further rise in sex ratio among newborns.

Minorities

The 1982 census figures show an upturn in the percentage that minorities comprise of the national total, whereas previous figures seemed to indicate a long-term decline. According to the 1953 census, minorities accounted for 6.1 per cent of the total, but the 1964 census put them at 5.7 per cent, and a 1978 compilation of uncertain basis also gave them as 5.7 per cent.14 Why their proportion should have been declining is not clear. They were exempt from the requirements of the family planning programme until quite recently, and even now its enforcement is supposed to be less strict in minority areas than among the Han population. One explanation is that some of the minorities were becoming assimilated and thus losing their minority identity. On the eve of the census, in November 1981, the State Nationalities Affairs Commission issued a " Notice Concerning the Principle of Dealing with the Rehabilitation and Correction of Nationality Status, "which was to be implemented prior to the census.15 The official explanation was that members of minorities who had been reporting themselves as Hans because they had been discriminated against under the "gang of four" now wanted to reassert their minority status, but one of the provincial circulars on this subject issued in August 1981 demands that they " stop pretending to be of Han nationality" and "honestly" report their

zhuyao wenti de shuoming " (" Explanation of the criteria established for the demarcation of rural and urban areas"), Xin Hua banyuekan (New China Semi-Monthly), No. 3 (February 1956), pp. 7-8.

^{8.} The national sex ratio was 104.9 in 1965 but was 105.2 in 1978 and 1981. See SSB, Zhongguo tongji nianjian 1981, p. 89.

^{9.} Yang Fan, "Save the baby girls," Zhongguo qingnian bao (Chinese Youth Gazette) (Beijing), 9 November 1982, FBIS, No. 235 (7 December 1982), pp. K55-56.

^{10.} Commentator, "Chedi dapo 'zhong nan qing nu' de fengjian naojin" ("Thoroughly destroy the feudal idea of 'preferring males to females'"), Jiankang bao (Health Gazette), 13 January 1983, p. 1; and Pu Yun, "Ling ren buan de shuzi" ("Disturbing figures"), Gansu ribao (Gansu Daily) (Lanzhou), 19 January 1983, p. 4.

^{11.} State Council Population Census Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha de zhuyao shuzi, pp. 18-19, 27, 29, and 31. The three provinces are Hebei, Zhejiang and Henan.

^{12.} Xinhua (Beijing), 9 December 1982, FBIS, No. 241 (15 December 1982), p. K21.

Xinhua-English (Beijing), 13 December 1982, FBIS, No. 240 (14 December 1982), p. K11.

^{14.} The 1953 figures are from SSB, "Communiqué of results of census and registration of China's population," Xinhua (Beijing), 1 November 1954, American Consulate General, Hong Kong, Current Background, No. 301 (1 November 1954), p. 2. The 1964 figures were obtained from the 1982 census communiqué; the 1978 figures were given in Zhang Tianlu, "You jihua di fazhan woguo shaoshu minzu renkou cujin minzu fanrong" ("Develop the population of China's minority nationalities in a planned way to promote the prosperity of the various peoples"), Renkou yu jingji (Population and Economy), No. 1 (1980), p. 28.

^{15.} Bai Jianhua, "Tian xie hao renkou pucha biao shi tigao renkou pucha zhiliang de guanjian" ("The key to raising the quality of the census is to fill out the census questionnaires well"), Tongji (Statistics) No. 2 (17 April 1982), p. 17.

"origins." Hence it is likely that the increase in the percentage of minorities in China's population shown by the 1982 census may be due in large measure to the resumption of minority status by members of minorities who had previously been "passing" for Han.

Education and Literacy

Because of the design of the 1982 census questionnaire, the data on education and literacy probably tend to exaggerate both. With the exception of individuals who had received a college education, the census question did not distinguish between those who completed a given level of schooling and those who left without finishing or were still enrolled at that level at the time of the census. The question was asked of everyone aged six and over, but the percentage figures in Table 2 were derived from rates per thousand population at all ages, which is the way the figures were given in the volume of provincial census results, because the manual tabulations did not include age data and therefore could not provide cross tabulations by age. Rates based on the total population tend to understate educational attainment, but when tabulations by age are available, the bias will be in the other direction.

There was no separate question on literacy in the census. People who declared themselves to be illiterate or semi-literate were assigned code 6 under the education question. This means that anyone claiming to have received formal education could not also be listed as illiterate. There was, of course, no practical way of testing literacy, although many of those with limited education may have lapsed into functional illiteracy since leaving school.¹⁷

Vital Rates

Asking respondents in a census to report the numbers of births and deaths in their family during a prior year is not generally regarded as a very effective way of getting at the true level of fertility and mortality, but this has turned out to be one of the most informative of the items on China's 1982 census schedule tabulated thus far. The data show that the birth and natural increase rates derived from the population registers for 1981 were much too low for the country as a whole and for almost all of the provincial level units. The SSB communiqués on fulfilment of the national economic plans for 1980 and 1981 did not give the national vital rates as they had in the two years previous, because, it has since been explained, the SSB considered the data too inaccurate to publish due to

the serious under-reporting of births by local cadres anxious to show "success" in attaining family planning targets. Instead, the communiqués gave only the population growth rates derived from the absolute population totals. But the national and provincial vital rates for 1980 and some of the provincial vital rates for 1981 have since appeared in other Chinese sources. Li Chengrui has revealed that the registration-based birth rate for 1981 was 17.6 per 1,000, and another source says that the 1981 natural increase rate was "under 12 per 1,000, but a weighted average of the provincial natural increase rates for 1981 based on registration data yields a national natural increase rate of only 10.98 per 1,000.

The registration vital data for 1980 and 1981 and the census vital data for 1981 are given in Table 3 with percentage figures on the underregistration of vital events in 1981 implied by the census figures. The data suggest that the population registers under-reported births by 15.6 per cent and natural increase by at least 17.5 and perhaps as much as 24.5 per cent, and it is unlikely that the census data on births were complete. Respondents evidently told the census-takers about some 3.23 million births concealed by the local cadres but they probably would not have reported births which they themselves had concealed. The actual 1981 birth rate of China could have been several points higher than the 20.91 per 1,000 found by the census.

For all of the provincial level units for which figures are available, the census found a higher birth rate than had been reported from registration. The range of implied under-registration is from 3.5 per cent in Beijing to 33.3 per cent in Heilongjiang. The census natural increase rates are higher in every case except for Shanghai; for Heilongjiang under-registration is over 44 per cent, and for nine other provinces it exceeds 30 per cent. The figures for the death rate are inconsistent and rather puzzling. For three provinces the under-registration of deaths exceeds 15 per cent, but there are five provinces for which the census data imply that registration overcounted deaths. It is hard to conceive of a rationale for overcounting deaths, hence the suspicion arises that in many places the census did not get a full report of deaths from household representatives. In several cases, such as Heilongjiang and Anhui, the census death rates for 1981 are implausibly low, and it would be hard to explain why the rates for Guangxi and Gansu should be so much lower than those for such provinces as Shanxi or Hunan. Some of the other provincial death rates for 1981 derived from census data may also be too low but not as conspicuously so as were their registration death rates for 1980 and 1981. In sum, the census vital data for 1981 provide convincing evidence that registration vital data have been seriously deficient. They also leave room for doubt that the census itself took an adequate

^{16.} Shenyang radio, Liaoning Provincial Service, 15 August 1981, FBIS, No. 168 (31 August 1981), p. S1.

^{17.} The manual tabulation of the literacy data posed a special problem for the local census workers. Apparently everyone aged six and over who claimed no formal education was included in the sixth response category on the education question. But tabulators were required to make a separate tally of the sixth category persons aged 12 and over, which meant that they had to check the ages of all such persons and eliminate those aged six to 11. The figures on illiteracy and semi-literacy are given both for those aged six and over and those aged 12 and over in the booklet of provincial census results. The difference in the national totals is some 48 million.

^{18.} Li Chengrui, "Cong renkou pucha gongbao kan zhongguo renkou de xianzhuang," p. 36.

^{19.} Ibid.

^{20.} British Broadcasting Corporation, Summary of World Broadcasts, Second Series, FE/W1172, 17 February 1982, p. A/1.

measure of fertility and mortality in China. The Chinese statistical authorities have with good reason decided to establish a system of sample surveys to supplement registration data and to work at improving the accuracy of vital registration.²¹

Total Population Figures

The major anomaly in the census results is that the national population total counted by the census came so close to the level of the registration population totals in spite of the discrepancies in the vital rates. The total of 1,008,175,288 for the mainland of China (excluding Taiwan, Hong Kong, Jinmen, Mazu and the overseas Chinese) includes 4.24 million people whose records are maintained by the military, presumably soldiers, their dependants who reside on military bases, and some maintenance personnel. This component has not been included in the annual registration figures in recent years, though it is not clear in what year the registration totals began to exclude the military. Subtracting the military from the census total reduces it to 1,003,937,078, which is only 807,533 people, or 0.08 per cent, larger than the mid-year 1982 figure that can be projected by applying to the year-end 1981 registration total the half-year equivalent of the net growth rate of the population as shown by registration data for the year 1981.22 The provincial census totals are also quite close to the figures that can be projected from registration data. The calculations are shown in Table 4.

In no case does a provincial census total differ from the projected figure by as much as 1.5 per cent. The largest difference is for Xizang (Tibet), in which no field count had been taken during the previous two censuses. For 22 of the provinces the difference is less than 0.5 per cent, and for three it is less than the 0.08 per cent difference in the national figures. In 10 cases the census figures were lower than the projected figures, the most extreme case being the economically depressed province of Anhui, where the census found 221,000 fewer people than might have been expected.

The closeness of the census totals to the registration totals was immediately hailed by the Chinese census authorities as proof of the

accuracy of both census and registration data. At the 27 October press conference on the preliminary census results, Li Chengrui remarked that the new total was "consistent with China's past statistics" and that "this indicates that the population figures published by China every year have been fairly accurate." On 4 November Qian Xinzhong, the minister in charge of the State Planning Commission, said that the census total was "very close to his estimate and proved that China's family planning has been a success."

The main problem with these interpretations is that they seem to ignore the fact that the census data have shown the registration vital rates to be quite inaccurate. Since the annual population totals supposedly confirmed by the census came from the same registration system that produced the vital rates and since the registration system depends for the accuracy of its population totals on accurate reporting of births, deaths and migration, how was it possible for the system to keep close track of the size of the population when it could not keep track of the year-toyear changes? The errors in reporting births and deaths in China, as in most other countries, apparently result in net omissions, and the underreporting of births is more frequent than the under-reporting of deaths, so that natural increase is understated. The effects of such understatement on a continuous register system would be cumulative over time and should have amounted to a considerable discrepancy in the 18 years since the 1964 census. Hence there seems to be an internal contradiction in the 1982 census results.

Some questions have apparently been raised about this contradiction in Chinese statistical circles. In the recent article by Li Chengrui cited earlier, the main purpose of which is to defend the official position that China's population statistics are highly accurate, he says that "statistics for 1980 and 1981 show that the numbers of in-migrants markedly exceed the numbers of out-migrants" between local areas in China, an implausible situation because nationally the figures should balance, and from this he concludes that "many places have reported births as in-migrants." This is his explanation as to why despite the inaccuracy of vital statistics "the population total is close to reality." The purpose of such deliberate misreporting, presumably, is to get the newborns into the registers so that they can draw rations but keep them out of the birth statistics so that they do not embarrass local cadres who have not met their family planning targets.

Li's explanation does not seem entirely plausible. In the first place, it is not likely that the central authorities have a complete compilation of local migration statistics. Such figures would have little meaning for higher levels because they could not distinguish internal from external migration at each unit level without recording origin and destination for

^{21.} Population Analysis Team, State Council Population Census Office, and SSB Population Statistics Division, "Guanyu woguo renkou zhuangkuang de jidian fenxi" ("An analysis of several points relating to the population of China"), Renmin ribao (People's Daily) (Beijing), 16 November 1982, p. 5.

^{22.} The Chinese census authorities also estimated the difference between the census and registration totals, but they did it somewhat differently. Starting with the 1982 census total of 1,008-18 million, they assumed that the 1982 natural increase rate was the same as that the census had shown for 1981 and thus estimated a natural increase figure for 1982. Then they assumed that only 45% of the increase occurred in the first half of the year. They subtracted this figure, which they estimated at 6-58 million, and the military component of 4-24 million from the census figure, which gave them a year-end 1981 figure of 997-36 million, 1-14 million larger than the reported year-end 1981 figure based on registration. See Population Analysis Team, State Council Population Census Office, and SSB Population Statistics Division, "Guanyu woguo renkou zhuangkuang de jidian fenxi," p. 5.

^{23.} Xinhua-English (Lhasa), 28 October 1982, Joint Publications Research Service (JPRS), No. 82, 226 (12 November 1982), p. 174.

^{24.} Xinhua-English (Beijing), 27 October 1982, FBIS, No. 209 (28 October 1982), p. K2. 25. Liu Dizhong (reporter), "Family planning 'ensures China's population target," "China Daily, 5 November 1982, p. 1.

Li Chengrui, "Cong renkou pucha gongbao kan zhongguo renkou de xianzhuang,"
 37.

Table 4: National and Provincial Population Totals for 1980 and 1981, Implied Growth Rates for 1981, Projected Mid-year 1982 Figures and 1982 Census Figures

Province Region or Municipality	Year-end 1980 (millions)	Year-end 1981	Implied Growth Rate %	Projected Figures, mid-year 1982	Census Figures, mid-year 1982	Difference	% Difference
China	982 · 55	996,222,244	1 · 39	1,003,129,545	1,003,937,078	+ 807,533	+0.08
Beijing	8.86	9,018,886	1 · 79	9,099,394	9,230,687	+ 131,293	+1.42
Tianjin	7.51	7,627,520	1.56	7,686,968	7,764,141	+77,173	+0.99
Hebei	51.68	52,562,921	1 . 71	53,010,022	53,005,875	-4,147	-0.008
Shanxi	24.765	25,087,671	1 · 30	25,250,580	25,291,389	+40,809	+0.16
Nei Monggol	18.765	19,029,157	1 · 41	19,162,627	19,274,279	+111,652	+0.58
Liaoning	34.869	35,348,371	1 - 37	35,590,522	35,721,693	+ 131,171	+0.37
Jilin	22.098	22,309,455	0.96	22,415,940	22,560,053	+ 144,113	+0.64
Heilongjiang	32 · 04	32,392,727	1 · 10	32,570,544	32,665,546	+95,002	+0.29
Shanghai	11-4629	11,628,380	1 · 44	11,712,014	11,859,748	+ 147,734	+1.25
Jiangsu	59-38	60,102,421	1 · 22	60,466,921	60,521,114	+ 54,193	+0.09
Zhejiang	38 · 27	38,715,124	1.16	38,939,624	38,884,603	-55,021	-0.14
Anhui	48.93	49,565,502	1 · 30	49,886,341	49,665,724	-220,617	-0.44
Fujian	25 · 1778	25,568,993	1 · 55	25,766,863	25,873,259	+ 106,396	+0.41
Jiangxi	32 - 70	33,039,235	1.04	33,210,170	33,184,827	-25,343	-0.08
Shandong	72.96	73,948,324	1 · 35	74,447,495	74,419,054	-28,441	-0.04
	e e			(92)			
Henan	72 · 85	73,969,703	1 · 54	74,535,992	74 422 720		
Hubei	46 · 84	47,403,489	1 · 20	47,687,771	74,422,739 47,804,150	-113,253	-0.15
Hunan	52 - 81	53,600,511	1 · 50	54,000,193	54,008,851	+116,379	+0.24
Guangdong	57-80	58,840,625	1.80	59,367,942	59,299,220	+ 8,658	+0.02
Guangxi	35 38	36,128,355	2 · 12	36,508,448	36,420,960	-68,722 -87,488	-0·12 -0·24
Sichuan	98:196	99,240,339	1.06	99,766,666	99,713,310	-53,356	0.06
Guizhou	27 · 77	28,267,827	1 - 79	28,520,077	28,552,997	+ 32,920	-0.05
unnan	31 · 74	32,227,684	1 - 54	32,474,329	32,553,817		+0.12
(izang (Tibet)	1.85	1,849,573	0.52	1,864,378	1,892,393	+ 79,488 + 28,015	+ 0 · 24 + 1 · 48
haanxi	28.314	28,645,197	1 · 17	28,812,245	28,904,423	+92,178	10.33
Gansu	19.18	19,414,012	1 - 22	19,532,086	19,569,261		+0.32
)inghai	3.77	3,815,986	1 · 22	3,839,189	3,895,706	+37,175	+0.19
Jingxia	3.737	3,833,771	2.59	3,883,092	3,895,578	+ 56,517 + 12,486	+1.45
Cinjiang	12.83	13,030,485	1.56	13,131,899	13,081,681	-50,218	+0.32

Sources:

Year-end 1980 figures - Zhongguo jingji nianjian (Annual Economic Report of China), 1981 (Beijing: Jingji guanli zazhishe, no date), pp. IV 226-320; Ta kung pao (Hong Kong), 27 December 1981, p. 3; and various provincial news dispatches.

Year-end 1981 figures - State Council Population Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha zhuyao shuzi (Important Council Population Council Population Council Population Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha zhuyao shuzi (Important Council Population Council

Data from China's Third Population Census) (Beijing; Zhongguo tongji chubanshe), 1 December 1982, p. 11. 1982 census figures – *Ibid.* p. 6.

all migrants, an impossible task for statisticians without computer assistance. In fact, in January 1982 an authoritative source on Chinese population statistics said categorically that statistics on migration " are actually not being compiled."27 If the reports are for selected areas only and if the sample were disproportionately urban, the imbalance Li notes would be understandable as the result of the prevailing rural to urban movement widely reported in China in the past several years. Even if the data were based on a representative national sample of reporting areas, there is no reason why an excess of in- over out-migrants should be taken as proof that births are being reported as in-migrants and certainly not that this is the sole explanation. Much of the migration in China that is not state-directed is unauthorized and does not involve the issuance of removal permits and the recording of departures and arrivals. Unauthorized migrants often secure admission to the registers at their point of destination by going "through the back door," and thus may be listed as in-migrants without ever having been reported as outmigrants. Registration recordkeeping has never attained such efficiency that an imbalance in migration statistics could be taken as certain evidence of anything.

Besides, it is hard to understand why cadres who were under-reporting births on such a large scale would have felt compelled to add an equal number of in-migrants to the records. Not only are there local quotas for births but there are also local targets for population size, which are based on the national goal of keeping the population under 1.2 billion by the year 2000 and on the annual national population plans, which are allocated to the provinces and thence to their component units. Omission of births would not help in the attainment of these goals if the births were recorded as in-migrants, and an examination of the local population records would quickly expose the fraud. Li himself did not seem to believe that unregistered births were being recorded as in-migrants in September 1981 when he wrote that the failure to register births had met with popular opposition because it deprived the newborns of grain and cloth rations, an argument that would not have been valid if they had been entered into the registration records as migrants.²⁸

The discrepancy between the reported national natural increase rates and the growth rates shown by the official population totals is not something that appeared for the first time in 1980 and 1981. For the past 14 years the growth rates have consistently exceeded the natural increase rates, and before 1965 there were some years in which the natural increase rate exceeded the growth rate. In 32 years there was only one year in which the two rates coincided, and that was in 1965, when both were 28.51 per 1,000, a coincidence so rare and so exact as to prompt the suspicion that one was derived from the other. In fact, there have been persistent internal inconsistencies in China's national population data

28. Li Chengrui, Population Censuses in China, p. 17.

that have pitted the official vital rates not only against population growth rates but also against absolute totals of births and deaths and age structures derived from censuses and surveys, as foreign analysts have noted. ²⁹ These discrepancies are often minor, but they are serious enough to challenge any claim that China's official data prior to the 1982 census have been highly accurate.

Pre-census Chinese Views

Before the census results appeared, many Chinese authorities seemed to have reached a similar conclusion. For years there had been complaints about unregistered migrants and the deliberate non-reporting of deaths by families anxious to retain the rations of the deceased. On the eve of the 1964 census, a check-up of registration reportedly found that the records had omitted 2,338,898 people and listed 8,200,246 that should have been deleted, for a net overcount of 5,861,348. The difference was subtracted from the registration population totals prior to the census. Obviously it had accumulated over time as a result of incomplete recording of births, deaths and migration. The underreporting of births was not explicitly recognized in China as a major problem until recently, but there is reason to believe that the current family planning campaign has only exacerbated a perennial problem.

Prior to the check-up of registration in 1981 and the spring of 1982, many Chinese sources complained that the population registers were in disarray, that the data contained many errors, and that only a new census could obtain reliable data. Some of the errors in registration data were blamed on the "10 years of turmoil" during the Cultural Revolution, when, as Li Chengrui said in September 1981, registration work was "interfered with" and "turned into a mess." Some Chinese sources said that the inaccuracies in population data were due to the fact that no census had been taken in China for 18 years, an explanation that clearly assumes that errors in the records accumulate between censuses. A People's Daily article made this point in February 1982:

As a census has not been taken for a long period of time in our country, we lack accurate statistical figures. There are quite a few errors in the birth rate, the child bearing rate, the death rate, and the rate of population growth. Figures such as the proportion of males to females, the age structure, the distribution of the population, and so on are not too accurate.³³

^{27.} Wang Weizhi, "Tongguo renkou pucha tigao renkou tongji ziliao_gde zhiliang" ("To improve the quality of demographic statistics by means of a population census"), Renkou yanjiu (Population Research), No. 1 (29 January 1982), p. 41.

^{29.} These were first examined in detail in John S. Aird, "Reconstruction of an official data model of the population of China," a paper presented at a conference on the population of China held at the East-West Center, Honolulu, Hawaii, in May 1980. A more elaborate analysis incorporating many historical data for China not available in May 1980 will be given in a forthcoming U.S. Census Bureau report.

^{30.} Mao himself remarked on the latter problem in an interview with Edgar Snow back in 1965. See Edgar Snow, "Interview with Mao," The New Republic, 27 February 1965, p. 20

^{31.} Li Chengrui, Population Censuses in China, p. 18.

^{32.} Ibid. p. 22.

^{33.} Jin Li, "The significance of China's third census," Renmin ribao, 26 February 1982, FBIS, No. 42 (3 March 1982), p. K3.

Provincial sources noted that the disruption of population statistical work during the Cultural Revolution had "seriously affected" the accuracy of population data, that the check-up of registration had discovered "a great deal of confusion," that the local authorities have no clear picture of the base population figures, and that, because of the long interval since the last census, cacurate population data are lacking and many deviations and errors exist in birth rates, fertility rates, death rates (and) natural increase rates. In June 1981 Li Chengrui said that because of limiting conditions the accuracy of registration figures is never sufficiently high and that one of the purposes of the census was to test the accuracy of the (registration) population statistics. Another Chinese source said that the registration system, supposedly established nationwide in 1954–56, was not yet perfected in rural areas and thus provided only a relatively poor foundation for census work.

In the spring of 1982 several other sources gave a clue as to what the remaining imperfections were. Shanghai municipality revealed that it was beginning to issue household books to 840,000 rural families that had never had them before, which meant that they could not determine birth dates or legal residence, and in some places, that births, deaths and departures for military service were simply not registered at all. Also, in other parts of the country, 11,000 new police sub-stations, the units which maintain the local household registration records, had been established for the first time during 1981 to help the local authorities to strengthen political power at the basic level in rural areas and downwell in population statistics. In December 1982 the State Council issued a circular on solving the problem of the very large numbers of people in the country who were still not in the population registers. These included people who went back to their native places because of retirement, release from prison, or divorce, people who were

34. Commentator, "Tigao renshi jiaqiang lingdao gaohao renkou pucha" ("Heighten awareness, strengthen leadership, and do well in population census"), Xinhua ribao (New China Daily) (Nanjing), 2 May 1981, p. 1.

35. "Wosheng chengxiang gedi pupian kaizhan hukou zhengdun gongzuo" ("All urban and rural areas in Sichuan have started to work on straightening out household registration"), Sichuan ribao (Sichuan Daily) (Chengdu), 18 November 1981, p. 3.

36. Commentator, "Get a good grasp of preparations for the population census," Ningxia ribao (Ningxia Daily) (Yinchuan), 9 February 1982, FBIS, No. 39 (26 February 1982), p. T2.

37. " Jushi zhumu de woguo disanci renkou pucha" (" The eyes of the world are focused on the third national population census of China"), Fujian ribao (Fujian Daily) (Fuzhou), 19 June 1982, p. 2.

38. Li Chengrui, "Nationwide census – a large-scale investigational study on the basic condition of the State," *Tongji*, No. 2 (10 June 1981), JPRS, No. 79, 635 (10 December 1981), p. 126.

39. Commentator, "Assure quality in rural areas," Zhongguo nongmin bao (Chinese Peasants' Gazette) (Beijing), 10 June 1982, JPRS, No. 81, 468 (6 August 1982), p. 1.

40. Shang Xingcai and Wang Dinglong, "Shijiao bufa sheyuan hukoubu" ("Shanghai suburban districts belatedly issue commune household books"), Jiefang ribao (Liberation Daily) (Shanghai), 10 April 1982, p. 1.

41. Shang Shi, "Nongcun jianli gongan paichusuo" ("Police substations are being established in rural areas"), Ban yue tan (Semi-Monthly Tribune) (Beijing), Vol. 6, No. 46 (25 March 1982), p. 5.

"mobilized" to return, people who moved because of marriage, whole villages that had resettled on their own initiative in another area, and children born without a birth "quota." These statements seem to contradict Chinese assertions prior to the 1980s that the system was complete and functioning effectively.

The Check-up of Registration, 1981-82

When it was disclosed that a national effort was to be made in 1981 and the spring of 1982 to update the registers as a foundation for census work, some foreign analysts became concerned that this could mean that the census would be so closely tied to the population registers that it would be unable to take an independent measure of the population. As I noted in a previous article on the census preparations (The China Quarterly, No. 91 (September 1982), pp. 369-85), the lists of households to be enumerated were to be taken from registration, and other administrative records. No map survey or field canvass of households was to be conducted in advance of the census to make sure that households not in the registers were included in the count. Moreover, it seemed likely that inaccuracies in the registers would be carried over to the census if the two were closely linked. 43 The risk was heightened by the fact that census personnel in some areas participated in the check-up of registration and registration personnel in all areas played a key role in the local census organizations. Thus, the census-takers were, in many cases, checking on their own previous work on the registration system and would not have been disposed to find extensive errors.

The United Nations advisers who helped plan the census did not share these concerns about the inaccuracy of registration data and the possibility that registration data would contaminate census data. They believed that the results of the Wuxi pre-test of July 1980 showed that registration records in China were highly accurate, and in any case they felt, and probably with good reason, that it would have been impracticable, given conditions in China, to attempt to keep the census wholly independent of the population registers and exclude registration personnel from participation.⁴⁴

^{42. &}quot;Guowuyuan pizhuan gonganbu guanyu jiejue youguan luohu wenti de qingshi de tongzhi" ("Circular of the State Council giving approval to the request of the Public Security Ministry for instructions on solving the problem of registering households in rural areas"), State Council Release No. 148 (1982), 17 December 1982; Zhonghua renmin gongheguo guowuyuan gongbao (Bulletin of the State Council of the People's Republic of China), No. 21 of 1982, 12 February 1983, pp. 1026-1028. Most of these are not people who are avoiding registration but people who have been deliberately kept out of the registers by the local authorities and are still out in spite of the 1981-82 check-up of registration and the census. The source says of them that "A wall is put in front of them and they are squeezed out, creating a large number of 'black persons and black households.'"

^{43.} John S. Aird, "The preparations for China's 1982 census," The China Quarterly, No. 91 (September 1982), pp. 381-82 and 383-84.

^{44.} Vaino Kannisto and Y. C. Yu, "Plans and preparations for the 1982 population census of China," paper distributed at the conference of the International Union for the Scientific Study of Population, Manila, December 1981, p. 5.

If the census was tied closely to the registration system, the completeness of the census count would depend upon the adequacy of the effort at checking and updating the registers during 1981 and the spring of 1982. Unfortunately, Chinese sources have revealed very little about the methods and procedures followed during the check-up. The State Council issued instructions for the undertaking early in 1981, and a sizeable field staff was organized and trained, field methods were pretested, and presumably there were standard forms, procedures and progress reports, but neither the State Council documents nor the results of the effort have been made public. Some local accounts indicate that the field staff went from house to house checking the records of each family and issuing new household books.45 Several say that numerous errors were found in the registration records and corrected, 46 and one says that the check-up of registration was carried out in a perfunctory manner in some localities.⁴⁷ Other sources suggest that no standard timetable was followed and that the check-up, which was originally supposed to have been completed by the end of 1981, dragged on into the spring of 1982 and was still under way as late as June.48 There is therefore no basis for assessing the effectiveness of either the methods or their implementation.

Census Reliance on Registration Records

As the preparations for the census entered the final stages in the spring of 1982, national and local census authorities made it clear to census personnel that the registration records were to be considered highly accurate after the check-up. The prevailing view, reiterated in the media, was that the check-up had provided "a good foundation for census work." In March 1982 a central census official writing in the journal Population Research urged census-takers to "take advantage of our

45. Guangzhou radio, Guangdong Provincial Service, 25 June 1981, FBIS, No. 137 (17 July 1981), p. P1; "Wosheng chengxiang gedi pupian kaizhan hukou zhengdun gongzuo," p. 3; "Lanqi chengguan zuohao pucha duixiang diaocha modi gongzuo " ("The town of Lanqi did well in getting to the bottom of things regarding persons to be enumerated"), Zhejiang ribao (Zhejiang Daily) (Hangzhou), 18 June 1982, p. 1; Changsha radio, Hunan Provincial Service, 2 September 1981, FBIS, No. 171, 3 September 1981, p. P2; and Shang Xingcai and Wang Dinglong, "Shijiao bufa sheyuan hukoubu," p. 1.

46. E.g. see "Wosheng chengxiang gedi pupian kaizhan hukou zhengdun gongzuo." p. 3; and "Shuoji gongshe xiqu renkou pucha shidian zhong de jiaoxun caiqu sanxiang cuoshi cujin mianshang pucha zhunbei " ("Shuoji commune learned lessons from the population census pre-test and adopted three measures to promote census preparations"), Xinhua ribao, 18 June 1982, p. 1.

47. "Quanqu renkou pucha gongzuo jinru jingzhang zhunbei jieduan " (" Population census work in the region enters into an intensive preparation period "), Ningxia ribao, 9 February 1982, p. 1.

48. In mid May, Zhejiang province called on all areas to intensify their mobilization and take further steps to implement central and provincial directives. They were told that they must complete their household registration work prior to 15 June. See "Sheng zhengfu zhaokai dianhua huiyi yaoqiu gedi zuohao zhoumi anpai yingjie renkou pucha" ("The Zhejiang provincial government held a telephone conference to demand that all areas carry out careful arrangements to greet the population census"), Zhejiang ribao, 18 May 1982, p. 1.

household registration system, which is complete and is a favourable circumstance." In June 1982 Li Chengrui stated in an article in the People's Daily that:

Household registration is the foundation of our regular population statistics and it is also the foundation of our population census. To complete the census with high quality, all provinces, municipalities and autonomous regions have carried out an area-wide straightening out of households and have basically obtained a clear view of the population of the local areas. 50

Such declarations would surely have been interpreted by local census organs as an indication that census population totals were not expected to differ much from registration figures.

However, the ultimate link between the census and the registration records was built into the census field methods. Not only were the lists of households and addresses to be taken from registration records, but census-takers were also to have the numbers of people in each household before they began their enumeration. In September 1981 Li Chengrui noted with approval that this practice had been followed in Wuxi, 51 and in April 1982 census official Bai Jianhua, writing in the SSB journal Statistics, directed that "prior to the census, enumerators must go down to the households and compile a census book listing the names of heads of household and the numbers of persons in each household." The same instructions were included in the census field manual used by enumerators throughout the country:

Prior to the census, the census groups of all census districts must organize the cadres and activists of all production brigades and residence groups to assist the enumerators in conducting an on-the-spot inspection of the situation in the census districts. Based on the inspection results and using the straightened out household books and the address code books as references, the "namelists of heads of households" are to be compiled to enable every enumerator to know the number of households and the number of persons within his area of responsibility. Households omitted or in excess found in the household books should be corrected based on facts. 53

These instructions could be construed as a call for a canvass of households prior to enumeration, but they are not sufficiently explicit to constitute a requirement. In practice it is likely that many areas simply

^{49.} Wang Jin, "Zuohao renkou pucha de xuanchuan gongzuo" ("Population census propaganda work must be done well"), Renkou yanjiu, 29 March 1982, p. 34.

^{50.} Li Chengrui, "Renkou pucha gongzuo yiding yao dadao gao zhiliang" ("Population census work must achieve high quality"), Renmin ribao, 22 June 1982, p. 5.

^{51.} Li Chengrui, *Population Censuses in China*, p. 8. Li says, "On the basis of the updating of household registers, census workers ... made a complete list of households, with the names of heads of households, who must be enumerated in the census, along with their place of residence as well as the number of people to be enumerated in a given area..."

^{52.} Bai Jianhua, "Tian xie hao renkou pucha biao shi tigao renkou pucha zhiliang de guanjian," p. 17.

^{53.} Disanci quanguo renkou pucha shishi xize zhi san - renkou pucha dengji pucha gongzuo xize (Third Nationwide Population Census Detailed Field Regulations, No. 3 - Detailed Regulations on the Work of Census Enumeration and Verification), no date or place of publication, p. . .

copied lists of households and numbers of people from the updated household records.

It is also likely that these instructions are responsible for the close correspondence between the household registration population totals and those produced by the census. To be sure, Li Chengrui and other officials warned census-takers that they must not copy data from the household books or from the listings of households and population but could use these "only as a reference," and there were other warnings against "concealment or false reporting," falsifying the records "for personal gain," and "altering or falsifying the tabulated figures." The central authorities seem to have been fairly confident that these warnings were effective. Li Chengrui asserted that printing a stipulation on the census forms that enumerators must obtain the census data from interviews prevented some of them from copying information out of the household books. But in fact there was no effective way of enforcing such demands when the full-scale count was taking place.

Hence it appears that the census-takers knew in advance of the actual field enumeration how many households and people they were to count. But they were not directed to find out beforehand how many births and deaths had been registered in 1981 and were therefore obliged to obtain the vital data by direct questioning. This may well be the explanation as to why the census population totals were so close to the registration figures whereas the census data on births and natural increase in 1981 diverged sharply from the registration figures. In any case, since the census population totals were not arrived at independently of the registration records, they are inherently incapable of confirming the accuracy of the registration figures; nor does proximity to the registration figures lend credibility to the census totals.

The Post-enumeration Surveys

At the moment, there is no way of assessing the accuracy of either the census or the registration population totals. The results of the post-

54. Li Chengrui, "Guanyu 'disanci quanguo renkou pucha banfa 'de shuoming he renkou pucha gongzuo anpai de yijian (zhaiyao)" ("An explanation of the 'measures governing the third national population census 'and views on arrangements made for the census work [abstract]"), Tongji, No. 2 (17 April 1982), p. 13; Yang Rizhang, "Renkou pucha dengji zhiliang de chouyang jiancha" ("The sample quality survey of the population census"), ibid. p. 18; and Li Chengrui, "Renkou pucha gongzuo yiding yao dadao gao zhiliang," p. 5. Such shortcuts had been discovered during the pre-tests. See Mei Xiangfu and Wei Congde, "Canjia Zhengzhoushi Beixiajie renkou pucha shidian de tihui" ("What we have learned from participating in the census pre-test conducted at the Beixiajie neighbourhood of Zhengzhou municipality"), Tongji, No. 2 (17 April 1982), p. 24.

55. Commentator, "Usher in the third nationwide census," Renmin ribao, 18 January 1982, FBIS, No. 20 (29 January 1982), p. K2; "Sheng renkou pucha bangongshi fachu tongzhi yaoqiu gedi qieshi zhuyi renkou pucha dengji de zhiliang" ("The Zhejiang provincial population census office issues a circular requesting that all areas earnestly pay attention to the quality of the census registration"), Zhejiang ribao, 6 July 1982, p. 1; and Meng Qingpu, "Gaohao shougong huizong baozheng pucha shuzi zhiliang" ("Do well the manual tabulations to assure the quality of the census figures"), Tongji, No. 3 (17 June 1982), p. 32.

Li Chengrui, "Cong renkou pucha gongbao kan zhongguo renkou de xianzhuang,"
 p. 36.

enumeration surveys conducted during July and August 1982 are being interpreted by Chinese spokesmen as proof that the census reached a standard of accuracy that is "unprecedented in scale throughout the world," but similar claims were made for the censuses of 1953 and 1964. Following the 1953 census, it was reported that "rechecks" had been conducted in areas with a population of "more than 52.95 million," 9.1 per cent of the total population enumerated, which revealed a net undercount of only 0.116 per cent. After the 1964 census, "rechecks" carried out in areas with a population of 36.89 million, 5.3 per cent of the total enumerated, reportedly found a net undercount of 0.0014 per cent! But as one Chinese source has recently conceded, the "rechecks" in 1953 and 1964 followed no standard method.

In the 1982 census, however, the method to be followed in conducting the post-enumeration surveys was spelled out in the initial instructions. Provinces were to select 10 counties or municipalities (or city districts in the case of the larger municipalities) if their population exceeded 20 million or five if their population was under 20 million. Within each of the selected units, four communes or urban neighbourhoods were to be chosen, and within each of these one team or residence group was to be chosen. The selections were to be made at random by an "equal interval" sampling method by provincial-level personnel using lists of units supplied by the local levels. Applied to all provinces, this method would have selected a total of 980 units; the number actually included in the survey was 972, with a total population of 187,362, or 0.02 per cent of the national total. 62

57. Hou Wenruo, "How to interpret the census communiqué," Beijing Review, No. 48 (29 November 1982), p. 13.

59. Li Chengrui, Population Censuses in China, p. 5.

60. Yang Rizhang, "Random sampling of quality after the population census," Renkou yanjiu, No. 3 (29 May 1982), JPRS, No. 81,560 (17 August 1982), p. 63. Local press reports indicated that the procedures used in 1953 varied widely. Some units did fairly conscientious and effective work and found large errors. Others did perfunctory work, and in at least one case the recheck consisted of calling a meeting of residents and asking if they knew of any errors in the census, and, of course, none was found. The errors reported by units that did a good job of rechecking were divided by the population in all the units reporting, most of which claimed virtually total accuracy, hence the very low error rates. Presumably something similar happened in 1964. For a review and interpretation of the evidence on the 1953 "recheck" operations, see John S. Aird, "Population growth," Chap. 4 in Alexander Eckstein, Walter Galenson, and Ta-chung Liu (eds.), Economic Trends in Communist China (Chicago: Aldine Publishing Company, 1968), pp. 239-42.

61. E.g. in a large province the 10 units were selected by listing all of the county-level units, dividing the number of units by 10, and taking the result as the interval between selected units. The number of the initial selection was then chosen by lot. These specifications are laid down in the census manual on the post-enumeration survey. See Disanci quanguo renkou pucha shishi xize zhi si - renkou pucha dengji zhiliang chouyang jiancha xize (Third Nationwide Population Census Detailed Field Regulations, No. 4 - Detailed Regulations on the Random Sample Quality Check), no date or place of publication, pp. 8-10.

62. Li Chengrui, "Cong renkou pucha gongbao kan zhongguo renkou de xianzhuang," p. 35.

^{58.} SSB, "Communiqué of results of census and registration of China's population," I November 1954. The text of this communiqué was reprinted in the SSB journal Statistics in October 1981. See annex to Sun Jingxin, "A brief introduction to the first nationwide census," Tongji, No. 4 (10 October 1981); JPRS, No. 79,882 (18 January 1982), p. 49.

Both the supervisors and the enumerators for the sample survey were to be county level personnel, who were to be familiarized with the sample enumeration areas by local personnel but were to prepare their own lists of names and addresses of the households prior to the survey. As in the original enumeration, the survey enumerators were told they could use the household registration records "only... as a reference." The survey enumerators were to go door-to-door and re-interview the household representatives to determine the numbers of persons in each household, the numbers of births and deaths in 1981, and the sex, age and household registration status of each member. Special forms were prepared for the survey, for the comparison of survey and original census data, and for reporting errors. The information about discrepancies was to be summarized at the provincial level and submitted to the central authorities before 20 August.

Obviously, the 1982 post-enumeration survey was methodologically far superior to the haphazard approaches used in the two preceding censuses. Except for the continuing linkage to registration records, the survey might, if conscientiously carried out, have given a fairly good indication of the accuracy of the data on the items it covered. The central census authorities have accepted the survey results as firm evidence that their census compares favourably with censuses elsewhere in the world for overall accuracy. However, the best-laid statistical plans, like other kinds of plans, often go astray in the execution, particularly when the people in charge of the work lack statistical experience or have concerns other than statistical fidelity that are more closely related to their interests. In China, neither the central nor the local statistical authorities know what level of statistical accuracy is believable and what is not. Evidently it has not occurred to them that the accuracy claims for the 1982 census, like those for the previous censuses, which they continue to cite, are so extreme as to invite incredulity instead of trust.

As in the 1953 census, the results of the post-enumeration surveys reported from various parts of the country show variations that strongly suggest that the work was not carried out with equal care in all areas. Only a few of the provincial census communiqués available thus far give the results of their post-enumeration surveys. Most say, without giving the figures, that they exceeded the standards for accuracy laid down by the central authorities, but six units provided some of the particulars. Guangdong province, which has consistently been more self-critical in reporting population data and family planning accomplishments than most other provinces, claims an overcount of 0·131 per cent and an undercount of 0·148 per cent, for a net undercount of 0·017 per cent. The corresponding figures for Sichuan are only 0·039 and 0·029 per cent for a net overcount of 0·010 per cent, and for Ningxia the figures are

0.00049 and 0.00082 per cent for a net undercount of 0.00033 per cent!⁶⁵ But Yunnan reported no overcount at all and only a 0.017 per cent undercount, and Jilin reported no overcount or undercount and a general discrepancy rate of 0.005 per cent, lower than the discrepancy rate of 0.032 per cent reported by Beijing!⁶⁶ Some of the units for which no figures are available must have had substantially higher error rates for the national average to reach the net overcount of 0.015 per cent. Minuscule as they are, the error rates so far reported show that implementation varied from one province to another. More important, as in 1953, claims of virtually a zero error rate imply either that the surveys were no more accurate than the original counts or that false claims of complete accuracy were fabricated by local officials.

The Obsession with Accuracy

Local census staff could be excused for believing that the purpose of the post-enumeration surveys was to prove that perfect accuracy had been attained. Neither the central nor the provincial census authorities seem to have understood the exercise merely as a means of measuring the magnitude of statistical errors in the census. The central census authorities had set a tolerance limit of not over 0.2 per cent error for population totals, 0.01 per cent for sex, and 0.1 per cent for age data and threatened to make local units repeat the entire field effort if they exceeded these limits. Prior to the census Li Chengrui told a preparatory meeting that:

A census that is inaccurate is worthless. Actually, it is worse than that since it would mean that all our economic plans would start from false premises.68

Other communications to census staff also stressed the importance of absolute accuracy and conveyed the impression that the objective was attainable and that they would be held accountable for it. Once again, as in 1953 and 1964, the central authorities wanted to receive and believe claims of extremely high accuracy, and once again, as in most national emulation campaigns in China, the local units told them what they wanted to hear. A national census conference convened in Hangzhou in

65. "Sheng tongjiju gongbu wosheng renkou pucha zhuyao shuzi" ("Provincial Statistical Bureau publishes major figures of the population census in our province"), Sichuan ribao, 2 November 1982, p. 1; and "Ningxia Huizu zizhiqu tongjiju guanyu quanqu 1982-nian renkou pucha zhuyao shuzi de gongbao" ("Communique of the Ningxia Hui Autonomous Regional Statistical Bureau on the major figures of the 1982 population census of the region"), Ningxia ribao, 29 October 1982, p. 1.

66. "Sheng tongjiju gongbu wosheng renkou pucha zhuyao shuzi" ("Provincial Statistical Bureau publishes the major figures of the population census in our province"), Yunnan ribao (Yunnan Daily) (Kunming), 29 October 1982, p. 2; Changchun radio, Jilin Provincial Service, 5 November 1982; and "Shi tongjiju gongbu jinnian benshi renkou pucha zhuyao shuzi" ("The Municipal Statistical Bureau announces the major figures of this year's population census for our municipality"), Beijing ribao (Beijing Daily) (Beijing), 29 October 1982, p. 4.

67. Xinhua, Beijing, 28 May 1982, FBIS, No. 106 (2 June 1982), p. K10; and Li Chengrui, "Renkou pucha gongzuo yiding yao dadao gao zhiliang," p. 5; and Disanci quanguo renkou pucha shishi xize zhi san, p. 1.

68. Quoted in "China undertaking largest head count in world's history," Popline (Washington, D.C.), Vol. 4, No. 7 (July 1982), p. 2.

^{63.} Yang Rizhang, "Random sampling of quality," p. 65.

^{64. &}quot;Guangdongsheng tongjiju gongbu wosheng disanci renkou pucha zhuyao shuzi" ("The Guangdong Provincial Statistical Bureau announces the major figures of the third population census in Guangdong"), Nanfang ribao (Southern Daily) (Guangzhou), 31 October 1982, p. 2.

December by the State Council reviewed the local reports and pronounced the census data "very accurate." Where the truth lies cannot be finally determined yet, but the evidence already in hand indicates that the results of the post-enumeration surveys exaggerate the accuracy of the census data.

Further evidence on the accuracy of the census figures and of previous official population totals may be found in the 1982 census age data by single years of age and sex when they are made available. The distribution can be analysed for indications of differential undercount and for consistency with the reported vital rates and rates of population growth in the past. Also, various national and provincial organizations in China are conducting or planning sample surveys on demographic subjects which, if they are independent of the population registration system, may provide a further test of the accuracy of the census figures. In September 1982 the State Family Planning Commission began a four months' survey of fertility rates among a national sample of 1,017,574 women to supplement census data on fertility. 70 Also, as noted earlier, a team of statisticians from the State Council Population Census Office and the Population Statistics Division of the SSB has announced plans to establish a sample survey system to "investigate vital changes in the population" and to "supply the state with accurate population statistics,"71 evidently a response to the census disclosures of serious inaccuracies in registration vital data, for Li Chengrui says the purpose is to "check on the overall reported data and to learn the true conditions." Meanwhile, some of the 23 population research institutes throughout the country have already begun to carry out demographic surveys for various purposes, several of which involve the collection of new data instead of being merely surveys of the registration records, as so often in the past. None of these efforts is intended as a check on the accuracy of the census, but some of them may gather data that can be used for this purpose. Ultimately, of course, there will be another population census, and perhaps the next one will be designed so that it can be truly independent of the population registers. By one means or another statistical resources will eventually be found that will enable Chinese statisticians and demographers to reach a more realistic assessment of the accuracy of the 1982 census data.

Accomplishments of the 1982 Census

The continuing doubts about the accuracy of the census totals should not be allowed to obscure the positive aspects of China's 1982 census

work. All in all, the census unquestionably represents a great advance for demographic statistics in China. Methodologically, it far surpasses any previous Chinese census or survey in technical sophistication. It is the country's first really modern large-scale statistical investigation. It has collected a vast store of data, including some kinds, such as marital status, parity, occupational and employment data, that have never before been compiled for the country as a whole. The census data will undoubtedly inspire an upsurge in demographic research and analysis and shift the focus of Chinese demography away from the rather fruitless "theoretical" treatises of the past towards more empirical studies. Ready access to data at both the national and the local level may encourage the political leaders to rely more on quantitative analysis and less on ideological precept in planning and administration. Although the errors in registration data on births and deaths are too large to be ignored, and the census data on births and deaths in 1981 may still contain much larger errors than the Chinese authorities suspect, most of the purposes to which the census data will be put would not be compromised by error margins of 5 or 10 per cent. If the central authorities are fully convinced of the value of good statistical data, they may, in time, find a way to free the local statistical organs from direct supervision and intervention by provincial and lower-level political leaders so that their data will be less susceptible to the manipulations that have undermined their credibility in the past.73

The fact that the 1982 census results are to be published in detail is another sign of statistical progress in China and one of far-reaching significance. The final results of the 1953 census released by the SSB in November 1954 amounted to only about two pages, much less than were provided in the announcement of the preliminary tabulations from the 1982 census. After the 1964 census eight years elapsed before any of the data was released. In February 1972 undated provincial population totals in units of 10,000 appeared in a Chinese atlas without any indication as to their origin. Other 1964 data have been published since, but only within the past three years.

In contrast, the 1982 census data are to be published in 32 volumes at the national and provincial levels, one volume of national data and one each for the 29 provinces, Taiwan, and Hong Kong and Macao, totalling several tens of thousands of pages, and the provincial volumes will contain data down to the county level, according to one Chinese source. 75 Another source indicates that there may also be county-level census

^{69.} Xinhua-English (Beijing), 21 December 1982, FBIS, No. 248 (27 December 1982), p. K8.

^{70.} Xinhua-English (Beijing), 2 September 1982, FBIS, No. 172 (3 September 1982), p. K24; and Xinhua (Beijing), 8 April 1983, FBIS, No. 70 (11 April 1983), p. K14.

^{71.} Population Analysis Team, State Council Population Census Office and SSB Population Statistics Division, "Guanyu woguo renkou zhuangkuang de jidian fenxi," p. 5.

^{72.} Li Chengrui, Cong renkou pucha gongbao kan zhongguo renkou de xianzhuang," p. 37.

^{73.} For a discussion of falsification in Chinese statistics, see John S. Aird, "Recent demographic data from China: problems and prospects," China Under the Four Modernizations, Part 1, Joint Economic Committee, Congress of the United States, Government Printing Office, Washington, D.C., 13 August 1982, pp. 204-213.

^{74.} Shijie ditu ce (Atlas of China) (Beijing: Ditu chubanshe, February 1972).

^{75. &}quot;Zhongguo renkou congshu bianxie choubei huiyi zongshu" (" A summary of the preparatory meeting for the compilation of Serial Monographs on the Population of China"), Renkou yu jingji, No. 2 (25 April 1982), pp. 8–9. This source specifies 31 volumes, but it has since been reported that a volume on Hong Kong and Macao has been added.

publications amounting to several hundreds of thousands of pages.⁷⁶ According to this source, there will be 93 tables of national data, 85 tables of provincial data, 41 tables of prefectural data, and 40 tables of county data. The 93 national data tables will consist of 16 tables of summary statistics, 10 on the geographical distribution of the population, seven on nationalities, 11 on age distribution, 24 on education and employment, 11 on family, marriage and fertility, and 14 on mortality. 77 An indication of the kinds of cross-tabulations contemplated is given in the recent publication of the results of the Wuxi pilot census, which contains 193 pages and includes among its 22 tables such breakdowns as the population by single years of age and sex, domestic household size by age and sex of head, and employed persons by age, sex and industry.²⁸ It is also significant that the 55-page volume of preliminary 1982 census results included not only the year-end 1981 provincial population totals down to the last digit but also the national figures from the 1953 and 1964 censuses by single years of age and sex, data that have never been made public before.79

In this respect, as much as in the use of sampling, pre-coded census forms and computers, the 1982 census breaks with past statistical practice in China. To the Four Modernizations, China has added a fifth – statistical modernization. Despite some unsolved problems, China's 1982 census must be acknowledged as a monumental achievement and one that is certain to increase China's statistical credibility throughout the world.

^{76.} Wang Weizhi, "Renkou pucha zhiliao de huizong yu gongbu" ("The tabulation and publication of the population census data"), *Renkou yanjiu*, No. 4 (29 July 1982), p. 24. This source says that the results of a 10% sample machine tabulation of census returns will also be published in advance of the full-scale tabulations.

77. *Ibid.* pp. 23-24.

^{78.} SSB, Zhonghua Renmin Gongheguo disanci renkou pucha Jiangsu sheng Wuxi shi he Wuxi xian shidian ziliao huibian (The Third National Population Census of the People's Republic of China Compilation of Statistics from the Pilot Census of Wuxi City and Wuxi County, Jiangsu Province) (Beijing: China Statistical Publishing House), July 1982.

^{79.} State Council Population Census Office and SSB Population Statistics Division, Zhongguo disanci renkou pucha zhuyao shuzi, pp. 11 and 33-38. The 1964 data include the military but the 1953 data do not.

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Table A5: Industrial Output, Employment and Productivity by Heavy and Light Industry, 1969-72

	1969	1970	1971	1972
Gross value of industrial output (billion 1970				*****
yuan)		208 · 6	238 · 9	246 · 6
Heavy		112.5	136.6	146.2
Light		96 · 1	102 · 3	
Workers and employees (million)		23 1	102 3	108-0
Year-end	23 · 65	28 · 09	32.33	24.04
Heavy	13 · 81	16.94		34 · 96
Light	29.85	11.16	20.32	21 · 85
Average	-> 05	mane and	12.01	13 - 11
Heavy		25 · 87	30 · 21	33 - 59
Light		15.38	18-63	21 - 08
Productivity (yuan)		10 · 50	11.58	12.56
Heavy		8,063	7,908	7,341
		7,315	7,332	6,935
Light		9,152	8,834	8,599

Sources:

Gross value of industrial output: Xue Muqiao, et al., Zhongguo jingji nianjian (1981), pp. VI-13 and VI-14.

Workers and employees: derived from the number of new workers and employees in the year and the number of workers and employees in light industry in 1972 as a per cent of the total. See Yang Jianbai and Li Xuezeng, "The relations between agriculture, light industry and heavy industry in China," Social Sciences in China, No. 2 (1980), p. 196.

Productivity: derived from the gross value of output and the average number of workers and employees.

Economic Reform in China at the Xian Level*

Y. Y. Kueh

In the terminology of Chinese planning the "state plan" ("guojia jihua") embraces both the central and provincial plans, while the " local plan " (" difang jihua ") refers exclusively to the one for the xian (county) and its administrative equivalent, namely the provincial municipality.1 This distinction is seldom made in relevant western studies. The prevalent practice is to regard provincial and local planning as synonymous, in contrast to central planning. 2 As a result, the xian as a separate planning authority has scarcely received any attention, except for some sporadic references made in connection with studies on local, especially rural, industries.3

Nationally the xian command rather a substantial proportion of resources in China. They produced, for example, around 40 per cent of the national gross value of industrial output (GVIO) in 19814; and control virtually all the small-scale industry (state and collective) which in turn account for over 90 per cent of all the industrial enterprises in the country.5 Being labour intensive, these industries are also very important in terms of employment. If agriculture is included, for which the xian serve as important planning vehicles, the xian sector looms much larger.

When, in 1979, a national programme of industrial reform was launched, the planning system at the xian level also underwent a series of changes. Interestingly, while the national scheme had come to a halt by April 1981, xian reform was declared beneficial to the readjustment process, and is therefore proceeding undisturbed.6

The State Council has not released any consistent sets of decrees for xian reform like those released for the national scheme. Rather, the

^{*} I am much indebted to Professor Kenneth Walker for helpful comments and suggestions.

^{1.} Zuo Mu "On the role of local planning and the relation between plans and markets," Jingji yanjiu (Economic Research), No. 7 (1980), p. 33.

^{2.} This is the case with Nicholas Lardy, " Economic planning in the People's Republic of China: central-provincial fiscal relations," U.S. Congress Joint Economic Committee, China: A Reassessment of the Economy (Washington, D.C.: U.S. Government Printing Office, 1975), pp. 94-115, and many Chinese scholars as well. See Liu Guoguang (ed.), Guomin jingji guanli tizhi gaige de ruogan lilun wenti (Some Theoretical Problems in the Reform of the National Economic Management System) (Beijing: Zhongguo Shehui Kexue Chubanshe, 1980), pp. 20-33.

^{3.} See, e.g. Jon Sigurdson, Rural Industrialization in China (Cambridge: Harvard University Press, 1977).

^{4.} See Table 5 for the xian-level GVIO and Zhongguo tongji nianjian-1981 (China's Statistical Yearbook - 1981) (hereafter Tongji nianjian 1981) (Hong Kong, 1982), p. 208. 5. See Tongji nianjian 1981, p. 204, for distribution of industrial enterprises by scale.

^{6.} Cf. Zhonghua renmin gongheguo guowuyuan gongbao (Bulletin of the State Council of the People's Republic of China) (hereafter Guowuyuan gongbao), No. 9 (10 July 1981), pp. 267, 276; and Zhongguo jingji nianjian (Almanac of China's Economy) (hereafter Jingji nianjian) (Beijing, 1982), p. V-43. For a western study on the national reform see Bruce L. Reynolds, "Reform in Chinese industrial management: an empirical report," U.S. Congress Joint Economic Committee, China under the Four Modernizations, Part I (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 119-37.

reform was first launched in Qingyuan xian, Guangdong province, in April 1979, presumably on the initiative of local authorities.7 By the end of 1981 the Qingyuan model was being emulated by 363 xian and 17 shi throughout China.8 The Qingyuan reform was prompted by problems arising from the new profit-sharing scheme for enterprises which had been adopted half-a-year earlier. Specifically, its expanded financial autonomy was found to be unworkable without concomitant allocative flexibility.9 Hence, the entire reform has been directed towards granting greater decision-making power to xian authorities.

This article first identifies the major xian planning agencies and compares their basic functions and relationships before and after the reform. It then focuses on the question of how and to what extent resources have been transferred to the xian sector; and what incentives have been provided to stimulate local initiatives. The allocative impact, negative and positive, of expanded planning autonomy is also discussed. The article concludes with an evaluation of the reform from the broader perspective of resource use under the system of central planning.

The Emerging Xian Planning Autonomy

Each xian, like the provincial and central governments, has a planning committee (XPC) and an economic committee (XEC), as well as a number of functional (finance, material and labour supply) and departmental (industry, textiles, agriculture, etc.) bureaus. The two committees and the functional bureaus are the basic organs. The number and structure of the departmental bureaus vary according to local factor endowments and the degree of industrial diversification. The responsibilities of the functional bureaus cut across all the departmental bureaus. Thus none of the latter represents an autonomous and integrated decision unit. Specifically, they frequently turn to the functional bureaus for matters relating to funding, material supply and employment.10

All the xian bureaus, including the XPC and XEC, are subordinate to the respective provincial bureaus. Funds and scarce materials are transferred vertically down to the xian sector. At the same time the departmental bureaus may turn to their provincial superiors for any competitive claims which cannot be resolved within the xian, or for that matter, upon which the XEC does not want to make a judgment.11 Thus, in our organizational model (Figure 1) the authority structure over state enterprises is presented as a network of curved lines to show that none of the xian planning agencies has straight management authority.

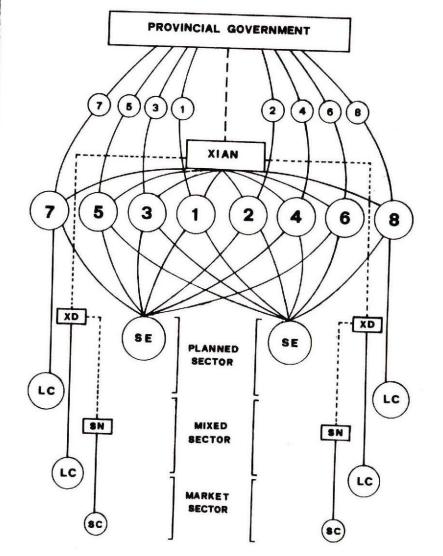
7. Nanfang ribao (Southern Daily), Guangzhou, 24 July 1980, pp. 1 and 4; Fan Bing, "How to reform the xian-level economic management system," Jingji guanli (Economic Management), No. 5 (15 May 1980), pp. 13-14; and Renmin ribao (People's Daily), 28

8. Jingji nianjian (1982), p. V-43.

9. Fan Bing, "How to reform the xian-level economic management system," p. 13.

10. Ibid. pp. 13-14. For a more detailed description of the xian-level planning mechanism including the agricultural sector and urban-rural relations see my Local Level Planning in China, International Labour Office (World Employment Programme Research Series), Geneva, November 1982. 11. Ibid.

Figure 1: Economic Planning and Administrative Structure of the Xian in China



- 1. Planning Committee
- 2. Economic Committee
- 3. Finance Bureau
- 4. Labour Bureau
- 5. Materials Bureau
- 6. Capital Construction Bureau
- 7. Departmental Bureau A

- 8. Departmental Bureau B
- **XD** Xian District
- SN Street-neighbourhood
- SE State Enterprise
- LC Large Collective SC Small Collective

In contrast, the xian bureaus directly control collectives, indicated in our model by a straight line.

Collectives differ from state enterprises in two major ways. First, they are funded entirely by xian resources, whereas the latter depend exclusively on ad hoc appropriations from above. As a result, state enterprises are integrated with the state budget, whereas collectives are fully accountable for their own profits and losses, either individually (in the case of the small collectives), or collectively under the common financial umbrella of the respective xian bureaus or the xian districts (in the case of large collectives). ¹² Secondly, collective enterprises normally turn to the markets for input supplies and sales except for some advanced collectives, which like state enterprises are incorporated into the supply balances of the Xian Planning Committee. ¹³ Thus, unlike state enterprises, collectives constitute a more favourable independent and self-financed sector, free from vertical state control, except for tax obligations.

The ownership and planning structure varies from case to case. As indicated in Table 1, Wuxi municipality has a larger state-sector share (69 per cent) of GVIO than Wuxi xian (30 per cent). This is because the more advanced municipality has more central and provincial enterprises located within its sphere. Interestingly, this greater degree of centralization not only results in a smaller market-sector share, but also in a much reduced planned proportion inside the local sector: 8 per cent $(2.5/31 \times 100)$ for the municipality and 27 per cent $(19/70 \times 100)$ for the xian. In both cases, however, market operation accounts for an overwhelming share in local industrial activities.

The need for the present xian reform arises mainly from problems associated with the xian-level state enterprises. First, the branch principle of industrial organization inhibits inter-bureau co-operation for integrated local development. Secondly, vertical control from the province hinders xian initiatives for resource mobilization. Thirdly, cross-functional control leaves little room for departmental flexibility to cope with changing local conditions. And fourthly, bureaucratic management discourages incentives to economize, leading particularly to serious overstaffing.¹⁴

12. Zhu Chuan, "Ownership of collective economics in urban areas and related policies," Jingji yanjiu, No. 2 (1980), pp. 6-8. In some localities the small collectives are also merged into the common financial pool of the street neighbourhood; see Chengzhen jiti jingji yanjiu (Studies on the Urban Collective Economy) (Beijing: Renmin Chubanshe, 1981), p. 243. The district collective differs from the bureau collective in that it is not advanced enough in terms of technical sophistication, scale of operation, and most importantly, profitability, to deserve classification according to the branch principle. See Qi Xiangyan and Peng Kehong, "What is meant by the change in Dandong's ninth cotton weaving factory," Jingji guanli, No. 8 (1980), pp. 18-22.

13. Jiti jingji yanjiu, pp. 78-79.

Table 1: Percentage Shares by the State and the Local Sectors in Planned GVI0 Targets in Wuxi Municipality, Jiangsu Province, 1980

	State Sector	Local	Sector		Grand
	Central/Provincial Planning	Xian Planning	Market		
Wuxi municipality		2.5	28 · 5	31	100
Wuxi <i>xian</i>	30	19.0	51.0	70	100

Source:

Zuo Mu, "On the role of local planning and the relation between plans and markets," Jingji yanjiu, No. 7 (1980), p. 35.

All of these problems are clearly interrelated. Thus, the basic idea of the reform is to grant greater decision-making power to xian authorities; and to replace bureaucratic control with an integrated system of economic management and incentives. However, far-reaching decentralization, say, to convert individual enterprises into market-type autonomous entities, would directly counter the primacy of the central allocation of funds and materials. Therefore, the logical solution is to have all the separate vertical responsibility lines converge at the Xian Economic Committee. The specific working arrangements vary from experimental xian to xian, but the basic tenets are similar. Table 2 summarizes and compares the major functions of the various xian planning agencies and their relationships before and after the reform.

It is clear that the XEC has now become a powerful and coherent decision-making body. The cumbersome bureaucratic red tape involved with horizontal inter-bureau and vertical provincial-xian communications has largely been eliminated; and the xian administration staff drastically reduced. As revealed in Table 3, the reduction ranges from 29 per cent for Tongliao shi to around 55 per cent for Linru xian. Before the reform cadres conversant with management techniques and business affairs amounted, in Tongliao shi, for example, to only 20 out of a total of 66. Now it has 30 professional managers among a reduced staff of 47. Obviously the new XEC needs more specialists to match its enhanced management functions.

The collectives are now also subject to "unified planning, unified management and unified disposition" by the XEC18; however, separate financial accounts are still maintained so that their incentives are not impaired by their obligation to remit after-tax profits to the Xian

16. Guanli jingyan xuanbi, p. 522.

17. Ibid. pp. 524-25.

^{14.} These problems summarize the diverse complaints frequently made in discussions of xian-level reform. See Fan Bing, "How to reform the xian-level economic management system," pp. 13-14, and Enterprises Management Bureau, State Economic Commission, Gongye jingying guanli jingyan xuanbian (Selection of Administrative Experience in Industrial Management) (hereafter Guanli Jingyan Xuanbian) (Beijing: Renmin Chubanshe, 1981), pp. 503-31.

^{15.} For details see Guanli jingyan xuanbian, pp. 503-31, and other articles on xian reform as cited in this article.

^{18.} Chengcheng Xian Economic Committee, Shaanxi province, "How Chengcheng xian has reformed its industrial management system," Jingji guanli, No. 12 (1981), p. 38.

Table 2: A Comparison of the Major Functions of the Various Xian-level Planning and Decision-making Authorities Before and After the Reform

Before Reform

After Reform

Planning Committee

Formulates annual and long-term xian-wide plans; plans intersectoral allocation of investment and essential production materials; and assigns annual production targets (with quarterly and monthly breakdowns) to individual enterprises.

Basically the same, except that production targets now handed by XPC in aggregate to XEC for breakdown at its discretion among enterprises; in some cases annual targets still directly assigned by XPC.

Economic Committee

Basically a co-ordinating and supervising agency, working closely with XPC and the functional bureaus to keep the various departmental bureaus and enterprises in compliance with government policies and regulations. Arbitrates between competitive claims for funds, materials and labour supplies and any other conflicts of interest.

Now a corporation-like body with wide-ranging planning and decisionmaking power; final source of authority for subjugated enterprises and constituent corporations, dealing on their behalf with XPC and other functional bureaus concerning production, investment, employment, funds and material supplies, and taxes and profit remissions.

Finance Bureau

Compiles the xian budget, collects tax and profit remissions, centralizes part of the depreciation reserves for reallocation within xian, and makes appropriations for new investment projects. Sets profit and profit remission targets or furnishes profitsharing schemes for individual enterprises.

Retained depreciation reserves (and probably new investment funds as well) now fully or partially transferred to XEC; aggregate remission targets for XEC only, normally in form of profit-sharing contract signed; XFB no longer deals with individual enterprises, except perhaps when screening requests for working capital.

Materials Bureau

Reallocates input materials (allotted from XPC or provincial materials bureau) to user enterprises and noneconomic establishments; screens demands from the same, and thus controls their input-output coefficients.

Production materials, fuel, electricity and other essential inputs now allocated en bloc to XEC for redistribution among enterprises.

Labour Bureau

Compiles labour balances, makes allocation to various user enterprises and institutions, screens demands from and makes recruitment for same.

XLB now controls mainly the aggregate employment targets set by higher authorities; intervenes only in case of requests for dismissal; XEC now responsible for recruitment, promotion, punishment reassignment of labour within its jurisdiction.

Capital Construction Bureau

Plans, evaluates and implements/ controls implementation investment projects in close consultation with XPC and other functional bureaus.

Basically the same except that XEC and its enterprises may use retained profits to launch their own investment projects; and perhaps that part of new investment funds allotted from above has been transferred to XEC for discretionary application.

Departmental Bureaus

Controls enterprises grouped under the branch principle, and represents their interest in competitive claims for funds and materials; the control being, however, far from complete, since enterprises' major input and output targets (physical and financial) are separately determined by various functional bureaus.

Converted into XEC's constituent branch corporations or abolished altogether, especially the larger midlayer bureaus (e.g. for light or heavy industry or industry at large) comprising a number of sub-branch bureaus; individual enterprises now subjected to XEC's various business executive sections (ke) responsible for production, planning, finance, labour and wages, and marketing and supply.

Party Committee

The Xian Party Committee has a sub-committee in the XPC, XEC and other bureaus in which its secretary concurrently holds the bureau directorship. To ensure further compliance with provincial and central policy guidelines, the Party Committee also directly controls appointments to deputy section chief (fu kezhang) and above.

All sub-committees abolished, except for XEC which is now manned by professional cadres to take charge of Party business (propaganda, organization, discipline) and other political and social functions for the entire XEC sector; XEC's section chiefs (comparable to former bureau director) not even appointed as subcommittee members, to enable them to exclusively deal with economic work; XEC also empowered to appoint leading cadres up to deputy section chief level (including deputy director for major factories, and director for smaller ones).

Finance Bureau (XFB).19 It is not clear whether the XEC may reallocate materials transferred from above for the benefit of collectives; and if not, what mechanism prevents them from doing so.

The reforms have several economic implications. The unified control by the XEC over the aggregate output and input targets certainly enables it to draw up more consistent sets of production plans for enterprises. Guided by the profit principle, the XEC should be motivated to strive for a more optimum production programme by reallocating, where necessary, available capital equipment, labour and material resources among user enterprises.

19. Ibid. and Guanli jingyan xuanbian, pp. 514, 523-24, and 529.

under Reform Selected Xian Ξ Table 3: The Xian-Level Industrial Enterprises and their Management Bureaus Number and Size of Administrative Staff and Employment, 1979-81

	No. of I	No. of Enterprises by Ownership	vnership	Total Employment		Managament	
Xian (province)	State (1)	Collective (2)	Total (3)	by State Enterprises (4)	Unit (5)	Staff Staff Pre-reform Post-reform (6)	atf Post-reform
Qingyuan (Guangdong) Qianxi (Hebei) Linru (Henan) Tongliao shi (Nei- Menggu Linfen shi (Shanxi)	17 9 16 22	n.a. 9 10 49	n.a. 18 26 71 71	6,065 2,700 n.a. n.a. n.a.	041 44	146 1.3. 141 66	81 n.a. 63

the administrative subdivisions of the xian. For Qingyuan, total Guangdong Provincial Government, "Why Qingyuan xian's

implemented,"

The XEC is, nevertheless, far from being an autonomous planning unit. The compulsory production targets imply that outputs are subject to centralized allocation by the XPC within or outside the xian sector. Since essential production materials are supplied from above, the XEC is basically comparable to a general processing agent, at least with respect to the state enterprises under its control. What the current reform has brought about is the greater flexibility for the XEC to "subcontract" the processing orders. This may be called the cost-efficiency aspect of the reform.

However, similar to the general reform scheme, the XEC manuals.

However, similar to the general reform scheme, the XEC may retain the whole or part of the products in excess of the planned targets for allocation at its discretion. It may organize enterprises for supplementary production and sales outside the XPC plans, provided this will not prejudice the fulfilment of the compulsory targets for production and procurement. This new measure which may be called the allocative aspect of the reform, clearly indicates that the mixed sector (as illustrated in our organizational model) has been expanded upward to cover parts of the planned sector. In other words, material resources tend to be led further away from centralized control and for allocation by the local authority instead in response to local market conditions.

Another noteworthy point concerns investment decisions. The new arrangements (Table 2) seem to have crossed over the conceptual borderline proposed by the notable economist, Sun Yefang, for an optimum degree of decentralization. Sun wanted only depreciation reserves to be retained and used by the enterprises themselves, but not the new investment funds for "expanded reproduction." If new funds, either allocated from above or made available from the profit-sharing scheme, are abundant relative to locally disposable physical resources, this could be a potential source of instability, as I shall discuss later.

For good reasons working capital norms and bank loan targets remain, however, to be assigned by the Xian Finance Bureau and the bank direct to individual enterprises. Stringent financial control has become all the more necessary, not only because direct physical target control has been relaxed, but more importantly, because the XEC and its enterprises share a mutual interest: boosting their liquidity.

The Expanding Local Resource Base

There are three new policy measures which tend to enhance capital supplies to the xian sector. First, the XEC has also been incorporated into the general industrial profit-sharing scheme adopted in 1979, with a status similar to the industrial branch company or bureau at the

^{20.} Guanli jingyan xuanbian, p. 507.

^{21.} Sun Yefang, Shehui zhuyi jingji de ruogan lilun wenti (Some Theoretical Problems of the Socialist Economy) (Beijing: Renmin Chubanshe, 1979), pp. 141 and 243–44; Lin Qingsong, Mao Liang, Lin Quanshui, "A good book on the all-round reformation of the economic system," Jingji yanjiu, No. 10 (1979), pp. 73–74, and Renmin ribao, 4 November 1980, p. 5.

^{22.} Guanli jingyan xuanbian, p. 506.

provincial level.²³ Specifically, the XEC may retain part of the profits realized by its subordinated enterprises on the basis of sharing contracts signed with the *Xian* Finance Bureau.

Secondly, the depreciation rate was generally increased from 3.6 to 4.1 per cent per annum in 1980.²⁴ For xian-run industries, the depreciation funds continue to be fully retained by the local sector.²⁵ The proportion which used to be remitted to XFB has now been wholly or partially transferred to the Xian Economic Committee (Table 2).

Thirdly, the central-provincial revenue-sharing system initiated in early 1980 has, *mutatis mutandis*, been introduced at the provincial-*xian* level. In practical terms, the XFB may now have its own source of tax revenue, or retain part of the tax revenue in excess of the amount predetermined by the provincial treasury. ²⁶ It is difficult, however, to determine the proportion made available to XEC for distribution at its discretion.

Of the three added sources of local finance, profit-sharing appears to have the greatest potential. The level of attainable profits and thus the retained proportion varies with many factors subject to manipulation by the XEC and its enterprises.²⁷ In addition, the XEC has a free hand to use retained profits for production and investment. By contrast, allocations from retained tax revenues is controlled by the Xian Finance Bureau. The 4 per cent depreciation rate, which amounts to an amortization period of 25 years, is far too low and, moreover, the proceeds therefrom are strictly earmarked for replacement investment.

It is a more complex matter to evaluate the quantitative significance of profit retention. The scattered samples given in Table 4 reveal that the share retained by the XEC and its enterprises is considerably greater than that kept by state enterprises under the national reform scheme. This is so whether or not the share includes the proportion destined for the workers' welfare expenditure and cash bonuses. If these are excluded, the average share available for productive allocations amounts to 24.96 per cent which compares very favourably with 5.78 per cent (1979) to 6.80 per cent (1980) for the national experimental enterprises. Our samples also show that a quarter of the share retained for production is controlled directly by the XEC; moreover, the use of profits retained by subordinated enterprises is also subject to its approval.

23. See " The Incentive Mechanism," infra.

Retention Ratios (%) of Realized Profits (in 10,000 *yuan*) for State Industrial Enterprises under the and the Xian Reform

		Total of Enter-	Total Profits Realized		Total Profits	Retention Ratio for Worker	Ratio for Workers'	Allocation	Allocation of Investible
	Year (1)	prises Involved (2)	Per d Enterprise (3)	Realized (4)	Proportion Retained (5)	Investment (6)	Bonus/ Welfare (7)	Retained XEC (8)	Retained Profits by XEC Enterprises (8) (9)
National	6261	4,249	572	2 430 700	0 10				
Scheme	1980	5 777	980	27,20,000	0/.0	8/.0	2.98	1	1
Xian (province)			85	3,230,000	10:31	08.9	3.51	1	1
Scheme									
liangmen									
Guangdong)	1981	11.3	a	677 1		;			
Jingyuan	1979	-	3.5	1,003	11.67	7.00	4.67	n.a.	e =
Guanadona	1000	<u> :</u>	73	391	38.62	20.21	18.41	e 1	
(9110091100)	0001	/1	53	499	45.80	24-48	21.12	18.47	
	1981	17	\$	787	45.10	30.00	1000	1 0	66.10
Qianxi (Hebei)	1980	6	26	210	31 16	20 5	40.57	18.67	70.63
Chengcheng			ì	017	C/ .77	13.65	9.10	55.53	44.47
(Shaanxi)	1981	n.a.	П.а.	128	60.00	***	,		
Lifen (Shanxi)	1980	6		07:	60.60	33.08	26.21	29.99	33.33
Xion Total	10.00			. /17	28.96	35.38	23 58	20.21	79.99
TOTAL TOTAL	19-6/61		32	3,903	30.30	24.96	5.34	75.77	17.77

Notes and Sources:

^{24.} Cf. Meng Lian, "Points on improving management for depreciation funds of fixed assets," Jingji yanjiu, No. 5 (1982), p. 33; and Jingji nianjian (1981), p. 127. See also Sun Shangging, "Explorations on technical innovation," Jingji yanjiu, No. 2 (1982), p. 30; and Renmin ribao, 15 October 1979.

^{25.} Dai Yuanchen, "Problems on renewal of capital assets," Jingji yanjiu, No. 10 (1982), p. 67.

^{26.} Cf. Jingji nianjian (1981), pp. II-130 and VI-152-3; and Gui Yuwen, "Digest of experimental units of rural economic restructuring in three counties of Guanghan, Qionglai and Xindu of Sichuan province," Jingji guanli, No. 4 (15 April 1981), pp. 66, 70.

^{27.} The xian-level industries are small in scale with diverse production and cost structures not conducive to centralized control by the provinces. Besides, the XEC enjoys a sellers' market position as I shall discuss later.

It should be noted that part of the profits which accrue to the enterprise's "production fund" is meant to compensate for the unrealistically low depreciation rate and to replace expenditures hitherto financed from above for the planned trial production of new products.28 Figures from Beijing municipality indicate that for state enterprises under the national reform scheme, the national average of 5.78 to 6.80 per cent profit retention (net of cash bonuses and welfare expenditures) is merely enough to finance trial production and to cover expenses in addition to depreciation funds for renovation.29 In view of this, the greater local retention ratios imply clearly that the XEC and its enterprises enjoy a greater degree of liquidity for engaging in production outside state control.

The collective sector, however, seems to offer greater potential as a source of xian finance. Its after-tax profits are fully retained for distribution within the xian. The tax structure (in force since 1963) relating to industrial collectives is an eight-grade marginal progressive tax starting with a 7 per cent charge on an income of 300 yuan and ending at a maximum rate of 55 per cent for 80,000 yuan and above. Since October 1980 this relatively more lenient rate structure has also been applied to non-industrial collectives.30 For enterprises with an income exceeding 20,000 yuan, this unification means a significant 20 per cent tax reduction.31 In addition, there has been pressure to reduce the maximum rate from 55 to 40 per cent.32 In fact, the provincial government has been given wide-ranging discretionary powers to lower tax rates and to grant tax holidays for new entrants to the collective sector, as part of the campaign to boost urban employment.33

Notwithstanding this, the 55 per cent maximum rate has practically become a standard tax. This is because most industrial collectives have an annual income far exceeding the 80,000 yuan level. Thus, the realized average tax-income ratio for the country as a whole was 52 per cent in 1978 compared to 38 per cent in 1963.34 This amounts, in effect, to a favourable lump sum tax for many enterprises concerned.

Circumstantial evidence from different localities consistently indicates that, net of state taxes and minor local levies, around 45 per cent of the profits earned are retained for local productive reinvestments and welfare expenditure; and between 45 to 55 per cent are controlled by the

responsible bureaus and district offices (or their subdivisions)35 which are now under the unified management of the XEC. This, of course, compares favourably with the ratios (respectively 30 and 25 per cent) (Table 4) for experimental xian-level state enterprises.

Table 5: Percentage Contributions of Xian-level State Enterprises and Collective Enterprises to Total Xian GVIO and Profits Generated and Disposable within the Xian Sector in China, 1981

	GVIO .	Total Profits Generated	Total Profits Disposable
Urban Collectives Commune Industries State Enterprises Total	821 · 51 37 · 79 309 · 76 14 · 25 1,042 · 36 47 · 95 2,173 · 63 100 · 00	100 m. Yuan % 62·85 25·79 56·83 23·32 124·04 50·89 243·72 100·00	100 m. Yuan % 30·19 34·99 47·55 55·11 8·54 9·90 86·28 100·00

Source:

Statistical data available do not permit a systematic evaluation of the relative contribution of the collective sector to the investment funds of the xian as a whole. On the national basis, however, the urban-industrial collectives accounted in 1981 for 38 per cent of the total xian-level GVIO, and 35 per cent of the profits retained, as figures in Table 5 show. If commune industries are included, the collective sector accounts for a startling share of 52 and 90 per cent, respectively. It can be shown that even if the average retention ratio of 30 per cent for state enterprises of the experimental xian (Table 4) is applied to all xian, their contribution to total disposable profits amounts to only slightly above 30 per cent.

In short, the collective sector remains the single most important source of local finance, despite the much publicized profit-sharing scheme for state enterprises. However, the campaign to boost the collective sector in recent years should not be taken to indicate a substantial degree of decentralization. While a reduction of the "standard" tax for industrial collectives to 40 per cent, for example, might increase xian liquidity from the urban sector by 8.72 per cent; from the central perspective, the cut would only curtail the state budget revenue from all direct and indirect taxes, urban and rural, by a very meagre margin of 0.79 per cent.36

Can input supplies match the potential increase in financial liquidity of

^{28.} Cf. Guowuyuan gongbao, No. 14 (20 November 1980), p. 422; and Jingji nianjian (1981), p. II-121.

^{29.} Three major enterprises used 31.5% of their gross retention together with depreciation funds to finance 127 key innovation projects in 1979; see Guowuyuan gongbao, No. 14 (20 November 1980), p. 421. If we assume that their investible retention is the same as the national average given in Table 4, then the portion left amounts to only 3.02%, scarcely enough to finance trial production. Cf. Jingji nianjian (1981), p. 11-121.

^{30.} Jiti jingji yanjiu, p. 283; Li Shuren, Huang Yinzhu, "Urgent problems in the development of collectively-owned industries in urban areas," Jingji yanjiu, No. 9 (1979), p. 31, and Jingji nianjian (1981), p. II-137 and IV-156.

^{31.} Jiti jingji yanjiu, pp. 283-84.

^{32.} Liang Junru, "The system of profit distribution for the large collectives must be reformed," Jingji guanli, No. 1 (1980), p. 50.

^{33.} Guowuyuan gongbao, No. 16 (1 December 1980), p. 510.

^{34.} Jiti jingji yanjiu, p. 262.

Y. Y. Kueh, A Reconstruction of China's Gross Value of Industrial Output and Profit Aggregates by Planning and Ownership Structure, 1978-1981, forthcoming.

^{35.} The total retention of 45% represents the balance left after deducting the 52% " standard " profit tax and minor local levies. The figures of 45 to 55% retained thereof by the local authorities represent the range within which virtually all the representative cases cited in Jiti jingji yanyiu fall. In 1981 appeals were made to the local authorities to raise the collectives' share up to 50 to 70%; see Jingji nianjian (1982), p. V-43.

^{36.} The state budget revenue for 1981 amounts to a total of 95,620 million yuan consisting of 34,720 million yuan from profit remissions and 60,900 million yuan from various taxes; see Jingji nianjian (1982), p. V-319.

the xian sector? This cannot be verified with respect to any of the xian which we know are currently under reform; except to the effect that idle equipment can now be more easily mobilized under the unified XEC authority for use by needy producers, probably including collectives.³⁷ For supplies in general, only some broad qualitative remarks may be ventured.

The xian reform tends to ease the supply situation in two respects. First, like the profit-sharing scheme local state enterprises are permitted to retain (fully or partly) output produced in excess of the XPC's targets. Secondly, they may engage in "supplementary production," if the necessary fuel and materials can be secured outside the assigned supply targets.³⁸

A more important supply source represents, perhaps, the high-priority producer goods of central/provincial origin which have been allowed to enter the market in recent years. The proportions involved are quite substantial. For machine tools it is 33 per cent of total sales in 1980; for steel products 11 per cent and 32 per cent respectively for 1980 and 1981. In 1981 transactions through the market accounted for 20 to 30 per cent of total sales and purchases of the entire state material supplies system at the provincial level.³⁹

Another new approach which helps to enhance local supply is that local authorities are now encouraged to break through administrative barriers and to trade their surplus materials with other xian or provinces. Local industries now account for a substantial share of such key products as coal (two-fifths), steel (one-quarter), timber (one-fifth) and cement (two-thirds). It is impossible to estimate the proportions made available to the xian sector; but some evidence indicates that interregional barter, whether formally or informally carried out under the pretext of economic co-operation, has been widespread at the xian level.

The supplies that are most easily subject to local manipulation, however, are locally produced agricultural raw materials. Unlike industry, farm production is less conducive to centralized control. Provincial governments rely on the xian for implementing farm procurement quotas. Lax control over provincial crop acreage, as has been the case in recent years, tends to add more room for local manoeuvre. This explains why an increasing amount of the key raw

materials (cotton and tobacco, for example) subject to the national compulsory purchase schemes has been intercepted at the xian level for feeding the rapidly flourishing, new five-small industries.⁴³

To sum up, the profit-sharing scheme as adopted in the experimental xian has provided a greater degree of financial liquidity to the xian authorities than the national reform programme has to central/provincial enterprises. The Chinese system of capital allocation, however, remains highly centralized. If, for example, the effective average retention ratio of 30 per cent for experimental xian (Table 4) is extended to other xian, then the marginal gains of the entire local sector amount to no more than a meagre 3 per cent of the state budget revenue for 1981. Material supply appears to be strictly controlled as well. The partial marketization of the producer goods sector was obviously prompted by the economic readjustment programme; and it is doubtful that the process will be sustained.

Nevertheless, the increased liquidity, especially if used in conjunction with funds generated from the more liquid collective sector under the unified XEC authority, may erode the central/provincial allocation system by competing with larger-scale enterprises for scarce material resources. To what extent central planners will tolerate this and how it will bear on the incentives of the xian planners are complex matters to which I shall now turn.

The Incentive Mechanism

Incentives are closely related to the broader issue of profit-sharing. From retained profits flows money for collective welfare, and cash bonuses for workers, factory managers and leading XEC cadres. The "production and development fund," which the XEC and enterprises may use for their own production and investment projects, is financed on the same basis. "This fund is important for incentives in that it helps to generate more retainable profits and thus raises the amount available for cash bonuses and welfare payments.

Is the current level of profit retention high enough to act as good incentive? The picture is unclear. The samples given in Table 4 reveal that the realized retention ratios vary widely from xian to xian depending on their initial economic conditions, production and price structure, and the prefixed retention ratios themselves. Whatever the causes of differentials, the central planners are confronted with the fundamental dilemma of how to keep the amount of retainable profits in check without eroding local confidence.

Thus, it was officially stipulated in 1981 that the annual total of bonus awards must fall within the range of $8\cdot3$ to $16\cdot7$ per cent of the standard

^{37.} See, e.g. Guanli jingyan xuanbian, pp. 519-20.

^{38.} Ibid. p. 507.

^{39.} For 1981 see Jingji nianjian (1982), p. V-43; for 1980 see Guowuyuan gongbao, No. 14 (5 September 1981), p. 424.

^{40.} Ibid.

^{41.} See, e.g. Wang Genjin and Zhu Rongji, "Where the commune and brigade industries are leading to," Jingji guanli, No. 3 (1979), p. 21.

^{42.} Crop acreage as a control target seems to have been abolished in many areas in recent years, at least up to 1981. Cf. Jingji nianjian (1981), p. 1V-12 and (1982), p. V-14; see also Renmin ribao, 2 November 1979, p. 2. This has obviously led to accelerated expansion in the acreage of lucrative cash crops, notably tobacco leaves. See Liu Suinian, "Planned economy: a prerequisite to the realization of the Four Modernizations," Jingji yanjiu, No. 9 (1982), p. 4; Guowuyuan gongbao, No. 12 (15 August 1982), pp. 542-43; and Lu Wen,

[&]quot;Regional advantages in agriculture and their proportions in the overall situation," Jingji yanjiu, No. 9 (1982), p. 8.

^{43.} The "new five-small industries" refer to cotton-spinning, knitting, cigarette-making, wine-making and sugar-refining; see Yan Fan, "The important task of present economic work is to clear up left-deviationist thinking," Jingji guanli, No. 1 (1981), p. 20.

^{44.} Jingji nianjian (1981), p. 11-121.

wage bill. 45 The upper limit is, understandably, meant to be an exception for the most worthy enterprises in terms of profit performance. Interestingly, this limit represents exactly the realized average in 1979 for state enterprises under the national scheme. 46 For the pioneer Qingyuan model, the effective figures for 1979 fall within the range of 16 4 to 25 5 per cent.47 Evidently there is a tightening grip to keep cash bonuses within manageable proportions.

It is also important that profits flowing to the production fund should not remain unrestricted; otherwise local financial liquidity may reach undesirable proportions. The enormous upsurge in local (including provincial) self-financed investment which has greatly impeded the government's efforts to fight inflation in recent years, vividly illustrates this

There is no easy way out of this dilemma. Let us look at the two popular retention formulae which have been applied to the sample xian. The first formula, recommended by the State Council in January 1980 as the standard, is called the "base profit plus surplus profit retention"

$$Yr = \alpha Yb + \beta (Ye - Yb)$$

where Yr, Yb and Ye stand, respectively, for retained, base (planned) and effective (realized) profits, and β necessarily exceeds α . 49 The second formula is similar, except that the first term αYb is omitted, and β is bound to be comparatively greater than under the first formula.50

With α and β set, the key to controlling the level of profits retainable for expanding local production clearly lies in the policy variable Yb. This applies not only to the second formula, but also to the first. The reason is that a Yb is meant to cover the more predictable expenses (cash bonuses, collective welfare and costs for trial production).51 Funds needed for profitable allocations have to come from surplus profit β (Ye-Yb), which in turn hinges decisively on the level of Yb set.

Now how can Yb be optimally determined? The fact that within a

45. Guowuyuan gongbao, No. 11 (10 August 1981), p. 340.

46. Ibid. No. 14 (20 November 1980), p. 421.

period of scarcely two years three different solutions have been adopted illustrates the problem facing the central planners. In the State Council directives of January 1980 Y₁₋₁ (profit realized in the preceding year) was simply used for Yb.52 Then, starting in September 1980, Yb was to be kept constant for several years. 53 A year later, however, this was replaced by a three-year moving average covering the realized profits of the three previous years.⁵⁴ The rationale for the shifts is clear. The first solution, called the Huanbi (linked base) method in official parlance, is bad for incentives, tantamount to "whipping a galloping ox " (bianda kuainiu). The second solution resembles a regressive tax and should provide a strong incentive for the XEC and their enterprises to shape production and investment programmes on a longer-term basis. It is, nevertheless, inherently inflation-bound. The third solution is evidently meant to be a compromise, but it is basically the same as the Huanbi method. It is doubtful whether the marginally adjusted profit base will increase

There are many local variations of the general retention formulae. All of them consistently reveal attempts made on the part of the Xian Finance Bureau to strike a balance between incentive and liquidity. It is certainly more difficult to deal with the XEC and its enterprises than the larger-scale enterprises under the national reform scheme. The reason is clear: provincial/central enterprises are much more advanced in technology, their products are more standardized, and profits are more stable. By contrast the XEC controls a heterogenous group of enterprises with highly diverse cost and price structures. Specifically, it is easier for the XEC or its enterprises to manipulate the potential level of profit. As a result, the locally adopted variants of the retention formula turn out to be very sophisticated. For example, in Jiangmen shi, Guangdong province⁵⁵ in 1981 a profit retention contract was signed by the XEC with the Xian Finance Bureau, under which

$$Yr_{t} = \beta_{1} (Ye_{t-1} - Yb_{t-1}) + \beta_{2} (Yb_{t} - Ye_{t-1}) + \beta_{3} (Ye_{t} - Yb_{t})$$

where $\beta_1 = 0.4$, $\beta_2 = 0.6$ and $\beta_3 = 0.7$. For the Qingyuan model, the arrangement for 1981 also represents a variant of the second formula. But, in contrast to Jiangmen shi, the surplus profit is not split into brackets coupled with progressive marginal sharing ratios. Instead, a single set of retention ratios is applied to the entire range of Ye - Yb as

$$\beta + \gamma(1-\beta) + \eta(1-\beta)(1-\gamma)$$

where the first and the second terms represent the primary and the secondary shares of the state enterprises concerned; and the third term stands for retention by the XEC. We do not have the value for β , but γ 52. Ibid.

^{47.} The two percentage figures refer to two different annual amounts of bonus outlay. The first is 0.7162 million yuan (Table 4) drawn from over-fulfilled profits. The second is 1 1145 million yuan comprising the first amount plus 0 3982 million yuan drawn as 'integrated bonuses' (zhonghe jiang) from the wage funds. The outlay on integrated bonuses can be derived from Bureau for the Reform of the Economic System, Guangdong Provincial Government, " Why Qingyuan xian industries could achieve high efficiency," Jingji guanli, No. 7 (1982), pp. 26-27 in which the average per-worker award is given as 6 yuan per month; and the total number of recipients 5,531 (calculated by dividing the total annual outlay of 0.7162 million yuan on over-fulfilment bonus by its per-worker award of 10.79 yuan per month). The annual total of wage base is not known, but the cited perworker award of 6 yuan per month may be assumed as 10% of the regular wage (cf. Jingji nianjian (1981), p. II-121). This gives an annual average wage of 720 yuan; or a total wage bill of 720 yuan \times 6,065 = 4.3668 million yuan (where 6,065 is total employment per

^{48.} See, e.g. Jingji nianjian (1981), p. 11-83.

^{49.} Ibid. p. 11-121.

^{50.} Guowuyuan gongbao, No. 14 (20 November 1980), p. 424.

^{51.} Jingji nianjian (1981), p. 11-121.

^{53.} Guowuyuan gongbao, No. 14 (20 November 1980), p. 424.

^{54.} Ibid. No. 24 (20 December 1981), p. 758; and No. 1 (5 March 1982), p. 29.

^{55.} Investigation and Research Department of the State Economic Commission, "Eighty examples of the system of economic responsibility in industrial production," Jingji guanli, No. 10 (1981), pp. 19-20.

and η are given as 0.5 and 0.6 respectively. So As for the determination of the base profit Yb, it is again, for both Qingyuan and Jiangmen, a modified Huanbi method, in that an annual growth rate is presumed and fixed for the three subsequent years. For Jiangmen shi this is 3 to 5 per cent, and for Qingyuan 10 per cent per year.57

These sophisticated formulae indicate the serious effort made by the XFB to edge out the last few percentage points of profit attainable on the one hand, and to spur local authorities to exert all efforts to increase the total profit level on the other. Hence the retention ratios for the current year's surplus profit turn out to be extremely high. For Qingyuan, the ratio (combining XEC and its enterprises) is probably around 90 per cent.58 For Jiangmen shi it is 65 per cent, if we simply take the mean value for the two retention ratios β_2 (for profit in excess of the amount realized in the preceding year) and β_3 (for profit fulfilled over the planned profit target for the current year).59 These high marginal retention ratios are symbolic of the fact that the base profit figures laid down must be very tough ones, at least in the eyes of the XFB.

How does all this bear on local xian liquidity? If we assume (as the XFB tends to) that the planned profit targets can only be overfulfilled by 10 per cent in both xian, then by using the absolute yuan figures available, the amount of profits retained in 1981 as a proportion of total realized profit is 18.75 per cent for Jiangmen shi⁶⁰ and 8.2 per cent (or at most 8.94 per cent for Qingyuan xian.61 The retention for Jiangmen is apparently greater, but it carries the provision that, henceforth, the XEC will be responsible for redeeming any ad hoc loans taken (for renovation measures) and for meeting the administrative expenses incurred. And state appropriations, mostly for replacement and renovation, will no longer be available.62 Thus, the net amount retainable for discretionary local investment is, in both cases, rather meagre.

In reality, however, the profit-sharing scheme has resulted in tremendous increases in profits as revealed in Table 6. In some cases, the degree of profit overfulfilment has greatly betrayed the most sophisticated prediction, compelling the XFB to alter the promised

59. This 65% share is considerably lower than the 90% share for Qingyuan, but Jiangmen has an additional share β , which is similar to α Yb in the first general formula.

Growth Rates of GVIO and Profits Realized in Selected Xian under Reform in China, 1979-81 Table 6:

Xian (<i>province)</i>	Reform Initiated (1)	Period Covered (2)	GVIO (10,000 Yuan) (3)	(4)	Profits Realized (3) (10,000 Yuan) (%) (5)	lized (%) (6)	$(5)/(3) \times 100$ $(Yuan)$ (7)	(6)/(4) % (8)
Jiangmen Shi (Guangdong) Qingyuan (Guangdong) Qingyuan (Guangdong) Qingyuan (Guangdong) Qianxi (Hebei)	n.a. April 1979 January	1980 1979 1980 1981	n.a. 4,570 4,883 4,273	n.a. 30·81 6·85 -12·49	1,487 425 542 927	29·00 250·66 27·53 70·99		n.a. 8·14 4·02 -5·68
Linfen (Shanxi) Chengcheng (Shaanxi)	1980 March 1980 April 1980	1980 1980 1981	2,386 2,920 1,416	17·30 2·50 31·30	234 217 128	61 · 10 34 · 00 337 · 58	9.82 7.43 9.95	3.53

nfen the GVIO fi t figures in this T t as in Table 4. or Chengcheng and Linfen the in Table 4. The profit figure sources are the same as in

^{56.} Ibid. p. 19.

^{58.} This is an estimate made by assuming that the primary share of the enterprises β , is equal to 0.5. But even if we set β at the lower end, say 0.1, the combined retention ratio will still be as high as 82%.

^{60.} The yuan values for Jiangmen are given (in 10,000 yuan) in the same source as note 55 as follows: $Yb_{t-1} = 1,162$, $Ye_{t-1} = 1,487$, $Yb_t = 1,644$. For Ye_t we assume it as equal to 1,644 \times 1·10 = 1,808. The assumption of 10% may have understated the potential for overfulfilling the profit targets in view of the evidence given in Table 6. The estimated retention ratio of 18.75% is greater than the figure of 11.67% shown in Table 4, because the former is gross of loan repayment.

^{61.} Realized profits in Qingyuan amount to a total of 544 (in 10,000 yuan) in 1980, also before repaying the loans taken; see Guanli jingyan xuanbian, p. 504. Assuming the planned profit target to be $544 \times 1 \cdot 10 = 598$ (this is in line with the practice mentioned in the same source cited under note 55), a 10% overfulfilment will result in a retention ratio of $8 \cdot 2$ or $8 \cdot 94\%$; if the retention parameter β is set at $0 \cdot 5$ or $0 \cdot 9$ respectively.

^{62.} See supra, note 55.

retention parameters (α and β), or to declare void the original retention contracts signed. This has undoubtedly eroded local morale.63 Even so, the enormous increases in profits clearly represent an initial big-push effect. Under the Huanbi method (unmodified or otherwise) coupled with such retention formulae as were adopted in Qingyuan and Jiangmen, it seems inevitable that the ox will sooner or later grind to a

The Allocative Impact

The incentive structure described above gives rise to a number of allocative problems under the new xian organizational framework. The first concerns the state-collective relationship. The incorporation of collective enterprises into the XEC planning system may facilitate a more integrated pattern of local resource use across the ownership borderline between collective and state-owned enterprises, as well as across production-branch barriers. It should nevertheless be noted that collective enterprises, for which separate profit accounts are maintained, are more leniently taxed than state enterprises for which obligatory profit remissions are tantamount to a system of confiscatory marginal tax rates on any amount of income realized in excess of what is needed for replacement investment.

The current xian reform experiment is probably too short-lived to have generated sufficient evidence to substantiate whether or not resources originally allocated from above to state enterprises have thus been wilfully diverted to the collective sector. There are, however, ample reports which show how local authorities have taken advantage of tax reductions and exemptions granted in recent years for newly established collectives, especially in rural areas where commune and brigade enterprises are subject to a maximum of 20 per cent profit tax64 compared with 55 per cent for urban collectives. Many factories have been closed down in order to be replaced by the " new " ones; and many urban collectives have been reassigned, through administrative demarcation, to be placed under rural jurisdiction.65 Another related type of distortion is the unnecessary amount of processing work subcontracted by state enterprises to collective factories.

The second major problem concerns the possible misuse of monopolistic power by the xian authorities. The existence of a pervasive sellers' market in China (as in other Soviet-type economies) is well known to western scholars. Yet the current reform has bestowed wideranging market power upon the XEC. Its monopolistic position seems to be similar to (but obviously more effective than) an industrial branch company. While a branch company only monopolizes a certain line of products, the XEC is none other than a comprehensive local monopoly

controlling a wide variety of producer and consumer goods which are in most cases suited to local demand.

Table 6 shows that the profit volume of all the xian concerned is growing by a multiple of the growth rate of their GVIO. Since GVIO is measured at constant prices and profit at current prices, the multiples indicate more or less the extent of inflation. Of course, the volume of profit can also be raised by simply shifting the production capacity to those products which enjoy greater profit margin as a result of irrational cost-price relations rather than changing market demand. Under the new organizational framework, the XEC certainly has greater powers to control the local output mix.

In this context it should be of interest to refer to an official claim that the xian reform is "beneficial to the implementation of the policy of (economic) readjustment work." Linru xian, Henan province, was cited as a positive example of this. Its new XEC is able to forestall uncoordinated investment by the various industrial bureaus and, presumably in response to an appeal from above, it suspended investment for a nitrogen fertilizer factory and it did not reactivate a small cigarette factory.67 Within the current context of readjustment both decisions clearly help to relieve the stresses of macro-instability and to release necessary raw materials for the larger and more advanced state factories which are capable of exploiting economies of scale.68

It is difficult to see why the XEC complied. Also puzzling is the appeal made during 1981 in a series of State Council directives to enterprises under reform not to ignore, in their legitimate pursuit of maximum profit, those products which are least profitable, but which nevertheless are essential for satisfying demand.69 How can this possibly work, without resorting to non-economic fiat?

Conclusion

The current xian-level economic reform in China represents another quest in the continuous search for an optimum degree of decentralization. Such an optimum requires that the granting of increased decision-making power to local or enterprise authorities will not seriously distort the preference scale of the central planners in terms of the overall allocation of available resources. Rather, it must result in (1) improving the efficiency of resource utilization within the given allocative framework, and (2) increasing the flow of manpower and material resources from sectors outside the state planning system.

The new Xian Economic Committee certainly facilitates a more integrated use of scarce capital and material resources at the local level. The expansion of the market sector, coupled with the initial incentives provided, also seems to be conducive to local mobilization. It is nevertheless questionable whether the central planners will tolerate any

^{63.} For a good example see Wang Shulin, "Reform measures beneficial to economic readjustment should be actively implemented," Jingji guanli, No. 7 (1981), p. 29, and notes on Qianxi xian in Table 4.

^{64.} Jingji nianjian (1981), p. 11-98.

^{65.} Jiti jingji yanjiu, pp. 251-52; and Renmin ribao, 6 December 1981, p. 5.

^{66.} Guowuyuan gongbao, No. 9 (10 July 1981), p. 276; Guanli jingyan xuanbian, p. 519.

^{67.} Ibid.

^{68.} Ibid. No. 6 (30 May 1981), p. 179.

^{69.} Ibid. No. 24 (20 December 1981), p. 758.

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substantial accumulation of resources outside the planning system. The insistence on the *Huanbi* method of profit-sharing is a good case in point. The urgent State Council directives issued in mid 1981 to the local authorities instructing them to close down many of the most flourishing small factories further illustrate the point.⁷⁰

What is fundamentally wrong is not the evil of "localism" or "profit motivation." Rather, there are simply no adequate objective economic criteria available to make local behaviour conform with the interests of the central planners. The present situation resembles an earlier attempt to decentralize economic control from the branch ministries to the provincial authorities. Within the larger provincial context greater economies of scale and more rational patterns of resource use may still be expected from co-ordinated intra-provincial specialization. It will be surprising, however, if in view of the narrower resource base and chronic supply shortages the new XEC arrangements do not lead to excessive vertical integration, very similar, ironically, to that brought about by the ministerial principle of organization.

Neither does the problem stem from the familiar issue of cost-price irrationalities. Instead, it is closely associated with the virtually insoluble problem of market power, insoluble mainly because of the inherent urge in all centrally planned systems for the centre to appropriate every bit of material available, leaving each and every producer with a favourable seller's position.

Thus, while the present xian reform may result in some marginal scale benefits through integrated planning, it is likely that such benefits will subsequently be offset by greater diseconomies arising from growing local vertical concentration, monopolization and instability.

Appendix

National Scheme

1979: Guowuyuan gongbao, No. 14 (20 November 1980), p. 420. For Column (2) see Sun Xuewen, "Reform should still be grasped properly in the stage of readjustment," Jingji guanli, No. 2 (1981), p. 10.

1980: Guowuyuan gongbao, No. 9 (10 July 1981), pp. 270-71.

Note: Figures given are net of loan repayments which amounted in 1980 to 3% of gross profit (*ibid.* p. 271). This ratio is also used to derive the net figure for 1979.

Jiangmen

Investigation and Research Department of the State Economic Commission, "Eighty examples of the system of economic responsibility in industrial production," *Jingji guanli*, No. 10 (1981), pp. 19-20.

Note: Columns (4)-(5): see p. 17 for estimation formula and note 60 for assumptions made. The figures are again net of loan repayments which amounted to 145 (in 10,000 yuan; hereinafter same unit) and

70. Ibid. No. 9 (10 July 1981), p. 263-66; see also No. 27 (10 February 1982), p. 883-84.

were derived from gross total (estimated as 1,808) by applying the loan/profit ratio of Qingyuan (see below).

Columns (6)-(7): the distribution is assumed as 60% for investment and 40% for the rest in line with the general national guideline set out in *Jingji nianjian* (1981), p. II-121. This investment proportion is, however, consistently greater than those estimated below for Qingyuan (52%, 53% and 49% for 1979-81 respectively), and Chengcheng (44%).

Qingyuan

1979: Guanli jingyan xuanbian, p. 504, and Nanfang ribao (24 July 1980), p. 1.

1980: Guanli jingyan xuanbian, p. 504; and Bureau for Reform of Economic System, Guangdong Provincial Government, "Why Qingyuan xian industries could achieve high efficiency," pp. 25-28.

1981: Ibid.

Note: Column (2): Table 3.

Column (3): $(4) \div (2)$

Columns (4)-(5): For 1980 the loan/profit ratio of 1979 (Nanfang ribao (24 July 1980)) was used to convert profits from gross into net basis. The total retention ratio was estimated as:

$$[Y_t - g_t Y_{t-1}(1 - a_{t-1})]/Y_t$$

where Y_t and Y_{t-1} stand for net profit realized in 1980 and 1979 respectively; g_t growth rate of total profit remission 1980/1979 and a_{t-1} total retention ratio for 1979. The g_t value is given as $12 \cdot 9\%$ (Guanli jingyan xuanbian, p. 504) and differs substantially from that of $36 \cdot 3\%$ for total remission to the Xian Finance Bureau (cf. pp. 27 and 28 in the second source cited for 1980). But a careful scrutiny of the data reveals that the latter figure is net of price subsidies and other similar transfers (cf. ibid. pp. 25-26).

Columns (6)-(7): for 1980 the investment ratio is derived from the total retention by subtracting the amount of 106 · 38 (*ibid.* p. 27) set for bonus outlay.

Columns (8)-(9): for 1980 the XEC ratio is estimated by using the Qingyuan formula given on p. 681, where β is assumed equal to the average of two possible extreme values, namely 0.5 and 0.9 (see note 61).

Qianxi

Wang Shulin, "Reform measures beneficial to economic readjustment should be actively implemented," p. 29.

Note: Column (2): Table 3.

Column (3): $(4) \div (2)$.

Columns (4)–(5): gross profit amounted to 234·15, loans 15·9; and hence net profit 218·25, representing an increase of 61·1% from 1979. According to a sharing contract originally signed with the *Xian* Finance Bureau the formula $Yr = \alpha Yb + \beta (Ye - Yb)$ as formulated on p. 680 was applicable; where Yb is to be understood

as planned profit. The α value is not known, but β is 0.6 consisting of 0.2 for the XEC and 0.4 for its enterprises. The contract was later abruptly declared void by the XFB and replaced, after renewed mitigations by the provincial authority, by a modified formula, which has αYb omitted, Yb redefined as Y_{t-1} , and β altered to become 0.4, for the XEC and its enterprises combined. The compromise solution still gives an effective total retention of 15.1%. I have not discovered other similar cases, however. And to bring Qianxi in line with other xian, I have applied the original β value and its breakdowns to the entire range Ye - Yb for determining the total retention and its distribution between the XEC and its enterprises. This may have overstated the retention ratio, but had it not been for the abrupt breach of the sharing contract, the increases in profit would have been much more substantial (see Wang Shulin "Reform measures beneficial to economic readjustment should be actively implemented," p. 29).

Columns (6)-(9): bonus and welfare outlays were assumed to be totally financed by the enterprises' share determined above; and total investible retention derived from same assumptions made for Jiangmen.

Chengcheng

Chengcheng xian Economic Committee, "How Chengcheng xian has reformed its industrial management system," pp. 38-40.

Note: Chengcheng applied the formula $Yr = \beta(Ye - Yb)$, where Yb is planned profit. I have isolated the Ye value (96·22) from a given total (201·33) comprising profits and taxes realized for the first nine months of 1981 by using the related national ratio given in Jingji nianjian (1981) p. V-40. The annual Ye is assumed as $96 \cdot 22/9 \times 12 = 128 \cdot 29$ (unknown whether gross or net of loan repayments). The combined total of 201·33 was said to represent an increase of 337·58% over the corresponding period of 1980. This growth rate was used to derive Yb as $128 \cdot 29 \div 4 \cdot 3758 \times 1 \cdot 10 = 32 \cdot 25$. The β values are given as $0 \cdot 3$ and $0 \cdot 5$ respectively for the XEC and its enterprises. Within the enterprises' share the distribution is $0 \cdot 3$, $0 \cdot 3$ and $0 \cdot 4$ respectively for the production, welfare and bonus funds. I assume the XEC's share is totally destined for investment.

Linfen

Guanli jingyan xuanbian, pp. 529-30.

Note: The same retention formula originally set for Qianxi was used here. Ye which possibly covers some collectives as well, is given as $126 \cdot 5$ for March through September 1980, representing an increase of 34% over the seven-month period preceding the reform. I assume the annualized Ye as $126 \cdot 5 \div 7 \times 12 = 216 \cdot 86$ and the contracted Yb as $216 \cdot 86 \div 1 \cdot 34 \times 1 \cdot 10 = 178 \cdot 02$ (also not known whether gross or net of loan repayments). The α values are given as $0 \cdot 2$ and $0 \cdot 3$ respectively for the XEC and its enterprises; and the corresponding β values are $0 \cdot 2$ and $0 \cdot 8$. The investible share is not known, but assumed same as for Jiangmen above.

The Distribution System for Producers' Goods in China*

Edward Clifford Koziara and Chiou-shuang Yan

Introduction

The Chinese distribution system is markedly different from its American equivalent. The bulk of the nation's products, especially producers' goods, are allocated according to the state plan and distributed through state-controlled channels and facilities. As most of the products are purchased by the state there would appear to be no need for sales marketing; the primary function of the distribution system is merely to handle the physical flow of goods. However, goods are often in short supply. Therefore, to ensure an adequate supply of inputs to fulfil the production quotas, numerous purchasing agents are used to locate the necessary inputs for enterprises. Basically, the commodity flow is pulled by the buyers rather than pushed by the sellers. This supply insufficiency leads to many problems, including commodity hoarding by users and producers alike. Consequently, the level of idle inventory is unnecessarily high and the size and speed of the commodity flow reduced.

As the fulfilment of production quotas depends on the timely procurement of inputs by enterprises, an efficient distribution system is a prerequisite to the success of the state plan. Recently, in accordance with the goal of modernizing agriculture, industry, science and the military, enterprises have been allowed greater freedom in commodity

*We wish to express our appreciation to Professor Qian Junrui and Research Associate Chen Dezhao of the Chinese Institute of World Economy, Academy of Social Sciences, for facilitating our studies in China in 1981 and 1982. We also appreciate the valuable comments from Professor Holland Hunter of Haverford College. They are not responsible for the contents of this article.

1. Distribution systems for producers' goods in planned economies other than China have been presented in Thomas V. Greer, Marketing in the Soviet Union (New York: Praeger, 1973), pp. 134-37; Sumer C. Aggarwal, "Managing material shortages the Russian way," Columbia Journal of World Business, autumn 1980, pp. 26-37; A. C. Samli, Marketing and Distribution Systems in Eastern Europe (New York: Praeger, 1978); F. L. Pryor, "Some costs and benefits of markets," Quarterly Journal of Economics. February 1977, pp. 81-102; N. K. Babalkov, The Government Plan of the USSR for the Year 1979, and the State of Completion of the 1978 Plan, Politizdat, Moscow, 1978. A general basic reference would be Martin C. Schnitzer and James W. Nordyke, Comparative Economic Systems, (Cincinnati: South-Western, 1983). In command economies, plans for the distribution of producers' goods are generally prepared or revised on an annual basis, sometimes in the framework of a longer development plan such as five years. Based upon political ideas, national priorities and reality, the plans are the result of proposals, tentative plans, counter-proposals, modifications, appeals, partial acceptances and rejections coming from various geographical, enterprise, national, ministerial and other structural components of the planning mechanism. In some countries, sophisticated intersectoral balance data, input-output tables and coefficients are used although there is some question as to their effectiveness in actually formulating plans (see Gertrude Schroeder, "The reform of the supply system in Soviet industry," Soviet Studies, July 1972, pp. 99-100). After the plans are formulated and approved, they are implemented as strictly as possible. The Chinese experience can be associated to a degree with what has taken place in other centrally planned economies.

rectification is to achieve a fundamental improvement in Party style. It is to proceed over a three-year period from the second half of 1983, with careful preparations and thoroughness. Although ideological education is again emphasized, it is to be backed by organizational sanctions. All Party leading groups are to be "straightened out" from top to bottom, so that each level after its own rectification takes charge of the process at lower levels. In the final stages there will be re-registration of all Party members, when those who still fail to meet the standards of Party membership will be expelled. While the rectification will occupy the whole Party organization, it also appears likely that DICs will play a greater part than control organs in earlier movements. The CDIC had reportedly already begun the process by examining files of Party members, presumably those at Central level, for a year before the Congress. The DICs' role may be reinforced by insistence that rectification should be conducted according to regularized procedures, avoiding the abuses arising in some earlier movements. And the strengthening of vertical leadership in the DIC network will provide a channel for maintaining upper-level domination of the process. The rectification deals with issues which have increasingly become the focus of DICs' work. They may act largely as agents of the Central Party organs, but agents adapted to playing a crucial part. Under these circumstances, DICs may come much closer to fulfilling their broader responsibilities in internal regulation of the Party organization.

Some Notes on Tax Reform in China*

Wang Chuanlun

To encourage economic construction and development, China is considering the reform of her system of taxation, principally the taxing of industrial and commercial enterprises. The aim of such reform is two-fold: to secure more stable revenues for the financing of key projects of national importance and, even more crucial, to try to make the tax system into a means of economic management. The latter has been called the leverage function of taxation.

Such a reform should not be makeshift in character. Indeed, a thorough overhaul of the whole structure is considered necessary. Many questions have been raised and discussed in China. Consensus has not yet been reached, but the following aspects are deemed important.¹

The Past Experience

In 1950 China established the unified tax jurisdiction for the whole country, and a new tax system was formulated. According to the " Main Regulations for the Implementation of the National Tax Jurisdiction," there were 14 kinds of taxes concerning industrial and commercial enterprises, namely: (1) goods tax (excise); (2) industrial and commercial tax, which was then composed of sales tax, income tax, pedlar's licence tax and occasional trader's tax; (3) salt tax; (4) customs duty; (5) income tax on wages and salaries (not implemented); (6) income tax on deposit interest; (7) stamp duty; (8) death duty (not implemented); (9) transaction tax which was then composed of those taxes on cotton goods, cereals, handwoven cloth, medicinal herbs, and livestock; (10) slaughtering tax; (11) housing property tax; (12) land property tax; (13) special consumption tax; (14) licence tax on vehicles and vessels. In 1951 the tax on marketing of cotton yarn was added. Since two of the 14 taxes were not implemented, in the early 1950s only 13 kinds of taxes comprised the industrial and commercial tax system (ICTS).

In 1953 the ICTS was reformed and a commodity circulation tax was

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^{1.} The discussions could be dated back to the early 1960s when the Chinese economy was undergoing readjustment. It was then suggested that the ICTS should be adjusted to squeeze the profitability of enterprises, and the state enterprises should pay a fee for the use of state funds as well. Some of the questions were raised at the first Conference of Fiscal Studies held at Dalian in 1964, but unfortunately were not well discussed. At the second conference, held one year later, tax reform was again referred to in conjunction with price reform. In the 1970s, after a lapse of more than 10 years, discussions about tax reform were resumed sporadically. First raised was the question how to reform the tax system on turnover in correspondence with the changed cost conditions and in the light of industrial reorganization. After 1979 the discussions on the income taxation for state enterprises became very intensive and actually constituted one ingredient of the important policy-mix, augmenting the enterprise's autonomy.

Some Notes on Tax Reform in China

introduced. For some main commodities, the goods tax, the sales tax and its surtax, the stamp duty that was originally levied on them, were consolidated into a commodity circulation tax, and it was collected only one at the point at which the commodities moved from the place of production to the place of sale.

In 1958 there was a further reform of the ICTS. The commodity circulation tax, the goods tax, the sales tax and stamp duty that industrial and commercial enterprises originally paid, were again consolidated into an industrial and commercial consolidated tax. The income tax which had been one part of the industrial and commercial tax according to the 1951 Regulations, was established as a separate tax: the industrial and commercial income tax. Collection procedures were simplified. A number of tax rates were changed, but the actual amount of tax was kept basically the same.

In 1973 the ICTS was further simplified. The industrial and commercial consolidated tax and it surtax, the urban real property tax, the licence tax on vehicles and vessels and the slaughtering tax that industrial and commercial enterprises originally paid, were combined into an industrial-commercial tax. However, the urban real property tax, the licence tax on vehicles and vessels and the slaughtering tax were still retained, though paid only by individuals and foreign residents.

In 1980 two new taxes – the income tax on joint ventures with Chinese and foreign investments, and the individual income tax – were introduced. In 1981 another tax – the income tax on foreign enterprises – was added.

The main features of the evolution of the ICTS in China can be seen from the Diagram.² How should the changes and reforms of the ICTS be evaluated? What lessons can be drawn from past experience?³

It has generally been recognized that the simplification of the tax system was excessive. The underlying principle for the reforms in 1958 and 1973 was to make the tax system as simple as possible. This was considered justifiable for the following reason. After the socialist transformation of private ownership, the economic structure in China had already undergone a fundamental change – the industrial and commercial enterprises belonged either to the state or to some socialist collectives which to a great extent were controlled by the state. Therefore, while it might still have been necessary to collect taxes from those enterprises for revenue purposes, sooner or later it would be replaced by a more appropriate form such as the direct transference of the profits of the enterprises to the state. The simplification reached its furthest point in 1973, when state enterprises paid only one tax – the industrial–commercial tax – and collective enterprises paid only two taxes

Diagram: Evolution of the Industrial and Commercial Tax System

1950	1953	1958	1973
Goods tax	Goods tax		
Tax on marketing	Commodity		
Tax on marketing of cotton yarn	circulation tax		
(1951) - 177	11 15		
1/ / 1/1	1 1 3		
Transaction tax:	$I = II = -\infty$	Industrial and	Industrial -
- on cotton goods	' //	'ycommercial	_,commercial tax
- on handwoven #	.11	consolidated tax	Š
- on cereals	11 1	1	<u>.</u>
- on medicinal	f(f) = R	· ·	d .
herbs ///	(suspended)	į.	1
herbs ///	Transaction tax on_	_Transaction tax on	Transaction tax of
# 17	/livestock / //	livestock !!	livestock
	1.11	##	
Industrial and	Industrial and	33	
Commercial tax:	Commercial tax:	##	
	income tax	- Industrial and	Industrial and
- pedlar's	7	commercial	commercial
licence tax'	1 //	income tax	income tax
- occasional /_/	- occasional	# !	
trader's tax	trader's tax	<i>i: i</i>	
D	/	Fair transaction	
Stamp duty	Stamp duty	tax (1962)	tax
	Licence tax on	Licence tax on	Licence tax on
	vehicles and	vehicles and	vehicles and
vessels	_vessels	_vessels	_vessels
Slaughtering tox	Claughtonian ton	C1	Cl. I
Slaughtering lax	-Staugittering tax	_Slaughtering tax	_Staughtering tax
Housing		į	
property tax	Urban real	_Urban real	_Urban real
7	property tax	property tax	property tax
Land property tax			
Special	_Cultural	Cultural	
consumption tax	recreation tax	recreation tax	
onoumption tax	recreation tax	(suspended 1966)	
		()	
Income tax on	Income tax on	Income tax on	
deposit interest	interest	interest	
		(suspended 1959)	
Salt tax	Salt tax	Salt tax	Salt tax
Customs duty	Customs duty	_Customs duty	Customs duty
		Various € Control of the State	
Income tax on wages and salaries			Income tax on
not		**	joint ventures (1980)
implemented)			()
Death duty (not			Individual income
mplemented)			tax (1980)
			Income tax on
			foreign enterprises (1981)

See Guojia shuishou (National Taxation) (The Chinese Fiscal and Economic Press, 1979), pp. 20–28.

^{3.} Two important relevant articles are: Liu Zhicheng, "The ICTS reform in China" (in Chinese), 1980, collected in *Zhongguo caizheng wenti (China's Fiscal Problems)* (Tianjin Science and Technology Press), pp. 581–86. Liu is the tax commissioner in China. Xu Yi, "The leverage function of taxation" (in Chinese), May 1979, *ibid.* pp. 595–601. Xu is the director of the Fiscal Research Institute of the Ministry of Finance.

- the industrial-commercial tax and the industrial and commercial income tax. But the simplification of the tax system can, if excessive, deprive the system of its function of economic management, even though it may still be an important source of revenue.

It has also generally been recognized that the state could have exerted greater influence through the tax system on the economic activities of enterprises, but failed to do so after 1956. In the socialist transformation of capitalist industry and commerce, the ICTS played an important role in squeezing the profits of capitalist enterprises and thus forcing them to accept state orders and later to apply for joint state–private operations. Before 1956 the authorities consciously and purposefully used the tax system to influence the economy in that way, even though not always correctly. After 1956, when the "three major transformations," that is, those in agriculture, handicrafts and capitalistic industry and commerce, had already been completed, the authorities should have promptly steered the ICTS towards a new direction, that is, to make it into a means of economic management of socialist enterprises, but unfortunately this was not achieved.

Furthermore, it has also generally been recognized that taxes, no matter how they are levied, must have some impact on the profitability of enterprises, and it is through such an impact that taxes can exert a certain influence on their activities. But, the profitability of an enterprise depends upon many factors and varies with different conditions. Therefore, to make full use of the leverage of taxation it is necessary to investigate those factors and conditions, and to co-ordinate taxation with other "levers" such as pricing, bank credit, and so forth.

The Economic Autonomy and Profitability of State Enterprises

The principal taxpayers under the present ICTS are state enterprises, and many questions about tax reform focus on the relation between taxes and the profitability of state enterprises.

In China few people would deny that China's economy should be a socialist planned economy, and few people would deny that state enterprises should have their economic autonomy, and, again, very few would refute the necessity to conciliate and to co-ordinate state planning with enterprise autonomy. It is impossible to have all economic decisions, large or small, made solely by the central state authority. But it is also impossible to allow state enterprises to have total control. It follows that every enterprise should calculate and be responsible for its profits or losses, and the state should in one way or another adjust its profitability.

The leverage function of taxation, as far as state enterprises are concerned, is primarily applied to adjust their profitability. But the profitability of any enterprise is the weighted average of the profitabilities of different products it produces and/or sells. For any one unit of product, the before-tax gross profit minus the amount of tax is the after-tax net profit, that is, the net profitability is equal to the gross

profitability minus the tax rate. Through taxation the state is, to a certain extent, able to adjust the gross profitability of the enterprises, and to make their net profitability more or less equalized.

From the Chinese experience, the before-tax profitability of the industrial and commercial enterprises is very much differentiated. The main reasons are: first, they produce and sell different products, for which the pricing policies and practices are different. In China the prices of a limited number of commodities, mainly vital necessities and important raw materials, are set uniformly by the state organ, but for other commodities, their prices are managed by relevant government departments or regional authorities, and among them the prices of petty commodities are to a great extent set by the enterprises themselves in accordance with market conditions. Up to the present time the agricultural products and the industrial raw materials are generally priced relatively low, yet manufactured goods and some consumer goods which are not daily necessities are relatively high-priced. Such differentiation of prices can be gradually changed, but cannot be changed very quickly.5 Therefore, for a fairly long period, there will be some bias in the profitability of enterprises. Some enterprises used to have higher profits, not because they are better managed, but because the commodities they produce or sell are relatively high-priced. It is clear that should such bias of profitability be left unadjusted, it may have some negative influence on the allocation of resources and the management of enterprises. In other words, it may run against the requirements of the planned economy.

Secondly, the enterprises are different in their technical equipment. The state is the main investor in state enterprises, and it is inevitable that only some of them receive financial backing, and for those in receipt their investments would still vary in size and intensity. As a general practice, the enterprises do not have to pay for the state financing. Therefore, the better equipped enterprises could have higher productivity and lower cost and higher gross profitability than those not so well equipped.

Thirdly, the enterprises may have different natural resource endowments. Coal mines or oil fields have different gross profitability, and among other things the richness of ore, the quality of oil, or the readiness of extraction usually play a significant role.

Fourthly, the enterprises may be managed differently. Enterprises of the same industry, dealing in the same products, similarly equipped and natural resource endowed, still have different profitabilities. Some are well managed, so their productivity is higher, their costs lower, but some are not. Such differentiation of profitability, though always persisting, is ever changing, and can be changed through the efforts of the management.

The differentiation of profitability, for whatever reasons it may be,

^{4.} For one unit of product, P - C = gp, and gp - T = np, where P - selling price, C - total cost, gp - gross profit, T - the tax amount, and np - net profit. Since gross profitability is gp/P = 1 - C/P, tax rate is T/P, and net profitability is np/P, hence the result.

^{5.} See Xue Muqiao, China's Socialist Economy (Beijing: Foreign Languages Press, 1981), pp. 146-54.

must have its influence on the enterprise. The higher the degree of its autonomy, the larger the influence on its activities. To deal with such an important problem, there can be three possible approaches: first, leave it untouched and let market mechanism have its full play; secondly, leave it untouched but let state plans control all activities of all enterprises; thirdly, adjust the profitability of enterprises and make it more equalized, so that the enterprise could have its autonomy of activities as fully as possible and in conformity with the requirement of the socialist planned economy.⁶

It is the third approach that constitutes the underlying principle of the reform of the ICTS in China.

Taxation of the Products

The industrial-commercial tax, which is the only important tax paid by state enterprises, is a combination of product tax and sales tax. In the forthcoming reform of the ICTS, should the tax be turned into something more like a sales tax, with the enterprises of the same industry or sub-industry being taxed on their turnover with the same rate? Or, should it be turned into a tax on products with different rates set for different categories of products, and let the enterprises, whatever industry they may belong to, pay the tax accordingly? Of the two options, the second seems to be appropriate, mainly because a system of product taxation is more adaptable to the various conditions of pricing, and it is very important for the ICTS to have such adaptability.

For the present and the near future, the authorities will manage the prices in such a way that the "mark-up" on total costs, that is, gp/C, differentiates between different categories of products, but the "mark-up" of different sorts of products within the same category is more or less uniform. It follows that if there is a system of taxation of products with rates differentiated between categories of products more or less in conformity to the pricing practice, it can have an equalizing influence on the profitability of enterprises; therefore, it is helpful to the improvement of economic efficiency.

Compared with sales tax, a product tax can work more flexibly with pricing. To price certain categories of products relatively low, it might be useful to increase the demand and consumption of them instead of other

substitutes, but it must at the same time have a negative influence on their supply and production. A tax system on products could be useful to make both ends meet. For instance, to encourage a wider use of steel to substitute for timber, the price of steel window frames was lowered in the 1960s from 600 to 440 yuan per ton. But the profit was lowered accordingly. Since the profitability of steel window frames became lower than those of similar steel products, the production of the window frame, though encouraged, did not grow for a long time. To raise its price to the original level or even higher, it would be able to stimulate production; yet, it would not be helpful to its consumption. To make both ends meet, it might be better not to raise the price or just to raise it a little, but at the same time lower the tax rate on steel window frames or to allow tax exemptions for a certain period of time.

Sometimes, for the purpose of limiting the use and consumption of certain products, it is necessary to raise their prices. But, the higher profitability which goes with the high pricing might stimulate their production and cause overstocking. For example, hot-rolled stainless steel sheeting was scarce, so was priced high at 15,000 yuan per ton. Then, the factories produced more sheet steel than the market required. In order to eliminate the overstocking, the price of the steel could be lowered. But it thus would certainly not be helpful in conserving the scarce material and making the best use of it. Again, an adjustment of the rate of the product tax or other tax measures might be able to solve the problem.

In some cases pricing can be differentiated in such a way that, if left unadjusted, it can be detrimental to economic planning and management. For a period of time, for example, the price of iron ore was set so low that nearly all the mines were incurring losses; the price of pig iron was also very low, so that the ironworks could barely break even; but the price of steel ingots was fairly reasonable, and steelworks were reasonably profitable; rolled steel was relatively high-priced, so that rolling mills could earn high profits; as the steel products were processed and machines and electrical apparatuses were made, the manufacturers usually could achieve profits as high as 50 per cent of the selling price.10 The differentiated pricing between vertically related products, as drastic as it was, could be very detrimental to the industrial structure, and harmful to the balanced development of the economy. It should be and is being changed. But, as prices are not only related vertically but also horizontally, it can be seen that, short of an all-round reform, it cannot be changed completely. In the transitional period, a system of product tax can again be useful. If the tax rates are to be differentiated between vertically related products in conformity with the pricing, the product tax could have a counteracting effect; if negative rates could be used, the tax system could be used as a subsidy to production.

^{6.} It might be interesting to compare the three approaches with the three different views, as introduced by Dong Fureng in his article "Some problems concerning the Chinese economy," *The China Quarterly*, No. 84 (December 1980), pp. 732–33.

^{7.} It is composed of four parts: (1) industry; (2) communication and transport; (3) agriculture, forestry, husbandry, and aquatic product procurement; and (4) retail, service and other trades. The first part, which is the most important, is again divided into 30 categories, each corresponding to one kind of industry. Some categories, such as the coal-mining industry, are not sub-divided, so that all enterprises in that industry pay the industrial-commercial tax on their turnover with one uniform rate. But some categories are sub-divided, and to each sub-category there is a different rate. As a general picture, some enterprises pay the tax with one rate, while some others pay the tax with more rates. However, the base of the tax is always the turnover, i.e. the sales of the products or the gross income of services.

^{8.} Xu Yi, "The relations between public finance, taxation and prices" (in Chinese), August 1980, in *China's Fiscal Problems*, p. 740.

^{9.} Ibid. p. 741. 10. Ibid. p. 743.

But, a tax on products has its limitations. As one can imagine, in pricing, even within one category of products the "mark-up" on cost or the profit/sales ratio still differentiates between different sorts of products. Therefore, the more detailed the classification and itemization of the products, the more differentiation in the tax rates, the better the co-ordination between tax and pricing, but the more difficult the implementation. It is not really feasible to have a system of product tax with hundreds of categories of products and corresponding tax rates. What can be done in the reform is, in conformity with the actual situation of pricing, to try to work out a relatively detailed system of tax categories and corresponding rates and to make the profitability of products within one same category more or less equalized, and to supplement the system with some necessary modifications, such as tax allowance, rate reduction, exemption, and so forth.

Apart from the problem of how the tax rates should be differentiated, there is still the problem of double taxation. So long as tax is assessed on the turnover, the value of certain products will be taxed more than once in the long process of being produced, processed and finally sold to the final user. Like other forms of turnover tax, it encourages vertical integration of enterprises, and in China the industrial—commercial tax which is also a tax on turnover might have been a factor inducing the enterprises to make themselves as "all-round" as possible, that is, to be able to produce themselves all the things they need. In the reform of the ICTS, as the industrial—commercial tax will be turned into a product tax, the new tax has to change its base, completely or partially, from the gross turnover to that part of value-added. Taxation on the value added by the enterprise to the product instead of on its whole value has also an equalizing effect on the profitability of the enterprises.

But, both rate differentiation and the taxation on added value could cause complications to the tax system, and cause difficulties for its implementation. There is a trade-off – to make the tax more effective to adjust the profitability, but more costly and difficult to enforce; or to make it easier to implement but not very effective in profit adjustment. Whatever the choice may be, it is obvious that the co-ordination of a product tax with pricing can by no means be perfect.

Taxation of the Capital Funds of Enterprises

From the experience in China it would seem necessary to have some kind of levy on the capital funds that enterprises obtain from the state and have at their disposal. It is impossible for the state to satisfy all financing requirements of the enterprises for investment; therefore, it is necessary for the authorities to make those "haves" and those "have nots" compete on a basically equal footing. To tax the capital funds that each enterprise has at its disposal, if appropriately carried out, could strengthen the economic autonomy of the enterprise, raise the efficiency of investment, and improve the allocation of state resources.

The capital funds that enterprises obtain from the state are composed

of the fixed capital funds and the working capital funds. For the past many years the fixed funds were appropriated from the Ministry of Finance, and the enterprise did not have to pay for them. The working funds were divided into two portions: the "normal" portion that meets the stable minimum requirement of the enterprise, and the above-normal portion. The normal portion of the working funds was also appropriated from the state; but the above-normal portion was usually provided by the state bank, and the enterprise was required to pay a very low interest, which was a deduction item in calculating the amount of profit that the enterprise should eventually transfer to the state. Under such institutional conditions, if an enterprise could get or borrow more from the state, it would be in a more advantageous position.

In order to change such unsatisfactory conditions, several types of reform have been contemplated: to levy a kind of property tax on the total value of the capital funds, fixed and working, that each enterprise has obtained from the state and now has at its disposal; to transfer the total amount of such capital funds into a loan of the state bank to the enterprise which shall pay the interest; or, to deal separately with the fixed funds and the working funds, while the enterprise pays tax on the former and interest on the latter.

Whichever form the reform takes, the state enterprise can no longer have the funds gratis. It must pay the tax or interest. Such a payment is a factor that the enterprise must take into consideration in evaluating the efficiency of investment projects. If properly formulated, it can also improve the efficiency of day-to-day management of enterprises and the overall economizing of state funds.

Taxation of the Differential Income

The profitability of state enterprises is also differentiated because of the different natural resource endowments. Such differential income has nothing to do with the performance and management of enterprises. Therefore, if left untouched, it might not be beneficial for the improvement of the management, and is certainly disadvantageous for the conservation of scarce resources. China is rich in some but not all important natural resources, and even for those that are abundant the geographical distribution is not even and the quality varies. While the demand for natural resources is growing rapidly, the rational exploitation and utilization of relatively low-quality resources is vitally important for the national economy. Some kind of taxation on the differential income thus derived and enjoyed by some enterprises alone has been discussed and considered feasible and necessary.

Such a tax is to be levied on some natural resources, such as oil, natural gas, coal, hydro-electricity, non-ferrous metals, and so forth. It is to be paid only by those enterprises that enjoy such natural advantages. The tax base could be stipulated as the net profit of those enterprises, thus the tax

^{11.} See Wang Chengyao, "Bring the functions of taxation into full play" (in Chinese). November 1980, in *China's Fiscal Problems*, pp. 618–19.

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is practically a supplementary levy on the profit. But it might be more appropriate to have the amount of the resources exploited or used up as the tax base, and to fix the rate of payment on the basis of the difference between the average cost of the industry and the actual individual cost of each enterprise. Thus formulated, the tax liability and the consumption of resources can be directly linked, and those enterprises that utilize the resources more efficiently could still earn higher profits. Since the average cost is by no means the lowest, the differential income that has been enjoyed by some enterprises will not be totally taken away by the tax. It is a compromise. But, judging from the existing conditions and the difficulties to enforce such a tax, the compromise is probably necessary.

In a system of inter-governmental fiscal relations, the revenue of such a tax should be wholly or partially allocated to the local government. Thus allocated, it might be helpful in making the local government more active in the conservation and utilization of natural resources. But, the tax rate should be formulated by the relevant state authorities.

Taxation of the Net Profit of the Enterprise

State enterprises, after paying all taxes, should still have the net profit or loss. How should it be distributed and who is to be responsible for its distribution? This is a question that has been tackled in different ways in the past and should be dealt with in the forthcoming tax reform.

For many years before 1978 a system of centralized distribution was adopted. Since all funds in the state enterprise belong to the state, it was then stipulated that the net profit should be totally turned over to the state, and the net loss, if any, should be compensated by the state, too. Consequently, the investment and other expenditure of the enterprise had to rely mostly on state financing, and the money was earmarked. There was no direct connection between the net profit and the state's appropriation to the enterprise. There was no direct connection, either, between the performance of the enterprise and the financing of its investment and other expenditures. The management and the staff and workers of the enterprise had no material responsibility nor material interest in the performance. Such a system, as one can see from past experience, was not helpful to the improvement of management, and certainly should not be retained nor established after tax reform.¹²

Since 1979 a trial system has been adopted that entitles the enterprise to retain a certain portion of the net profit.¹³ The details of the system vary, but the general outline is as follows: first, to fix for the enterprise a retention ratio on its basic profit, which is roughly equal to the ratio of the sum of state appropriation to the enterprise for certain minor

investment expenditure and the bonus and other welfare expenditures allowed by the state, to the net profit of the enterprise, all calculated for the preceding year; then, to determine for the enterprise another retention ratio on its increased profit, that is, the increment of the net profit in this year from the preceding year. The two ratios are, of course, different. It can be seen that, under such a system for the distribution of profit, the material responsibility and interest in the performance of the enterprise can be more or less linked together.

But such a system of profit retention has its shortcomings. Since the retention ratio on the basic profit is based on those expenditures that took place in the past, those enterprises that spent more could have higher retention ratios than others; therefore, the system could be a little " grandmotherly " towards the " vested interest " and might cause some misuse of funds. Since the second retention ratio is higher than the first, it is always attractive for the enterprise to lower the previous year's profit to such an extent that the amount of the increased profit could look larger, and from year to year the enterprise would have less incentive to try to get more profit, unless the retention ratios are set favourably to the interest of the enterprise. Therefore, the ratios have to be negotiated for each enterprise either annually or every two to three years, and the negotiations can be very difficult, as each expenditure item must be examined, the profit figures must be verified and probably adjusted, and the ratios must be agreed by both sides. There have been cases of significant inequalities between enterprises, that those doing better may pay more and can only retain less.

A system of profit retention, however, is drawn from the premise that the net profit of the enterprise belongs to the state alone and the enterprise is only allowed to retain a part of it. Could it be looked at in another way? That is to say, after paying taxes, the enterprise is entitled to distribute its net profit as a whole under the guidance of state authorities, and the state can have only a certain part of it. Thus, the material rights, responsibilities, and interests of the enterprise can be more closely linked.

Now comes the question of "changing profit into tax," that is, should state enterprises pay income tax to the state?¹⁴ Experiments have been made in a number of places.¹⁵ A system of "changing profit into tax," if properly formulated, is advantageous mainly in the following aspects:

First, it can facilitate the long-term programming of the enterprise. Since income tax shall be codified and made into a law, the system of its assessment and tax rates shall be determined thereby; therefore, for a fairly long period the distribution pattern of the net profit shall not be changed and the state's share can be calculated beforehand. So long as the enterprise is confident of its profitability and can work out how much the net profit is going to be, it can make a long-term programme for its

^{12.} Liu Biao, "Some questions on the reform of the financial management systems for enterprises" (in Chinese), March 1981, in *China's Fiscal Problems*, p. 401. Liu is an officer of the Ministry of Finance.

^{13.} Up to the end of 1980, the industrial enterprises that had adopted such a trial system totalled more than 6,600, and their gross production value and profit accounted 60% and 70%, respectively, of the aggregates of all industrial enterprises in the state sector. *Ibid.* p. 397.

^{14.} See the answer to the second question, "The officials of the Ministry of Finance again answer the questions concerning the changing of profit into tax for state enterprises." *People's Daily*, 28 April 1983.

^{15.} From 1979 the pilot experiment of "changing profit into tax" has been carried out in 456 industrial and transport enterprises located in 18 provinces, cities and autonomous regions. See the answer to the first question, *People's Daily*, 28 April 1983.

development and the improvement of welfare provisions for its employees. For example, the pilot enterprises of the experiment in Shanghai have formulated their five-year development programme in which the financing of some minor investment projects, collective welfare facilities such as housing, bonus, and so forth, from the net profit has been incorporated.

Secondly, it can be helpful to improving management of the enterprise. There can be direct links, closer than before, between the performance and the gains, between the material responsibility and the material interest of the enterprises.

Thirdly, it strengthens the economic autonomy of the enterprise. There will be no negotiations for the distribution of profit, and there will not be much conflict between the state and the enterprise. That part of the net profit, after the payment of the income tax, is now more at the disposal of the enterprise, and the state is only to set some guiding principles for its use.

But, with the introduction of the income tax on the net profit of state enterprises in the whole country, there still remain some questions that should be studied and settled. What about the tax rate? Should it be a single flat rate, or rather a system of progressive rates? And what about the tax base? As is the practice in other countries, it should be an adjusted net income of the enterprise, with all items of deduction and exemption specified. If the enterprise pays a tax on its fixed capital funds, the tax paid should probably not be made deductible. Whether the tax on the differential income due to natural resource endowments or the interest paid by the enterprise to the state banks for the working capital borrowed are deductible or not, should be further investigated.

After paying income tax, the enterprise has at its disposal the net profit that remains. It can be used for the investment and development of the enterprise itself, for welfare facilities and measures, and for bonuses for the employees. The enterprise can also retain a part of the net profit undistributed. The state authorities shall set the guiding principles and perhaps the proportions for the distribution of the after-income-tax profit, but the enterprise shall take the full responsibility and interest.

Tax Reform in China: The Current Position

Looking at the thread of discussion about tax reform, as indicated above, that extended back almost two decades, one would imagine the reform of the ICTS would be carried out more or less according to the following sequence: first, to readjust the taxation on turnover; secondly, to introduce the taxation on capital funds; thirdly, to change the system of profit transference into the taxation of profit of state enterprises. Logical and reasonable it seems to be, but that sequence of reform has an inherent difficulty – tax reform must more or less be synchronized with price reform. Since price reform in China can only be gradual, ¹⁶ tax reform has to be gradual, too. So far, so good.

But, after 1979 the responsibility system on the basis of a production quota first developed in rural districts and was then applied to the state economic sector. It has become a kind of threshold to the economic autonomy of enterprises. But, once on that threshold, the enterprise would, of course, demand the right to pay to the state only a lump-sum amount from its net income on the basis of the quota of production or sales for which the enterprise is held responsible. It is a responsibility system of profit-undertaking on the basis of the quota. The changing from a system of profit retention into such a responsibility system of profit-undertaking has brought about several problems, and those closely connected with the fiscal relations are two: how is that lump-sum amount to be determined? As the profit grows, should that amount be readjusted? The higher the amount, the larger the state revenue; the lower the amount, the larger the retained profit of the enterprise. As the enterprise's profit grows, it matters much for state revenue whether the amount should be adjusted upwards or not.

Naturally, state enterprises and the Ministry of Finance share different views. Enterprises incline towards setting the amount lower and not having it readjusted from year to year, thus they will be able to retain more funds for themselves. But the Ministry of Finance, subject to urgent macroeconomic necessities, is disposed to avoid excessive decentralization of state funds. The minister wrote that the off-budget funds totalled more than 62 billion yuan RMB in 1981, and had actually become the "second budget" of the nation. Another officer in the Ministry also gave the figure that the retained profit of state enterprises in the period 1978–82 already amounted to 42 billion yuan. It has been said many times that excessive decentralization of funds would lead to too many projects of construction, and eventually would cause further imbalance of the national economy.

Therefore, the Ministry, subject to the approval of higher authorities, supported the following guidelines: enterprises should have more autonomy and funds, but they must make more contributions to the state, and make themselves feel some "pressure"; from the yearly increment of the profit, "the state should take the largest share, while the enterprise and the individuals can only take the middle and the smallest share respectively." And just about the same time as the responsibility system began to be adopted in the state sector, the Tax Administration of the Ministry of Finance started the pilot experiments for "changing profit into tax." After two years' discussion and investigation the decision has been made in the form of a State Council document which ratifies "The Tentative Regulations of Changing Profit into Tax" formulated by the Ministry of Finance, and makes the regulations effective from the beginning of 1983. 20

^{16.} Xue Muqiao, "Some suggestions concerning the reform of economic systems," People's Daily, 10 June 1980.

Wang Bingqian, "Some problems concerning financial work," People's Daily, 26 November 1982.

^{18.} See the answer to the fourth question, People's Daily, 28 April 1983.

^{19.} See the answer to the third question, People's Daily, 28 April 1983.

^{20.} People's Daily, 3 May 1983.

It is rather contrary to one's expectation that tax reform has started from the other end – to have a system of income taxation without an all-round price reform. It follows that the profitability is so differentiated between different enterprises that it is really impossible to have a simple and uniform system of income taxation that can be applicable to all enterprises. The present system has to be to some extent complicated and in a certain sense heterogeneous.

According to the Regulations, state enterprises, with some exceptions, are to be classified into two categories: large- and medium-sized enterprises and small enterprises.²¹ For the small enterprises the state is to tax their profit according to the system of progressive rates.²² decreed by the State Council in 1963, originally applicable to handicraft and transport co-operatives as a part of the industrial and commercial income tax. After paying the tax, those small-sized state enterprises, as a rule, can retain the profit and use it for their own purposes. It can be seen, as far as the tax treatment is concerned, those state enterprises are on an equal footing with the co-operatives and even the individual proprietors.

But the large- and medium-sized enterprises are different. According to the Regulations, they are all required to pay the income tax at a flat rate of 55 per cent. If the after-income-tax profit is still considerably higher than the previously approved level of profit retention, they are further required to transfer a certain portion of the profit to the state. But, again, the method of transferring profit varies among different enterprises. Among them, only those in mining industries are qualified to pay a fixed lump-sum amount per annum from the after-income-tax profit, while others have the option to adopt one of the following methods: (1) to work out a base and a growth rate, then to transfer the profit accordingly to an amount that grows from year to year; (2) to work out a fixed percentage rate, then to transfer the profit accordingly from the yearly realized profit of the enterprise; (3) to work out a rate and to transfer the profit accordingly from that part of the realized profit which is equal to the realized profit in the previous year, and to transfer the profit from the other part of the realized profit which is above the previous year's level according to a rate 40 per cent lower. Either the fixed lump-sum amount, the base and the growth rate, or the rate of transference from the realized profit, as stipulated in the Regulations, should be determined on the basis of the 1982 data, and once determined and agreed to by both the enterprise and the relevant authorities, should not be changed in three years, that is, from 1983 to 1985.23

One can see from the regulations how painstakingly the Ministry of

Finance endeavours to balance the centralization and decentralization tendencies in the fiscal relations between the state and enterprises, in order to improve the co-ordination of state planning and the enterprise's economic autonomy. The Regulations, as the title itself indicates, are tentative. One would expect, as the price system and other parts of the ICTS are reformed, the Regulations and the system of income taxation have to be adjusted accordingly. The Regulations in 1983 may hasten tax reform in China, but it is by no means the culmination of tax reform. But it is obvious now that the leverage function of taxation will certainly increase in the future.

^{21.} The criteria for state enterprises to be classified as the small-sized are: for industrial enterprises, the original value of fixed assets not larger than 1·5 million yuan, the annual profit not higher than 200,000 yuan; for retail trading enterprises, taking one store as the unit, the number of staffs and workers not more than 20–30, the annual profit not higher than 30,000 or 50,000 yuan. All are based on the data at the end of 1982. People's Daily, 3 May 1983.

^{22.} There are eight rates, from 7% to 55%. The highest marginal rate, 55%, is applied to the portion of the annual net income, over and above 80,000 yuan.

^{23.} See the answer to the sixth question, People's Daily, 28 April 1983.

the entire economic system can be achieved, this will have favourable effects on trade. At present, China's exports of light industrial products are dated in design, often questionable in quality, and usually in need of longish delivery times. 57 Consequently the unit prices obtained on world markets for clothing, shoes, porcelain and other goods are only a small fraction of those obtained by more efficient producers. 58 If, by gaining in sophistication and organizational flexibility, China could even begin to close these gaps, the terms of trade and foreign exchange earnings gains would be substantial. If, on the other hand, progress in this direction is not made, China will remain dependent on exports of raw materials and the earnings from manufactured goods sold at low prices in limited markets.

The future of foreign investment in China will depend initially on the various factors analysed earlier in the article. In particular on continued improvements in the legal, taxation and planning systems, and on the willingness of the Chinese authorities to treat foreigners in a nondiscriminatory way. At present, foreign investors remain cautious about China, and generally they can afford to do so as they have plenty of alternative destinations for their money. In addition to these technical factors, investors also retain some doubts about the longer-run future of the Chinese political scene - a point which the Japanese Prime Minister Mr Nakasone recently impressed on his hosts in response to Chinese criticism of the low levels of Japanese (non-oil) investment in China. If these doubts are gradually dispelled by experience, China's role as a host to foreign investment will expand. If not, the initiatives of the Readjustment may turn out to be no more than historical curiosities: a Chinese parallel to the New Economic Policy practised in the Soviet Union before Stalin imposed the iron features of the command economy.

Consumption and Living Standards in China, 1978-83

Nicholas R. Lardy

Marxist economists and socialist planners share the view that the major objective of socialist economic development is to meet the needs of mass consumption. During the debates that followed the death of Mao Zedong in 1976 there was a searching examination of the extent to which development policy in the previous two or more decades had succeeded in raising living standards. A central premise of the policies of reform and Readjustment that emerged by the late 1970s from this debate was that consumption growth since the 1950s had been too slow. What was the evidence to support this contention? In what ways has policy since 1978 sought to redirect economic growth towards increased levels of consumption? Have these policies been successful and to what extent are they likely to continue to raise living standards?

Consumption Trends Prior to 1978

Before 1980 there was very little evidence on which to base estimates of long-run trends in consumption. Western economists had reached a general consensus on the rates of growth of national income between the mid 1950s and the mid 1970s, 1 but there was little consensus concerning the degree to which growth of output had been reflected in gains in consumption. There were too many uncertainties regarding the magnitude of capital formation to be able to estimate accurately changes in the consumption share of national income and data on the output of consumer goods, and their prices were too incomplete to estimate consumption from commodity output data. More recently the flow of data has improved, facilitating a somewhat more accurate assessment.

Broadly speaking, the new data support the contention that gains in personal consumption between 1957 and the late 1970s were remarkably small for an economy in which per capita output, measured in constant prices, had doubled. Between the end of the First Plan and 1977 per capita output grew at 3.4 per cent per annum (in real terms) while consumption-on the broadest possible measure, including personal and collective consumption-grew at only 1.3 per cent annually (in real terms).2 In large measure the disparity in the growth rates reflects the rising share of national output allocated to investment. On the Chinese net material product concept (which omits depreciation and certain nonmaterial services such as passenger transport) accumulation rose from 24.9 to 36.5 per cent of output between 1957 and 1978.3 On the more familiar western national income accounting methodology, the ratio of

3. TJNJ 1983, p. 25.

^{57.} A Shanghai survey of light industrial products showed that 70% of all commodities were in styles of the 1950s and 1960s; 20% in styles of the 1930s and 1940s, and only a handful in styles of the 1980s, Su Yu and Guo Shun, "Speed up export bases; construct specialist factories, and develop foreign trade," Jingji guanli, No. 4 (1984), pp. 11-13.

^{58.} Chinese shoes, for example, fetch one-tenth of Italian prices, ibid. pp. 11-13, and porcelain prices are of a similar order of magnitude by comparison with West German and

^{1.} Alexander Eckstein (ed.), Quantitative Measures of China's Economic Output (Ann Arbor, Michigan: University of Michigan Press, 1980).

^{2.} International Bank for Reconstruction and Development, China: Socialist Economic Development, Vol. I: The Economy, Statistical System, and Basic Data (Washington, D.C.: International Bank for Reconstruction and Development, 1983), p. 82.

gross investment to gross domestic product rose from 23 per cent in 1957 to 31 per cent by 1978.4

The slow growth of consumption is borne out by data shown in Table 1 on the consumption of specific goods that traditionally have absorbed a large share of expenditures. Consumption of foodgrains, the source of 80-90 per cent of all calorific intake, declined by 3.2 per cent between 1957 and 1978. That decline does not reflect a shift to higher quality foods that is usually associated with rising incomes but rather a worsening in the distribution of income and a 5.9 reduction in average cereal consumption by the peasantry. 5 Consumption of edible vegetable oils on average declined by fully a third, largely due to stagnant production in the face of increased population. Although there were modest increases in the consumption of sugar, fruit and meat, these were probably insufficient to offset the sharp decline in the consumption of edible vegetable oils and soybean products and the slight decline in cereal consumption. Thus average per capita food intake by 1978 was probably below the 2,000-2,100 calories per day level of 1957. Average consumption of another important consumer good, cotton cloth, also fell between 1957 and 1978, although this was offset by rising use of synthetic

Table 1: Per Capita Consumption of Major Consumer Goods, 1957, 1978

	1957	1978	1981	1982	1983
Grain (kilograms)*	203-0	195-5	219-2	225.5	222.2
Vegetable oils (kilograms)	2.4	1.6	2.9	3.5	232·3 4·1
Pork (kilograms)	5.1	7.7	11-1	11.8	12.4
Cloth, cotton and synthetics (feet)	19.5	24.1	30.9	30.0	31.0
Of which : cotton	19.5	19-1	n.a.	n.a.	n.a.

Notes:

Trends in consumption prior to 1978 may also be judged on the basis of Chinese data on personal incomes. The most commonly used data are the wages of workers and employees and per capita income of members of

collective agriculture, shown in Table 2. While households with an employee and peasants engaged in collective agriculture together comprise 95 per cent of China's population, the official wage and peasant income data can be quite misleading, for at least four reasons. First, these data (with rare exceptions) are reported in current prices, whereas any assessment of change over time must take into account changes in the level of prices. Secondly, these data are frequently estimated on the basis of survey data in which the samples have been drawn on an unspecified but non-random basis, leading to estimates that sometimes vary substantially from the known underlying mean values. Thirdly, welfare judgments are most usefully made in per capita terms whereas the non-agricultural wage data are reported on a per worker basis. Because the number of workers per household has increased substantially over time these wage data understate changes in per capita income. Finally, the official income data do not take into account collectively provided consumption goods. In China that omission includes not just the usual range of governmentprovided health, education and welfare services, but also the value of a broad range of consumer goods that are sold to eligible members of the population at highly subsidized prices. These subsidies are unusually

Table 2: Personal Income in Yuan 1957-83 (selected years, current prices)

	State	and Employee Including Urban	Per Collectiv	Commune	Member Total income
Year	Enterprises Only (1)	Collective Enterprises (2)	National Average* (3)	Survey Data (4)	Survey Data (5)
1957 1978	637 644	n.a.	40.5	43-40	72.95
1979	705	614 668	74·7 84·2	88·53 101·97	133-57
1980 1981	803 812	762	85-9	108-37	160-17 191-33
1982	836	772 798	97.9	116-20	223-44
1983	865	826	n.a. n.a.	142·84 169·47	270·11 309·8

Notes:

^{*} Measured in terms of trade grain.

n.a. Indicates not available.

Sources:

Nicholas R. Lardy, Agriculture in China's Modern Economic Development (Cambridge: Cambridge University Press, 1983), pp. 150, 158.

Ma Hong and Sun Shangqing, Zhongguo jingji jiegou wenti yanjiu (Research on Problems Relating to China's Economic Structure), 2 Vols (Beijing, 1981), Vol. 2, p. 593. TJNJ 1983, p. 483.

TJZY 1984, p. 91.

^{4.} International Bank for Reconstruction and Development, China: Socialist Economic Development, Vol. 1: The Economy, Statistical System, and Basic Data, p. 78.

^{5.} Lardy, Agriculture in China's Modern Economic Development, p. 158.

n.a. Indicates not available.

^{*} Not compiled after 1981.

[†] Includes, in addition to collective income, "income from family sideline production" and "other income." The latter includes remittances (in cash and the value of in-kind remittances) to members of the collective from household members working outside the collective, subsidy payments to army men retired in the countryside and compensation for work in state sponsored projects. Sources

TJNJ 1981, p. 426; TJNJ 1983, pp. 485, 487, 499; "Communiqué on fulfilment of China's 1983 national economic plan," Beijing Review, No. 20 (1984), pp. X-XI. NYNJ 1980, p. 41; NYNJ 1981, p. 68. Ministry of Agriculture Commune Management Bureau, "Poor counties in China 1977-79," Xinhua yuebao (New China Monthly), No. 2 (1981), p. 117. Zhu Rong, "Speech at the third national agriculture cost calculation training class," Gongshe caiwu (Commune Finance), No. 8 (1982), p. 2. TJZY 1984, pp. 92, 97.

large, even by the standards of other socialist countries. Each of the problems mentioned above has important implications not only for assessing changes over time in average levels of consumption but also for analysing the distribution of incremental consumption gains among segments of the population. Moreover, each is an important element in assessing changes in consumption not only between 1957 and 1978, but also since the institution of the policies of the Readjustment after 1978.

The potentially misleading character of official data measured in current prices is demonstrated most dramatically in the case of peasant income. Between 1957 and 1978 both income derived from collective sources and total income, which includes the value of private sideline production by households as well as the value of transfer payments to peasants, grew by more than 80 per cent, almost 3 per cent per annum. But the reported increase, shown in columns (3), (4) and (5) of Table 2, reflects primarily rising prices rather than rising real farm income. Collective income consists predominantly of collective farm output distributed to peasant households, the great bulk of which is grain that is directly consumed within the household and never enters the market-place. But distributed grain has been valued at its official purchase price, which increased 60 per cent between 1957 and 1978.6 Measured in terms of constant prices per capita distributed collective income rose less than a third. Not enough is known about the method of measuring the value of household sideline production, the other major component of total farm income, to be able to judge the extent to which it suffers from a similar upward bias.7 Despite the obvious severity of the upward bias introduced by measuring income in kind in sharply rising prices, Chinese sources frequently analyse income trends without correcting the flawed underlying

Another problem arises in income figures derived from survey data that vary widely from data purporting to represent the national average for the same concept. Columns (3) and (4) of Table 2 illustrate this problem. Survey data consistently reveal a value for per capita income derived from collective sources that is about 20 per cent greater than the national average. In part this discrepancy may arise from biased sampling procedures that result in over-estimating income or underestimating the number of dependants per rural household. But the disparity may arise

largely because the sample survey definition of income is broader than that used to derive the national average data. The sample survey data, for instance, appear to include income derived from collective units other than the unit of which the earner is a member, whereas the national average figure is based on a narrower definition. But until the precise basis of the data categories is revealed, analysis is difficult.

The third shortcoming of the most commonly presented income data is illustrated in column (1) of Table 2. This time series on income per worker in the state sector of the economy is sometimes used to show the stagnation of urban income between 1957 and 1978. Most often this point is made in analyses of trends in the urban-rural income gap. But the constancy of per worker income is relevant only if the labour force participation rate, that is, the share of the potential work force that is actually employed, is unchanged. Between 1957 and 1978 the female. labour force participation rate increased so dramatically that the average number of dependants per worker declined from 2.3 to 1.06.11 Thus per capita income in families in which members were employed in the nonfarm sector rose by 60 per cent although the per worker wage was essentially unchanged. Taking the increasing participation rate into account is more than sufficient to reverse the judgment that the urban-rural income gap was reduced between 1957 and 1978. The gap widened dramatically because the increase in the number of female workers in urban households raised per capita urban income far more than the modest increase in peasant income over the same period.

Finally, analyses of trends in living standards based on incomes received are at best partial and at worst quite misleading because they do not take into account the enormous subsidies that the state pays to ensure that some commodities are available to some consumers at prices far below cost. ¹² If these subsidies were available to all segments of society and were of a roughly unchanging magnitude, they could be safely ignored. In fact, subsidies of consumer goods and services have an important influence on both changes over time in the level of real consumption and the distribution of income among different groups of consumers.

The effects of subsidies on the distribution of income are particularly significant since subsidies accrue almost exclusively to members of what the Chinese refer to as the "non-agricultural population." That group includes most of those with permanent rights to reside in urban areas and a smaller number of state employees who reside in rural areas, for example workers in transport services, retailing, financial services and so forth. While the non-agricultural population includes some non-urban workers

^{6.} NYNJ 1980, p. 380.

The main uncertainty is how completely the methodology takes into account the costs of inputs that peasants purchase, mostly on private markets.

^{8.} See for example a page 1 news article in Guangming ribao (Guangming Daily) on 7 February 1981 citing State Statistical Bureau (SSB) data giving total peasant income as 73 yuan in 1956 and 113 yuan in 1976 (years not shown in column (5) of Table 2 but part of the same series) or an increase of 2 yuan per year. Similarly misleading statements have been made by China's highest leaders. For example Zhao Ziyang, the premier of the State Fifth National People's Congress on 30 November 1982 (Beijing Review, No. 51 (1982), p. 18) claimed that peasant income had increased by an average annual rate of 4-3 per cent between 1955 and 1980 without any mention that this was measured in current prices and vastly overstated the real increase in the peasant standard of living.

^{9.} Lee Travers, "Bias in Chinese economic statistics: the case of the typical example investigation," *The China Quarterly*, No. 91 (September 1982), pp. 478-85.

^{10.} This can be inferred from the notes to the tables that present the results of the farm household surveys. See *TJNJ 1981*, p. 431 and *TJZY 1983*, p. 84.

^{11.} SSB, "Selected economic statistics materials," in 1981 JJNJ, VI, p. 25 and TJZY 1983, p. 81.

^{12.} The following paragraphs are based on more detailed analysis presented in Lardy, Agriculture in China's Modern Economic Development, pp. 163-65, 192-200 and Agricultural Prices in China, World Bank Staff Working Paper, No. 606 (Washington, D.C.: International Bank for Reconstruction and Development, 1983), pp. 31-50.

it excludes those employed in urban areas as temporary workers, contract workers, or in the category "both worker and peasant." Thus, "nonagricultural" is both broader and narrower than the category "urban." In 1980 the non-agricultural population was 160 million. 13

In 1978 the value of subsidies and benefits accruing to each state employee was 526 yuan or 82 per cent of the average wage shown in column (1) of Table 2.14 These subsidies cover a broad range of commodities and services. The most important subsidies are for rationed cereals and vegetable oils. In 1978 these subsidies amounted to 179.6 yuan per employee. They arise because the prices of rationed cereals have changed insignificantly since 1952 whereas purchase prices paid to peasants by the state roughly doubled. Subsidies are thus required to make up the difference between rising costs of purchase, milling and distribution on the one hand and the stable retail selling price on the other. In 1978 the losses incurred by the state on the purchase and resale of rationed cereals amounted to 0.15 yuan per kilogram or about 45 per cent of the average ration price. Losses per kilogram were much larger for edible vegetable oils, although their ration prices were raised by a fourth between 1952 and the late 1970s.15

The value of health, retirement, death, maternity, disability and similar benefits for which state employees are eligible totalled 115.3 yuan per worker in 1978. A large share of these benefits, such as those for retirement, long-term disability, maternity, death and survivor benefits, are administered through the trade union system which is financially underwritten by the state. The remainder, mostly health benefits for which

13. Li Siheng, "Points on China's grain situation," Nongye jingji congkan (Agricultural Economics Digest), No. 4 (1981), p. 56.

14. The data in the next few paragraphs are in terms of per worker in the state sector. This may result in a slight overstatement of the average price subsidies and benefits enjoyed by members of the non-agricultural population. While all state workers are members of the nonagricultural population, not necessarily all members of the non-agricultural population are in households in which one member is a state employee. Of the 95 million workers and staff members in 1978, 75 million were employed in state-owned units and 20 million were employed in collective units. Although workers in urban collectives are all members of the non-agricultural population and thus eligible for subsidized food and health benefits, they do not receive the benefits administered through the trade union system, which operates only within state-owned enterprises. Moreover, enterprise funded welfare programmes are probably less generous in collectives. But many urban collective workers are members of households in which there is a member employed by the state, and thus would benefit directly from the subsidized housing and indirectly from other benefit programmes provided to state workers. What is unknown is the share of the non-agricultural population residing in households in which no member is employed (or retired from employment) by the state and what subsidies and benefits (in addition to those provided through the trade union system which constitute about 20 per cent of the subsidies and benefits of state employees) these

15. Losses in 1981 were 0.2 yuan per kilogram of rationed cereals, and 1.6 yuan per kilogram of rationed vegetable oils. Yang Shengming, "Income, commodity prices, and living standards," Renmin ribao (People's Daily), 16 April 1982, p. 5. I estimate losses as 0·15 yuan per kilogram in 1978 on the basis of changes in the average procurement price for cereals and the assumption that processing and distribution costs were unchanged. The average ration price of rice and wheat flour is 0.337 yuan per kilogram. Wang Zhenzhi and Wei Yunlang, "The changing situation concerning the scissors price differential in the exchange of industrial and agricultural products," Jingji yanjiu ziliao (Economic Research Materials), No. 15 (1980), p. 47. This has a table with retail prices of selected consumer goods, including several rationed commodities, for selected years 1952-77.

the work unit contracts with a hospital for the provision of services, are underwritten indirectly by the state through the budget of the employing unit.

Welfare benefits provided to state employees cost the state an additional 119-5 yuan per worker in 1978 with approximately two-thirds provided directly by the state and a third through the work unit. Since state employees receive high incomes and are not eligible for need-based welfare benefits, these expenditures seem extraordinarily high. 16 Presumably they include the costs of providing childcare facilities in work units, worker recreation facilities and the like. They may also be the source of funds for highly sought after subsidiary foods and other scarce consumer goods that are frequently distributed gratis by state work units to their employees.

Housing subsidies are a fourth major supplement to the real incomes of almost all urban residents. The rents paid by state workers are less than 2 per cent of income and cover less than 25 per cent of the costs to the state of providing housing. 17 Costs are defined to include outlays for management, maintenance and amortization. But since the last item is calculated on the basis of a 50-year life it understates the true economic costs (particularly the cost of capital) and thus the value of housing subsidies. On average these subsidies, as calculated by the Chinese, amounted to 85.3 yuan per state employee in 1978.

State employees are also eligible for three other little known subsidy programmes. If they live some distance from their work place, reportedly the criterion of more than three bus stops is common, they are eligible for subsidies to meet their commuting costs. These subsidies averaged 6.3 yuan per worker in 1978. There is also a special subsidy to meet the direct costs of visiting annually a spouse assigned to a work unit in a distant city and to travel to one's native place on the occasion of the death of a parent. Like the commuting subsidy, only a small number of workers would be eligible for such programmes in any given year, but on average the value of these travel subsidies (which excludes the costs of the additional paid vacations to which these individuals simultaneously are entitled) is 10 yuan. Finally, coal for home heating and cooking is sold to state employees at a subsidized rate, the cost of which was 10·1 yuan per worker in 1978

The subsidy programmes discussed above have substantial effects both on changes over time in the levels of real consumption and on the distribution of real income among different components of Chinese society. They add considerably to the disparities in real income between commune members and state employees. Commune members receive few if any state subsidies. Only a small share of the peasantry is eligible for subsidized staple foods. Peasant housing is privately owned and its costs are borne from peasant incomes. Commune members are not eligible for

17. TJNJ 1981, p. 439.

^{16.} The usual translation of fuli as "welfare" is misleading since in Chinese practice welfare expenditures are invariably exclusive of the need-based programmes that the word welfare commonly connotes in the west, at least in the United States. Need-based welfare programmes in China, most of which are of a short-term nature, are financed with "relief funds" (jiuji fei).

the retirement, survivor, disability, maternity and other benefits administered with funds either directly by the state or through the labour insurance system. The costs for those modest health and welfare programmes that do exist in rural areas are borne largely through the retained earnings of collective units and extremely modest state budgetary funds allocated for rural relief. Retained earnings for financing such programmes for the 803 million people who were members of communes in 1978 amounted to 1,814 million yuan or a little over 2 yuan per capita. State budgetary outlays for rural relief for 1978 were 690 million yuan, a little less than 1 yuan per commune member. 19

Astonishingly, almost all discussions in China about the differences in income levels of state employees and peasants totally ignore subsidy programmes. Calculations of the ratio of worker to peasant income levels are based on the income concepts shown in Table 2, without reference to the subsidy programmes which improve the living standards of workers and employees in ways described above. The misleading nature of these analyses is all the more astounding since the income concept for the rural population carefully takes into account the monetary value of in-kind consumption while studiously ignoring state price subsidies of the consumption of urban residents.

Inter-temporal trends in real income levels are also affected by the subsidy programmes discussed above since over time the value of subsidies accruing to workers has increased more rapidly than nominal wages. Food subsidies, the single most important subsidy programme, did not exist in the 1950s since the margin between procurement and ration prices was more than sufficient to cover processing and distribution costs and to leave large profits for the Ministry of Food. As late as 1959, when procurement prices were about 10 per cent higher than in 1952, profits on the purchase and resale of cereals were approximately 400 million yuan. When grain procurement prices were raised by about one-quarter in 1961, while retail prices remained unchanged, the state began to incur moderate losses. But these were eliminated in 1965 when the retail prices of wheat flour and rice were raised by 7.5 and 2.7 per cent, respectively, but recurred persistently after 1966 when the procurement price of cereals was raised by 15 to 20 per cent while retail prices remained unchanged. Between 1974 and 1978 cumulative losses on the purchase and resale of cereals were 20.8 billion yuan, an average of over four billion yuan per year.

Subsidies of urban housing have also increased dramatically over time. Prior to 1955 rents were set at a level sufficient to cover maintenance and replacement costs. But rents were lowered absolutely, first in August 1955 and again during the Cultural Revolution, and by the late 1970s averaged only about a third of the rents charged in the 1950s. On the other hand between 1957 and 1978 the cost of residential construction rose from 47 to 89 yuan per square metre. ²⁰ By the late 1970s urban residential rents, on average, covered less than 25 per cent of average costs.

Other subsidy programmes increased over time as well. The subsidy of coal for home heating, for example, was introduced in 1965 in many urban areas. ²¹ But further research is required to verify the magnitude of the increases. Even if other subsidy programmes were unchanged, the growth of rent, food and heating subsidies alone was sufficient to more than double the value of subsidies per worker between the 1950s and 1978. Thus while per worker income stagnated between 1957 and 1978, the value of subsidies grew rapidly, increasing the gap between urban and rural per capita real incomes.

In summary, average per capita consumption grew quite modestly between the end of the First Plan and the late 1970s. This cannot be attributed to the slow growth of aggregate output but rather reflects an imbalanced growth strategy in which investment resources were allocated preponderantly to heavy industry. Agriculture and consumer goods manufactured by light industry grew quite slowly, both because they were starved for investment resources and because the prevailing institutional arrangements failed to provide adequate production incentives. Except for a brief period of liberalization in the first half of the 1960s, the structure of collective farming was inimical to rapid growth. Similarly the cooperativization of handicraft production in 1956 stifled output growth in a sector that had been the source of a large share of consumer goods. Finally, the consumption gains that did occur after 1957 were concentrated in the urban sector and were due to the increased value of indirect subsidies and to increases in the urban labour force participation rate rather than to any change in nominal wages per worker.

Effects of the Readjustment

The Readjustment strategy embraced at the end of the 1970s was premised on the need to reverse the historical pattern of imbalanced growth by providing increased incentives for agricultural production and by increasing the flow of investment resources to agriculture and light industry. These sectors were to supply the wage goods necessary to make the new incentive systems effective in increasing labour productivity. Since the nature of these programmes has been widely discussed the analysis below addresses only the issue of how successful the new arrangements have been and are likely to continue to be in increasing the levels of the real incomes.

To anticipate the conclusions derived below, there is no question that the growth of real incomes between 1978 and 1983 has been unprecedently fast. This is suggested by the rapid growth of national income and the simultaneously rising share of consumption as well as by the increased per capita supplies of major consumption goods, both agricultural and manufactured. As reflected in Table 1, between 1978 and 1983 grain consumption rose 19 per cent, vegetable oil consumption more than doubled, pork consumption rose 60 per cent, and so forth. Yet measuring

^{18.} NYNJ 1980, pp. 382-83.

^{19.} TJNJ 1983, pp. 147, 453.

^{20.} TJNJ 1983, p. 357. These figures exclude the cost of land.

^{21.} Ji Long, Wang Zhenzhi, and Wang Yangzhi, Shehuizhuyi jiage wenti yanjiu (Research on Socialist Price Problems) (Beijing, 1982), p. 121.

the precise rate of increase in consumption and analysing the more interesting distributional issues continues to be plagued by the methodological problems discussed above. Changes in the level of prices have been more rapid and more complex than at any other period since the beginning of the First Five-Year Plan and available price indices continue to be based on too narrow a range of commodities to be analytically very useful. Similarly, subsidy programmes have expanded enormously, complicating analysis of income trends based on nominal income. Finally changes in the dependency ratio of urban workers continue to have a major affect on per capita incomes of those employed outside of agriculture. Thus, most conclusions about income trends since 1978 need to be carefully qualified and will remain tentative until the Chinese make available improved data on prices and subsidies.

Changes since 1978 in aggregate consumption measured in current prices can be derived from data on the division of net material product into consumption and accumulation, summarized in Table 3. Because of the continued growth of output and a rise in the consumption share from 63.5 to 70.0 per cent, material consumption rose by 72 per cent between 1978 and 1983. In per capita terms the growth was 62 per cent or 10-1 per cent per annum. Unfortunately, the Chinese have not published a price deflator for material consumption so it is difficult to estimate the growth of consumption in real terms. Economists at the World Bank estimate that between 1978 and 1981 prices of the consumption component of national product rose by only 15.4 per cent, implying that real per capita consumption rose by 21 per cent or 6.7 per cent annually.22

Table 3: Consumption Per Capita, 1978-83 (current prices)

		(-011	ent pric	es)	
1978	1979	1980	1981	1982	19831
297-5	335-6	368-6	388-7	425-4	465
36.5	34.6	31.6	28.5	20.0	20.0
63.5	65-4	68-4	71.5	71.0	30·0 70·0
188.8	219.5	252-1	278-1	302.1	325-5
100	116	133	146	160	172
100	114	130	140	152	162
	297·5 36·5 63·5 188·8 100	1978 1979 297·5 335·6 36·5 34·6 63·5 65·4 188·8 219·5 100 116	1978 1979 1980 297.5 335.6 368.6 36.5 34.6 31.6 63.5 65.4 68.4 188.8 219.5 252.1 100 116 133	1978 1979 1980 1981 297.5 335.6 368.6 388.7 36.5 34.6 31.6 28.5 63.5 65.4 68.4 71.5 188.8 219.5 252.1 278.1 100 116 133 146	297.5 335.6 368.6 388.7 425.4 36.5 34.6 31.6 28.5 29.0 63.5 65.4 68.4 71.5 71.0 188.8 219.5 252.1 278.1 302.1 100 116 133 146 160

Source:

TJNJ 1983, p. 25.

Yet the Bank's estimate of price inflation of the consumption component of output is subject to a wide margin of error. It is derived as a residual from an implicit price deflator for net material product, calculated from Chinese data, and an estimated price deflator for industrial output which is taken as a proxy for the investment component of total output. Unfortunately, the implicit price deflator for net material product is calculated from an index of net material product in comparable prices rather than in constant prices and it is not clear if the estimated gross output deflator for industry is a good approximation of changes in the price level of investment goods. The implicit deflator for net material product for 1981 is only 111.3 (1978 = 100), suggesting that it may be constructed on a commodity base composed predominantly of fixed price goods, giving inadequate or no weight to commodities sold in markets not subject to direct state price control and no weight to illicit marking up of prices over the state list price. 23 Thus the only conclusion one can draw is that 6.7 per cent per annum represents an upper bound on the rate of growth of real consumption between 1978 and 1981.

Estimates based on aggregate material product can be compared with the wages of workers and peasant incomes, subject to the provisos mentioned earlier. Wages of both state employees and of workers in urban collective enterprises rose about 35 per cent between 1978 and 1983 [Table 2, columns (1) and (2)]. Until the end of 1982 almost 40 per cent of the increase can be attributed to increased bonus payments,24 the remainder to two general increases in wage rates instituted in 1979 and 1980 and a separate 5 yuan per month monthly cash subsidy awarded to state employees beginning in November 1979. That subsidy was designed partially to offset the increased retail prices for subsidiary foods products such as pork, eggs, fish and so forth. Between 1979 and 1983, 39-2 million new urban workers were hired, reducing substantially the number of urban unemployed further increasing the labour force participation rate. 25 By 1983 there were only 0.71 dependants per worker, compared to 1.06 in 1978.26 Even with unchanged wage rates that is the equivalent of a 20 per cent increase in per capita income for members of households with a wage earner(s) employed outside of agriculture. The combined effect of wage increases and increases in participation rates was a 61 per cent or 10 per cent per annum increase in income per capita. The official index of the cost of living of urban workers increased only 9.9 per cent over the same period, implying that real per capita income rose 46 per cent or 7.9 per cent per annum.27

27. TJZY 1984, p. 88.

^{*}Net material product adjusted for the difference between imports and exports and statistical error. 'Author's estimate.

^{22.} International Bank for Reconstruction and Development, China: Country Economic Memorandum (Washington, D.C.: International Bank for Reconstruction and Development, 1983), p. 95.

^{23.} The highest level references to illicit price mark-ups are found in State Council, "Notice on strengthening market and price management," Zhonghua jenmin gongheguo guowuyuan gongbao (Bulletin of the State Council of the People's Republic of China), No. 12 (1983), pp. 523-25 and SSB, "Communique on fulfilment of China's 1983 national economic plan," Beijing Review, No. 20 (1984), p. IX. 24. TJZY 1983, p. 79.

^{25.} TJZY 1983, p. 20 and "Communiqué on fulfilment of China's 1983 national economic plan," p. XI. 26. TJZY 1983, p. 81; TJZY 1984, p. 94.

However, the Chinese cost of living index is almost certainly biased downward, particularly during this period of rapid change both in the composition of consumption and in the relative price structure. The Chinese retail price index uses current period weights (a Paasche index) and thus answers the question how much more (or less) does it cost to buy today's basket of goods as compared to the same basket of goods in the base period?²⁸ The problem of bias arises because the urban consumption basket has changed significantly in recent years to include substantially more consumer durables such as radios, tape recorders, televisions, refrigerators and washing machines. But the prices of these commodities have been reduced substantially in recent years as production has soared.29 The retail index is constructed on the presumption that the quantity consumed in the base period is the same as that in the current period but that purchases made in the base period were at base period prices. Of course, the construction is hypothetical since the quantity of the goods available in the base period was a small fraction of the quantity consumed in the current period, and even had the larger quantity been available earlier in all likelihood it would not have been purchased and consumed at the higher prices that then prevailed. On the other hand the prices of some important goods, such as vegetables, meat, eggs and so forth, have risen substantially and this tends to push the index up. The overall index, however, shows little year-to-year change because of the offsetting affect of sharp declines in prices of some manufactured consumer goods. While consumers benefit from the much larger volume of these goods now available at lower prices, the use of current year weights understates the rate of price inflation since few consumers actually bought these goods at the higher base period prices. In the words of one Chinese author, "Few of those now buying televisions are aware that prices have been lowered."30

The urban cost of living index, in turn, is the weighted average of the retail list price index (discussed above), the retail negotiated price index, and the index of market prices. The weights for the three indices are not known. It is possible that over-weighting of the list price index is also a source of downward bias in the urban cost of living index. Thus deflating the growth of nominal wages with the urban cost of living index will overstate the growth of urban real wages.

Data on peasant income in Table 2 show a similar remarkable spurt after 1978. But again price problems preclude precise disaggregation of the reported increases into real and inflationary components. Successive

surveys of rural households show that per capita farm income [column (5)] rose about 130 per cent between 1978 and 1983, an average annual rate just over 18 per cent. Unfortunately there is no reliable price deflator. Although the SSB releases an urban cost of living index they apparently do not even attempt to compile an index of the cost of living of rural residents.31 Outside efforts to construct such an index are based on the most fragmentary data. World Bank economists, for example, estimate that the appropriate rural price index increased by as little as 6.6 per cent annually from 1978 through 1981.32 Yet in 1978 the largest single component of rural income was the value of in-kind distribution of major agricultural products. The value at prevailing purchase prices of per capita rural cereal consumption, for example, was 50 yuan. 33 To prevent the 20 per cent increase in the purchase price of cereals instituted in 1979 from inflating the value of reported collectively distributed income, collective units were instructed to continue to calculate the value of in kind distribution of cereals at 1978 prices. Yet this procedure broke down quickly as many local cadres calculated the value of in-kind distribution at higher prices. By 1982 this problem was so severe that the SSB discontinued publishing average national data on distributed income derived from collective sources. They continued, however, to publish the survey data, but without disclosing the procedures for valuing in-kind distribution. Since procurement prices rose 47.7 per cent between 1978 and 1983, or 8·1 per cent per annum, the appropriate price deflator for the inkind component of peasant income may be higher than the 6.6 estimated price deflator referred to above. This judgment is reinforced by trends in rural market prices. When these markets were reopened in 1978 and 1979, the prices prevailing for many commodities were more than twice the level of state-set prices for identical products. Yet an official index of the prices of consumer goods sold in these markets reflects only a 5.8 per cent increase in the price level between 1978 and 1982. Again this low rate suggests the index is based predominantly on commodities which, although sold in nominally free markets, are subject to indirect state price control. Finally, very little is known about the prices of inputs purchased by farm households for the production of sideline commodities. Since fully half of the reported increase in per capita farm income between 1978 and 1982 is due to increased income from sideline production this is a major

^{28.} You Xingyi, "Opinions on the compilation of the retail price index," Jiangxi caijing xueyuan xuebao (Bulletin of the Jiangxi Finance and Economics College), No. 3 (1981), pp. 33-37, reprinted in Caimao jingji (Finance and Trade Economics) Chinese People's University Nationals Reprints, F.5, No. 3 (1982), p. 56. By contrast, the United States consumer price index employs base year weights (a Laspeyres index).

^{29.} Liu Zhuofu "Issues in stabilizing market prices," Gongye jingji guanli congkan (Industrial Economic Management Abstract), No. 4 (1981), pp. 10-14, reprinted in Caimao jingji, F.5, No. 9 (1981). This cites 1980 price reductions approved by the State Council for the following commodities at the retail level: nylon socks, plastic products, western medicines, refrigerators, televisions, tape recorders and digital watches.

^{30.} You Xingyi, "Opinions on the compilation of the retail price index," p. 60.

^{31.} You Xingyi, *ibid.* for example, lists only the state list price index, the negotiated price index, and market price index. In half a dozen other articles dealing with price indices, there is no mention of a rural cost of living index or even an index of retail prices in rural markets. The published index of prices of manufactured goods sold in rural areas is not an acceptable substitute both because it excludes food products and services and because the number of manufactured commodities included in the index is too small. See the discussion in Lardy, Agriculture in China's Modern Economic Development, pp. 108–112.

^{32.} International Bank for Reconstruction and Development, China: Country Economic Memorandum, p. 96.

^{33.} Peasant cereal consumption in 1978 was 192.5 kilograms (measured in terms of trade grain) and the weighted average procurement price for six kinds of grain was 0.2128 yuan per kilogram, unhusked weight. Lardy, Agriculture in China's Modern Economic Development, pp. 158, 249. The product of the price (adjusted to a trade grain basis) and the quantity consumed is 49.3 yuan.

shortcoming.34 If the prices of inputs have increased more rapidly than the sales prices for the final goods in rural markets, the official data may overstate the growth of income derived from sideline production.

Uncertainties about price trends are particularly acute in any analysis of trends in the distribution of income by category of income recipient. As discussed above, nominal income of urban residents and peasants rose by 61 per cent and more than 100 per cent, respectively, between 1978 and 1983. Yet one cannot necessarily infer that policy since 1978 has reversed the long standing trend of increasing differentials in urban and rural living standards. Now, for a broad range of products, the relative prices faced by urban and rural consumers diverge more widely than ever before. State subsidies, almost all of which accrue to urban residents, have grown substantially since 1978, allowing the retail network to hold down the prices charged for some important goods and services, even in the face of rising costs. For example, urban subsidies for rationed cereals have soared from just over 4 billion yuan per year in 1978 to 9.8-11.6 billion yuan in 1981. 35 This has allowed the continued distribution of rationed cereals to urban consumers at prices unchanged since 1965, despite a 45 per cent rise in the average procurement price for grains. Rural consumers, on the other hand, are not generally eligible for rationed commodities and when they must purchase grain from the state or on open markets they now face prices that range up to twice the level paid by urban consumers.36 Similarly, rapidly rising wages and continuing increases in the cost of construction materials have still not affected urban rents but are in part passed along to peasants who build their own homes, at least in part with materials purchased through the state distribution system.37

Despite extensive discussion in the press on the need to reduce the level of subsidies, the growth of subsidy and benefit programmes has far outstripped the growth of wages. The decision to keep retail prices of rationed wheat flour and rice unchanged since 1978 adds another 150 yuan per worker to the value of food subsidies. Fringe benefits financed through the labour insurance system increased 170 per cent from 6.69 to 18 billion yuan between 1978 and 1983, while the number of state employees grew by only 18 per cent over the same period.38 Housing subsidies have also increased at an unprecedented pace. More than 450 million square metres of new urban housing were completed between 1978 and 1983 at a cost per square metre by the end of the period of three times that of 1957. The

average value of the urban housing subsidy has increased enormously both because the rental charges per square metre have not been adjusted upward and the average space per urban resident has increased significantly. In total the value of price subsidies and fringe benefits accruing to the non-agricultural workers by the end of 1983 was approaching 1,000 yuan per year, twice the level of 1978, whereas nominal wages were up only about a third.

Prospects for Future Income Growth

Projections of future income growth are hazardous since they depend on a correct assessment of historical trends and the ability to predict policy changes. The only projection that can be supported with any confidence is that the pace of consumption growth in the next five years will lag behind that of 1978-83. That assessment is based on several factors. First, measured in current prices more than one sixth of the increase in material consumption per capita between 1978 and 1983 was due to the rising share of output allocated to consumption. Put alternatively, one-sixth of the increase in consumption measured in current prices, would have occurred even if per capita output had not expanded at all. Yet this source of income growth has now been exhausted since the 71:29 ratio between consumption and investment targeted for the Sixth Five-Year Plan (1981-85) does not allow for a further increase in the consumption share of output in 1984-85,39

A similar conclusion emerges from examining the income side, although there is somewhat greater uncertainty in agriculture than in manufacturing. In industry the largest single component of increased wages was bonuses which shot up from 11.6 yuan to 81.5 yuan per worker between 1978 and 1982.40 But as problems in the allocation of bonuses arose and no evidence emerged that suggested that bonuses contributed to increased worker productivity, the state curtailed the growth of bonuses between 1981 and 1983 and called for even more modest increases in the future. Overall, as shown in Table 2, following major adjustments in 1979-80, the pace of increase in wages has been quite modest, even in nominal terms. Unless there is a dramatic change in policy, the outlook would appear to be for continued increases in nominal wages that little more than match the increase in the official cost of living index. Similarly, future declines in the dependency ratio, itself sufficient to have generated a 20 per cent increase in per capita urban incomes between 1978 and 1982, are likely to be moderate. The female labour force participation rate is already quite high and the backlog of the urban unemployed was reduced from some 20 million in 1978 to some three million at the end of 1981.

In agriculture the prospects for future income growth appear uncertain. The state has substantially slowed increases in the level of purchase prices; in 1982 and 1983 they rose only 6.7 per cent, following a meteoric rise of

^{34.} TJZY 1983, p. 84.

^{35.} The total value of subsidies on domestically produced cereals was 12.9 billion yuan and I have estimated the subsidy on imported cereals at from 0.6 to 2.4 billion yuan, the lower figure applying when the official exchange rate is used in the estimate, the higher when the domestic resource cost of earning a unit of foreign exchange is used as the implicit exchange rate. Lardy, Agriculture in China's Modern Economic Development, p. 195. Of this amount 3.7 billion yuan was for rural consumption, the residual, 9.8 to 11.6 billion yuan went for subsidies of urban consumption. Indirect evidence suggests that almost none of the four billion yuan in annual subsidies in 1975-78 accrued to rural consumers.

^{36.} Lardy, Agriculture Prices in China.

^{37.} The cost of residential construction in urban areas rose 50 per cent, from 89 yuan 10 135 yuan per square metre, between 1978 and 1982. TJNJ 1983, p. 357.

^{38.} TJZY 1984, p. 93.

^{39. &}quot;The Sixth Five-Year Plan of the People's Republic of China for national economic and social development," Beijing Review, No. 21 (1983), p. IV. 40. TJZY 1983, p. 79.

almost 40 per cent between 1978 and 1981.⁴¹ Most of the increase in income derived from collective sources since 1978 has been due to higher prices received for commodities sold to the state rather than to an increase in the volume of such sales. Increased sideline income has been more important than gains from collective income, but in the future may not increase by amounts sufficient to compensate for the likely slower growth of collective income in the future.

Thus, personal income gains in agriculture will depend more on expanding output than they have in the recent past. However, evaluating the prospects for the future growth of agriculture is complex. The sources of output growth in recent years can be divided, conceptually at least, into two components. The first is the affects of improved relative prices, a revival of private marketing opportunities, increased inter-regional specialization in production, and increased flows of inputs from the modern sector. All of these changes could have been undertaken within the framework of the rural ownership system that existed in 1978. The second source of growth derives from the improved incentives provided by decollectivization. My own view, set forth in some detail elsewhere, is that reforms in pricing, marketing and specialization and increased flows of current inputs and higher levels of fixed investment provide the best hope for sustained growth of both productivity and output. 42 But by mid 1980 the dominant view in Beijing was to attribute most of the growth since 1978 to the re-emergence of farming based on households rather than collective units. Thus several of the most important policy changes announced in 1978 were subsequently reversed: state investment in agriculture was cut substantially rather than increased; the rate of increases in purchase prices was drastically curtailed; prices in non-state markets were subjected to increased control rather than being determined by supply and demand; finally, the level of inter-regional trade in cereal products was frozen for a three-year period, thus inhibiting further specialization. Yet the attribution of most growth since 1978 to decollectivization may be mistaken and the present policy mix, if sustained, may lead to a slower rate of growth of output over the medium term, compared to the recent past.

If present policies are sustained, China will appear remarkably similar to other socialist states during periods of leadership transition. Substantial spurts of consumption during succession periods, followed by declines in the rate of growth of consumption, have occurred in the Soviet Union, the German Democratic Republic, Poland and Czechoslovakia. ⁴³ Policies that favour mass publics received the most attention in the aftermath of succession, and personal income, wages, social outlays and public housing programme all grow substantially above trend rates for periods of from two to four years. Subsequently, however, traditional priorities re-emerge

and the rate of consumption growth declines. China appears to be following this pattern. There was a spurt of growth of consumption in 1978-83 but as seen above, the increase was concentrated in the early years of that period when Deng Xiaoping was consolidating his leadership position. More recently the growth of consumption has declined and under current policies this trend seems likely to continue.

^{41.} TJZY 1983, p. 76 and "Communiqué on fulfilment of China's 1983 national economic plan," Beijing Review, p. VIII.

^{42.} Nicholas R. Lardy, Agriculture in China's Modern Economic Development.

^{43.} Valerie Bunce, Do New Leaders Make a Difference? Executive Succession and Public Policy under Capitalism and Socialism (Princeton, New Jersey: Princeton University Press, 1981), pp. 158-67.

Table A2: Labour Force, 1957, 1978 and 1982 (year-end totals in millions)

	1957	1978	1982
(1) Total	237-71	398-56	447-06
(2) Agriculture	193-10	294-29	313-69
(3) Industry	14.01	50.08	59.30
(4) Construction	4.01	11.52	13.40
(5) Transport	4.42	7.56	8.50
(6) Trade	8-18	8.82	16.32
(7) Others	13.99	26.29	35.85
			2000 2000

Sources:

(1) TJNJ 1983, p. 120.

(2) 1957, 1978: Ma Hong and Sun Shangqing, Research on Problems, p. 104. 1983: Total employed in agriculture and related activities from TJNJ 1983, p. 121 minus: (a) those in veteri, ary service, water conservancy and meteorological stations from ibid. p. 130 and (b) those in afforestation service which is assumed to be the same as that in 1980 given in NYNJ 1981, p. 12.

(3) Ma Hong and Sun Shangqing, Research on Prob-

lems, p. 104 and TJNJ 1983, p. 121.

(4) 1957, 1978: Total employment in state-owned and urban collectively owned construction units, 2.91 and 8-36 million in 1957 and 1978, respectively, from TJNJ 1983, p. 125, multiplied by a factor equal to the ratio of total employment in construction to employment in these two subsectors in 1981, 1-378, based on data from TJNJ 1981, pp. 106, 108. 1982: TJNJ 1983, p. 121.

(5) 1957: John P. Emerson, Nonagricultural Employment in Mainland China: 1949-1958 (Washington, D.C.: U.S. Government Printing Office, 1965), p. 128. 1978: Based on the assumption that the share of transport workers in total labour force was the same as that in 1981 from TJNJ 1981, p. 106, 1982; TJNJ 1983, p. 121.

(6) TJNJ 1983, p. 398.

(7) Derived as residuals.

ratio of additions of capital stock to investment expenditures, 70-7 per cent, is derived by using the assumption that it is the same as the ratio of new fixed assets to capital construction for the period 1957-81 as a whole.3 The accumulation rate, 30-4 per cent, is the average for the period 1957, 1962, 1965 and 1978-81.4 The rate of growth of net material product, or more precisely, net material expenditures, during 1957-81, in terms of the four components is:

$$-0.013 + 0.373 \times 0.707 \times 0.304 = 6.7^{\circ}$$

The result comes out fairly close to the growth rate based on net material expenditures in current prices, 6-3 per cent.5

4. Ibid. p. 25

Population Policy and Trends in China, 1978-83*

Judith Banister

The period 1978-83 saw swift escalation of earlier policies to promote rapid fertility decline in China. The government attempted to remove pronatalist economic incentives and replace them with economic benefits to one-child families and economic penalties for those bearing two or more children. China's family planning programme became increasingly compulsory in tone and coercive in methods. The single-minded pursuit of low fertility and low population growth rates has thus far been successful, though an effective political reaction against the policy is possible in the future. Meanwhile, the field of demography, the scientific study of population, has once again become respectable in China and the country's demographers are gaining rapidly in sophistication. After three decades of statistical secrecy, the government has begun to release relatively detailed demographic data, thus greatly increasing world understanding of China's

Earlier Population Trends

Before 1949 mortality in China was very high, marriage was nearly universal and took place at young ages, and fertility was moderately high at about 5.5 births per woman. Between 1949 and 1978 the People's Republic of China completed most of its historic demographic transition from a situation of high mortality and high fertility to conditions of low mortality and low fertility, an unusual achievement among the world's developing countries. The transition began with a sharp decline in mortality during the 1950s caused by the cessation of warfare, more equitable distribution of land and food, programmes of epidemic disease control, and the retraining of most midwives in sterile childbirth methods.² A temporary but devastating reversal of these beneficial trends took place during the famine of 1959-61, caused by the radical economic policies of the Great Leap Forward. During the 1960s and early 1970s health conditions improved and mortality resumed its decline. Preventive

2. For details on health and mortality trends in China, see Judith Banister. China's Changing Population (Stanford, California: Stanford University Press, forthcoming 1985). .

^{3.} TJNJ 1983, pp. 323, 343,

^{5.} The growth rate is that for the period 1955-80. TJNJ 1983, p. 25.

^{*} The interpretations and opinions expressed in this article are those of the author alone, and do not represent the policy of the United States Government or the U.S. Bureau of the

I. George W. Barclay, Ansley J. Coale, Michael A. Stoto, and T. James Trussell, "A reassessment of the demography of traditional rural China," Population Index, Vol. 42, No. 4 (October 1976), pp. 606-635. Crude measures of fertility and mortality are the crude birth rate and the crude death rate, defined as the number of births or deaths per 1,000 population. The natural population increase rate is the difference between the birth and death rates. More refined measures are not strongly influenced by the population age structure. These include the total fertility rate, which is the number of live births the average woman would have in her lifetime if she followed the current pattern of fertility at each age, and the expectation of life at birth, which is the average number of years lived by a population experiencing the mortality rates typical at each age.

public health work and curative medical care in the countryside were furthered by the training of paramedics called barefoot doctors, who staffed the new co-operative medical services provided by rural production brigades in the 1970s. A nationwide mortality survey taken in 1976 revealed that as of 1973-75 the people of China had achieved an expectation of life at birth of about 62-64 years.3 Infant mortality had been reduced to somewhere between 50 and 100 infant deaths per 1,000 live births from a level close to 300 per 1,000 in 1929-31.4 These are advanced mortality conditions for a developing country. By 1975 females in particular had gained from a decline in the historical pattern of infanticide and neglect of girls, and from a rise in the status of women. Available data indicate that female infant mortality was lower than male from the early 1950s at least until the mid 1970s, and that life expectancy for women was about two-and-a-half years longer than for men as of 1973-75.5

While mortality declined, fertility temporarily rose above historical levels during the 1950s and 1960s, except for the famine period. The higher fertility can be attributed to postwar and post-famine baby booms, more stable economic conditions than before 1949, reduced widowhood in the reproductive years, and perhaps higher fecundity based on improved health. Higher fertility and sharply reduced mortality combined to produce population growth of unprecedented speed in China, as in other developing countries during the same decades. China's population grew at approximately 2 per cent per year or higher for all non-famine years from about 1954 through the 1960s. The official total population size increased from 583 million as counted in the 1953 census to 830 million based on population registers at year-end 1970, an increase of about 42 per cent.

As the population increased, China's government attempted to redistribute some of the excess population from densely populated eastern areas to arid and mountainous regions of the far north-east, north, northwest, west and south-west. This policy was partly successful, in that population growth in the main receiving provinces was higher than in the main sending provinces, but population redistribution alone could not solve problems of high population density and rapid population growth in China's populous areas. Nor did urbanization siphon off surplus population from the country's rural areas. The government's rigid controls on rural-to-urban movement and its frequent campaigns to force in-migrants

3. Judith Banister and Samuel H. Preston, "Mortality in China," Population and Development Review, Vol. 7, No. 1 (March 1981), pp. 98-110.

5. Rong Shoude, Li Junyao, Gao Runquan, Dai Xudong, Cao Dexian, Li Guangyi, and Zhou Youshang, "Analysis of life expectancy in China, 1973-75," Renkou yu jingji (Population and Economics), No. 1 (1981), pp. 24-31, 17. Judith Banister, China's Changing Population, Ch. 2.

back to the countryside minimized migration to urban areas. In addition, the decade from 1968 to 1978 saw an escalation of earlier policies to uproot urban professionals and youths born and raised in the cities from their homes to rural areas. The net result was that the urban proportion of China's population grew slowly from 13·3 per cent as of the 1953 census to 18.4 per cent in 1964, then contracted to only 17.9 per cent by year-end 1978.6 The rural areas absorbed not only their own natural population increase, but in some years had to accommodate the migrants from cities as well.

China's period of peak population growth rates was short-lived. The sharp mortality decline of the 1950s was followed, after a lag of two decades, by a steep fertility decline in the 1970s. The national birth rate dropped from about 37 births per 1,000 population in 1970 to 21 per 1,000 in 1978, corresponding to a decline in the total fertility rate from 5-8 births per woman in 1970 to only 2.7 in 1978. What caused this remarkable fertility decline?

By the early 1970s, even though the national government was riddled with division and bitterness from the Cultural Revolution, all factions had become convinced of the urgent necessity to reduce China's birth rate and population growth rate. After decades of uneven development and rapid population growth, per capita supplies of the basic necessities, especially food, were no greater than they had been in the 1950s. To raise living standards, increased production and reduced population growth were seen as essential.

The government expanded its urban-based family planning programme to rural areas by setting up birth-planning committees at each level of government and by insisting that cadres, especially female cadres, make family planning propaganda part of their jobs. Educational and motivational work in promotion of family planning apparently tapped a latent demand for fertility control and struck a responsive chord in the people. Other Chinese populations have proved unusually receptive to family planning, for example in Taiwan, Hong Kong, Singapore and Malaysia. Though one cannot confidently pinpoint those aspects of Chinese culture that ease the transition to low fertility, or separate the influence of culture from the influence of economic structure, it would not be surprising if Chinese culture on the mainland also facilitated the adoption of family planning. In addition, some socio-economic changes in the People's Republic of China were conducive to fertility decline, in particular the expanding role of women in the economy and their rising status in the family.7

7. Socio-economic determinants of fertility in China are discussed in Judith Banister China's Changing Population, Ch. 5.

^{4.} Estimates for China's infant mortality rate must still be given in a broad range because of the poor quality and coverage of China's data on infant mortality. For compilation and analysis of the available infant mortality data to date, see Judith Banister, China's Changing Population, Ch. 4. The high infant mortality estimate for 1929-31 could be correct, but also may be higher than China's infant mortality rate during the more prosperous centuries of rule by the last two dynasties. The very high mortality estimated for China in 1929-31 might typify the chaotic periods during and after the fall of dynasties in the past.

^{6.} The 1953 figure is based on a more inclusive definition of "urban place" than the 1964 and 1978 figures. The extent to which these three urban population figures are comparable remains unknown. Data sources: State Statistical Bureau (SSB), "Communique of results of census and registration of China's population," Current Background, No. 301 (1 November 1954), p. 2. SSB, "Communiqué on 1982 census," Foreign Broadcast Information Service Daily Report - China (FBIS), No. 208 (27 October 1982), p. K3. TJZY 1983, p. 13. For a compilation and analysis of data on population distribution, internal migration, and urbanization, see Judith Banister. China's Changing Population, Ch. 9.

During the 1970s rural demand for birth control methods could be met for the first time. One of the major tasks of the barefoot doctors and commune clinics was to provide intrauterine devices, abortions, sterilizations and other birth control methods to rural women. A strong government family planning programme providing easy accessibility to birth control techniques for a comparatively receptive population can go far towards explaining the rapid halving of China's total fertility rate in the early and mid 1970s.

Part of the drop in fertility was caused by the adoption of fertility control within marriage, but part of the decline was also attributable to rising age at marriage. Most countries have experienced an increase in marriage age as part of their economic development process, and so has China. In addition, the Chinese Government mandated minimum marriage ages of 18 for women and 20 for men in the 1950 Marriage Law, and has encouraged higher marriage ages in all succeeding decades. In the 1970s the government attempted to require urban young adults to postpone their marriages until the late twenties, and rural youths to wait until the woman was age 23 and the man age 25. As a result of these regulations enforced by strong administrative pressure, marriage ages for females continually rose. A nationwide retrospective fertility survey taken in 1982 estimated that the average age at first marriage of Chinese women in the 1940s was 18.4 years old, in the 1950s age 19, in the 1960s age 19.8 years, in the 1970s 21.6 years old, and by the latter part of the 1970s age 23.8 An increase in female marriage age of the magnitude seen in the 1970s has a powerful depressant effect on the birth rate, because each year some of the expected births are postponed, because higher marriage ages lengthen the time between succeeding generations, and because women are not bearing children during some of their most fecund years. The large cohorts of children born in the early 1950s postponed their first marriages until the mid 1970s and their first births until the late 1970s. (A cohort consists of all people born in the same year.)

Also driving down fertility in China was the escalating compulsion in the family planning programme as the 1970s progressed. By mid decade the government was trying to require urban couples to stop at two living children and rural couples to stop at three. In 1977 it was announced that rural as well as urban couples must cease childbearing at two children. Women came under strong political pressure to abort all further pregnancies. Cases of required abortions and required sterilizations appeared in Chinese press reports, and administrative harassment of recalcitrant couples was strongly promoted by the official media. The policy of the national government evolved in the direction of strictly limiting fertility by persuasion if possible, but by force if persuasion did not quickly succeed in preventing unauthorized births.9

Origins of the One-Child Limit

Ever since the founding of the People's Republic the science of demography has been viewed with suspicion or hostility by most government leaders. This was an unfortunate legacy of the writings of Karl Marx a century earlier attacking Thomas Malthus, who had written on the relationship between population growth and food supply. Finally in 1978 the post-Mao government began encouraging demographic studies and setting up population research centres around the country. Government leaders sought to enlist the help of population scholars in achieving the goal of a steady reduction in the population growth rate. Hua Guofeng's target at the time was to reduce the population growth rate to 1 per cent or less by 1980.10 But the national leaders discovered that the country's population growth rate had stabilized above that level. Official population growth due to natural population increase (births minus deaths) was 1-27 per cent in 1976 and 1-21 per cent in 1977, and the 1978 natural increase was projected to be about the same. China's new population scholars began pointing out the influence of the huge bulge in the population of young adults who had just begun or were about to begin their childbearing years. They clarified that if these young women had two children, further reduction in the country's population growth rate was unlikely for decades. Armed with this realization, the national government in the summer or autumn of 1978 decided to promote the one-child family. 11 The new policy was formally announced in January 1979. 12 At that time China's leaders set a fairly moderate goal that 20 per cent of urban couples and 5 per cent of rural couples be persuaded to stop at one child. 13

During 1979, however, the government position quickly changed from encouragement of the one-child family to insistence that almost all couples stop at one healthy living child. The policy escalation was rapid. By mid year the government had adopted a set of population growth targets that was almost impossible to attain, the achievement of a population growth rate of 0.5 per cent in 1985 and zero population growth in the year 2000.14 Striving for such goals mandated a limit of one child per couple. The combined influence of overly ambitious targets and new understanding of the importance of age composition is reflected in the following July 1979 report:

Deputy Qian Xinzhong, minister of public health, in an analysis, said: every year in China some 10 million couples of young men and women will reach marriageable age and they will marry and have children. At the existing rate of population growth, China will have a population of 1,300 million by the end of the

^{8.} State Family Planning Commission, "Communique on the 0.1 per cent sample fertility survey of China's population," Renkou yanjiu (Population Research), No. 3 (1983), p. 14.

^{9.} For documentation and discussion, see John S. Aird, "Population studies and population policies in China," Population and Development Review, Vol. 8, No. 2 (June 1982), pp. 283-90; and Judith Banister, China's Changing Population, Chs 6 and 7.

^{10.} Hua Guofeng, "Unite and strive to build a modern powerful socialist country!" Report delivered at the first session of the Fifth National People's Congress, 26 February 1978, Xinhua (Beijing). 6 March 1978; FBIS, No. 45 (7 March 1978). p. D25.

^{11. &}quot;Population," China News Analysis, No. 1163 (14 September 1979), pp. 5-6.

^{12. &}quot;Further control the population growth rate," Renmin ribao, 27 January 1979. p. 1. 13. Li Xiuzhen, "The present situation and tasks concerning planned birth," Renkou yanjiu, No. 1 (1980), pp. 3-5, 47.

^{14.} Chen Muhua, "For the realization of the Four Modernizations, there must be planned control of population growth," Renmin ribao, 11 August 1979, p. 2, translated in Population and Development Review, Vol. 5, No. 4 (December 1979), pp. 723-30.

century. If the population is to grow to such a size, we will be compelled to devote a considerable amount of our financial and material resources to feeding the newly increased populace. That will inevitably slow down the four modernizations. We plan to lower the country's natural rate of population growth to around 5 per $1,000 \ \mathrm{by} \ 1985 \ldots$. This means that on the average each couple as of now can have only one child.15

By early 1980 scientists in the People's Republic had developed computer projections of China's population indicating that with the two-child family, the population would increase to 1-22 billion in the year 2000 and 1.54 billion in the year 2052, but with the one-child family the population would peak at 1.05 billion in the year 2004, and begin declining thereafter. 16 Communist Party and government leaders were unwilling ever to allow the population to increase to 1.5 billion, and firmly adopted the one-child limit. In February 1980 China's vice-premier in charge of family planning announced:

We will try to attain the goal that 95 per cent of married couples in the cities and 90 per cent in the countryside will have only one child in due course, so as to ensure greater and faster economic development in the country and an obvious improvement of the people's living standard, and to raise the cultural level of the Chinese

Economic Rewards and Penalties

By 1978 China's leaders realized that the people had all along been responding to economic signals. The systems of payment and allocation of resources in the people's communes did not reward hard work or innovation and did reward fertility. For example, two men might earn the same 10 work points per day worked and the same annual income, even though one was dedicated and productive while the other was lazy and contributed little. So people learned to conserve their energy for work in their private plots or for leisure. Similarly, many communes allocated private plots or housing space on the basis of family size and much of their year's grain on the basis of need. Therefore, families calculated they could afford the large number of children they desired. The children were wanted because they could help around the home, add to the family's labour power and income in an unmechanized farm economy, and perhaps most important, provide old age support in the rural areas where there is no adequate social security system.

When the one-child programme was launched, systems of incentives and disincentives were instituted to back it up. 18 At first, couples were to

17. "Chen Muhua, Bo Yibo speak at family planning meeting," Xinhua (Beijing), 2 February 1980; FBIS, No. 24 (4 February 1980), p. L2.

be allowed to have two children with no rewards or penalties attached, while higher order births were to be penalized and single-child families rewarded. At the beginning of 1979 the first policy statement said:

Women who give birth to one child only will be publicly praised; those who give birth to three or more will suffer economic sanctions. 19

During 1979 and 1980 systems of incentives and disincentives were supposed to be implemented in most provinces except in minority areas. In cities and towns, couples who signed a pledge that they would cease childbearing after one child were to receive a monthly cash payment while the child was growing up, preference in housing allocations and job assignments, free medical care for the child, free schooling and priority for enrolment in kindergarten and preferred schools. In rural areas, the promised benefits were more vaguely defined because they were to be funded by rural collectives of widely divergent resources. Rural couples with an only child who signed a one-child pledge were supposed to receive extra work points while the child was growing up, the same size private plot of land as other families with more children, and a larger proportion of the team's collectively produced grain than would normally be allowed for a child of that age.

The birth of a third or higher order child was to be followed by economic penalties. In urban areas, both members of the couple were to have their salaries reduced by 5 or 10 per cent for all the years that the child was growing up, were to be allocated no additional housing space for their larger family, and were to pay full fees for the child's birth, medical care and schooling. In rural areas, the couple's work points were to be reduced for all the years the child was growing up. The family's private plot was to be no larger than that of a single-child family. The higher order child was to receive no grain allocation, was barred from participation in the co-operative medical system, and was charged for schooling. Large families in financial difficulties were to get no welfare assistance.

As originally described, China's system of economic incentives and disincentives, though harsh, seemed to resemble those in Singapore and some other countries with voluntary family planning programmes where couples could choose large families but were taxed for doing so.20 Within a few years of operation, however, China had developed a compulsory one-child limit and the government was attempting to require that almost all second and higher order pregnancies be aborted. The rewards for stopping at one child continued, at least in urban areas, but the "disincentives" escalated until they became crippling economic penalties for the birth of a second or higher order child.

In the beginning of 1979 couples were supposed to have the options of signing a pledge to stop at one child and receiving the promised rewards,

^{15. &}quot;Discussion on family planning," Beijing Review, Vol. 22, No. 28 (1979), pp. 22-23. 16. Yu Zhenpeng, "Scientists predict various rates of future population growth," Xinhua (Beijing), 13 February 1980; FBIS, No. 33 (15 February 1980), pp. L11-L12.

^{18.} For further details on the one-child programme, see Pi-chao Chen and Adrienne Kols. "Population and birth planning in the People's Republic of China," Population Reports, Scries J, No. 25 (January-February 1982), pp. 577-618; and Judith Banister, China's

^{19. &}quot;Further control the population growth rate," loc. cit.

^{20.} For a report placing China's family planning programme in the context of others that include incentives and disincentives, see Judith Jacobsen, Promoting Population Stabilization: Incentives for Small Families (Washington, D.C.: Worldwatch Institute, 1983). Worldwatch Paper No. 54.

or refusing to sign such a pledge. By the end of 1979 an estimated 29 per cent of all couples in the country with one child had signed a single-child pledge and been given a certificate entitling them to the rewards. The figure was this high because in several large provinces around 70 per cent of eligible couples had signed.²¹ By early 1981 it was reported that 57 per cent of eligible couples nationwide had signed the one-child pledge, with some provinces claiming a rate of about 80 per cent.²² Though there were some couples who freely chose to sign the pledge, others were required to do so. In some localities, couples were harassed with nightly visits by family planning personnel until they agreed to sign.23 The extent of involuntary signatures on single-child pledges is indicated in a 1981 scholarly report from Wuhan assessing the national situation:

Furthermore, it is necessary to carry out concrete analyses of those people holding single-child certificates. Those who are resolute and have a comparatively higher sense of awareness are not in the majority. Most of them have made the pledge under stress of circumstances. Therefore, a considerable number of those who have received the certificate and the award have put aside their award for safekeeping. They do not dare to spend it because they mean to return it in the future when they give birth to a second child. As to those who have not made the pledge, their thinking is even more complicated. They are always waiting for a chance to have a second child.24

As the proportion of one-child couples signing the pledge increased, localities and provinces moved to prevent the rest of the couples with one child from having a second birth. During 1979 through 1981 urban governments were first to forbid second as well as higher order births. By 1982 most provincial governments were trying to do the same in rural areas as well. For example, Jilin province announced in September 1979 that parents of all babies born outside the local government's birth plan each year would be penalized.25 Because a second child was no longer officially authorized except in rare cases, this proclamation amounted to penalizing almost all second order births. In another example, Tianjin municipality in mid 1981 made explicit its economic penalties for the birth of a second child.26

During these same years China's leadership began implementing the major transformation of agricultural organization known as the "pro-

growth," Renkou vanjiu, No. 3 (1981), p. 2.

24. Cheng Du, "China's population, some problems and their solutions," Wuhan daxue xuebao, shehui kexue ban (Wuhan University Journal, Social Sciences Edition), No. 3 (1981),

25. "Jilin telephone conference on family planning." Changchun radio, Jilin Provincial Service, 27 September 1979; FBIS, No. 193 (3 October 1979), pp. \$1-\$2.

26. "Tianjin issues decision on family planning," Tianjin radio, Tianjin City Service, 29 April 1981; FBIS. No. 89 (8 May 1981), pp. R2 R3.

duction responsibility system."27 They decided that the only way to overcome sluggish, almost stagnant agricultural production was to dismantle much of the commune structure and require the production team to contract out the team's land annually to the village families. The households sign a contract to deliver a certain amount of grain or other products after the harvest to the production team and the state, but if they can produce any surplus, they may keep or sell it. The gradual implementation of this system, which resembles a tenant farmer arrangement, did provide the productivity incentives lacking under collective farming. Agricultural production rapidly increased, thus firming the government's resolve to replace the three-tiered commune structure with the contract system. Meanwhile, however, rural families calculated that now more than ever they needed the labour of children, especially sons. 28 The official press began publishing reports by alarmed officials that farm families were choosing to bear more children and pay the economic penalties, when they could get away with it, figuring that the benefits of another child outweighed the costs. Concurrently, the power of local cadres to force compliance with the one-child limit was weakened in some areas because they were no longer paid for family planning tasks but had to produce food on their contract plots like everyone else. Besides, the cessation of regular cadre supervision of field labour slowed down cadre discovery of pregnancies, leaving less time to insist on an abortion. The following observations were publicized in late 1981:

Under the new situation, new conditions and new problems have appeared in family planning work. The principal ones are:

(1) After instituting the contract system, the relationship between labour and income becomes even closer. Some of the people believe that "in order to get rich, one must have more boys"....

(2) Following the development of production, some of those who have obtained better income and wish to have more children pay no attention to the economic sanctions. They say, "We can afford the penalties. We can support the children. It i. up to us how many we want."

(3) The original regulations on rewards and punishments and the birth control measures have lost their restrictive power. A section of the cadres and backbone family planning workers is no longer able to receive subsidies for the farm work they miss. This affects their activism. 29

Comrade Editor: Recently I went back to my native village and discovered that many people are giving birth in excess of the plan. Even the cadres of communes and brigades are having their third or fourth child. The situation

27. For details see Frederic M. Surls and Francis C. Tuan, "China's agriculture in the eighties," in Joint Economic Committee, U.S. Congress, China Under the Four Modernizations, Part I (Washington, D.C.: U.S. Government Printing Office, 1982), pp. 419-48; and Anthony M. Tang, "Chinese agriculture: its problems and prospects," in Norton Ginsburg and Bernard A. Lalor (eds). China: The 80s Era (Boulder, Colorado: Westview Press, 1984). pp. 145-69. See also the article by Kenneth Walker in this issue.

28. The development of the production responsibility system in agriculture and its effect on fertility incentives are discussed in Judith Banister, China's Changing Population, Chs 5, 7 and 10; and Judith Banister, "China's 1982 census and the decade beyond," in Norton Ginsburg and Bernard A. Lalor (eds.), China: The 80s Era, pp. 173-91.

29. "Sichuan province strengthens leadership over family planning work." Renmin ribao, 29 September 1981, p. 3.

^{21. &}quot;It is imperative to control population growth in a planned way," Renmin ribao, 11 February 1980, p. 1; FBIS, No. 33 (15 February 1980), p. L14. See also Pi-chao Chen and Adrienne Kols, "Population and birth planning in the People's Republic of China," p. 604. 22. Chen Muhua. "To develop population science in the service of controlling population

^{23.} Jay Mathews, "One-child family plan pushed by Chinese," Sunday Star-Bulletin and Advertiser (Honolulu), 2 March 1980, p. A-23 (Washington Post Service). Documentation of required signatures on one-child pledges is given in Judith Banister, China's Changing

among the commune members is even worse. A commune member in the suburban district of Zhanjiang municipality whom I know has had four children. Recently his wife gave birth to the fifth. I asked him, "Isn't family planning work being grasped in the rural areas now?" He answered, "Since contracting output with each household, the production teams have been unable to deduct food grain and work points from the people who are having children in excess of the plan. So who wants to grasp this difficult and unpleasant work?" 30

Response to this situation by the national, provincial and local governments was swift. Fines for bearing more than one child were increased until they represented much higher proportions of a family's income. A "double contract" system was pioneered in some rural areas, whereby households were required to sign a "contract guaranteeing to have only one child," or if they already had more than one a "contract guaranteeing to have no more children" every year when they signed their agricultural production contract with the production team.31 If a child was born during the contract year, a couple had by definition violated its household's agricultural production contract. Then the production team would raise the required grain deliveries from the household, severely fine the family, reduce the size of their private plot, take away part of the contract land on which their livelihood depends, or even refuse them any contract land the next year.32 The double contract system was successful in forcing birth control compliance while retaining the agricultural production responsibility system. Therefore, the national and provincial governments in 1981 and 1982 publicized this method and urged or mandated its use.33

The other technique in wide use is the coercion of local cadres by all the higher levels of government. To an ever-increasing extent throughout the 1970s and early 1980s local leaders have been required as part of their jobs to "take the lead" in family planning, that is to be the first in their units to adopt family planning, abort a pregnancy not called for in the village's birth plan, sign a single-child pledge, and accept sterilization. Cadres thus forced severely to limit their own fertility are in turn more willing to require others in their jurisdiction to do the same. Then in 1982 and 1983

30. Li Jingwen, "Do not neglect family planning work," Zhongguo funü (Women of China), No. 10 (1981), p. 41.

32. For example, see "Sichuan province strengthens leadership over family planning work," and "Huize county links family planning with the responsibility system." Yunnan ribao (Yunnan Daily). 27 August 1981 p. 1

33. See for example, "Combine family planning with the production responsibility system," Renmin ribao, 16 June 1981, p. 3; "Implement the 'double guarantee contract system and persist in 'simultaneously grasping the two kinds of production," Jiankangbao (Health Gazette), 23 August 1981, p. 1; "How should Zhejiang province grasp this year's economic work?," Zhejiang ribao (Zhejiang Daily), 31 January 1982, p. 3; "Make new contributions towards the accomplishment of Shandong province's family planning task this planning in rural areas," Beijing radio, Beijing Domestic Service, 20 April 1982, FBIS, No. 77 (21 April 1982), pp. K11-K12.

the "cadre job responsibility system" was introduced and required to be implemented around the country. Each local leader is assigned about 10–20 households, and that leader has to sign a contract with higher levels of government guaranteeing that no-one in those households will have a birth outside the government's very restrictive guidelines. The cadre is given a cash award if every marriage is a "late" marriage, every birth is a "late" birth, and all couples stop childbearing at one child. On the other hand, if anyone marries before approximately age 23, has a birth before the woman is about age 24, or bears a second or higher order child, the cadre has to pay a cash penalty from his or her own income. This programme is designed to ensure that the national compulsory family planning programme is not weakened or diluted when implemented at the

Contraceptive Use35

According to the national fertility survey of late 1982, 70 per cent of the 170 million married women of reproductive age were practising birth control. Of those couples who used a contraceptive technique, 50 per cent used the intrauterine device (IUD), 25 per cent had had a tubal ligation, 10 per cent had had a vasectomy, 8 per cent used oral contraceptives, and 2 per cent used condoms. In addition, abortions in all three trimesters of pregnancy have been extensively utilized since about 1979 in the government's efforts to prevent the births of those children conceived in violation of the official birth plans. The local birth plans stipulate who is authorized to have a baby that year, given the limited number of births allowed the unit by higher authorities.

Beginning in January 1983 the policies previously practised by most provinces of required IUD insertion and IUD retention, required sterilization, and required abortion escalated to an explicit national directive, as described in an interview with a vice-governor of Guangdong province:

Reporter: Comrade Wang Pingshan, will you please tell us what is the technical policy on birth control and how we should understand and correctly implement this policy?

Wang: The technical policy on birth control was formulated by the State Family Planning Commission with the approval of the leadership of the Party Central. Its principal content is: "Those women who have already given birth to one child

35. For further information on levels and trends in birth control use, see Judith Banister, China's Changing Population, Ch. 6.

^{31.} E.g., see Li Shushi, "Correctly recognize and handle the new situation and new problems regarding childbearing by the peasants," *Renkou yu jingji*, No. 2 (25 April 1982). pp. 45-49; and "Jining prefecture promotes planned parenthood responsibility systems with great effort," *Dazhong ribao (Mass Daily)*, 12 September 1981, p. 3.

^{34.} The family planning component of the cadre job responsibility system is described in "The leadership at all levels in Dingyuan county totally grasps and takes full charge of planned birth work," *Renmin ribao*, 17 September 1981, p. 3; He Guoquan, Zhang Zhiyou, Liu Yao, and Zhu Xiuying. "Judging from the population survey carried out in Huaiyuan county, what should be the focus of rural family planning work?" *Renkou yanjiu*, No. 2 (1982), pp. 48–49; and "The Qidingshan commune established the family planning responsibility system," *Liaoning ribao* (*Liaoning Daily*), 3 January 1983, p. 1.

^{36.} State Family Planning Commission, "Communique on the 0-1 per cent sample," p. 15.
37. Utilization of abortion in China is documented in Zhang Lizhong, "Birth control and late marriage," in Liu Zheng et al., China's Population: Problems and Prospects (Beijing, 1981), p. 113; and Judith Banister, China's Changing Population, Chs 6 and 7.

must be fitted with IUDs, and couples who already have two children must undergo sterilization by either the husband or the wife. Women pregnant outside the plan must adopt remedial measures [induced abortion] as soon as possible." This is based on the directives of the CCP Central Committee and the State Council and on the summation of family planning practice for many years The State stipulates that under no circumstances may a third child be born. Sterilization for either party, husband or wife, of those couples with two children is the most effective measure to eliminate excessive numbers of births.³⁸

In the first month of 1983 the programme of required sterilization accomplished more than 3.58 million sterilizations nationwide, 1.5 times the total number carried out in the entire year of 1981. This "family planning propaganda month" also achieved over 3.25 million IUD insertions and more than 1.7 million abortions.39 The increasing proportion of married couples with one partner sterilized means that China's overall total fertility rate will be depressed throughout the 1980s, even if political events were to transform China's family planning programme

Marriage Trends

The late marriage age requirements of the 1970s were effective in raising China's mean age at first marriage, but they caused much dissatisfaction, particularly in cities where minimum marriage ages were extremely high and rigidly applied. The leadership decided to give way on this issue and adopted a new Marriage Law, effective I January 1981, that sharply dropped the minimum legal marriage ages to 20 years for women and 22 years for men in all Han Chinese areas. 40 According to official figures, in the first six months of 1981 there were 6.73 million marriages nationwide, compared to 3-26 million in the same months of 1980.41 Because in China couples rarely practise family planning before the birth of their first child, the surge of marriages in 1981 and thereafter was followed by a surge of first births in late 1981 and throughout 1982 and 1983. The upward pressure on China's birth rate alarmed officials so greatly that they began requiring later marriages once again, through the use of signed late marriage contracts and the inclusion of mandatory late marriage in the stipulations of the cadre job responsibility system.

According to the national fertility survey of late 1982, of all women ages 15-49, 31.5 per cent were unmarried. Single women were concentrated in

the 15-19 year age group, which constituted 24.8 per cent of the total number of women of childbearing age. Of all women in the reproductive ages, 64.5 per cent were in a first marriage with spouse still alive, 2.9 per cent were living in a second marriage, only 0.2 per cent were divorced but not remarried, and only 0.9 per cent were widowed.42 Near-universal marriage of women by age 30 is still the norm in China, as it was in 1930.

Fertility Trends

Table I compares official 1978-83 vital rate data derived from registration systems, the 1982 census and several surveys. As shown in the second column, year-end reports of births compiled upwards from local levels resulted in an estimated crude birth rate of 18·3 births per thousand population in 1978, declining slowly to 17.0 in 1980 and rising slightly to 17.6 in 1981. But during those years it became obvious that underreporting of births was serious, more so in certain geographical areas, partly because some cadres falsified birth data when they could not meet

The 1982 census asked women if they had a birth during calendar year 1981, and asked households about deaths during the same period. The resulting crude vital rates for 1981 are shown in Table 1. If the birth rate of 20.9 from the census represents complete reporting of births, this implies that the registration system missed 16 per cent of 1981 births in its reported birth rate of 17-6. It is likely that the actual crude birth rate was somewhat higher than shown in the census, with the births of females and of higher order children differentially omitted.44

Since the census, China's government has decided to rely on nationally representative sample surveys for estimating vital rates, presumably because the vital registration system cannot be relied on for complete birth coverage. No report is yet available on how these surveys operate. If they simply rely on the recorded births and deaths in the sample areas, the problem of politically motivated under-reporting of births will not be overcome. On the other hand, if households are queried by outside interviewers without local cadres in attendance, more complete reporting may be achieved as it was in the census. The vital rate figures for 1982 presented in Table 1 were based on the first annual national vital rate survey, described as "a sample survey of 556,188 people drawn at random from 3,503 production teams and residence groups of 1,057 people's communes and streets of 312 counties and cities in 29 provinces, municipalities, and autonomous regions."45 For 1983 another sample was interviewed in January 1984 about vital events in the previous calendar

^{38. &}quot;Vice-governor Wang Pingshan answers a reporter on the questions concerning policies on birth control techniques and childbearing," Nanfang ribao (Southern Daily), 15

^{39. &}quot;The nationwide family planning propaganda month achieved great success and good results," Jiankangbao, 27 February 1983, p. 1; and "Qian Xinzhong on family size," Beijing radio, Beijing Domestic Service, 27 February 1983; FBIS, No. 43 (3 March 1983), p. K11.

^{40. &}quot;Marriage Law Adopted by Fifth National People's Congress," Xinhua Beijing Domestic Service, 15 September 1980; FBIS, No. 184 (19 September 1980), p. L22. For discussion of the causes and results of this policy shift, see Judith Banister, China's Changing

^{41. &}quot;The shocking, heartening and worrying aspects of China's population," Zhongguo qingnian (Chinese Youth), No. 6 (11 June 1982), p. 56.

^{42.} State Family Planning Commission, "Communiqué on the 0-1 per cent sample," p. 14. 43. Documentation and discussion of this problem are found in Judith Banister. China's Changing Population, Ch. 8.

^{44.} Discussed in Judith Banister, "China's 1982 census and the decade beyond." Reported 1981 births from the census were more complete for male than female births, as indicated by the high sex ratio of 108-5 male births per hundred female births reported.

^{45. &}quot;Communique on fulfilment of China's 1982 national economic plan," TJZY 1983, p. 112

Table I. Official Data on Fertility, Mortality, and Population Growth, 1978-83

		From	Registrati	From Registration System		From 1982 Census	82 Censu	33		2	0		
										LLON	rrom surveys	5	
Year	CBR	CDR	NIR	NIR Implied From Population Totals	CBR	CBR CDR NIR	NIR	0	CRR*	CRR* CDR* NID*	*0.7%	1	
8261	18.34	6.59	12.05	13.5				>		Was	. WIN	IFKT	60
												2.72	68-28 yrs.
9261	17:90	6.24	11.66	13.3									(m: 66.95, f: 69.55)
												2.75	"over 70"
0861	16.98	6.34	20.01	11.9									(m: 68, f: 70)
1861	9.21		<12	13.8	20.91	6.36	14.55	67.88 076				2.24	
							3	(m: 66·43,				2.63	
1982			13.5‡	14.6				f: 69·35)	21.09	09.9	14.49		
				+ (18.62	7.08	1.54		

Center for International Research, U.S. Bureau of the Census, and documented in Judith Banister, China's Changing Population, Chs 2, 4, CDR - crude death rate, NIR - natural population increase rate, TFR - total fertility rate, e_0 - expectation of life at birth, m - male, f -

year. The resulting estimates (see Table 1) appear more consistent with vital rate figures from the census than with those from the registration system. This means that birth rates from vital registration cannot be believed, while birth rates derived from the census and the succeeding vital rate surveys can be used with much more confidence.

The series of estimated total fertility rates in Table 1 was derived from the national fertility survey of September-December 1982. A TFR of 2-72 births per woman in 1978 would correspond to a crude birth rate of about 20.7, according to my computer reconstruction of China's demographic trends shown in the Appendix (pp. 740-41). A 1979 TFR of 2.75 would imply a 1979 birth rate of approximately 21.4 births per thousand population. For 1980 a TFR of 2.24 means a CBR of about 17.6, and a 1981 TFR of 2.63 would imply a birth rate close to 21.0, consistent with the CBR derived from the census. If it is assumed that the total fertility rates from the survey represent complete birth reporting, this implies that for every year 1978-81, the vital registration system missed 11-20 per cent of births nationwide. For 1982 the official birth rate of 21-09 would mean a TFR of about 2.7 births per woman.

These fertility statistics indicate that by 1978 China had already achieved very low fertility by developing country standards. In 1980 a low point was reached, with a TFR of just over two births per woman, close to replacement-level fertility. The slight fertility rebound of 1981 and 1982 was caused by declining age at marriage resulting in a concentration of first births in those years, and also by people rushing to bear second and higher order children before the government's one-child limit could catch up with them. According to the 1982 national fertility survey, firstborn children accounted for 47 per cent of 1981 births. Births of a second child constituted 25 per cent, while third and higher order births made up 28 per cent of live births nationwide in 1981.46 Since 1981 the government's "resolute and relentless" drive to eliminate second and higher order births may have raised the proportion of all births that are firstborn children. 47 The family planning programme is also being slowly extended to members of minority groups, who contribute disproportionately to the country's fertility and population growth.

Health and Mortality Trends

By 1978 China had achieved relatively advanced health and mortality conditions. Work continued further to reduce the incidence of infectious and parasitic diseases. 48 For example, in early 1982 China's minister of public health summed up China's health success during the late 1970s as follows:

^{46. &}quot;Population drive gains declared significant," China Daily, 9 February 1983, p. 1. 47. Qian Xinzhong, "Population growth must be resolutely controlled," Jiankanghuo, 30

^{48.} Recent health and mortality trends are documented in Judith Banister, China's Changing Population, Chs 3 and 4

Health work in China has developed smoothly since the end of the "Cultural Revolution" in 1976. From 1977 to 1980, the incidence of malaria dropped by 35 per cent; measles, 59 per cent; epidemic meningitis, 60 per cent; epidemic encephalitis, 53 per cent; diphtheria, 69 per cent; and pertussis, 59 per cent. Schistosomiasis has been basically wiped out in 244 of 347 affected counties and cities in 12 provinces, municipalities and autonomous regions, Qian said.⁴⁹

Since the late 1970s China has also been waging a concerted campaign against diseases endemic to certain regions. The most spectacular success so far has been the discovery of the cause of and a simple cure for Keshan disease, a cardiac muscle disease endemic to a wide belt across China from the north-east to the south-west.

Some remaining health problems have proved stubbornly resistant to control, though the government has recently made great strides in measuring their prevalence, geographical distribution and characteristics of affected individuals. Infectious intestinal diseases such as hepatitis and parasitic diseases remain very widespread because of continuing fecal contamination of crops and water supplies. The deficiency diseases rickets, anemia and goitre remain prevalent, though the popularization of iodized salt in north China has reduced goitre prevalence there. A resurgence of malaria was reported in 1980 and 1981 in five provinces of central China. Serious pollution of water and air has been addressed only since 1979, with very little success reported.

By the middle of the 1970s, the leading causes of death in China were cardiovascular disease, respiratory disease and cancer. Work has begun to reduce death rates from these causes, with no breakthroughs reported so far.

The weakening of rural sanitation and co-operative medical systems has hampered the struggle to control disease and untimely death in China. Since 1979 the press has reported numerous instances of barefoot doctors shifting to more lucrative work, the dismantling of co-operative medical plans, and the neglect of preventive health work, all because introduction of the production responsibility system in agriculture leaves the collective without enough funds for health work. Simultaneously, however, the skills of the remaining barefoot doctors have been upgraded through a programme of retraining, perhaps making them more effective in diagnosing and curing disease.

As shown in Table 1, China's crude death rate has been reported in the range 6–7 per 1,000 population during the late 1970s and early 1980s. The very slight rise in the various official death rates from 1979 through 1982 could reflect an underlying trend but could be attributable to changing methods of data collection. China claimed the high expectation of life at birth of 68-3 years for 1978 based on a survey unlikely to be representative of the country as a whole. Female life expectancy was estimated from that survey to be 2-6 years longer than male (see Table 1). The 1982 census asked about deaths in 1981, and a life table was constructed showing an

expectation of life at birth of 67.9 years, with a 2.9 year differential in favour of females.

These official mortality data probably underestimate the crude death rate and exaggerate the expectation of life in China. Infant mortality data for China are particularly incomplete. Perhaps life expectancy has been slowly improving in the 1978-83 period, but for females there may have been no improvement or even a deterioration. The uncertainty arises from Chinese press reports of a rise in female infanticide since the beginning of the one-child campaign, accompanied by increasing harassment of pregnant women and abuse and killing of women whose firstborn child is a girl. 50 The 1982 census found over 107 males per hundred females in the age groups of infancy through age 2, suggesting either under-reporting of female children in the census or an infant mortality rate higher for girls than for boys in the three years prior to the census.⁵¹ If mortality rates have risen for female infants, then there may have been a narrowing of the previous female advantage in expectation of life. The census did not detect any such trend. Infanticide deaths were apparently not reported to census enumerators.

Population Growth

Since the late 1970s China's death rate has been low, in the range of six to nine deaths per 1,000 population per year, the upper end of this estimated range allowing for considerable under-reporting of deaths. The birth rate has fluctuated within the range of 17-22 births per 1,000 population per year in the same period. Official figures for China's natural population increase rates, the difference between official birth and death rates, based on the vital registration system as shown in Table 1, were underestimated because of under-reporting of births. On the assumption of negligible net international migration, implied natural population increase rates can also be calculated from China's series of reported yearend population totals. Table I shows that through 1982 these implied rates were higher than the official natural increase rates from vital registration. The natural increase rate implied from year-end population totals declined from 13.5 per thousand population in 1978 to 11.9 in 1980, and then rose to 14.6 per thousand in 1982. The trends shown in these data are probably genuine, though the level might be slightly incorrect in any given year. The reconstruction of China's population trends given in the Appendix (on pp. 740-41) shows a natural increase rate of 13 per thousand population for most years 1978-82 dropping to 11 in 1983, equivalent to a decline in the population growth rate from 1.3 per cent annually to 1.1 per cent. These are far lower rates of population growth than found in almost all other developing countries of the world.

^{49. &}quot;Health Minister Qian outlines 1982 tasks," Xinhua (Beijing), 3 February 1982; FBIS, No. 24 (4 February 1982), p. K19.

^{50.} Documented in Judith Banister, China's Changing Population, Chs. 7 and 10.

^{51.} Based on the assumption that China's sex ratio at birth is about 106 males per hundred females. Sex ratios of young children from the census were reported in "SSB Director Li Chengrui points out that the sex ratio of China's newborns and infants is normal," Jiangkangbao, 21 April 1983, p. 1.

Urbanization and Employment Trends

Since the mid 1970s the urban proportion of China's population has once again been increasing. According to official estimates presented in Table 2, the year 1979 saw a jump in the urban part of China's total population from 17-9 per cent at year-end 1978 to 19-0 per cent at year-end 1979. Urbanization was more gradual through 1982, then shot up to 23-5 per cent urban at year-end 1983.

Table 2: Recent Official Estimates on Urbanization

	China's Official Total Population ('000)	Absolute Urban Population ('000)	% Urban	No. of Urban Places
Year-end 1978	962,590	172,450	17.9	
Year-end 1979	975,420	184,950	19.0	2.462
Year-end 1980	987,050	191,400	19.4	3,452
Year-end 1981	1,000,720	201,710	and the same	
Mid 1982 Preliminary	1,008,175		20.2	
Census Results	1,000,173	206,589	20-5	2,900
Year-end 1982	1,015,410	211,540	20.8	
Year-end 1983	1,024,950	241,280	23.5	

Notes and Sources:

All figures in this table are from TJZY 1983, pp. 13, 16, and TJZY 1984, p. 15, with the following exceptions. Preliminary census results were reported by State Statistical Bureau, "Communiqué on 1982 census," FBIS, No. 208 (27 October 1982), pp. K1–K5. The numbers of cities and of towns in 1979 (216 municipalities and 3,236 towns totalling 3,452 urban places) were given in Zhu Zhuo, "The growth and distribution of China's population," Dili zhishi (Geographical Knowledge), No. 11 (November 1982), p. 4.

Definitional problems continue to plague the study of urban population trends. Between 1979 and 1982 the number of officially designated "urban places" contracted from 3,452 to 2,900, but the reasons for this change are not apparent. The 1982 census counted as "urban" all persons living within the official boundaries of cities, satellite towns, townships and those towns designated as urban places, but did not include as "urban" the suburban populations living in counties just outside the official boundaries of cities and towns. Because of the decreasing number of urban places and the lack of an inclusive urban concept such as an "urbanized area," the current definition of urban in China seems to be a relatively narrow one.

Contributing to China's urbanization trend in recent years may be a continuation of migration of rural-born persons to urban areas in spite of stringent restrictions on such movement. The occasional expansion of an urban boundary to encompass contiguous areas, which implies a change in the status of the contiguous population to "urban," also presumably contributes to urbanization. Government policy has been to try to stop

population increase in large cities, but to allow some population growth in medium-sized and small cities.

The main reason for the reversal of China's "ruralization" trend of the Cultural Revolution decade, however, has been the return of urban-born young adults and professionals who had been evicted from their home cities. China's government did not make a decision in 1978 or 1979 to allow these people to return home. The dissatisfied exiles voted with their feet, moving back to their home cities without government authorization in most cases. 52 The "wind of returning to the city," as this spontaneous surge was called, was accompanied by a 1978 state farm strike in Yunnan province, a 1979 hunger strike by sent-down youths in Shaanxi province, and demonstrations in numerous cities by urban natives who refused to return to their assigned posts in rural and border areas. According to official reports, of the 17 million youths who had been sent out of the cities prior to 1978, 10 million were still in rural and frontier areas as of January 1978, but by November 1979 only five million remained in the countryside.⁵³ The "wind of returning to the city" has continued since 1979. Despite the clear unpopularity of forcing urban youths to migrate out of the cities, the national government and some city and provincial governments maintained the policy of trying to send away a portion of each year's secondary school graduating class. But the youths and their families apparently refused to co-operate, until the governments gave in by mid 1980 and ceased announcing plans to send out more youths.

In the decade before 1978 urban unemployment had been disguised because most unemployed citizens could be shipped out of the cities. But starting in 1979 urban areas had to provide jobs for all their new middle school graduates as well as for the returnees. Urban unemployment immediately became a visible problem. Most of the urban unemployed were and are young adults waiting for their first jobs. ⁵⁴ The urgency of the problem brought about urban economic reforms designed to expand employment. Non-agricultural jobs were provided for eight million people in 1979, 8·5 million in 1980 and 7·9 million in 1981, most of these in urban areas, with about half these jobs attributable to labour turnover and half newly created. ⁵⁵ It was estimated in 1982 that 6 per cent of the urban labour force remained unemployed. ⁵⁶

Rural unemployment had been disguised by the commune system. All adult members of communes were technically employed even if they

^{52.} The migration streams, policy struggles, and policy changes mentioned here are detailed and documented in Judith Banister, *China's Changing Population*, Ch. 9.

^{53. &}quot;National meeting on training educated youth in countryside," Xinhua, Beijing (24 January 1978); FBIS, No. 16 (24 January 1978), p. E18; "Educated youth to be shifted from communes to collective farms," Xinhua (Beijing), 2 November 1979; FBIS, No. 217 (7 November 1979), p. L12.

^{54.} For further information on urban unemployment, see John Philip Emerson, "Urban school-leavers and unemployment in China," *The China Quarterly* (CQ), No. 93 (March 1983), pp. 1-16.

^{55.} Xu Dixin, "Family planning is a policy of great importance," China Daily, 21 April 1983, p. 4.

Sun Jingxin, "An enquiry into the scope of the employed population," Rev kou yanjiu, No. 2 (1982), p. 36.

worked only a few days a year. But since the introduction of the production responsibility system, some areas have reported the emergence of visible under-employment. Rural unemployment is still not reported, because production teams are still responsible for providing some land or work for every member of their labour force. It is now estimated that surplus labour – including both those unemployed and those under-employed – in rural areas constitutes 30–40 per cent of the labour force. ⁵⁷

Trends in Gathering and Reporting Population Statistics

The period since 1978 has been an era of escalating openness with collected statistical data, including population data. While suppression of population statistics was the norm until 1978 and the release of any data the exception, now the norm is the publication of census and survey results, at least in summary form, soon after they become available to the leadership. In addition, some crucial historical population data that had been suppressed for decades are now being released, such as the single-year age structure from the 1953 and 1964 censuses and the complete series of official birth and death rates and year-end population totals since 1949. China still seems to have the problem that all statistics are considered state secrets until top leaders make an active decision to permit their release, a cumbersome bureaucratic procedure that impedes both publication and analysis.

During the past six years China has set up demography centres around the country to train new statisticians and demographers, and has sent abroad many of its mathematicians and other educated people for further training in advanced statistics, demography and related fields. Therefore, the quality of census and survey design, as well as the quality of scholarly analyses of the collected data have improved enormously year by year. What holds back China's best demographers today is simply the continuing requirement that they toe a certain ideological line in their scholarly publications. Once the "official line" has been announced on any matter of demographic interpretation or policy, Chinese experts who disagree must be highly circumspect in their written or spoken remarks. For instance, perusal of available scholarly articles indicates that Chinese demographers are not allowed seriously to question in print the wisdom or correctness of the one-child limit policy, the official interpretation that infanticide is not widespread enough to affect statistics for large areas, or the dogma that participation in China's family planning programme is "voluntary."

More careful preparation went into China's 1982 census than either of the previous two censuses. 58 Pre-testing was thorough and the early pretest results were used to improve the questionnaire and procedures of the

census. International experience was considered and outside suggestions were utilized in census planning. The use of computers for editing and tabulation made possible a broader range of questions than was ever before possible with manual tabulation. The preliminary results of the census have helped correct some previous erroneous information while agreeing with some other previously available data. The total populcensus essentially agreed with earlier data. This means either that these figures were correct or that the errors in earlier data were duplicated in the census.

There were, however, some surprises in the census results. A more realistic definition of urban was devised for the census, substantially correcting previous ideologically motivated under-reporting of China's urban population. For instance, before 1982 census results were released, it had been reported that China's population was only 14-1 per cent urban as of the 1964 census and 13-9 per cent urban at year-end 1981. The census raised the figure to 20.5 per cent urban at mid-year 1982, which then necessitated revision of earlier figures to make them somewhat comparable. The census was also able to detect a larger number of 1981 births than had been reported by the vital registration system. Figures for the minority population of China had been very weak before the census, adding to only 54.8 million, or 5.7 per cent of China's estimated population at year-end 1978, but the census counted 67.2 million members of minority groups constituting 6.7 per cent of the total population. The census also documented a large increase in the educational attainment of China's population. The 1964 census showed that only 35 per cent of the total population had attained at least a primary school level of education, while in 1982, 60 per cent had reached or exceeded that level. Even more striking, the percentage of the population that had attained or exceeded a junior middle school educational level increased from 6 per cent in 1964 to 25 per cent in 1982. The census also documented that the number of illiterate and semi-literate persons in China dropped from 263 million in 1964 to 236 million in 1982, declining from 38 to 24 per cent of the total population. Though there has been great improvement, the burden of illiteracy remains great. Finally, the 1982 census is providing some useful data on occupation and employment that were previously unavailable.

Since the census, representative sample surveys have been designed and/or carried out using the census address lists as the sampling frame and following what appear to be statistically defensible sampling procedures. The national fertility survey of September–December 1982 was a pleasing example of the quality of survey that China's demographers and statisticians are now capable of carrying out, in stark contrast to the unrepresentative and misleading surveys common in earlier decades.

^{57.} Zheng Zonghan, "On small cities and towns," Zhongguo shehui kexue (Social Sciences in China), No. 4 (1983), p. 125.

^{58.} For details see John S. Aird, "The preparations for China's 1982 census," CQ, No. 91 (September 1982), pp. 369-85; and Judith Banister, "China's 1982 census and the decade beyond."

^{59.} Ibid.; and John S. Aird, "China's surprising census results," The China Business Review, Vol. 10, No. 2 (March-April 1983), pp. 10-15; John S. Aird, "The preliminary results of China's 1982 census," CQ, No. 96 (December 1983), pp. 613-40; and Judith Banister, "An analysis of recent data on the population of China," Population and Development Review, Vol. 10, No. 2 (June 1984), pp. 241-71.

Prospects for the 1980s

China's age structure, as shown in Table 3, is characterized by relatively small cohorts in the age group 0–9 years, children born in the low fertility period from mid-year 1972 to mid 1982. There is a large bulge in the age group 10–19 years, about 258 million youths who were born in the high fertility period mid 1962 to mid 1972. These teenagers are now looking for work, or soon will be, so the problem of providing jobs for them in this decade has been and is acute. They will also be reaching childbearing age soon, putting temporary upward pressure on the birth rate until their childbearing period is over.

Table 3: Age-Sex Distribution of China's 1982 Census Population

	Total Pope	ulation Includ % of	ing Estimated M	filitary Age Stri	icture
Age Group	Total	Total Population	Male	Female	Sex Ratio
0-4	94,716,640	9.39	48,992,340	45 724 200	
5-9	110,731,630	10.98	57,040,700	45,724,300	107-15
10 14	131,802,210	13.07	67,861,520	53,690,930	106-24
15-19	126,322,929	12.53		63,940,690	106-13
20-24	75,829,995	7-52	64,697,275	61,625,654	104.98
25-29	93,582,215	9.28	39,261,100	36,568,895	107-36
30-34	73,283,162	7.27	48,772,635	44,809,580	108-84
35-39	54,488,812		38,231,822	35,051,340	109-07
40 44	48,635,505	5.40	28,831,422	25,657,390	112-37
45-49	47,364,000	4.82	26,046,835	22,588,670	115-31
50-54	40,850,780	4.70	25,046,990	22,317,010	112-23
55-59		4.05	21,560,990	19,289,790	111-77
60-64	33,909,310	3.36	17,499,710	16,409,600	106-64
65-69	27,382,530	2.72	13,714,630	13,667,900	100-34
	21,267,130	2.11	10,175,000	11,092,130	91.73
70-74	14,348,950	1.42	6,439,050	7,909,900	81.40
75-79	8,608,540	0.85	3,497,630	5,110,910	68.43
80 +	5,050,950	0.50	1,763,720	3,287,230	
Total	1,008,175,288		519,433,369	488,741,919	53·65 106·28

Note:

The unreported age structure of the military was estimated from the computer reconstruction of China's demographic trends presented in the Appendix. Sex ratios in military ages as of 1982 in the reconstruction were utilized to place the large number of military men in the most likely groups. The sex ratio is the number of males per hundred females, at each Sources:

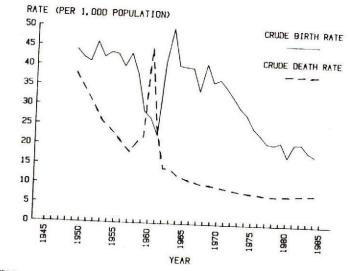
People's Republic of China, Population Census Office under the State Council and Department of Population Statistics of the State Statistical Bureau, The 1982 Population Census of China (Major Figures) (Hong Kong: Economic Information and Agency, 1982), pp. 1-2; and People's Republic of China, Population Census Office under the State Council and Department of Population Statistics of the State Statistical Bureau, Zhongguo 1982-nian renkou pucha 10% chouyang ziliao de zhuyao shuzi (Major Figures From the Ten Per Cent Sample Tabulation of the 1982 Population Census of China) (Beijing, 1983), pp. 264-73.

As of 1982 there were only about 77 million people in China age 60 and above, constituting 7-6 per cent of the population. This will increase to about 9 per cent in 1990. Because China retains a young population, the crude death rate which is strongly affected by age structure will stay below 9 per 1,000 population through the 1980s, barring a mortality crisis such as war or famine. Meanwhile, the birth rate could theoretically drop to as low as 10 per 1,000 population if the government fully succeeded in attaining a total fertility rate of only 1-0 birth per woman by 1990, in which case the population would be growing at an almost negligible rate. If on the other hand the 1990 total fertility rate is 2-0 births per woman, the birth rate will be about 19 per 1,000 population and the population will be growing at just over 1 per cent per year. So the size and growth rate of China's population in 1990 depends heavily on the fertility level between now and the end of the decade.

China's government will have to cope with continuing population growth for the rest of the decade, a great need for expansion in the number of jobs and productivity of work, and a contraction in the population of elementary school age. The increasing flexibility already demonstrated by the government in its handling of the economy since 1978 augurs well for its ability to deal constructively with these challenges.

APPENDIX

Figure: Estimated Birth and Death Rates, 1949-84



Source:

Appendix Table. Computer graph by Clarice Liu.

Table: Computer Reconstruction of Population Dynamics for China (per '000)

Year	Mid-year Population Size, '000	Crude Birth Rate	Crude Death Rate	Natural Population Increase Rate	Total Fertility Rate	Expectation of Life at Birth	Infant Mortalit Rate
1949	558,918	44	38	6	6-14		
1950	562,564	42	35	7	5.81	-	100000
1951	567,085	41	32	9		_	_
1952	574,520	46	29	17	5.70	F	-
1953	584,191	42.24	25-77	16-47	6.47	and the same of th	-
1954	594,725	43-44	24.20	19-24	6.05	40.25	175
1955	606,730	43-04	22.33	20.71	6.28	42.36	164
1956	619,136	39.89	20-11		6.26	44-60	154
1957	633,215	43-25		19.78	5.86	46.99	143
1958	646,703	37.76	18·12 20·65	25-13	6.40	49.54	132
1959	654,349	28-53	22.06	17-11	5.68	45-82	146
1960	650,661	26.76		6.47	4.31	42.46	160
1961	644,670		44.60	-17.84	4.02	24.56	284
1962	653,302	22.43	23.01	-0.58	3.29	38-44	
1963	674,249	41.02	14.02	27.00	6.03	53.00	183 89
1964	696,065	49.79	13.81	35-98	7.51	54-91	
1965	715,546	40.29	12-45	27.84	6-18	57.08	87 86
	713,340	38-98	11-61	27-37	6.07	57-81	84
1966	735,904	39.83	11-12	28-71			
1967	755,320	33.91	10.47	23.44	6.26	58.59	83
1968	776,153	40.96	10.08		5-32	59.41	82
1969	798,641	36-22	9.91	30.88	6.45	60.29	81
1970	820,403	36.98	9.54	26.31	5.73	60.84	76
1971	842,456	34.87		27.44	5.82	61-41	70
1972	863,439	32.45	9.24	25.63	5.45	61.98	
1973	883,020	29.85	8.85	23.60	4.99	62.55	65
1974	901,318	28.08	8.58	21.27	4.54	62.96	60
1975	917,899	24.79	8.32	19.76	4.17	63.37	56
1976			8.07	16.72	3.58	63.79	52
1977	932,671	23.05	7.84	15.21	3.23		49
1978	946,100	21.04	7.65	13.39	2.85	64-21	45
1979	958,766	20.73	7.52	13.21	2.72	64.63	41
1980	971,786	21.37	7.61	13.76	2.75	65.06	37
	983,379	17.63	7.65	9.98	2.24	64.98	39
1981	994,905	21.04	7.73	13.31		64.89	42
1982	1,008,175	21-09	7.89	13.20	2.69	64.80	44
1983	1,020,461	19.01	7.97	11.04	2.71	64.72	46
1984	1,031,278	18-05	8.00	10-05	2.35	64-63	48
				10.03	2-16	64.55	50

Source:
Judith Banister, China's Changing Population. See the source for the derivation of the reconstruction, comparisons with official data, and breakdown by sex of the total population and the mortality estimates.

"Temporary Residence Certificate" Regulations in Wuhan, May 1983

Dorothy J. Solinger

In mid May 1983 the Wuhan Public Security Bureau posted a notice along the walls of Hankow on "temporary residence certificates" for non-native personnel coming into the city to work. Since a check of the State Council Bulletin and the People's Daily for the months surrounding this time (from 1 January through 31 July 1983) turned up no similar central-level document, one must conclude that the source for this circular was local. Also, in the period since (through the time of final preparation of the present manuscript, late March 1984), those sources have still not published any authoritative rulings on this matter, insofar as I have been able to verify. Moreover, recent press accounts pertaining to city household registration describe decisions about this work as if they were taken by the municipalities themselves. Thus, the regulations translated and analysed below may only represent the situation and its handling in one particular region. Nonetheless, their intrinsic interest, their broader implications and their import reach far beyond this one case.

My translation of this directive follows:

Circular on Verification and Issuance of the "Temporary Residence Certificate" for Non-native Personnel

Based on the spirit of the "Household Registration Regulations of the People's Republic of China" and with the agreement of the City People's Government, in order to strengthen household management and maintain social security and order, notice is now given as below towards instituting, verifying and issuing certificates declaring temporary residence for non-native personnel coming to our city to engage in various kinds of economic activity:

1. Whoever comes here from outside, including those personnel who travel

1. On 16 February 1984, Renmin ribao (People's Daily) published an article (on p. 3, translated in U.S. Foreign Broadcast Information Service [hereafter, FBIS], 28 February 1984, pp. P5-6) praising the practice of several counties (Hunan's Cili county, Guizhou's Meitan county and Hebei's Gucheng county) where peasants, making their own arrangements for grain rations, settled in towns to run shops and factories. The paper claimed this activity facilitates commodity circulation between town and country and is accelerating the development of the rural areas' commodity production. In the story, peasant households made this move with the permission of the local industrial and commercial administrative departments and the public security, taking up temporary residence, obtaining commercial licences and even getting aid from the public security in establishing household registration. But less than a month later (Renmin ribao, 15 March 1984) the same paper carried a frontpage reprimand to Liuan county in Anhui where cadres in the public security and food grains departments "utilized their power of approval to seek private advantage," illicitly helping some people to switch their rural household registration to urban registration. Either there is a proper and an improper way to carry out the same sort of work, or different localities are engaging in essentially the same behaviour on their own, with varying central-level assessments of it.

between this city and its suburbs in construction or transport teams or who are handicraft personnel; personnel who come from other places to Han [Wuhan] to engage in side-line production; outsider temporary workers hired by various mines, enterprises, organs, schools, troops and individual firms; those supply and marketing or business personnel, and those hired from outside the city to stay for long-term, temporary residence; the management units of farms and the rural agricultural-industrial integrated enterprises' personnel in Han; must all acquire hiring certificates from the labour departments and from the industrial-commercial departments, or obtain documentation from organs at the county level and above (xianji yishang) in the place of original residence (construction corps, transport teams, and handicraft personnel must have two certificates). These individuals must go to the local police station in the place of [new] residence in a timely fashion upon arrival to declare their temporary residence, and to receive a "Temporary Residence Certificate."

Concerned units should co-operate with the public security departments to mobilize units and people in the following categories to return to their original place within a definite time: offices working in Han that have not obtained approval from the provincial or city governments, and those construction corps and transport teams that have not been approved by the labour departments and the industrial-commercial administrative management departments, but which instead have illegally hired workers; those people engaging in side-line work who interfere with maintenance of the city's appearance, with public security work, or with transport or sanitary conditions; and those persons, illegally hired by work units or by individual firms, who have left their original production post without their own unit's permission. (Those who have come to Han to visit relatives, see friends, consult a doctor, etc., must still declare their temporary residency according to the City Public Security Bureau's relevant regulations, but a "Temporary Residence Certificate" should not be issued to them.)

2. The "Temporary Residence Certificate" must be applied for in person. A "Registration Form for Non-native Persons Declaring Temporary Residency" must be fillled in; and three copies of a recent one-cun [a measure equivalent to 1/3 decimetre] hat-less half-body photo must be submitted. Then, after these materials are examined and approved by the public security organs, a "Wuhan City Temporary Residence Certificate" will be issued, and the holder must pay a management fee according to regulations.

3. The "Temporary Residence Certificate" is in effect for half a year. If the holder really has a legitimate need to extend the period, the person should go to the original issuing department to handle the procedures for getting an extension; but at most the extension can only be for another half year. After one year, if there is still a need for a temporary extension, the person must declare temporary residence and register anew. When the temporary residence time period is terminated, the person must immediately leave Han, and give the certificate back to the issuing department.

4. If a non-native person who has already received a certificate moves his/her place of temporary residence within the period of the certificate's validity, the person must go to the public security station in the original site of temporary residence to have the procedure handled. Then he/she must go to the public security station of the new place of temporary residence to register, using the original certificate.

5. The "Temporary Residence Certificate" is a personal certificate to be used only for the temporary residence in Han of non-native personnel. It cannot be forged, altered, lent or used for another purpose. It loses its effect at the end of its

period of validity; and, if it is lost, its owner must report this to the police station in the place of temporary residence in a timely fashion, so that another one may be issued.

6. Units or individuals that hire non-native personnel must co-operate with the public security organs in handling these persons. It is not permitted to hire personnel who should have declared their temporary residency but have not done so. If it is discovered that, in contravention of this notice's regulations, a person has not declared temporary residency, but has forged a certificate, assumed another's name and taken that other person's place in declaring temporary residency, or has engaged in some other sort of illegal behaviour, this must be reported to the public security organs. If one knows about the situation but does not report it, thereby colluding with the illegality, responsible persons and the head of the firm involved must be punished according to the "Public Security Administrative Punishment Regulations of the People's Republic of China." If the circumstances are in serious violation of the criminal law, criminal responsibility must be investigated, according to law.

7. The implementation of this notice shall begin from 1 June 1983.

Wuhan City Public Security Bureau 15 May 1983

At first glance, here is just one more effort of the authorities – continuing a now 30-year pattern – to check migration into the cities. These efforts have been undertaken over the years in order to limit problems of urban employment, mitigate strains on already overtaxed urban services, and keep the problems of food supply from becoming more unmanageable. The very fact of the notice's appearance, of course, testifies to the significance of the scale of such migration once again in recent years.

And yet, both the differences from earlier regulations on this general subject, as well as some situational similarities with previous periods, revealed mainly by what is omitted and what is inveighed against, taken together provide some important clues about what is happening in the major cities of China today.

First of all, unlike the watershed December 1957 State Council directive on "hiring by units of temporary workers from the countryside," this one

2. Leo A. Orleans, "China's urban population: concepts, conglomerations, and concerns," U.S. Congress, Joint Economic Committee, John P. Hardt (ed.), China Under the Four Modernizations (Washington, D.C.: Government Printing Office, 1982), p. 278, cites "constant directives and exhortations to control the influx of peasants and to 'dissuade farmers from pouring blindly into the cities'" beginning in 1953. This was the year when urban registration (in preparation for the first national post-liberation census) and rationing began. See Lynn T. White, III, Careers in Shanghai: The Social Guidance of Personal Energies in a Developing Chinese City, 1949–1966 (Berkeley: University of California Press, 1978), on this whole set of issues – labour control, household registration, contract and temporary labour, migration and residence control – as they operated in Shanghai in the 1950s and early 1960s.

3. This directive was printed in Renmin ribao, 14 December 1957, and noted in Christopher Howe, Employment and Economic Growth in Urban China 1949–1957 (Cambridge: The University Press, 1971), p. 135. Marc Blecher, in his "Peasant labor for urban industry: temporary contract labor, urban-rural balance and class relations in a Chinese county." World Development, Vol. 11, No.8 (1983), pp. 731–45 analyses the temporary contract labour system that grew out of that directive; its practice is also described in Xiyang county in Tang Tsou, Marc Blecher, Mitch Meisner, "Organization, growth and equality in

gives no indication that the urban employing enterprises must engage labour through collective contracts with agricultural co-operatives. Rather, it appears from the nature of the procedures set forth that individuals taking up jobs in town have come to the city on their own, albeit with permission from home, and will make their own way there.

Then, to compare this notification with one more contemporaneous with it, it differs as well from a late 1981 State Council order on instituting strict control over the flow of peasants into the cities and prohibiting peasants from becoming non-agricultural population. By contrast, this mid-1983 regulation appears to acknowledge that outsiders have come to the city and may stay there, for at least six months, and that they have economic motives for this move. In short, it establishes a modus vivendi in handling the outsiders. In this sense, even though the public security organs have designated a rather rigorous process for dealing with non-natives, set alongside other post-1956 methods for controlling such people, this one must be termed lenient.

And a third discrepancy between the present circular and others that went before it is the fact that it is the public security and not the labour departments that seem to have primary responsibility for this work.⁵ If there is indeed a change of emphasis in this activity today, it could be an indication that controls now are aimed more at managing population, household registration and food supply than at economic behaviour and hiring practices.

Most importantly, the directive under review is one written in recognition of a new situation in the Chinese economy (new, it would seem, even since late 1981). Moreover, it responds to needs that past state economic policies had not created, nor, should such needs spontaneously crop up, did previous policies cater to them. But the novelty of the many market-type initiatives – and their consequences – that have been the hallmark of post-Third Plenary programmes, however, should not be overstressed. For in many ways the more loosely-structured urban economy on the mainland today harkens back to practices and stratagems fashioned by economic actors in the 1950s.

It appears from this present directive that recent changes in the Chinese economy have affected the pattern of urban employment much in the manner that an article by Blecher on the temporary contract labour system (for which he did field research in 1979) foresaw that they would.⁶

Xiyang county: a survey of fourteen brigades in seven communes (Pt II)," Modern China, Vol. 5, No. 2 (1979), pp. 139–85. See also Christopher Howe, Wage Patterns and Wage Policy in Modern China, 1919–1972 (Cambridge: The University Press, 1973), p. 106, which states that, "After 1956, enterprises had to negotiate labour contracts with collectives (communes)"; and John Philip Emerson, "Urban school-leavers and unemployment in China," The China Quarterly, No. 93 (March 1983), p. 9, where he notes that after socialist transformation direct hiring ended. And in John Philip Emerson, "The labor force of China, 1957–80," in Hardt (ed.), China Under the Four Modernizations, pp. 251–52, the contract labour system is defined.

^{4.} Emerson, "Urban school-leavers and unemployment," p. 8.

Howe, Employment and Economic Growth, pp. 133-35, describes the centrality of labour bureaus in this line of work in the 1950s.

^{6.} Blecher, "Peasant labor for urban industry," pp. 742-43.

Blecher predicted a decline in the power of rural collective units to organize and regulate peasant labour, as the rural responsibility system detaches households from communal responsibilities. He also referred to urban factory managers' heightened incentive to cut labour costs as they strive to earn and then to retain more profits, and hiring the cheaper temporaries from outside the city would certainly help the managers meet this goal.

Along with the rural responsibility system with its weakening of the hold of the commune has gone an increase in rural unemployment. This fact contributes to explaining the larger numbers of peasants looking for city jobs in recent years. Combined with that "push" factor influencing peasant migration are such "pull" factors as the free markets now common in municipalities, and the relative freedom to engage in pavement side-line occupations (featuring handicrafts, transport work, trade in general, and an array of repair services), all of which arenas offer country folk hope of urban earnings. Yet another source of jobs are the mushrooming collective enterprises, with their needs for labour, and the extra-budgetary capital construction projects, which must find hands outside the planned economy.

Similar conditions in the 1950s - dislocations in the countryside, rapid urban economic growth, the availability of free markets and private service jobs - prompted people from the countryside to seek city jobs in those years. And just as three decades ago, the situation today also threatens to get "out of control," or become "chaotic," to use a favourite term of the regime, in somewhat the same manner as the one in the early post-takeover days did. Howe's 1971 study describes the "autonomous enterprises" (illegal firms, staffed by peasants, unemployed workers and others who could not participate in the official public sector work force in the cities); illicit labour brokers (Howe found a reference to a labour broker who hired 3,200 workers to go to Wuhan from as far away as Shanghai, Honan and Sichuan in the mid 1950s); the falsification of papers for registration which made such activities possible; and "black" labour markets, in which employers circumvented official hiring procedures, all done for the sake of constituting a workforce that was both cheaper and more easily dispensed with than the regular, state-allocated labourers were.8

The present circular indirectly alludes to many of these same sorts of practices. That is, it inveighs against illegal hiring, forging and altering certificates, and lending them to persons to whom they were not originally and properly granted. And it chastises people who come to "Han" without declaring their temporary residence, in other words, people who

are taking jobs who have something to hide about the manner in which they are doing so.

While things may not yet have come to the same pass they did in 1957 a source Orleans cites states that in Wuhan in that year the "temporary and floating population" for which the authorities could account numbered 222,0009 - the comparatively permissive order dated mid May 1983 may portend a burgeoning private sector capable of slipping beyond the reach of the state's arms of control. To stick with the case of Wuhan, only a few weeks after the local public security posted this order on urban control, the People's Daily ran a page-one story saying that the city government of Wuhan had organized 1,400 cadres for market investigations, and had found it necessary to "ban" 1,200 street pedlars who were illicitly operating without the mandatory licences for such trade. 10 What percentage these unlucky 1,200 represented of the actual total number engaging in private-sector petty commerce is not revealed by my sources on Wuhan (and probably is not officially known); however, another article claims that in Lanzhou at the same time, two hundred licensed merchants were dealing in vegetables, while three thousand others who had been operating covertly were exposed.11

The present circular symbolizes succinctly the uneasy blend of plan and market that is the hallmark of the Chinese economy today: even as policy-makers acknowledge and permit a measure of flexibility for its actors, they essay at the same time (or, to be more precise, intermittently) to ferret out and crack down on those who step too far outside the bounds of what is legally allowed. Deservers of this present scene may wonder whether others of Howe's words about the early 1950s will also find an echo in the climate of the 1980s: ... when stimulated, the private sector rapidly [went] out of control and developed a capacity to frustrate the planned growth of the economy. 13

^{7.} Emerson, "Urban school-leavers and unemployment," p. 15, notes two estimates for rural unemployment in 1978 of 40 and 90 million, which, respectively, would account for 15% and 33", of rural labour. Probably the situation has worsened since the rural responsibility system got underway; one broadcast from early 1984 (in FBIS, 1 March 1984, p. K20), cites a "huge surplus labor force in the rural areas," noting that, "according to investigations conducted in various localities, the surplus labor force in the rural areas accounts for some 30 to 40 percent of the total labor force."

^{8.} Howe, Employment and Economic Growth, pp. 27, 70-71, and 78-79.

^{9.} Orleans, "China's urban population," p. 278.

^{10.} Renmin ribao, 9 June 1983, p. 1 and Beijing Review, No. 35 (29 August 1983), p. 6.

^{11.} Renmin ribao, 7 July 1983, p. l.

^{12.} For a study of the fluctuating treatment accorded small-scale private-sector traders and workers over the years 1980 to 1983, see my "Commerce: the petty private sector and the three-line struggle in the early 1980s," in Dorothy J. Solinger (ed.), *Three Visions of Chinese Socialism* (Boulder, Colorado: Westview Press, 1984).

^{13.} Howe, Employment and Economic Growth, p. 24.

The Economics of the "Second Land Reform" in China

Y. Y. Kueh

The Background

For peasants who have been collectivized for nearly three decades, the national campaign initiated by the Party Central Committee's Document No. 1, 1984 to promote the reparcellization of collective farmland, by extending the peasants' leasehold right to over 15 years (para. 3-1), is certainly not less spectacular than the land reform of 1949-52, when land was confiscated from the rich for redistribution among poor peasant families. This "second land reform" has now firmly consolidated the longfought policy of Deng Xiaoping for a decentralized approach towards rural management. All the cats - "black or white" - seem to have now been totally unleashed to run after their best catch. This stands in sharp contrast to the uneasy equilibrium of the "two-line struggle," which existed throughout the entire 20-year period following the abortive communization drive of 1958/1959. Nevertheless, while probably no Chinese leader today can afford to play the role of Mao's Liu cum Deng, one wonders whether, for economic reasons, the present rural institutional solution as envisaged in Document No. 1 will mark the end of the perennial Chinese search for an "optimum" level of decentralization. In a way, the agricultural reform of recent years has begun with the drastic increases, decreed in 1979, in state farm procurement prices, averaging 25 per cent. For a regime very much obsessed with the value imperative of modernization, the farm price increases should clearly be construed as income incentives for promoting agricultural production to ease the economic constraints on industrialization. This is nothing new but is exactly the policy developed by the prominent Chinese economist, Ma Yinchu, some 25 years ago in his then much condemned "balanced growth model" for China.1 Thus the strategy fits in well with a western analytical model formulated by Chiang and Fei in 1966, for a "maximum-speed development through austerity."2 The model postulates that under socialism, a consumption policy which imposes an "optimum" rather than maximum degree of austerity, may induce greater labour effort and thus an output growth more than proportionate to the required marginal consumption expenditure. It follows that not only will the rate of capital accumulation not be depressed by increased consumption, but it may even accelerate and thus help to sustain a higher overall income growth rate.

Yet, for the purported price and income incentives to work in the first place, the established egalitarian collective distributive structure must

Table 1: The Agricultural Production Responsibility System (Nongye shenchan zeren zhi) in China: Types and Variants, 1980-83

		Contractor	Obligations	Rewards/Penalties
zhi (La con	ogong bour- itract tem)	Zu (group of farmers), hu (peasant household), or lao (individual labourer).	To fulfil certain specified farm works (sowing, seedling transplanting, harvesting, etc.) fixed in terms of quantity/ quality/time limit and material costs involved, under the unified management of the team.	Agreed work- point entitlements (or reductions in case of contract failure) as a basis for participating in the team-wide distribution of final output, in kind or in cash.
zhi (Ou link				*
2-1 Bac zhi (Ou con	ochan utput- utract tem)	Same as above, hence the familiar term baochan daohu (contracting output down to the household, in the case of hu contract)	To fulfil a specified amount of final farm output for a fixed land area, either under the unified team management, (as in the case of zu or lao contract), or separately by the individual peasant household (hu), with current inputs being fixed and provided by the team.	Agreed work- point entitlements (reductions) as in the case of baogong zhi; plus full or partial retention of (compensation for) the over-ful- filled (under-ful- filled) proportion of the contracted output targets in the case of hu contract.
zhi out del	ogan (Net- put- ivery tem)	Hu, hence baogan daohu.	To fulfil the contracted output quotas for both state procurements and collective retentions with the land area being fixed for the absolute disposal by the peasant households, and draught animals and farm implements (normally small and medium-size) reconverted into their possession through either direct title transfer or conditional assignment.	Entitlement to any amount of output realized in excess of the fixed delivery quotas; or compensation for any proportio under-fulfilled.

^{1.} See Kenneth R. Walker, "Ideology and economic discussion in China: Ma Yin-ch'u on tlevelopment strategy and his critics," in Economic Development and Cultural Change, Vol. XI, No. 2, Pt. 1 (January 1963), pp. 113-33.

^{2.} Alpha C. Chiang and John C. H. Fei, "Maximum-speed development through austerity," in Irma Adelman and E. Thorbecke (eds.), The Theory and Design of Economic Development (Baltimore: Johns Hopkins Press, 1966), pp. 67-92.

Y. Y. Kueh, "China's new agricultural-policy program: major economic consequences, 1979-1983," in Journal of Comparative Economics, Vol. 8, No. 4 (December 1984).

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obviously be altered, otherwise the decreed price increases may amount to nothing but a once-and-for-all income subvention to the peasants. That is to say, barring substantial rural reform, the additional outlay incurred by the government (which for the three years 1979–82 added up to a total no less than two-thirds of the 1982 state budget expenditure), might represent a formidable loss from the standpoint of the state planners.

However, up to late 1981 – that is exactly two years after the initial price increases – the reorganization in the form of the *nongye shenchan zeren zhi* (agricultural production responsibility system) was largely limited to the restoration, or refinement, of the work-point system – the convention of the mid 1950s and, in a more constrained fashion, of the early 1960s.

Table I explains the various operational variants of the responsibility system. It is clear that from the incentive point of view, the baogan zhi (net-output delivery system) is much more attractive than the baochan zhi (output-contract system), which in turn should be more preferable than the baogong zhi (labour-contract system). More importantly the hu (household) contract should be much more effective than the zu (group) contract; and both are, for the peasants, undoubtedly more beneficial than working for and sharing in some future common plot of the collective of an unknown size - unknown because it not only depends on the unpredictable work effort of fellow collective members, but also because it may vary greatly according to possible changes in government policy or the collective attitude towards farm accumulation and distribution. Thus, no wonder that there has been a forceful trend, as revealed in Table 2, for the zeren zhi to converge from the baogong zhi to baochan zhi, and then rapidly to baogan zhi on the one hand, and from the zu to hu as the contracting tenant on the other hand, to complete the rush to baogan

Specifically, baogan daohu which Document No. 1 now attempts to perpetuate, and which prescribes a rather favourable lump-sum tax (or rental) obligation on the part of the peasant tenants, may be regarded as the officially tested solution for making the price incentives work effectively. The entire decollectivization process seems to have mainly grown out of spontaneous local economic pressures rather than from a masterplan. In any case, it has certainly enjoyed the blessing of Dengism, which essentially advocates "the indiscriminate testing of truth through empirical performance" (shijian shi jianyan zhenlide weyi biaozhun).

Table 2: The Agricultural Production Responsibility System in China: Spread and Changes, 1980-83 (in per cent of production teams or equivalent basis accounting units of the people's communes employing the systems)

			(Out	put-linked Sy	stem)	
	D	Baocha (Output-c Syste	ontract	Baogan zhi (Net- Output- delivery System)	Baocha Baogai	
	Zhi (Labour- contract System) (1)	Total hu and zu Contract	Zu Only (3)	Hu Only (4)	Total hu and zu	Hu Only (6)
1980 (January)	55.7	29.0	24.9	0.02	29·1 47·1	4.2
1980 (December)	39.0	42.1	23.6	5.0		23.5
1981 (June)	27.2	45.1	13.8	11.3	56.4	42.6
1981 (October)	16.5	37-4	10.8	38.0	75.8	64.6
1982 (December)		22.0	13-3	c. 70·0	92.0	78.7
1983 (November)			3.0		98.0	95.0
1983 (November)					99.0	
1983 (December)				94.5		

Sources and Notes:

As for Table 1 except for 1983 (Dec.) figure for col. 4, which is from Li Chengrui, "Building a socialist economy with Chinese features," *Jingji yanjiu (Economic Research)*, No. 10 (1984), p. 4. This figure refers to % of total number of peasant households.

The Rationale

Why then issue Document No. 1, 1984, at all? Apart from the crucial need for granting the peasants a long-term leasehold right, which I shall discuss later, it has been necessary to formulate a new policy and to create a new organizational framework to cope with the many fundamental issues associated with, or arising from, the system of baogan daohu. For one thing the greatly increased rural labour reserves released by the much more efficient private farming system, has seriously aggravated the problems of rural unemployment and underemployment. Much more needs to be done than just to reiterate the appeal for increased rural economic diversification as a means of accommodating the mounting labour surplus. And the stylized commune system, with all its "puritan" façades was certainly incompatible with the scale of labour mobilization needed for tapping the greatly diversified non-farm resources in rural areas. The emerging new task appeared to be far too difficult to be handled by Maoist style ideological persuasion or collective coercion within the

^{3.} Y. Y. Kueh, "China's new agricultural-policy program: major economic consequences, 1979-1983," in *Journal of Comparative Economics*, Vol. 8, No. 4 (December 1984). The amount is of course partly purported to be for rural self investments as well.

^{4.} Note that in the similar decrees in 1979, baochan daohu was explicitly prohibited; see Zhongguo nongye nianjian 1980 (Chinese Agricultural Yearbook 1980) (Beijing: Nongye chubanshe), p. 58. And in the so-called Document No. 75 of September 1980, only a negligible number of production teams regarded as poor were allowed to practise baochan daohu. see Zhongguo nongye nianjian 1981, pp. 409-411.

communes, in order to organize mass labour mobilization for large-scale water conservation works and other rural overhead projects.⁵

It is against this background that specific operational arrangements are provided for in the Document. These include: (1) the provision of flexibility for peasants to establish rural co-operatives of any scale and type, including those which break through local administrative barriers and specialize in particular branches of business (para. 3–5); (2) the stipulation that capital owned by the peasants and collectives may move freely around the country for investment in existing or in new rural enterprises (para. 3–2); (3) a clearer – albeit still rather restrictive – formulation about the extended freedom for both private and collective enterprises to employ rural wage labourers (para. 3–3); and (4) an instruction to the local authorities to bring about, where necessary, income reallocation within the co-operatives concerned, in favour of grain *zhuangye hu* (specialized households), with a view to balancing their incentives against the very prosperous non-grain households and the rural, non-farm economic sectors (para. 3–4).

The second, and closely related fundamental issue, is that increased diversification and specialization, and increased peasant income, inevitably result in increased commercial flows, not only within rural areas, but also between rural and urban-industrial sectors, however limited the counterflows from the latter sector may be, in view of the established strategy giving preference to the growth of modern industries. Therefore, an appeal is now being made for accelerating the decontrol from the state's hands of the entire rural supplies and sales co-operative network (para. 4-2), which curiously was converted into state ownership as late as 1978. Likewise, rural credit co-operatives which have seen both their deposits and loans volumes increased tremendously in recent years, as a result of the creeping decollectivization process and increased peasant incomes, are now to be given greater powers in financing rural industrial/commercial activities, and the freedom to change interest rates charged (para. 4-3).

The third, and probably most crucial issue, remains how directly to provide the peasants with sufficient income benefits, especially those specializing in the production of grain, cotton and other major cash crops which are subject to state control. The substantial increases in procurement prices were certainly not meant to eliminate totally the scissors price differentials. Agricultural prices remain depressed, not only relative to industrial products of urban origin, but perhaps more crucially to those produced by the rural non-farm enterprises. The changing and sharpening intra-rural differences are certainly more immediate in the attitude of the Chinese peasants than the established rural—urban differentials. It is against this background that the provision mentioned earlier for possible intra-cooperative income reallocation should be understood, and con-

sidered against the recent drain of rural manpower from the agricultural sector proper, with rural-urban migration still being controlled.⁶

What can be done in this respect? A total liberalization of farm prices would be inconsistent with the policy of forced-draft industrialization. Thus, Document No. 1, 1984, cannot but be limited to reiterating the established policy guidelines for gradually reducing the nomenclature and quantity of compulsory purchases on the one hand (para. 5-1), and to keeping their amounts fixed for a number of years on the other hand (para. 5-2). It is extremely difficult to determine the comparative price and income benefits which may arise from complete relaxation of physical target controls. This is difficult, especially in view of the fact that prices for the "third category" farm products which are not subject to unified controls, and are in many cases important input materials for rural nonfarm enterprises, "are to be genuinely freed" (para. 5-1). It is indeed interesting to note that Document No. 1, 1984, ends up on this issue with a rather awkward clause proposing that "the State Council authorizes the related ministries to establish special committees for systematically studying the entire circulation and price systems and producing fundamental reform methods therefore" (para. 5-4). How this would eventually be done is anybody's guess, pending perhaps the reform of the national price system as envisaged in the latest Decision of the Party's Third Plenum of 20 October 1984, which is being regarded as another watershed in Chinese economic policy.

There are of course other crucial issues related to the system of baogan daohu which the Document, surprisingly, tends to ignore. Two important examples are: water conservation works and agricultural extension services. These are two areas which have, comparatively speaking, benefited from collectivization. But can a decollectivized agriculture still draw on the Maoist approach towards irrigation projects for example, using Nurksian type labour accumulation? With respect to the second issue, baogan daohu is not necessarily incompatible with the requirements of a Green Revolution as some western experience based on private farming shows. But the recent Chinese performance in this area seems not to be particularly encouraging.⁷

All the issues raised here are certainly not unique to Document No. 1, 1984. As a matter of fact, exactly a year ago the emerging institutional arrangements already prompted the Party leadership to review, in a similar document, its overall rural economic policy, and to spell out its long-term perceptions about agricultural development, rural specialization, commercialization, employment, and technological innovations.⁸

^{5.} See Alexander Eckstein, China's Economic Development: The Interplay of Scarcity and Ideology (Ann Arbor: Michigan University Press, 1975), pp. 268-72, for a good discussion about the relationship between mass mobilization and communization, and the role played by the Maoist ideology.

Y. Y. Kueh, Economic Planning and Local Mobilization in Post-Mao China, No. 7, Research Notes and Studies Series, Contemporary China Institute, School of Oriental and African Studies, University of London, 1985.

^{7.} Y. Y. Kueh, "Foodgrain production instability in China and the world grain trade," paper presented at the Seventh World Congress of the International Economic Association, 5-9 September 1983, Madrid, Spain.

^{8.} Chinese Communist Party Central Committee, "Some problems of current rural economic policy" (Document No. 1, 1983), in *Zhongguo nongmin hao* (*China Peasants Daily*), 10 April 1983, pp. 1–2.

Nevertheless, while the Document No. 1 for 1983 also laid down essential groundwork (notably the depoliticization of the commune system) for the subsequent organizational changes as illustrated above, its preoccupation with "grand visions" somehow concealed the most serious problem of land use inefficiency associated with *baogan daohu*.

Specifically, by autumn 1983 at the latest, it became clear that the meticulously short tenancy duration of one to three years would give rise to widespread *Raubwirtschaft*, of the most radical and disastrous forms China had ever encountered. In a major speech delivered at the National Rural Work Conference in November 1983 for summing up the experience of implementing the policies of Document No. 1, 1983, Wan Li, the vice-premier responsible for agriculture, states that the foremost task for 1984 was how to encourage the peasants to invest in such a way as to preserve soil fertility. He asked for proposals from the floor, but obviously the answer was already around the corner.

I shall discuss shortly what the extension of the leasehold to 15 years may imply. But mention should first be made of another crucial land use problem which also greatly bothered Wan Li. In his view the prevalent egalitarian practice of allocating farmland to individual families on a per capita basis, regardless of inter-family differences in the size of the labour force, inhibits efficient land use across the country and within localities. As a remedy, Document No. 1, 1983, allowed for "labour swapping between farm families" and for "families which have lost their labourers or which are short of labour force, to employ occasional farm workers, for the purpose of maintaining their living" (para. 6). No matter how modest these initial stipulations may sound, their subsequent implementation has forcefully yielded the "truth" for a full-fledged endorsement in Document No. 1, 1984, of virtually unlimited transfers of leasehold rights, with all the compensatory provisos (para. 3–1) which elementary western economics would simply regard as differential land rent.

This surely flies in the face of orthodox communist ideology and the real impact is profound. Scores of peasants driven by poverty into the various non-farm sectors rush back to participate in the "second land redistribution," which they regard as a "social insurance," with the hope that the 15-year leasehold will automatically transfer into private ownership upon its expiration, to sustain the extra rental bonanza. 11 "Leasehold markets," akin to property transaction in the distant past, have begun to mushroom, 12 despite constant appeals from the authorities for surrendering redundant or unused land parcels for non-compensatory reallocation by the collectives, as is also stipulated in the Document (para. 3–1).

For the collectives, which are responsible for the reallocation within the hamlet or village, the scramble for land inevitably results in widespread quarrels among the peasants, and hence produces tremendous tasks

relating to arbitration. In the localities where "uxorilocal" marriage is widespread, for example, attempts have now been made by male chauvinist peasants to block such a custom, for fear that prospective bridegrooms from outside may encroach upon their land share. ¹³ Many collectives are forced to draw up a 15-year plan of land balances which incorporates the mandatory birth control scheme and provides for interfamily clearings on the basis of projected changes (death, birth, marriage) in family size. ¹⁴

Fears of large-scale social disturbance clearly make "Dengonomics" appear to involve danger, for the "black cat" premise would, ceteris paribus, lead to an outright public auction of collective farmland rather than to land being allocated on a basis of population. Hence, the economically more sensible allocative device of tender biddings is limited to such farm subsidiaries, as fishponds, pig stys, fruit orchards, and so forth. 15

The Implications

Where will all these dramatic changes converge? The year 1984 was greeted with yet another "high-tide of rural socialism" – this time with "Chinese characteristics." Jubilant Chinese peasants very often capture the scene these days in Chinese television broadcasts at both the national and provincial levels. Peasants are shown with various measures to enhance and preserve soil fertility. Long-term land use efficiency is of paramount importance to China for, despite increased industrialization, the good earth still is the single most important source of economic surplus, which ultimately determines the pace of industrialization at large, and the possible scale of rural investment, non-farm employment, diversification, and commercialization. But will the tide eventually subside? It seems premature to attempt a full evaluation of this new social experiment, but it is nonetheless worthwhile to give some brief thoughts about how it may relate to the established system of central planning and the broad policy goal of modernization.

Recall first of all that it was the enormous need to siphon off an agricultural surplus to finance the First Five-Year Plan that created the entire system of compulsory farm purchases and monopolized sales by the state. This in turn prompted the subsequent collectivization and communization process (as an expedient for implementing and expanding the compulsory delivery scheme). One wonders whether the current "decollectivization" will bring the Chinese peasants back to the pre-1953 land reform situation, which was essentially dominated by free market relations rather than by planning and coercion?¹⁶

^{9.} For details see for example, Nongcun gongzuo tongxun (Rural Work Bulletin), No. 3 (1984), pp. 13 and 15, and No. 8 (1984), p. 5.

^{10.} Ibid. No. 2 (1984), p. 7.

^{11.} Ibid. No. 7 (1984), pp. 30 and 33.

^{12.} Ibid. No. 8 (1984), p. 14.

^{13.} Ibid. No. 2 (1984), p. 45; see also No. 8 (1984), p. 5. The custom is for the men to be "married into" and live with the wife's family.

^{14.} Nongye jingji wenti (Problems of Agricultural Economics), No. 8 (1984), p. 42. See also Nongcun gongzuo tongxin, No. 6 (1984), pp. 34–35.

^{15.} See, e.g., Noncun gongzuo tongxun, No. 8 (1984), p. 12.

^{16.} For the best account of this see Dwight Perkins, Market Control and Central Planning in China (Cambridge: Harvard University Press, 1965), pp. 28-42.

"Second Land Reform" in China

Note, however, that compulsory purchase quotas for the major farm products are to remain intact (para. 5-1 and Document No. 1, 1983, para. 7-1). They are now directly relegated down to the peasant households in the form of *baogan* targets (Table 1) which represent nothing but land rental. The state is not necessarily a bad landlord, as Gale Johnson, the prominent American agricultural economist, aptly puts it, provided that the tenure relationship is well defined.¹⁷ Yet there are two important sources of uncertainty within the present Chinese context.

First, the collective cadres are very often compelled to adjust upwards any agreed baogan targets which are overfulfilled to an unpredictably large extent, perhaps on account of sheer hard work. The pressures often originate from jealous peasants who have done less well. Perhaps they are less skilful or less industrious or less lucky in obtaining lower rental commitments. Whatever the cause, there has evidently been a fierce backlash of the deeply ingrained egalitarian ideology. The situation is certainly more difficult for the demoralized rural cadres to handle than for the powerful landlords of the past, vis-à-vis the free tenants.

The second, and certainly more fundamental source of uncertainty, arises from the fact that, while the Document No. 1, 1984 specifically rules for the compulsory purchase quotas "to be fixed for a number of years" (para 5–2), the official commentators constantly refer to the necessity for any "irrational" (that is, "unrealistically low"), baogan target, to be readjusted from time to time. ¹⁹ This is not a matter of difference in semantics. Rather, it is difficult to visualize how the quotas can be kept constant for any extended period of time at all: it is difficult by virtue of the rationale of the adopted development strategy which – analogous to the Chiang-Fei model – will call for the extra output induced by the marginally increased consumption outlay over the maximum austerity, to be effectively siphoned off to support modernization.

In a way, all the major farm quotas are biased downwards these days, in light of the massive diversification and commercialization drive. Specifically, rural non-farm activities enjoy higher output prices and profitability, because of the irrational price structure. And for the entire baogan daohu system to work, peasants' earning potential net of the imposed state deliveries (or rental) must obviously be made comparable, by manipulating (i.e. lowering) the baogan targets. Otherwise, simple marginal allocative rules would dictate that manpower and other farm resources should be further diverted away from the good earth.

All this is precisely the institutional arrangement for the "optimum austerity" consumption strategy, which has indeed prompted the observed upsurge in incentives and agricultural productivity. However, the constant upward revision of targets would be tantamount to imposing confiscatory marginal income tax rates. Nor, I think, could the peasants be bullied around with any policy reversal of the declining scissor-price differentials

for taxing away their gains. Thus, in terms of the Chiang-Fei model, there seems to be no practical organizational solution within the socialist context, to support its second postulate that the "additional output" generated can be effectively converted into state capital accumulation. If correct, then the outcome may be a slower rather than higher overall economic growth rate.

There are other major areas of concern which tend to enhance the government's policy dilemma. Water conservation works represent a crucial one. After years of massive investments in irrigation/drainage works, China seems to have basically overpowered the traditional "grand agony," but the "lifeline of agriculture" is by no means firmly secured, judging by the degree of yield instability relative to weather changes.20 At the same national conference at which Wan Li delivered the key speech as a prelude to Document No. 1, 1984, Li Bening, vice-minister of Irrigation and Power Generation, was concerned about the possibility of irrigation works being consistent with the much publicized grain output target of 480 million tons for the year 2000.21 Not only has it been difficult to increase the irrigated area in recent years, as he clearly noted, but "after the implementation of the responsibility system, maintenance works (of existing irrigation facilities) lag behind in some areas, and some were destroyed, and (the misdeed) has not yet been completely halted. This also accounts for the decline in irrigated area."22

In short, the present rural solution represents by no means an "institutional equilibrium."

^{17.} D. Gale Johnson, "Agriculture in the centrally planned economies," in American Journal of Agricultural Economics, Vol. 64, No. 5 (December 1982), p. 845.

^{18.} Nongcun gongzuo tongxun, No. 8 (1984), p. 12.

^{19.} Ibid. No. 8 (1984), p. 4. See also No. 3 (1984), p. 12.

Y. Y. Kueh, "A weather index for analysing grain yield instability in China, 1952-81,"
 The China Quarterly, No. 97 (March 1984).

^{21.} Xinhua yuebao (New China Monthly), No. 1 (1984), pp. 117-18.

^{22.} Ibid. p. 117.

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> Dating from 1956 the bank was forced to rely on other mechanisms in its effort to maintain national monetary stability. Instead of becoming a significant force in the implementation and administration of state economic plans, the People's Bank came to focus primarily on developing its savings operations, which, in contrast to the credit reforms, enjoyed strong local Party support.

> The audit also marked a turning-point for the Party apparatus. The bank's inability to develop standardized financial control systems for the most advanced industrial and commercial enterprises meant that the Party committees became more closely involved in their administration. This kind of detailed, technical work was to be the sphere of state agencies such as the bank. Now the Party would be the authoritative decision-maker in a much broader range of activities than its role originally envisaged.

In principle, the Party's role aimed at ensuring the internalization of its own values and goals by society at large as well as by individuals responsible for administering state affairs. The identification of organizational and technical disputes as having their source in ideological shortcomings signified that the scope of this political role was limitless. This expansion would culminate in the fragmentation of the Party apparatus into its local parts during the Great Leap Forward. Although the Party committees may have believed themselves to be acting in line with central Party policies and priorities, the absence of consistent plans and standardized technical procedures would mean their decisions would inevitably be influenced by localistic considerations. Political loyalty may be an important means of social control, but it cannot by itself indicate the best technical decision to be made in specific circumstances. For the Party, therefore, the absence of a strong banking system seemed to increase its power vis-à-vis the central ministries. In fact, the effect was to begin an erosion of the Party's capacity to transform the Chinese economy and society in line with its political values and objectives.

Research Note

The Baogan Daohu Incentive System: Translation and Analysis of a Model Contract

Frederick W. Crook

The development of work incentives has been a perennial problem in planned economies. In China's countryside the pendulum has swung from emphasis on non-material and egalitarian incentives under Mao to the more individualistic incentives of the post-Mao era. In the late 1970s, China's new leaders introduced the production responsibility system (shengchan zerenzhi) which sought to motivate farmers by rewarding them for completing specific tasks. Both old and new measures have been used to implement this system. Cadres have borrowed certain work measurement methods attached to the old labour-day work payment system, operating since the mid 1950s, which fixed responsibility for tasks and awarded labour days when work was completed. But cadres have also adopted an entirely new work-payment system in which households negotiate with production teams to farm given parcels of land. These households agree to return a certain quantity of their crops to fulfil collective and state obligations and are then permitted to retain the surpluses for themselves. This new system is called baogan daohu ("full responsibility to household," hereafter referred to as the baogan system). Sometimes the system is also referred to as the jiating lianchan chengbao zhi or the household responsibility system.

Since 1982 a large proportion of rural households have employed the baogan system. A 1983 year-end report stated that more than 90 per cent of farm families in China use the system. In the period from 1979 to 1982 the system was used primarily to promote the growth of output and income in the poorer regions of such provinces as Gansu and Anhui. It was also increasingly used in this period to encourage farmers to raise cash crops such as cotton, tobacco and tea. For example Shandong provincial agricultural officers told the author in July 1982 that baogan was used to encourage farmers to raise cotton in the northwestern section of the province, but was not used to motivate farmers to raise grain crops.² Beginning in 1983 teams used the system even in wealthy developed regions of the country to grow grain as well as cash crops, so the percentage of total output generated by baogan has been substantial.3

PBC, "Guanyu gaijin guoying gongye shengchan qiye duanqi fangkuan zhanxing banfa de zhishi" ("Directive on improving the temporary method for state industrial enterprise shortterm credit") (27 March 1957), Compendium of Financial Laws and Regulations, 1957,

^{1.} China Daily, 29 December 1983, p. 1.

^{2.} Frederick W. Crook, "Report on an agricultural observation trip to China, July 1982, Pt. 1: notes from interviews with national and provincial officials," PRC section, Asia Branch, IED, ERS, U.S. Department of Agriculture, August 1982.

^{3.} See following for references on expanded use of the baogan to raise grain crops in 1983: U.S. Joint Publication Research Service (JPRS), China Report-Agriculture, No. 82,602 (7 January 1983), p. 46; ibid. No. 84,600 (24 October 1983), p. 64; Foreign Broadcast Information Service (FBIS) Daily Report: China, No. 160 (17 August 1983), p. 5-6; and FBIS, No. 209 (27 October 1983), p. S-3. For example, Heilongjiang province first used baogan in an all round way in 1983, see, Renmin ribao (People's Daily), 11 December 1983,

Unlike some rural movements and campaigns in the past which stressed uniform practices, rural cadres and leaders used a great diversity of forms and methods to implement the *baogan* system.

In September 1981 the authorities in Shanxi province published a model contract in their provincial newspaper Shanxi ribao (Shanxi Daily) to help commune cadres and especially production team leaders establish the baogan system. This contract provides a number of interesting insights into the operation of the baogan system and highlights important policy issues.4 It is important to note that the model contract was published in a provincial newspaper and insights gained from studying the document are most relevant to Shanxi province. Our preliminary judgment formed from visits to communes, discussion with county and provincial officials, 5 and study of newspaper and journal articles on baogan,6 suggests that some elements noted in the Shanxi contract have been used in other areas as well. Hopefully, in time, experiences from other areas, provinces and regions will come to light so a more complete picture can be presented. The purpose of this research note is to provide readers with a translation of this contract. Some comments have been added which show how the baogan system relates to previous types of incentives, what policy issues it raises, and how it provides production incentives to farm families.

Model Contract

In this document the model contract used by Gongtong county, Shanxi province contains nine sections detailing the agreement between X production team and Y team member. The text below is a complete translation of this document. Notes have been added to clarify obscure points. Comments on provisions of the contract have been placed in the next section.

Section I

Land Contracted to Y Member.*

			Name o	f persons				
Name of land	Dry or irri- gated land	Number of border paths	with contract to the left	with contract to the right	Number of mu	Grade of land	Base yiel	d per mu

p. 1. Likewise the farmers in the developed Liaoning peninsula and Liaohe valley used the baogan system in an extensive way in 1983, see, British Broadcasting Corporation (BBC), Summary of World Broadcasts (SWB), Far East Weekly Economic Report, W1260, 2 November 1983, p. A-5.

- A. Of the amount of land above, fields contracted out which are based on population is _____mu and fields contracted out based on labour force is _____mu.†
- B. The amount of land contracted above will not be changed for _______ years and the amount will not change if persons are added or deducted. Basic standard grain rations of _______ jin per year will be added to the formula to calculate the amount of contracted grain to be delivered if the number of persons in the household increases, or grain rations will be deducted from the formula if there is a decrease in the number of persons in the household. Basic standard grain rations will not be deducted from the contracted grain responsibility if children above the norm are added.
- C. Y team member, under the guidance of state plans, has the right to choose proper crops to plant and select crop rotation schemes appropriate to local conditions.
- D. With regard to the above land, it cannot be rented out, transferred, or sold. Buildings or kilns cannot be built on the land, and the land cannot be destroyed or taken away (to make bricks). Also trees and grave sites cannot be established on the land

Section II

Total

Y member's production responsibilities

Item	Wheat	Fall grain	Cotton	Oilseeds
Number of mu				
Yield per mu				
Total output				
Y member's con	ntract responsibilit	y for delivering	; agricultural	and subsidia
Section III. Y member's corproducts.	ntract responsibilit Wheat	y for delivering Fall grain	agricultural Cotton	and subsidia
Y member's corproducts.	***************************************			

- A. Fulfilment of grain obligations will be completed through procurements of summer and fall grain by the time specified by X team. Quality and quantity of grain and cotton as specified is to be delivered to grain stations or cotton purchasing stations. Households should deliver the balance of the commodities to the team. The team will keep a record for each household. Collective reserves are then deducted from the commodities brought to the team. If surpluses remain, they are returned to the household. If the quantity of goods delivered is less than the contracted amount for state procurement and for collective reserves, the household has to make up the deficit.‡
- B. State procurement quota requirements do not include "above quota" responsibilities. According to state policy "above quota" requirements are set by

^{4.} The author is indebted to Francis C. Tuan for finding this model contract, "Tuijian yifen baogan daohu de hetongshu" ("Recommended form of contract document to implement the full responsibility to household systems"), Shanxi ribao, 3 September 1981, p. 2. For other articles giving details on setting up contracts see JPRS, China Report—Agriculture, No. 81,194 (11 July 1982), pp. 3-5 and No. 81,641, 26 August 1982, pp. 42-45.

Crook, "Report on an agricultural observation trip to China, Pt. I," and Crook, "Report on an agricultural observation trip to China, Pt II: notes on visits to communes," PRC Section, Asia Branch, IED, ERS, U.S. Department of Agriculture, September 1982.

^{6.} Frederick Crook, Reports on Rural People's Communes, an unpublished data set.

the state once each year and are assigned to each household. "Above quota" commodities should be delivered to the state purchase stations at the same time that standard procurement commodities are delivered to these stations.§

C. If output produced by Y household declines because of unavoidable natural disasters or other special circumstances, then X team, according to actual conditions, can adjust delivery obligations. The team congress should discuss the issue, and send a report to the brigade. Brigades should investigate and make a report to the commune which has the power to approve or disapprove the request. Section IV

Y member collective responsibilities.

Item	Agri- culture tax (nong yeh shui)	Adminis- trative expenses (guan li fei)	Capital accumu- lation fund (gong ji jin)	Welfare fund (gong yi jin)	Fixed capital asset depre- ciation fund*	Fund to support families of service men ^b	Cadre, teacher, etc., supple- mentary wage fund ^c	Total
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Quota

a (guding caichan zhejiu jijin)

b (youfugong gongzi)

c (ganbu, minjiao, deng, puzhu gongzi)

A. The deductions listed above will be taken from the value of agricultural and subsidiary products Y member delivers to X team.

Section V

Y member agrees to provide ______ number of water control basic construction work days, and public service work days according to the team's work plans. Those who do not provide work days will have to pay _____ yuan for each work day assessed.

Section VI Y member overdrew from X team, and Y member agrees to clear its debt with X team in _____ years.∥

			Repaym	ent Plan		
Balance due	1982	1983	1984	1985	1986	1987

Section VII

X team borrowed from Y member and X team agrees to clear its debt with Y member in _____years.¶

			Repaym	ent Plan		
Balance due	1982	1983	1984	1985	1986	1987

Section VIII

Y member agrees to protect national and collective water control projects, promises not to destroy dikes, ditches, or water systems, and commits not to steal or forcibly take water. Y member agrees to pay for electricity used to pump water.

Section 1X

This contract is for ______ years(s) and becomes effective on the date it is signed. Both parties agree to abide by the terms of the contract and the brigade will supervise the implementation of the contract. Terms in the contract cannot be altered or nullified by one party. If there are disagreements between the parties, the brigade will settle the dispute. If one party fails to complete the contract and the brigade cannot settle the dispute, the case will be sent to the "People's Court: Economic Section" to be resolved. This court will determine which party is economically and financially responsible and will determine the extent of compensation.**

Parties to the	X production team	(SEAL)
contract:	Y team member	(SEAL)
Contract supervisor:	Production brigade	(SEAL)
• *************************************	day mon	th year

Notes

*The column titled "Name of persons" is used by the team to communicate to the contracting member which fellow team members have contracted adjacent pieces of land.

† Teams use several criteria to determine how much land each household can contract to rent. Some teams divide cultivated land among households based on the number of persons in each household. Other teams allocate land on the basis of the number of labour force units (able-bodied workers) in each household. Still other teams use combinations of both criteria to allocate land.

†This clause in the contract seems to indicate that all output from households goes either to the state or the collective. The production team then returns surpluses to the household. Because of the enormous transfer of commodities this would cause and because of limited storage facilities at the team level, I doubt this practice holds for all areas. For example, farmers in Chuxian prefecture, Anhui province, delivered their grain to state grain stations where attendants saw that agricultural tax, standard quota, and above quota obligations were met. Then attendants calculated how much cash had to be deducted to meet collective obligations. The residual cash balance was then given to farm families. See Cai Fang, Gu Xiulin, Zheng Yanan, and Hua Sheng, Graduate Institute of China's Academy of Social Science, "Guanyu Chuxian dichu 'mai liang nan' wenti di diaocha" ("An investigation regarding Chuxian prefecture's problem with 'grain sale difficulties,' ")Nongye jingji wenti (Problems in Agricultural Economics), No. 8 (August 1983), pp. VIII-52 to 54.

§ Farmers have four channels to market their output. First, teams and households are required to deliver fixed quantities of produce to state purchase stations at fixed prices. Secondly, teams and households negotiate with state procurement agencies to deliver a fixed quantity at above quota prices. Thirdly, after teams and households have fulfilled standard and above quota obligations, they may sell extra output to the state purchasing units at negotiated prices. Finally, after filling all quotas, teams and households may sell goods in rural markets at prices within ranges prescribed by government authorities. See Francis C. Tuan and Frederick W. Crook, Planning and Statistical Systems in China's Agriculture, ERS, U.S. Department of Agriculture, FAER, No. 181, April 1983.

| Members of production teams may become indebted to the their team when the value of their labour earnings fall below the value of the grain, vegetable oil and firewood rations dispensed during the year on an egalitarian basis.

¶ Teams sometimes borrow money from team members to meet obligations to the brigade and commune, such as irrigation and administrative fees. Also teams borrow from team members to pay off debts to the Agricultural Bank or Credit Co-operative and to complete payments for machinery and fertilizer to the local supply and marketing co-operatives.

** Presumably the court is at the commune or county level.

Comments

As the sections of the model contract are examined, one is reminded of the tenant system in pre-1949 China. Before 1949 landlords owned the land

and agreements between landlord and tenants specified the amount of "contract rent" tenants should pay for use of the land. Then, as now, agricultural taxes were paid to local government authorities. Local governments provided elemental services and generally upheld the rights of landowners.

There are three major differences between the old tenant system and the baogan system. First, whereas landlords owned the land in the pre-1949 period, the land currently is owned collectively by production teams.

Secondly, the government played a limited role in the pre-1949 tenant system. The government's role is now substantially larger. Under the baogan system the provisions in the contract highlight the rights and power of the government and limit the action of teams and farm households. For example, households are: (1) led to plant certain crops under the guidance of state plans; (2) required to deliver quantities of farm produce to government purchasing stations; and (3) forbidden to sell or rent land on their own initiative.

Thirdly, in the old tenant system landlords and tenants through bargaining reached agreement on the amount of "contract rent." Elderly farmers who can remember the tenant system might well respond "under the baogan system we can use a piece of land providing we pay what is required to the collective and the state-little has changed." On the other hand the rental payments to landlords characteristic of the tenant system are absent under baogan. It is difficult to find evidence in the model contract that households pay "contract rent." Households are required to pay agricultural taxes, but the tax has been applied since 1949 and cannot be considered a new form of rent. Households also pay into various collective funds such as the capital accumulation and welfare fund, but none of these payments can be singled out as serving the purpose of "contract rent." The compulsory delivery of crops under the procurement quota system likely embodies an element of rent, but this goes to the government and is not a rental payment per se. Consequently, although the form of "baogan" is reminiscent of the tenant system, it does not function in quite the same way.

The model contract raises some important policy issues affecting incentives, but does not provide guidelines on how to resolve those issues or improve incentives. Section I of the contract raises the issue of what procedures production teams should use to allocate arable land to households. The model contract suggests land be divided on the basis of population or labour force. But the question of which family receives the contract on the fertile, well-watered land near the village centre has an important effect on production incentives. Is it parcelled out based on a lottery? Are households given the opportunity to bargain with other households to farm choice pieces of land?

Section I also highlights the problem of how much freedom there is for farm families to make basic economic decisions. If the contract calls for a household to plant rice, can the family use a hybrid variety? Or can it

switch to sweet potatoes this year and plant rice next year? How much pressure do government-controlled institutions in rural areas place on households to follow state plans? Do they supply or withhold irrigation water and credit to attain the desired effect?

Section II raises the issue of the terms of the contract. How do teams determine the output of a specific crop on a certain field? Do state planning targets play a role? If the output target is set low then households will be able easily to overfulfil the target and sell the remainder of its crop at above quota prices, thus increasing its income. If the target is set too high, the farm family will be hard pressed to meet the contract. If the same adverse terms prevail over a couple of years, the household will become indebted to the team or will have to break the agreement.

Section II also points up the incentive problems teams have in deciding which families should grow which crops. If the financial return for growing different crops varies, then households will want to increase the area of crops which bring high returns and decrease the area of those which bring low returns. How teams decide which households will grow which crops affects incentives.

Section III brings to the surface some problems about procurement quotas. How these quotas are determined will affect incentives. Do those with better land and higher yields also receive higher procurement quotas? Also at issue is the length of contracts for quotas. If quotas are set annually and if quotas are raised to follow yield increases, then farmers have less incentive to raise yields. If, however, procurement quotas are set for five years, farmers then have a greater incentive to increase yields because they earn additional income from selling above quota output at a higher price. China's farmers are like those the world over: they tend to exploit the land if the contract period is only for one year. For example, national leaders reported that farmers applied chemical fertilizer to their land if they thought the contract period was for one year. If the period was for two years farmers applied farm manure and if the contract period was for three years they began to grow restorative crops. 9

Sections II and IV provide the framework in which income distribution problems are worked out. The problem cadres face is to set the terms of the contract such that the requirements of state and collective are met, and yet enough is left for households to cover material input costs, and be reimbursed for labour expended, risks taken and management skill used. Enough residual must be left to motivate farmers to raise yields and output, and reduce production costs. Sufficient produce also must be set aside to cover basic costs of the production team, such as administrative costs and expenditures for water control projects. Finally, sufficient

^{7.} The term "contract rent" refers to the payment for the use of land which is arrived at through some bargaining process. It is the actual amount of rent paid.

^{8.} Currently there is insufficient evidence on these questions to formulate definitive answers. On the one hand the impression is given that many teams are primarily interested in household delivery of products and are not so concerned with quotas for sown area, yields and output targets. On the other hand there is a sense that cadres in some teams do pay attention to sown area quotas. For example, contracting rules in Tibet before June 1984 suggest that team leaders did dictate the kind and area of crops to be sown. See FBIS, Daily Report: China, 2 July 1984, p. Q-1.

9. Renmin ribao, 20 May 1983, p. 2.

agricultural tax must be set aside to help sustain the national government. Miscalculation in any of the three areas over an extended period of time would injure interests of one of the three parties and would tend to force a change in the system.

The model contract also highlights the government's policy to sustain socialist institutions. Households agree to help construct and maintain water conservancy projects, and contribute money to make capital investments, provide welfare needs of the team and pay administrative costs and salaries for teachers.¹⁰

The economic transactions of lending and borrowing in the baogan system are dealt with in Sections VI and VII. An interesting point raised by the model contract concerns team indebtedness to its constituent households. It does indicate past dynamic interaction between households and socialist institutions. More research will have to be done to find out what the magnitude of these debts are and how far back in time they reach.

The last section establishes formal procedures for resolving contract disputes. The realistic aspect of the model is that most disputes in the past have been settled by traditional patterns of discussion and accommodation. The unrealistic aspect is that conflicts are scheduled to go to the economic section of the people's court. How many economic sections have been set up so far, what body of law has been developed to handle the cases, and how many judges have been trained to deal with breaches of contracts?

Assessment of Incentives

The baogan system has become one of China's major rural incentive packages. China's leaders made major changes in political, administrative and economic policies and institutions to establish the system. In the ideological field the Party also made some drastic changes, because during the Cultural Revolution the use of baogan type systems were forbidden. Then the Party used the media to remind rural leaders and farmers that even to advocate the use of the system was an ideological heresy. The costs incurred in implementing baogan have been considerable. It is important therefore to understand the incentive effects of baogan in order to understand costs and benefits. Our preliminary view is that three factors motivate farm families to work in the baogan system.

First, the system effectively reimburses families for their work effort. Through the setting of contracts, family members can see that actual work performance is rewarded. The *baogan* system replaced the egalitarian and labour-day work payment systems in which there was not a clear connection between the work one accomplished and the pay one received. In the Cultural Revolution farm households received both payments inkind and cash from production teams. In the late 1970s about 70 per cent of household income from the team was distributed in the form of

commodities – principally grain. Normally a large portion of a household's grain rations were distributed on egalitarian principles. 11 The balance of household income during the Cultural Revolution came from the labour-day work payment system which also tended to concentrate payments within a narrow range. These two payment systems had egalitarian properties which reduced peasant initiative.

Farm families have been motivated to increase output because the baogan system rewards them for using initiative and for taking production risks. The former labour-day work payment system spread production risks among all farmers within the production team. At the same time individual team members had little influence over day-to-day management decisions. The baogan system within certain constraints, allows household managers to take risks, and rewards or penalizes them according to their performances. Households as an economic unit are now permitted, within specified guidelines, to allocate their own resources to meet contract agreements. Whereas, before the baogan system, there was little incentive for farmers to raise their technological understanding, now farmers are eager to learn new techniques which show promise in raising yields and reducing production costs. Similarly, households have been encouraged to use their own funds to purchase tractors, build houses, and invest in rural industries and business enterprises. 12 All these factors have induced farmers to pay more attention to costs of production and to raise output.

Secondly, households have been induced to increase output because the baogan system gives them a semblance of control over a piece of land and a certain degree of control over their economic lives. The strong desire of farm families to own, or, at least control, a piece of land probably has not

He Kang (ed.), Zhongguo nongye nianjian: 1981 (China Agricultural Yearbook, 1981)
 (Beijing: Nongye chubanshe, 1982), p. 68.

^{12.} Households made initial investments when they joined collective farms in the mid 1950s. Rural investment in the period 1958-79 came primarily from the collective sector and households had great difficulty acquiring productive assets. Since 1980 farm families have begun to purchase a wide range of assets such as tools, draught animals, tractors, trucks, and farm equipment. For example, household ownership of tractors shifted from 1% in 1980 to 43°, at the beginning of 1984. See SWB, FE/W1273, 8 February 1984, p. A-11. Households also have invested heavily in housing, building more than 830 million sq. m. of floor space in 1983 (China Daily, 21 February 1984, p. 1.) Moreover, rural households have purchased tools for rural service trades, and have invested hundreds of million yuan in rural enterprises such as food processing, brick making, and manufacture of handicraft items. ("Peasants invest in varied businesses," Beijing Review, No. 43 (22 October 1984), p. 9; SWB, FE/W1306, 26 September 1984, p. A-5 and FE/W1304, 12 September 1984, p. A-3). Under baogan, however, collective withholdings decreased from 9.73 billion yuan in 1982 to 8.36 billion in 1983, a decline of 14·1%. Household purchase and construction of fixed assets totalled 6.79 billion yuan in 1983. This investment was 54.7% more than the 4.39 billion yuan collected by production teams in their capital accumulation funds in 1983. See Ministry of Agriculture, Animal Husbandary and Fishery, Commune-Brigade Enterprise Management Bureau, Distribution Statistics Division, "Yi jiu ba san nian nongcunjingji shouji fenpei qingkuang" ("The situation in distribution of economic benefits in rural areas in 1983"), Nongcun caiwu kuaiji, No. 8 (August 1983), pp. 3-6. Nonetheless, trends in net investment in the rural sector are not clear. For example, data on government investment in agriculture in 1982-84 are not known; it is difficult to determine the value of public work projects; and it is not known how teams actually invested their funds in their capital accumulation accounts. Without these data it is currently difficult to assess the direction of investment in the agricultural (rural) sector. This important topic warrants close attention in the years to come.

^{10.} FBIS, Daily Report: China, 16 November 1984, p. K-18.

been greatly diminished by three decades of socialist education. While the baogan system does not give farm families ownership of land, it does give them a degree of control. It is this sense of control which provides powerful incentives. Farm families now are provided a means by which they can earn respect from their contemporaries by increasing output and income. They can be proud of their weed-free fields, straight rows, and luxuriant growth of crops. They gain respect from other team members for the way they manage their stewardship.

Finally, households have been encouraged to work because the baogan system offers them greater flexibility in arranging work schedules and allows them the opportunity to earn additional income. During the Cultural Revolution, team leaders called members to begin and end work at specific times. Also members were discouraged from engaging in household production activities. Under baogan, households can arrange their own work schedules. They have the responsibility to manage their own time and resources in order to deliver the output as specified in the contract. This flexibility, plus the opening of rural free markets and other marketing channels, has enabled previously underemployed family members to generate additional earnings. Household members can engage in production projects such as carpentry and brick-laying, transport, peddling, manufacture of handicraft goods, and simple processing of agricultural commodities.

The baogan system has had a substantial impact on rural commerce, per capita income and yields. Farmers under baogan are marketing a higher proportion of their output than production teams did under the old incentive system. The system has encouraged household sideline production and farmers are selling their wares to state-owned commercial entities and are trading goods in rural free markets, which were disbanded during the Cultural Revolution but which numbered 46,000 in 1983. ¹³ The baogan system has also induced changes in the supply and distribution of farm inputs. Whereas in 1976 individual farmers were forbidden to purchase tractors, by 1983 farm families had bought more than 1.5 million units.

Rural per capita incomes have risen sharply along with the implementation of the production responsibility and baogan systems. Average per capita net income for the rural population was only 133-6 yuan in 1978 but rose substantially to 257-4 yuan in 1982. These income figures measured by rural surveys represent an increase of 93 per cent between 1978 to 1982, an average rate of growth of 17-8 per cent annually. These rapid growth rates are significant compared with the sluggish rates of growth of per capita income distributed to commune

members which rose only 5·1 per cent in the five-year period from 1972 to $1977.^{16}$

Since 1979 crop yields have increased substantially as shown in the Table. There are difficulties in quantifying what portion of these increases have come from the use of the *baogan* system and what portion is linked to increased specialization, use of fertilizers, new seeds, increases in procurement prices and easier access to technical information. The Table below lists percentage changes in yields in the periods from 1974 through 1984. The three-year period 1974–76 is the last part of the Cultural Revolution and represents a period when Mao's policies of grain self-sufficiency, non-material incentives and strict central planning were operative. The period 1977–79 represents a readjustment period when crop specialization within limits was permitted, material incentives were restored, rural markets began to open and less severe planning controls were enforced. The third period 1980–84 is the period in which the *baogan* system was implemented.

One should not be surprised to find that yield increases in the second three-year period (1977-79) were sometimes more impressive than gains made in the five-year period (1980-84). Yield increases in the second period were substantial because production teams were encouraged within limits to grow crops best suited for their environment. Also the government raised state procurement prices for grain, oilseeds and cotton in this period.

Moreover, input use rose substantially in this period. For example the Table shows that chemical fertilizer and water control machinery use rose dramatically in the years from 1977 to 1979. 17 The fact that yield increases were maintained when fertilizer and water control machinery increases were reduced in the third period, as shown in the Table suggests that the baogan system did have a positive impact on yields. The correlation of increases with the use of the baogan system is highest with regard to cotton and oilseed yields and less with grain yields. This finding lends support to other evidence found which suggests that the baogan system was used early in the 1980-82 period to grow cash crops and other systems were used to grow grain. Some teams had begun to use the baogan to raise grain crops by 1982, but the practice became widespread only in 1983 when grain yields rose 8.9 per cent over 1982. Another record grain crop has been harvested for 1984 of 407 million tons and yields are estimated to rise 5.3 per cent above 1983. In these two years when baogan was used extensively to encourage farmers to raise grain crops, the average annual growth of grain yields was 6.8 per cent compared with 3.8 per cent for the three-year period 1980-82.

^{13.} China Daily, 11 January 1984, p. 1.

^{14.} State Statistical Bureau, Zhongguo tongji, mianjian (China's Statistical Yearbook) (Beijing: Zhongguo tongji chubanshe), 1983, p. 499, gives a figure of 270.11 yuan which has been reduced to 257.4 yuan to compensate for the change in the price used by teams to value goods in kind distributed to members.

^{15.} Frederic M. Surls, "Dramatic growth of rural income;" U.S. Department of Agriculture, Economic Research Service, China: Outlook and Situation Report, Washington, D.C., June 1984.

^{16.} Estimates of changes in rural income as measured by the two different methods cannot be compared directly, but the percentage change in the two five-year periods does give a general impression of rapid growth of income in the last five-year period. See, He Kang (ed.), Zhongguo nongye nianjian: 1980 (China Agricultural Yearbook: 1980 (Beijing: Nongye chubanshe, November 1981), p. 41.

^{17.} The quantity of irrigation and drainage machinery is more important than the number of tractors because the last mentioned were more often used for transport than for cultivation purposes. Machinery to control water supplies, on the other hand, had an important impact on yields, especially when water was used properly in conjuction with chemical fertilizers and improved seed varieties.

Table: Average Annual Growth of Crop Yields, Fertilizer and Machinery Use, 1974-84.

_	Years			
	Cultural Revolution	Readjustment Period	PRS*	
Items	1974-76	1977-79	1980-84	
Yields: Grain ^b Oilseed ^c Cotton	+2·7 -4·1 -7·0	Percent change + 5·5 + 9·6	+ 5·2 + 9·0	
Inputsd	,	+5.5	+12.8	
Fertilizer ^e Water control machinery	+ 4·4 + 16·2	+23·5 +9·5	+10·8 +2·3	

Notes and Sources:

a. PRS stands for the production responsibility system. The baogan was one of many PRS systems in 1979-82, but became the dominant system used in 1983 and 1984.

b. In China's reporting, grain includes wheat, rice, coarse grains, other miscellaneous grains, pulses, tubers (converted to a grain-equivalent weight using a 5:1 ratio), and

c. China includes in oilseeds only peanuts, rape-seed, sesame-seed, sunflower, and linseed oil. Source: U.S. Department of Agriculture, Economic Research Service International Economics Division, Asia Branch, People's Republic of China Section, "PRC data base," unpub. The data set contains figures from various yearbooks and State Statistical Bureau

d. Data for fertilizer and water control machinery were found only for 1974-83. The percentage increases in the table are for these years only. There are preliminary indications that supplies of these inputs rose substantially in 1984 but final figures are not yet available.

e. Weight of fertilizer used times the conversion factor of 0.202 was used to obtain effective weight applied.

Grain, oilseed and cotton: yield data comes from, He Kang (ed.), Zhongguo nongye nianjian: 1980 (China Agricultural Yearbook: 1980) (Beijing: Nongye chubanshe, 1981); China Agricultural Yearbook: 1981; State Statistical Bureau, Zhongguo tongji nianjian 1981 (China's Statistical Yearbook 1981) (Beijing: China's Statistical Press, 1982); Zhongguo tongji zhaiyao (Chinese Statistical Abstract) (Beijing: Zhongguo tongji chubanshe), Vols. for 1983 and 1984. State Statistical Bureau, "1982 economic report," Renmin ribao, 10 March 1985, p. 2, gives output figures for 1984. USDA area and yield estimates were used for 1984.

Fertilizer: 1973 and 1974, China Agricultural Yearbook: 1980, p. 43; 1975, Chinese Economic Yearbook Committee, Zhongguo jingji nianjian, 1981 (China's Economic Yearbook, 1981) (Beijing: Jingji guanli zazhishe chuban, 1981), VI-13, p. 41; 1976 and 1977, China Agricultural Yearbook: 1980, p. 43; 1978, China's Statistical Yearbook, 1981, p. 182; 1979, China's Economic Yearbook, 1981, p. 41; 1980 and 1981, China's Statistical Yearbook. 1981, p. 182; 1982 and 1983, Chinese Statistical Abstract, 1983, p. 33 and 1984, p. 38.

Horsepower: 1973-79, China Agricultural Yearbook: 1980, p. 39; 1980 and 1981, China's Statistical Yearbook 1981, p. 171; 1982 and 1983, Chinese Statistical Abstract, 1983, p. 32

'China's leaders attribute much of the gains in recent years, particularly 1981-1984, to the use of the production responsibility and the baogan systems. For example, Hu Yaobang, chairman of the Chinese Communist Party, reported in his speech to the 12th Party Congress, September 1982,

that the gradual introduction of production responsibility systems in which payment is linked to output, along with other changes in rural policies, has had a substantial effect on the agricultural sector and "... vigorous growth has replaced stagnation."18 National agricultural officers are less restrained in their praise. For example, Fan Gan, head of the Ministry of Agriculture, Animal Husbandry and Fishery, attributed the bumper harvests in 1983 to:

The further expansion and extension of the production responsibility system, which relies heavily on the individual and households to make decisions for themselves and ties incomes to their production. 19

Government increases in farm product procurement prices, the opening of rural markets, and the loosening of planning controls constitutes a new environment in which it is possible for the baogan system to realize its potential. While one cannot measure precisely the effect the baogan system has had on raising output and yields, there is clear evidence that the system's impact has been positive. China's farm families have responded favourably to the opportunity to work for their own economic well-being and this new surge of energy has had important repercussions for China's national agricultural output and trade.

^{18.} FBIS, Daily Report: China, 8 September 1982, p. K-3.

^{19.} Ge Dewei, "Weather poor-crop good, thanks to new setup," (China Daily, 14 December 1983, p. 1.

NOTES ON MUNICIPAL FINANCE IN ZHETIANG PROVINCE, CHINA -- FROM A SECTOR STUDY PREPARATION MISSION IN APRIL 1986 David de Feranti

PREFACE

There notes are bared on a very brief introductory visit to Thejiong province. The mission had only six working days in thejiang, followed by a week in Beijing. Much of the time in Thejing was taken up by discussions concerning arrangements for the follow-up sector study mission for later in 1286. The translatore provided had extremely limited English; little documentation was wailable; and hour after hour of lengthy formal speeches had to be suffered through, gobbling up valuable time for data sollection and questioning. One sannot presume in such circumstances to have achieved any notable breakthroughs in understanding a complex subject in a complex country. The surpore of the observations here is thus simply to summarize what was learned, as an assist to the full sector study mission to follow. There undoubtedly will be many points that the follow-up work will sovert or amond.

The notes are organized in sections as follows: · The role of municipal governments in the overall administrative structure of Thejring province · The organization that the of municipal governments · Koverve sources - tapes - user been - revenue from enterprises - transfers from the provincial and central governments · Experditures · Budgetting and pinerial management · Miscellaneous · annex A: The administrative structure of Thejing Province

THE ROLE OF MUNICIPAL GOVERNMENTS IN THE OVERALL ADMINISTRATIVE STRUCTURE OF ZHETIANG PROVINCE Edejiang is one of China's 29 provinces, located in the eastern, contral part of the country, near to the sea coast and only port. from Stangtai. It has a sopulation of 40 million, 4% of the national The pission focussed mainly on two of Thejiang's cities: Hargybon, the provincial capital, and Shisoping. There are a total of eleven places officially designated as cities in Thejing, and over 500 towns. Many of the towns have over 50,000 residents (whech) and a few are rapidly approaching city status. The situation in towns and in the nine cities not visited was divented only at a

very general level. As elsewhere in Chira, Zhejrang's odministrative subdivisions, & prefectures, provincial

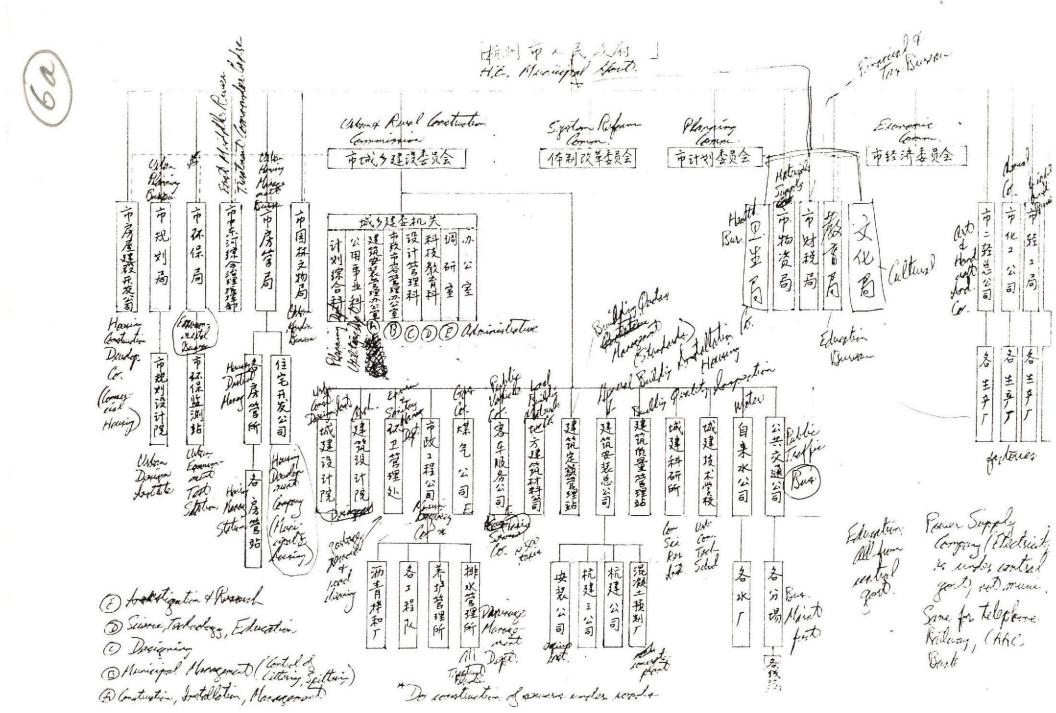
level sites, sounties, "sounty level sites," townships (formerly "communes"), towns, and villages (formerly "brigades"), are linked to one another in a well-defined heiserchial pyramid under the provincial government itself. With cities, distinctions are made between the "juban district," the "built-up area" within the urban district, and the "suburbs", which are the parts of the whan district that are not within the built-up area. Also within the jurisdiction of each city are a number of sounties, largely sural, that surround the usban district. Further details on the administrative structure of the province and its silver

Each sity and town has its own seni-sutoromous government, supervised by the next higher level authority in the heirarchy. The functions of these municipal governments are sonsiderably broader than in most other countries. Bexides the usual functions of providing basic services and infrastructure, municipal governments are responsible for overseeing the state-owned enterprises in their locality, other than those specifically designated as provincial or central government enterprises. They also regulate the many expects of the

@ fill the part of the state in controlling land. They also are the principal entity in bowing construction, rebolilitation, and maintenere, non-state-owned enterprises within their (4) boundaries, including both the collectives and the individually owned retail shops and street versors; often they own and staff numerous collectives. In addition, municipal governments are in starge of controlling land use, land development, and transfers of land use rights from one occupant to another. all land is still owned by the state in third, and in cities the municipal governments although enterprises and private individuals also play important poles in expanding the housing Auppoly. Finally, municipal governments serve as tax dollector for the provincial and central governments, funnelling tax revenues from the enterprises upward; concomitantly they channel grants and loans downward from above, directing investment funds to priority development projects. The list of functions and the ways that municipal authorities carry them out have been undergoing rapid transition recently, spurred in part by the 1984 (wheek) reform that introduced a tax system to replace the requirements that enterprises submit their not revenues to the government. Although municipal authorities still one octive in planning and monitoring food monitoring food mercial and industrial

a starting new sollatives and overseeing ones they own, (5) development generally, they appear to be headed Toward reduced involvement in the operations of gotesprises individually. The thief areas of involvement officials perporting to requests for special investment project purels, manel reviewing tespension plans of enterprises for facts on land use, pollution, employment, and utilization of municipal services (water, etc.). [Check.] In talks with a variety of small, non-state-owned enterprises (repair shops, retail grovery store collectives, street stall versions, and the like, the author found that the perception by enterprise operators of their relationship to the municipal government is not unlike that encountered in other countries; one hears a typical around of non-specific grundling about fow high the tapes are that they "impose on "us." Municipal government staff indicated that this view is characteristic for all but the largest enterprises, which are more closely linked with city officials.

ORGANIZATIONAL STRUCTURE OF MUNICIPAL GOVERNMENT Municipal governments in Ekejiang consist of a) central bureaux, (ii) service enterprises, which provide ustan services (water, bus transport, housing, etc.) (ii) nother state-owned enterprises essigned to the municipality, which produce ordinary goods and services, and (iv) some perterprises that, though technically collection "rather than state-owned, are in fact owned and supervised by the municipality. it rober themas a rouse for Nopplement promise progress In practice, when sity officials talk about their government, they mean the central bureaux and service enterprises, or frequently just the central bureaux. On organization start for the city of Haregbon is attached Thankete and redo chart from city staff. Orrore the central bureaux, the Osban and Rural Construction Commission plays a pay oversight and soordinating role. The financial and lax Bureau, also reporting derectly to the mayor, peeps the budget and collects takes and other revenue. The collectives owned and supervised by the "The distinction between state-owned and not state-owned in this case was explained to the author as, first, state-owned enterprises would have controlled prices and, second, they would have guaranteed access to raw materials.



construction of source works works

municipality have recently become much more namerous, reputedly we actively engaged in setting up and steffing new such collectives. The author spoke with steff of me collectives. I with steff of one collective, a specialty equipment shop, that has only two employees and has been in epistence only six months. If the interest of the manicipal authorities in this "local government" entrepreneurship" is twofold, First, they see it A 3 3 as a source of more municipal revenue; because they own " each operation, they can take a larger store of the net profit, if they like, than if the getily were independent and therefore under the tox system for conventional collectives. Second, it is a nears to weating jobs needed for the expanding number of workers in the cities and towns. There are many points about there municipally owned collectives that bear further looking into. One question is whether the net sexult is simply to proliferate many small inherently inefficient anterprises.

Thejard's municipal governments get their revenue from four types of sources: takes, user fees, remitterce by certain enterprises of their net profits, and transfers from the two higher levels of government, provincial and central.

Taxer

The specific tapes tollected by the municipalities are listed and described in Table 1.

Some tapes are revered exclusively for the municipality. In the same of others a proportion is sent on to the provincial government which in turn sends on a part to the contral government.

About two thirds of the total tap revenue sollected at the municipal level is porread up to the higher levels perfecting the local officials!

Role as tax sollector for provincial and central authorities. The only entities that municipal governments do not sollect the tapes of within their boundaries, are the state-owned enterprises assigned to the province or central government.

The sevenue from all the topes sollected locally

is seconded in single pooled account, without.

- - initially at least - - distinguishing between

	Table 1	(All this needs to be sharked in detail.)
TAXES COLLECTED	BY MUNICIPAL GOVER	ENHEUTS IN ZHEJIANG PROVINCE
Tax	Who Pays? "	What Rate?
1. Production Tax	All enterprises classified ergaged in primary or tion, excluding agricult	das Enterprise pays a persent of its gross value rodue. of output. The person tage rate varies
		it is now about 5%; for signsetter
2. Value added Tax	All enterprises classified ergaged in intermedia production. I	las Enterprise pays a percent of quose value te added.
3. Operating Tax	All enterprises christical argaged in production find consumption, in commercial, transport construction, and serve activities " Most small and individually owned prises fall in this sates	cluding Rates wary, from as low as 2% to sice collective enter-
Tax, lint not the o	other two. The elassifican	I son-state-owned enterprises, except as noted, iculture) in the Brookertion Tax, Value Oboled Tax, or Operating ton of industries on either primary, intermodiste, arming taponomy weed in their

Table 1 - - continued 4. Industrial and all enterprises, except small Enterpise pays a percent of its profit, or set revenue. Rete is now 55%. Commercial Tax mon-state-owned stops (ICT)31 and verdore 5. Osban Construction Enterprise pays a percent of the amount all enterprises. and Mainterorce it pays for the Production Tax, Value Tax (UCMT) added Tax, or Operating Tax. For officially designated cities this rate is 7%. For officially designated towns it is 5%. For other places, it is 1%. In somerce, the UCMT is a surcharge on the varie tax that enterprises pay on their gross revenue. 6. Surberge on the All payers of the ICT. Enterprise pays 1% of the around it pays for the ICT. 31 Orrociated with this profits tax is an adjustment Tax, " due to expire not year. The Adjustment Tax was introduced to some the transition from the old system, under which state-pursed enterprises remitted all of their profits to the government, to the new tax-based system, of which the somerstone is the ICT profits tax.

Table I - - continued The enterprises that provide Surcharge on the Enterprise pays a persent of its gross the services subject to feer that users revenue from user fees. Rate is the surcharge. Indirectly, pay for urban maximum sermitted by the central the week. services (water, electricity, transport, government. telephone, etc.) 1 Payee pays a small sevent, wurthy Households and collectives 8. Tox on agriculture ergoged in raising erops about 2%, of income. or livestock. For bonuses up to the equivalent of 9. Taxon Employee Bonuses all enterprises, in years that four months of the employees salery, They pay bonuses to no tax is due. above that around, performence. the enterprise pays a percent of the bonus in tax. The percentage rate increases with the amount of the bonus. 10. Mixellarcous other tapes There is a tax on sall in some places. Enterprises, in warroux special a lax (fine) on late payment of circumstances. takes, and a contracts procedure revenue collected somer from there nources. I Municipalities differ as to which resources are included. 51 Even in the section districts of Thejiang's rities, there is some agriculture. The city of Hangston, with its large tourist trade, sollects a 10% tox

Then subsequently the local stone is determined and the balance is transmitted to the province.

This practice makes it recertary in the description here to first talk about the tax take overall and then the local portion (which is why Table I is as comprehensive as it is).

The Tax Take Overall. The first four topes listed in Table I form the backbone of thirds convent system of generating state revenue, replacing the pre-1989 arrangements. They account for about 90 % of the total tax revenue rollected by Hanggbon city, and about two thirds of its revenue from all sources. For Shaiofing city, similar percentages were found. I (UCMT) The Urban Construction and Mainteronce Taxpix

The Unban Construction and Mainterance Taxxis reserved for the municipality and sesmouthed expressly for levelopment and upokeep on usban infrastructure and services, excluding racial reviews like education and health. The tell revenue obtained by all municipalities in Ebejiang province in 1985 from the UCMT was Y 1.31 billion, accounting for about a third of their total revenue net

There are still quite a few data gaps to be violved on there figures, for both cities. See Table ?

of amounts transmitted to higher levels. (theck: This figure is derived from the provincial staff's buef introduction") The sunbarges on the Industrial and Commercial Tax and on user fees contribute another Y36 million, or _ % of total net revenue of the municipalities. Other topes generate comparatively miror sums of revenue. all terms and particulars of all tokes, including who pays and what the tax rates are, are determined by higher level authorities, leaving the municipalities little suteromy for selecting and fine-tuning tax policies and instruments. The Municipality's Stare of the Total Take. Besides the Osban Construction and Mainterone lax, municipal governments are entitled to keep all of the revenue from the surcharges on the Anderstial and Commercial Tax and on user fees. In most cases, the surcharges, like the UCMT, are samarked for infrastructure and services. In addition, the municipality is permitted to retain a designated percent of the sevenue from all other takes combined. According to one source, the percent limit is now 22 to in some parts of Thejiong. [Need more on Overall, the municipal whome of the total take in Hangghow and Shiaofing in 1985 was: . 31% for Hangston as a whole, and 27% for Horgehou's Oslan District; and

· 38 % for Shiaoping on a whole 35% for its Unban District. - Many municipal authorities are retrorgly that they desporately need increased revenues to meet their surent and anticipated future requirements. They find the present top policy arrangements, with everything of importance decided from above, to be confining. They therefore have begun to seek other ways to increase their revenues. One way that is sometimes itted is to promote local scoronic growth generally. Another is to start more municipally owned collectives, as described above. This latter practice appears to have been speading rapidly in the last few What thus seems to be happening is that the contraints imposed from above on local tax options are forcing localities into other initiations, the full injolications of which are not yet class -- and need to be examined thoroughly. There figures were extinted by the author from the data provided, and need to be checked earefully. The estimates are based on taking the municipality's total experditure as an astimate of its retained Revenue, and compained that figure to the reported total revenue. This

User Food

Host manicipal services have some kind of fee, lent its level is very low relative to the full cost of the service supported. The main was fees charged in Horgaphon sity are lested and described in Table 2.

Rents for bousing units that the municipalities own and marage recover only a small fraction of the total cost including depreciation and interest. One source stated that on everage retionwise, rents would have to be increased by fifteen times their current level in order to cover the total cost. Understandely, therefore, government deliberations about edjusting bouring sents upoward assume that any such stanges would need to be gradual and combined with

for addition to the municipally owned and morroged housing, many enterprises provide housing for employees and their dependents. Enterprises work out their own anargements about rents, which typically are as low or lower than in municipal housing. It last in this sare, though, the municipality loss not have to provide continuing subsidies to sover the maintance and eventual replacement sort.

There is not yet any explicit fee for land use in Thejiang. Rents include no land-selected factor. Experts in Beijing secognize that a land use

MUNICIPAL FINANCE A ZHETIANG PROVINCE, CHINA: PRELIMINARY OBSERVATIONS FROM A SHORT VISIT IN APRIL, 1986 PREFACE This role is based on a six-day visit, much of which was taken up by discussions

	Table 2	
FEES	CHARGED FOR MUNICIPAL SERVICES	
	IN HANGZHOU CITY, ZHETIANG PROVINCE	

Drey worth

	IN	HANGZHOU CITY, ZHETIANG PROVINCE		average year.
			Extent for	
	Fee	Description	Extent of Cost Recovery from Vaces	(E) which is a central government entity.
	Housing nent"	Depends on quality and size of housing unit.	Very low. In one project; fees	Diorpany ore supposedly secovered in an average
		"Typical" rate is reportably about Y0,20	apparently cover 20% of building	recovered in an average
		per square mater \$2 For a "Typical" unit of	mainterence costs, implying a much	year.
\		8 square meters per person, a household at		
>	1	that rate would pay less than 4% of its ?		
	Landuse charge 3	Not yet implemented, and no rate set	None	
	Water .	Y 0.10 per ton all buildings are	95-100% of the operating works of	and the second second
		reportably matered, but not individual	the sity's water supply enterprise	
		housing units.	are supposedly recovered from users in	on average year, ()
	Has (for besting,)	Y 0,25 per kilogram.	More than two thirds, but less than 95;	To of the operating @
	Electricity	Y 0. 165 per KWH. All buildings are metered.	More than two thirds but less than 95%. Notowailable this visit. Here to go so	se the electricity enterprise,
	Bus transport 5	Depends on distance. Minimum fare is Y0,05.	95-100% of the operating costs of the	city's les transport &
	Health race 6	Patient pays 40,20 for initial visit and	Not wailable this visit. Have to go re	ce the health burgur.
		Y0,10 for follow-up visit. Patient pays	O	
		no etta charges for special services or		
		injestient accomodation (Hack). However,		
		the enterprise at which patient works		
		is charged for a "substantial" fraction of		
		the health save sort.		
	Education 6	Y7 per term for primary rebool. Y10	Not wailable this visit. Have to go,	see the solvention buresu.
		per term for middle rebool. Higher	0	
		levels are at no charge.		

(16)

Diosts of the city's gas
supposedly exterprise are
supposedly recovered in an
average year.

table 2 - - continued Description Cost Recovery Effloort direlarge The larger of pay according to the Very low. fees quantity of water-borne pollutants discharged. allove a nationally set stardard, there is on additional surbarge. Misselloneoux Enterprises ore sometimes sharged fees Very low. correction and for costs borne by the city on their account for truction of infrastructure installation fees (roads, parking wear, site surveys, water book-ups). [Further details needed, not available this visit.

Notes to Table 2

For housing owned and managed by the municipality: Housing provided by enterprises is different, and subject to having been payment arrangements determined by the enterprises thanked I Done municipal housing block visited, there was an additional "classing fee" of 10,10 per month. The average cost of maintaining the units was said to be 11.50 per square meter per month, or five times the total arrount (40,20 plus 0.10) being collected from the occupants.

I There seems to be a great deal of confusion about when and if this recently proposed charge will ever some into effect, who will pay it, and whether it will be combined with housing sent. Legislation on land changes is now before the State Couriel of the central government. - However a form of land-related alonge does afist that is not now labelled as such. When a municipality "sells" nowly constructed housing to enterprises (which we them for their employees), the price "charged is based on estimated construction cost including a fee described to the author or "comportation to the municipality for the food that the land on which the houses sit will no longer be available in future for other purposes. "No explanation was fortherming about how this figure is determined, but it is swidently just a one-time

fee. There is no corresponding charge for other land within the municipal limits. 51 The city also has an enterprise that provides tapi service, with over 400 tapes (shock). Health and education services are provided by many different aggrees, under the municipality, province, and certal government. This dispersion of responsibility makes data collection on them difficult. The official said the city also gets sevenue from selling nightsoil, but this was not confirmed.

20

charge is needed, and legislation to implement one is now before the State Courail of the central government. The content of this legislation is being beld in close receive at the moment. Verious experts acknowledged, however, that cortain proposals have been aired that would tie land use charges to the type of use (residential, leavy or light industrial, etc.), the location, and the size and quality of the improvements. Experimental application of land use storges is going on now in four cities officially and many others less formally. A number of smaller towns, impatient to get the revenue, have proceeded with charges of their own design. All proposals being corridered would be levied on enterprises, not households. E fisting fees for water, gas for beating and cooking), and bus transport were said to lover a substantial proportion of operating costs, but the precise interpretation of operating costs needs to be sheeked. Beijing seventhers on when inves said that options for raising fees on a wide range of municipal services are being contemplated. But as with housing, the subject gets enmeshed with wage policy. In is a reparate municipally owned, resvice

Harzybou, Hou

enterprise for each of the following services: water, gas, low transport, take transport, garbage removal and road cleaning, sanitary waste water treatment, construction of municipal housing, construction of streets and bridges, and construction of non-residential buildings. Non is fully self-sustaining financially, although water and bus transport supposedly cover 95-100% of their operating rosts in an average year.

Municipal government accounts as Rept by the Sirarial and Tay Sureau treat as revenue only the income from fees that is remitted by the service enterprise to the central brueaux. Thus in the revenue statistics reported here (inflet and in table 3 especially), fees appear as a small fraction of the total revenue. The only fees appropriy broken out as such in the statistics are for water affluent charges.

Revenue from Enterprises

This sategory ircludes remitterees by municipally owned sollections of their net profit. It may also irclude remitterees of profits from other enterprises under the municipality's jurisdiction.

The exact meaning of the pigures in this estegory

need to be shocked because the explanations given were far from elear. For example it is not obvious why some enterprises should be remitting revenues other than through the tax system.

The amounts of revenue obtained by the cities of Horgzbon and Shaioping in 1985 from all sources are summarized in Table 3.

Transfers from the Provincial and Central Hoverment

Hunicipal governments receive only modest

transfers from higher level authorities in Chira,

enlike many other countries where transfers account

for large fractions of loval exponditure. In Hangshow

(the Orban District) in 1985, transfers commonked

for whan infrastructure and services improvements

and maintenance constituted only 3.5 % of the

total municipal budget. The sity receives other

transfers for other purposes too. Although Sala on

then were not available this time, the total transfer

revenue to the city to was reported to be small.

Transfers are for specific investments, presented as special project proposals by the city authorities to the provincial government, which in turn may askipple from the central government's Ministry for Usban and Rural Construction and Environmental

Table 3 MUNICIPAL GOVERNMENT REVENUES IN TWO CITIES. IN ZHETIANG PROVINCE, 1985 (RMB millions) 1 City of Hangsbou City of Shaioling
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				distance .	
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Notes to Table 3

N.A. = data not available this visit.

Figures include only severues remitted to the municipal governments firence bruseau, That is, they exclude perepues retained by enterprises, including the municipal enter-Drivas that provide water, leas transport and other when services.

- Production Tax, Value Odded lax, and Operating Tax.

- Figure includes some minor other topes which, due to data limitations, could not be broken out reparately.

Figures are from the Tuban worstruction and maintenere lundget. " Need to steck whether any other paid of the manicipal burget is getting neverve from these rouses too, that may not have been included in figures here.

The explorations given the author for this estegory were sonfaced. The most plausible explanation was that this revenue is not profit from manieipally owned enterprises which have not been put or to the new tax-based system because the municipality wants to keep them wroter its own wing as money makers. Need to clack.

El See footrote (3) for why data were viravailable.

El Major item here is reverue from tax on agriculture.

Protection. There do not apprear to be any standard criteria for evaluating project proposals, or any procedure for arreving and comparing the costs and herefits of alterrative projects. Each municipal entity bax its own "wish list," ready to bring out for every visiting dignatory. Some projects are purely functional - for intone truction of new water treatment plants. Others are of a completely different sort - - for example, restoration of historical sites in the West Lake area of Hargyloo. Transfers can be either loans or grants. In principle, if the purpose of the transfer is to support a productive sector project, the transfer is supposed to be a loan. If this you a nonproductive sector, it is grant. Further details need to be obtained during the follow-up musion, particularly on the terms and conditions of loons, (ii) the frequency with which looms in fort one made in lian of quants, and (iii) the spland and timeliners of repayment of loans.

Table 4 MUNICIPAL GOVERNMENT EXPENDITURE: HANGZHOU CITY IN ZHEJIANG PROVINCE, 1985 (RMB millions) Orlan District Total City Administrative Cost 294.68 117,71 Osban Construction and Minterance 130.053 N.A. Roads and bridges 4.15 N.A. Transport 4.05 N.A. 1,90 N.A. Hos 0,48 N.A. Environmental Protection 7.69 N.A. Housing N.A. 5,88 Parks and Harders 10.38 N.A. East Middle River Treatment 45,66 N.A. Transfer to Central Hovermont N.A. 2.72 Other for Energy Costs 9.79 N.A. agriculture, Forestry, Fishing 7.92 46,21 prigation 12,34 1.50 Capital Construction 68.56 66,61 Technology Improvement 58.29 36,69 Environmental Protection 7,17 6.03 21,19 14.75 N.A. = Lata not available this visit. Data for all items under this deading one from the budget for the Unban Construction and Mainterance Bureau. All other items in table in from the budget for the municipal government as a whole.

EXPENDITURES

Expenditure data for municipalities in Thejeory are recorded by broad functional extegories as shown in table 4. These was not time in this visit to delve into what is and is not included in each of these sategories or into the composition of the large "administrative sost" item. Expenditure data by object (wages, materials, etc.) were sequested but never materialized. It appears that Hargefor and Shaioping officials do keep some data by object but do not regard that information as important enough to seep reachity available in summary form.

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Allocation of funds by function is done by a simple extrapolations of past levels, adjusted for new initiatives decided by consultations among the

top city officials. New initiatives are chosen without formal analysis of alternatives. a major allocation issue exists within the stegay of bouring construction. Municipal governments build some bousing of their own and other bousing that they well to enterprises, loices to do one pather than the other have for reaching implications, not the last of which is that municipally maintained housing entails large, continuing subvioles Evidently the stordard opposoch has been to build municipal howing entirely, unless either (i) some enterprises that are expoording succeed in convircing city officials to redevelop a tract for sommercial housing or (ii) the municipality has sun out of funds that year and can only afford to do commercial housing. The city of Staioping, because it was for many years short of funds, built worthy sommercial souring, and now over 50% of all showing series are owned by enterprises. Docisions on the mix of munkaipal housing and commercial housing deserve more careful consideration by inty leader. The advantages of commercial housing, as a way of lightening the subsidy hunder on municipal government, warrant more attention. against these advantages must be weighed the

need to arrow that those families not arrowsted with the better-off enterprises do not get inequitably treated. The entire irrue should be looked into further.

BUDGETTING AND FINANCIAL MANAGEMENT

the two cities visited have a budget process

similar to the in wany other sountines. All of the

contituent parts of each municipal government (the

central bureaux and service enterprises) submit

budget requests to the Financial and Tax Bureaux

each year. The biral budget once approved by the

mayor, is then monitored through the year by the

FTB, which also recorribes the year of excounts.

Final records of actual expenditures are evailable

a few months after the yearly closing.

When a preticular bureau or service enterprise

When a particular bureau or genice enterprise were up a deficit, it son receive a supplement. This loss happen from time to time, apparently without a tangible peralty to the recipiont. When the author asked if the lack of some sort of bond-slap would lessen irrentives to improve efficiency, the answer was "Ho problem; all moragers want to be as afficient as possible."

This bears follow-up. FTB also hardless the details of tax sollection.

All entities subject to tax are expected to make the necessary prayments regularly without swooding. However, once a year staff from the Shaioting FTB go around to every enterprise sollective and individually owned whop to sheek up. Those in arreas are required to pay up on the spot and also are required to pay up on the spot

PROBLEMS AND STRATEGIES

th

Municipal and provincial officials are ocutely aware that the populations of cities and towns in Thejiang will continue to grow rightigantly in the next decade and degood. For Hangghoung the ratual rate of increase (births minus deaths) was reported to be about 2%; inmigration, both legal and illegal, and continued expansion of the floating population (people who work in the city but have their residence registered elsewhere) raises the total growth rate above 2%. For some towns in I beginny, the growth rate is probably much higher than in Haragehon. Local officials recognize all this, They also see thing long-standing controls on migration are becoming ircravingly inclovant now as enforcement is releyed and the importance of the grain ration diminishes as a result of the rive in per upita incomer.

There authorities perceive too that the efisting infrastructure of most vilias and towns in Theiring, particularly in housing, attests, water suppoly, and westernate treatment, is extremely inadequate over for the prevent needs, and will be unable to sope with the additional demands generated by future growth. In the view of some, a large backlog of unnot requirements for infrastructure informements has built up over years of relative neglect of when services. Massive investments will therefore presided over the mest reveral years both to compensate for past insufficiencies as the and to president future apparation.

The firercial requirements for this adjustment period are apperted to be very substantial. For Hongston as a whole, municipal authorities have extinated a need for Y 200 million. They antispete that only about half of that around will be available from episting rousees. This conclusion is bosed on arrang that local revenuex will provide Y 75 million and transfers (from the certal provincial governments and from other rouseex within the municipal governments [who will suppoly another Y 25 million.

Neither the provincial nor the municipal

Neither the provincial nor the municipal officials appear to have developed well articulated strategies for dealing with this problem of a funding gap.

MISCELLANEOUS

a New Tax: On Play in Aira, the China Daily newspaper amounted that a new tax has been approved by the State Coursel, the proceeds of which are intended to aid education. The Fax will be a one penent surtax on the product, value added, and operating Tapes (the first three items in Table 1), and thus will be paid by all enterprises and collectives.

Bossowing. Municipal governments do not engage now in floating bonds or other forms of bossowing for whan infrastructure and services projects. I transfers that the central government makes in the form of lown of our the bis done now. But there arrangements are still for semoved from open market bossowing.) However, enterprises and collectives, including those owned and managed by municipalities are able to bossow — for slample from the state banks. The eftent to which they actually do bossow, in the case of Zhejing,

"Selling" Houses. Howing unite typically remain within a ringle family indefinitely, powered on to yourger generations. Although the municipality (in the save of municipally owned bousing) or the

Danthers hard

enterprise (in the saxe of enterprise - owned pouring)

technically sun savign the unit to someone size,

this rarely happens. From time to time, though, the go

of a unit do give it up, for one reason or another.

In that event, the household can find another

sourcehold to take over the unit and accept a

fee from that household. The level of the fee sun

we negotiated between the two parties; there is no

control on the amount. The bouring authority normally

ogrees to the takeover. This practice was described

informally in a large meeting, and needs to be

verified. Its eftent and implications also reed to

be explored.

Magnitude of Housing forvertment Nationaride. Forvertment in housing has increased desarrationly in secent
years, both in absolute terms and as a percent of the
total capital construction budged. It was 5.5% of
the capital construction budged in 1979, and is
now 19%. The current figure is higher than
in the USSR, which is at 14%. Part of the
reason for the presently high rate is to compensate
for the underinvestment in the post.

On overage nationwide, the maintenance cogt for housing is 12.6 per square meter. But hent i charged in only 12.1. Rand payments now constitute only 2-3% of personal income for an everage household,

THE ADMINISTRATIVE STRUCTURE OF ZHETIANG PROVINCE

Thejang is subdivided into the prefectures and eight was designated at " rities at the somewhat level." There eleven jurisdictions, administratively form the highest tier of the province's governmental tother structure.

The prefectures are subdivided into counties, the sounties into townships (formerly called "communes") and thetownships into willages formerly "brigades"). Each county has at least one center ling enough to be designated as a "country town." Three of the province's country Towns had by 1285 attained the status of " wities at the wonty level. "Ithere three of the sight proviscial level cities form the eleven cities that the provincial statistics refer to when describing usban development. Steps are being taken now to upgrade two other towns to cities, but the description here covers only the

The jurisdictions of the eight provincial level cities are considerably larger than the subanized

outh level wities sole

out of any profesture). sortion at their core. Each of these "cities" (34) consists administratively of an " unban district" and a number of surrounding sounties of The when district convints of a built up area and = suburts. Within the usban district, there are further subdivisions, the largest of which are translated as districts un forturately). Below these districts are "stations" in the organizational avergements used by municipal souring bureaux. A station flowers a single bousing block There are a total of 66 rounties, 508 country towns, and 2729 townships in Thejiang, us of 1985. The provincial city of Hanggbon has levides its when district, seven counties. Shaiping has five courties. Cities, prefectures, counties, county towns, and townships all have their own governments, with staff organized into departments roughly in the same way as the higher level of authority they are answerable to. At the toppis the provincial government itself, which in tun is answerable to the central government. Within auty, the whan district, built-up area,

5/21 Please make sossetions, incorporate tubles in text, retigie (still of draft), send me Jopy such to flordy of Benjamin and give one ropse to me.

NOTES ON MUNICIPAL FINANCE IN ZHEJIANG PROVINCE, CHINA FROM A SECTOR STUDY PREPARATION MISSION APRIL 1986

David M. de Ferranti

PREFACE

These notes are based on a very brief introductory visit to Zhejiang province. The mission had only six working days in Zhejiang, followed by a week in Beijing. Much of the time in Zhejiang was taken up by discussions concerning arrangements for the follow-up sector study mission planned for later in 1986. The translators provided had extremely limited English; little documentation was available; and hour after hour of lengthy formal speeches had to be suffered though, gobbling up walmable time for data collection and questioning. One cannot presume in such circumstances to have achieved any notable breakthroughs in understanding a complex subject in a complex country. The purpose of the observations here is thus simply to summarize what was learned, as an assist to the full sector study mission to follow. There undoubtedly will be many points that the follow-up work will correct or amend.

The notes are organized in sections as follows:

The role of municipal governments in the overall administrative structure of Zhejiang province

The organization of municipal governments

Revenue sources

- taxes
- user fees
- revenue from enterprises
- transfers from the provincial and central governments
- Expenditures
- Budgeting and financial management
- Problems and strategies
- Miscellaneous

Annex A: The administrative structure of Zhejiang Province

THE ROLE OF MUNICIPAL GOVERNMENTS IN THE OVERALL ADMINISTRATIVE STRUCTURE OF ZHEJIANG PROVINCE

Zhejiang is one of China's 29 provinces, located in the eastern, central part of the country near the sea coast and only ___kms. from Shanghai. It has a population of 40 million, 4% of the national figure.

The mission focused mainly on two of Zhejiang's cities: Hangzhou, the provincial capital, and Shaoxing. There are a total of eleven places officially designated as cities in Zhejiang, and over 500 towns. Many of the towns have over 50,000 residents [check] and a few are rapidly approaching city status. The situation in towns and in the nine cities not visited was discussed only at a very general level.

As elsewhere in China, Zhejiang's administrative subdivisions, which include prefectures, "provincial level cities", counties, "county level cities", townships (formerly "communes"), towns, and villages (formerly "brigades"), are linked to one another in a well-defined hierarchical pyramid under the provincial government itself. With cities, distinctions are made between the "urban district", the "built up area" within the urban district, and the "suburbs", which are the parts of the urban district that are not within the built up area. Also within the jurisdiction of each city are a number of counties, largely rural, that surround the urban district. Further details on the administrative structure of the province and its cities are described in Annex A.

Each city and town has its own semi-autonomous government, supervised by the next higher level authority in the hierarchy. The functions of these municipal governments are considerably broader than in most other countries. Besides the usual functions of providing basic services and infrastructure,

municipal governments are responsible for overseeing the state-owned enterprises in their locality, other than those specifically designated as provincial or central government enterprises. They also regulate many aspects of the non-state-owned enterprises within their boundaries, including both the collectives and the individually owned retail shops and street vendors; often they own and staff numerous collectives. In addition, municipal governments are in charge of controlling land use, land development, and transfers of land use rights from one occupant to another. All land is still owned by the state in China, and in cities the municipal governments fill the part of the state in controlling land. They also are the principal entity in housing construction, rehabilitation, and maintenance, although enterprises and private individuals also play important roles in expanding the housing supply. Finally, municipal governments serve as tax collector for the provincial and central governments, funneling tax revenues from the enterprises upward; concomitantly they channel grants and loans downward from above, directing investment funds to priority development projects.

The list of functions and the ways that municipal authorities carry them out have been undergoing rapid transition recently, spurred in part by the 1984 when reform that introduced a tax system to replace the old requirements that enterprises submit their net revenues to the government. Although municipal authorities still are active in planning and monitoring local commercial and industrial development generally, they appear to be headed toward reduced involvement in the operations of enterprises individually. The chief areas of involvement currently are collecting taxes, selecting top officials of enterprise, responding to requests for special

investment project funds, starting new collectives and overseeing ones they own, and reviewing the expansion plans of enterprises for effects on land use, pollution, employment, and utilization of municipal services (water, etc.).

[Check]

In talks with a variety of small, non-state-owned enterprises (repair shops, retail grocery store collectives, street stall vendors, and the like), the authors found that the perception by enterprise and collective operators of their relationship to the municipal government is not unlike that encountered in other countries; one hears a typical amount of non-specific grumbling about how high the taxes are that "they" impose on "us". Municipal government staff indicated that this view is characteristic of all but the largest enterprises, which are more closely linked with city officials.

ORGANIZATIONAL STRUCTURE OF MUNICIPAL GOVERNMENT

Municipal governments in Zhejiang consist of (i) central bureaus; (ii) service enterprises, which provide urban services (water, bus transport, housing, etc.); (iii) the other state-owned enterprises assigned to the municipality, which produce ordinary goods and services; and (iv) some additional enterprises that, though technically "collectives" rather than state-owned, $\frac{1}{2}$ are in fact owned and supervised by the municipality.

In practice, when city officials talk about their government, they mean the central bureaus and service enterprises, or frequently just the central bureaus. An organization chart for the city of Hangzhou is attached [translate and redo chart from city staff].

The distinction between state-owned and not state-owned in this case was explained to the author as, first, state-owned enterprises would have controlled prices and, second, they would have guaranteed access to raw materials.

Among the central bureaus, the Urban and Rural Construction

Commission plays a key oversight and coordinating role. The Financial and Tax

Bureau, also reporting directly to the mayor, keeps the budget and collects

taxes and other revenue.

The collectives owned and supervised by the municipality have recently become much more numerous, according to one source. Some towns and cities reputedly are actively engaged in setting up and staffing new such collectives. They provide the funds and building, while the individuals recruited to run the operation just do the work. The author spoke with staff of one collectives, specialty equipment shop, the bas only two employees and has been in existence only six months.

The interest of the municipal authorities in this "local government entrepreneurship" is twofold. First, they see it as a source of more municipal revenue; because they "own" each operation, they can take a larger share of the net profit, if they like, than if the entity were independent and therefore under the tax system for conventional collectives. Second, it is a means to creating jobs needed for the expanding number of workers in the cities and towns.

There are many points about these municipally owned collectives that bear further looking into. One question is whether the net result is simply to proliferate many small, inherently inefficient enterprises.

REVENUE SOURCES

Zhejiang's municipal governments get their revenue from four types of sources: taxes, user fees, remittance by certain enterprises of their net profits, and transfers from the two higher levels of government, provincial and central.

Taxes

The specific taxes collected by the municipalities are listed and described in Table 1.

Some taxes are reserved exclusively for the municipality. In the case of others, a proportion is sent on to the provincial government, which in turn sends on a part to the central government. About two-thirds of the total tax revenue collected at the municipal level is passed up to the higher levels, reflecting the local officials' role as tax collector for provincial and central authorities. The only entities that municipal governments do not collect the taxes of, within their boundaries, are the state-owned enterprises assigned to the province or central government.

The revenue from all taxes collected locally is recorded in a single pooled account, without — initially at least — distinguishing between the shares due to each governmental level. Then problemently, the local share is determined and the balance is transmitted to the province.

This practice makes it necessary in the description here to first talk about the tax take overall and then the local portion (which is why Table 1 is as comprehensive as it is).

The Tax Take Overall. The first four taxes listed in Table 1 form the backbone of China's current system of generating state revenue, replacing the pre-1984 arrangements. They account for about 90% of the total tax revenue collected by Hangzhou city, and about two-thirds of its revenue from all sources. For Shaoxing city, similar percentages were found. $\frac{1}{}$

^{1/} There are still quite a few data gaps to be resolved on these figures; for both cities. See Table 3.

The Urban Construction and Maintenance Tax (UCMT) is reserved for the municipality and earmarked expressly for development and upkeep on urban infrastructure and services, excluding social services like education and health. The revenue obtained by <u>all</u> municipalities in Zhejiang province in 1985 from the UCMT was Y1.31 billion, accounting for about a third of their total revenue net of amounts transmitted to higher levels. [Check: This figure is derived from the provincial staff's "brief introduction".

The surcharges on the Industrial and Commercial Tax and on user fees contribute another Y36 million. % % of total net revenue of the municipalities. Other taxes generate comparatively minor sums of revenue.

All terms and particulars of all taxes, including who pays and what the tax rates are, are determined by higher level authorities, leaving the municipalities little autonomy for selecting and fine-tuning tax policies and instruments.

The Municipality's Share of the Total Take. Besides the Urban

Construction and Maintenance Tax, municipal governments are entitled to keep

all of the revenue from the surcharges on the Industrial and Commercial Tax an

on user fees. In most cases, the surcharges, like the UCMT, are earmarked for

infrastructure and services.

In addition, the municipality is permitted to retain a designated percent of the revenue from all <u>other</u> taxes combined. According to one source, the percent limit is now 22% in some parts of Zhejiang. [Need more on this.]

Overall, the municipal share of the total take in Hangzhou and Shaoxing in 1985 was:

31% for Hangzhou as a whole, and 27% for Hangzhou's Urban District; and

38% for Shaoxing as a whole, and 35% for its Urban District. $\frac{1}{2}$

Many municipal authorities argue strongly that they desperately need increased revenues to meet their current and anticipated future requirements. They find the present tax policy arrangements, with everything of importance decided from above, to be confining. They therefore have begun to seek other ways to increase their revenues. One way that is sometimes cited is to promote local economic growth generally. Another is to start more municipally owned collectives, as described above. This latter practice appears to have been spreading rapidly in the last few years.

What thus seems to be happening is that the constraints imposed from above on local tax options are forcing localities into other initiatives, the full implications of which are not yet clear -- and need to be examined thoroughly.

These figures were estimated by the author from the data provided, and need to be checked carefully. The estimates are based on taking the municipality's total expenditure as an estimate of its retained revenue, and comparing that figure to the reported total revenue. This approach would need to be modified if the municipality has some retained revenue that it doesn't spend.

User Fees

Most municipal services have some kind of fee, but its level is very low relative to the full cost of the service supplied. The main user fees charged in Hangzhou city are listed and described in Table 2. Rents for housing units that the municipalities own and manage recover only a small fraction of the total cost including depreciation and interest. One source stated that on average nationwide, rents would have to be increased by fifteen times their current level in order to cover the total cost. Understandably, therefore, government deliberations about adjusting housing rents upward assume that any such changes would need to be gradual and combined with wage level reforms.

In addition to the municipally owned and managed housing, many enterprises provide housing for employees and their dependents. Enterprises work out their own arrangements about rents, which typically are as low or lower than in municipal housing. At least in this case, though, the municipality does not have to provide continuing subsidies to cover the maintenance and eventual replacement cost.

There is not yet any explicit fee for land use in Zhejiang. Rents do not include cland-related factor. Experts in Beijing recognize that a land use charge is needed, and legislation to implement one is not before the State Council of the central government. The content of this legislation is being held in close secrecy at the moment. Various experts acknowledged, however, that certain proposals have been aired that would tie land use charges to the type of use (residential, heavy or light industrial, etc.), the location, and the size and quality of the improvements. Experimental application of land use charges is going on now in four cities officially and many others less

formally. A number of smaller towns, impatient to get the revenue, have proceeded with charges of their own design. All proposals being considered would be levied on enterprises, not households.

Existing fees for water, gas (for heating and cooking), and bus transport were said to cover a substantial proportion of <u>operating</u> costs, but the precise interpretation of operating costs needs to be checked. Beijing researchers on urban issues said that options for raising fees on a wide range of municipal services are being contemplated. But as with housing, the subject gets enmeshed with wage policy.

In Hangzhou, there is a separate municipally owned service enterprise for <u>each</u> of the following services: water, gas, bus transport, taxi transport, garbage removal and road cleaning, sanitary waste water treatment, construction of municipal housing, construction of enterprise housing, construction of streets and bridges, and construction of non-residential buildings. None are fully self-sustaining financially, although water and bus transport supposedly cover 95-100% of their operating costs in an average year.

Municipal government accounts as kept by the Financial and Tax Bureau treat as revenue only the income from feet that is remitted by the service enterprise to the central bureaus. Thus, in the revenue statistics reported here (in the text and in Table 3 especially), fees appear as a small fraction of the total revenue. The only fees expressly broken out as such in the statistics are for water effluent charges.

Revenue from Enterprises

This category includes remittances by the municipally owned collectives of their net profit. It may also include remittances of profits from other enterprises under the municipality's jurisdiction.

The exact meaning of the figures in this category needs to be checked because the explanations given were far from clear. For example, it is not obvious why some enterprises should be remitting revenues other than through the tax system.

The amounts of revenue obtained by the cities of Hangzhou and Shaoxing in 1985 from all sources are summarized in Table 3.

Transfers from the Provincial and Central Government

Municipal governments receive only modest transfers from higher level authorities in China, unlike many other countries where transfers account for large fractions of local expenditure. In Mangehod the Urban District in 1985, transfers earmarked for urban infrastructure and services improvements and maintenance constituted only 3.5% of the total municipal budget. The city receives other transfers for other purposes too. Although data on them were not available this time, the total transfer revenue to the city was reported to be small.

Transfers are for specific investments, presented as special project proposals by the city authorities to the provincial government, which in turn may ask for help from the central government's Ministry for Urban and Rural Construction and Environmental Protection. There do not appear to be any standard criteria for evaluating project proposals, or any procedure for assessing and comparing the costs and benefits of alternative projects. Each municipal entity has its own "wish list", ready to bring out for every visiting dignitary. Some projects are purely functional — for instance, construction of new water treatment plants. Others are of a completely different sort — for example, restoration of historical sites in the West Lake area of Hangzhou.

Transfers can be either loans or grants. In principle, if the purpose of the transfer is to support a "productive sector" project, the transfer is supposed to be a loan. If it is for a "nonproductive sector", it is a grant. Further details need to be obtained during the follow-up mission, particularly on (i) the terms and conditions of loans, (ii) the frequency with which loans in fact are made in lieu of grants, and (iii) the extent and timeliness of repayment of loans.

EXPENDITURES

Expenditure data for municipalities in Zhejiang are recorded by broad functional categories as shown in Table 4. There was not time in this visit to delve into what is and is not included in each of these categories, or into the composition of the large "administrative cost" item. Expenditure data by object (wages, materials, etc.) were requested but never materialized. It appears that Hangzhou and Shaoxing officials do keep some data by object but do not regard that information as important enough to keep readily available in summary form.

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Allocation of funds by function is done by simple extrapolations of past levels, adjusted for new initiatives decided by consultations among the top city officials. New initiatives are chosen without formal analysis of alternatives.

15-15

A major allocation issue exists within housing construction. Municipal governments build some housing of their own and other housing that they sell to enterprises (translated as "commercial housing"). Choices to do one rather than the other have far-reaching implications, not the least of which is that municipally maintained housing entails large, continuing subsidies. Evidently the standard approach has been to build municipal housing entirely, unless either (i) some enterprises that are expanding succeed in convincing city officials to redevelop a tract for commercial housing or (ii) the municipality has run out of funds that year and can only afford to do commercial housing The city of Shaoxing, because it was for many years short of funds, built mostly commercial housing, and of all housing units are owned by enterprise unlikely Decisions on the max of municipal housing and commercial housing deserve more careful consideration by city leaders. The advantages of commercial housing, as a way of lightening the subsidy burden on municipal government, warrant more attention. Against these advantages must be weighed the need to assure that those families not associated with the better off enterprises do not get inequitably treated. The entire issue should be looked into further.

BUDGETING AND FINANCIAL MANAGEMENT

The two cities visited have a budget process similar to that in many other countries. All of the constituent parts of each municipal government (the central bureaus and service enterprises) submit budget requests to the Financial and Tax Bureau (FTB) each year. The final budget, once approved by

the mayor, is then monitored through the year by the FTB, which also reconciles the year-end accounts. Final records of actual expenditures are available a few months after the yearly closing.

When a particular bureau or service enterprise runs up a deficit, it can receive a supplement. This does happen from time to time, apparently without a tangible penalty to the recipient. When the author asked if the lack of some sort of hand slap would lessen incentives to improve efficiency, the answer was "No problem; all managers want to be as efficient as possible". This beams fallow up.

FTB also handles the details of tax collection. All entities subject to tax are expected to make the necessary payments regularly without prodding. However, once a year, staff from the Shaoxing FTB go around to every enterprise, collective, and individually owned shop to check up. Those in arrears are required to pay up on the spot and also are assessed a fine for lateness.

PROBLEMS AND STRATEGIES

Municipal and provincial officials are acutely aware that the populations of cities and towns in Zhejiang will continue to grow significantly in the next decade and beyond. For Hangzhou (whole city), the natural rate of increase (births minus deaths) was reported to be about two percent; inmigration, both legal and illegal, and continued expansion of the "floating population" (people who work in the city but have their residence registered elsewhere) raises the total growth rate above two percent. For some towns in Zhejiang, the growth rate is probably much higher than in Hangzhou. Local officials recognize all this. They also see China's long-

standing controls on migration are becoming increasingly irrelevant now as enforcement is relaxed and the importance of the grain ration diminishes as a result of the rise in per capita incomes.

These authorities perceive too that the existing infrastructure of most cities and towns in Zhejiang, particularly in housing, streets, water supply, and wastewater treatment, is extremely inadequate even for the present needs, and will be unable to cope with the additional demands generated by future growth. In the view of some, a large backlog of unmet requirements for infrastructure improvements has built up over years of relative neglect of urban services. Massive investments will therefore be needed over the next several years both to compensate for past insufficiencies and to accommodate future expansion.

The financial requirements for this adjustment period are expected to be very substantial. For Hangzhou as a whole, municipal authorities have estimated a need for Y200 million. They anticipate that only about half of that amount will be available from existing sources. This conclusion is based on according that local revenues will provide Y75 million, and transfers (from the central and provincial governments and from other sources within the municipal government [check]) will supply another Y25 million.

Neither the provincial nor the municipal officials appear to have developed well articulated strategies for dealing with this problem of a funding gap.

MISCELLANEOUS

A New Tax. On the author's last day in China, the China Daily newspaper announced that a new tax has been approved by the State Council, the proceeds of which are intended to aid education. The tax will be a one

percent surtax on the product, value added, and operating taxes (the first three items in Table 1), and thus will be paid by all enterprises and collectives.

Borrowing. Municipal governments do not engage now in floating bonds or other forms of borrowing for urban infrastructure and services projects. (Transfers that the central government makes in the form of loans, discussed above, are the closest thing to general municipal borrowing that is done now. But these arrangements are still far removed from open market borrowing.) However, enterprises and collectives, including those owned and managed by municipalities, are able to borrow — for example, from the state banks. The extent to which they actually do borrow, in the case of Zhejiang, is not clear.

"Selling Houses". Housing units typically remain within a single family indefinitely, passed on to younger generations. Although the municipality (in the case of municipally owned housing) or the enterprise (in the case of enterprise owned housing) technically can assign the unit to someone else, this rarely happens. From time to time, though, the occupants of a unit do give it up for one reason or another. In that event, the household can find another household to take over the unit and accept a fee from that household. The level of the fee can be negotiated between the two parties; there is no control on the amount. The housing authority normally agrees to the takeover. This practice was described informally in a large meeting, and needs to be verified. Its extent and implications also need to be explored.

Magnitude of Housing Investment Nationwide. Investment in housing has increased dramatically in recent years, both in absolute terms and as a percent of the total capital construction budget. It was 5.5% of the capital

construction budget in 1979, and is now 19%. The current figure is higher than in the USSR, which is at 14%. Part of the reason for the presently high rate is to compensate for the underinvestment in the past.

On average nationwide, the maintenance cost for housing is Y2.6 per square meter. But the rent charged is only Y2.1. Rent payments now constitute only 2-3% of personal income for an average household.

ANNEX A

THE ADMINISTRATIVE STRUCTURE OF ZHEJIANG PROVINCE

Zhejiang is subdivided into three prefectures and eight areas designated as "cities at the provincial level". These eleven jurisdictions, administratively independent of one another and non-overlapping, form the highest tier of the province's governmental structure.

The prefectures are subdivided into counties, the counties into townships (formerly called "communes"), and the townships into villages (formerly "brigades"). Each county has at least one center big enough to be designated as a "county town". Three of the province's county towns had, by 1985, attained the status of "cities at the county level".

These three county level cities, plus the eight provincial level cities, form the eleven cities that the provincial statistics refer to when describing urban development. Steps are being taken now to upgrade two other towns to cities, but the description here covers only the eleven.

The jurisdiction of the eight provincial level cities are considerably larger than the urbanized portion at their core. Each of these "cities" consists administratively of an "urban district" and a number of surrounding counties (which are clearly affiliated with their city and are not part of any prefecture). The urban district consists of a "built up area" and "suburbs". Within the urban district, there are further subdivisions, the

largest of which are translated as "districts" (unfortunately). Below these districts are "stations" in the organizational arrangements used by municipal housing bureaus. A station typically covers a single housing block.

There are a total of 66 counties, 508 county towns, and 2,729 townships in Zhejiang, as of 1985.

The provincial city of Hangzhou has, besides its urban district, seven counties. Shaoxing has five counties.

Cities, prefectures, counties, county towns, and townships all have their own governments, with staff organized into departments roughly in the same way as the higher level authority they are answerable to. At the top of this hierarchical pyramid is the provincial government itself, which in turn is answerable to the central government. Within each city, the urban district, built up area, suburbs, districts, and stations are administered by one combined municipal government.

Call Ken Will on China Ken - Cenaus Bureau 763 - 4276

file

OFFICE MEMORANDUM

DATE April 18, 1986

TO Mr. David de Ferranti, Chief, WUDOD

FROM Michael A. Cohen, Advisor, Policy and Research, WUDSR

EXTENSION, 61451

SUBJECT Terms of Reference: CHINA, TURKEY, UNITED KINGDOM

- 1. From April 27 through May 9, you will participate in an AEPUW mission to China to initiate an urban services sector study of Zhejiang Province. You will be responsible for urban finance issues within the context of the mission's terms of reference dated April 7, 1986 (attached).
- 2. From May 11 through about May 14, you will attend the UNCHS Commission meeting in Istanbul, Turkey. In sessions there with country representatives and donor officials, you will discuss recent research findings and exchange views on priorities for future research.
- 3. From about May 14 through May 16, you will visit London to talk with ODA and DPU researchers about possibilities for collaborative efforts.
- 4. In addition to contributing to the aide-memoire for the China mission, you will prepare, on your return, a Back-to-Office Report covering the Turkey and U.K. stops.

Cleared and cc: Messrs. CuKok, AEP; Mitchell, EMPUR

cc: Messrs. Rajagopalan, PPDDR (3)
Churchill, Costa, Cook, Walters, Jones, Armstrong-Wright,
Renaud, Satin, Ms.Jackson, WUD
Kirmani, Blaxall, Sud, Hamer, EAP
Kaji, Koch-Weser, Ahmed, AEA
Vorkink, LEGAE
Picciotto, Goffin, Ljung, EMP
Stoutjesdijk, Chaffey, Murli, EM2
Hassan, LEGEM
Arlosoroff, Read (acting), Potashnik, Mrs. Saunders, WUDSR

DdeFerranti:dj

OFFICE MEMORANDUM

DATE April 7, 1986

Messrs. Cu Kok, Hamer (AEPUW); de Ferranti (WUD); Bertaud (CON)

FROM Inder K. Sud, Chief, AEPUW

EXTENSION 76383

SUBJECT CHINA - Provincial Urban Services Sector Study
Terms of Reference

- 1. On or about April 27, you will arrive in Hangzhou to begin preparation for the urban services sector work in Zhejiang Province, China. During the preparatory mission, you should:
 - (a) reach agreement with the central and provincial governments regarding the objectives and scope of the proposed sector work;
 - (b) discuss and reach agreement with the central and provincial governments regarding the formation and composition of counterpart teams that will be working with different mission team members;
 - (c) determine the nature and extent of information that would be required; and
 - (d) identify the prospective candidates who would be preparing substantial papers on particular topics of interest.
- In Hangzhou, you will meet and discuss with, among others, officials from the Provincial Construction Bureau, the Economic and Planning Bureau, and the Finance Bureau. Upon the completion of your work in Hangzhou, you will proceed to Beijing, where you will meet with and brief officials from the central ministries, notably the Ministry of Urban and Rural Construction and Environmental Protection, the State Planning Commission, the State Statistics Bureau, the System Reform Commission, and the Ministry of Finance. In both Hangzhou and Beijing, in view of your more general objective of establishing contacts with experts dealing with the urban sector, you will meet with researchers, academics, and others engaged in urban and regional development work.
- 3. You will leave an aide-memoire summarizing your findings and the results and agreements of your discussions with both provincial and central level officials. You will keep the Resident Mission informed.
- 4. Upon return to Washington, you will prepare the initiating memorandum.

Cleared w/&cc: Mr. Ahmed (AEACH)

cc: Messrs. Koch-Weser, Ahmed (AEACH); Turnham, Costa (WUD):

Lim (AEACF); Asia Files

BCu Kok:fq/B3a19

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THE FOREIGN TRADE PORT OF NINGBO

Ningbo City Statistics Bureau

Ningbo, a well-known port city in Southeast China, is a major Chinese trading port and one of the 14 coastal cities designated in 1984 for the further introduction of foreign investment. With pleasant weather, fertile land, rich mineral resources and a natural deep-water harbour, it has been the political, economic, cultural and communications centre of east Zhejiang Province since ancient times. The city is also a tourist resort, well known for picturesque hills and lakes and numerous sites of historical interest.

GEOGRAPHY

Ningbo, situated on the East China coast at the southeastern tip of the Yangtze Delta, is located at 28°51′ and 30°33′ North, and 120°55′ and 122°16′ East. It faces the sea in the east, with the Zhoushan Islands off the coast providing a natural defence. In between Sanmen Bay in the south and Hangzhou Bay in the north, it is bounded by the Sanman and Tiantai counties of Taizhou Prefecture in the south, and the Shangyu, Chenxian and Xinchang counties of Shaoxing City in the west.

Ningbo slopes slowly from southwest to northeast, with the southeastern part being hilly and the central and northeastern parts being fertile Ningbo-Shaoxing alluvial plains, criss-crossed by rivers. The Siming Mountains snake across Yuyao, Fenghua and Qingxian counties in the west. The Tiantai Mountains originally included what are now known as the Zhoushan Islands. Scientists believe that the Islands were separated from the land through slow but steady geological movement over many centuries.

Ningbo has a coastline of 830 km. Its islands have coastlines totalling 600 km. Most of the land in the northwest of the area is sandy, good for cotton growing and salt-making. The southeastern part has numerous polders along a rocky coast and is ideal for seafood production and harbour construction. Ningbo City is an important foreign trade port, and Shipu is one of the four major fishing harbours in Zhejiang Province.

Major rivers in the Ningbo area include the Yongjiang, Yuyao, and Fenghua rivers, which total 5,400 km² in length. Lesser rivers include the Qiantang, Zhongtang and Houtang rivers in Dongxiang Town in Qinxian County, and the Nantang, Xizhongtang and Xitang rivers in Xixiang Town.

A canal is being dug to link the area with the ancient Grand Canal from Hangzhou to Beijing. The 22 km²-Dongqian Lake is the largest in Zhejiang Province.

Ningbo has a subtropical monsoon climate, with a temperature averaging at 16.2°C annually, and a frost-free period of between 230 and 240 days. There is an annual rainfall of between 1,300 and 1,400 mm.

Ningbo has rich mineral resources, with 35 verified minerals, including lead, zinc, magnetite, pyrite, vitrain, gypsum, clay, alunite, fluorite, kaolin, tuff, silica marble, perlite, bentonite, pyrauxite and granite. Deposits of these minerals are large and easy to exploit.

ECONOMIC DEVELOPMENT

In 1984 the city's gross industrial and agricultural output value reached RMB¥9.708 bn, with a national income of RMB¥4.87 bn, or RMB¥1,009 per capita.

Industry

Industry constitutes the mainstay of Ningbo's economy. In 1984 the gross industrial output value amounted to RMB¥6.644 bn. Over 420,900 people work in factories and mines. Light, textile, machinery, petroleum, chemical and foodprocessing enterprises constitute the major part of the industrial sector, and are well coordinated by power, electronic, pharmaceutical, metallurgical and building materials industries as well as communications and arts and crafts facilities. Many of the industrial products are well known in China and overseas. The city exports 300 products, and 222 of its products have been awarded quality prizes. Major products include chemical fertilisers, pesticides, acid and soda, petroleum products, internal-combustion engines, power generators, transformers, ships, cars, tractors, machine tools, water meters, microscopes, chemical fibre, gauze, cotton prints, silk fabrics and knitwear.

Traditional arts and craft articles include bone and wood inlaid ware, embroidered clothing, silver- and gold-thread embroideries, lacquerware, straw mats, hand-woven carpets, bamboo-splint woven and straw-woven articles.

Agriculture

Ningbo is the major producer of grain, cotton and aquatic products in Zhejiang Province. Traditional native products include shellfish, straw matting, bamboo, bamboo shoots, peaches, seedless tanger-

ines, citrus fruit, strawberries, blood clams, razor clams, oysters, field snails, grouper and geese, as well as flowers and potted landscapes which sell well both at home and abroad.

The gross agricultural output value in 1984 was RMB¥3.063 bn. The total output of grain reached 2.137 mn tonnes, of cotton, 70,000 tonnes and of rapeseed, 60,000 tonnes.

There is more than 453,000 ha of hilly land in Ningbo, where bamboo, bamboo shoots, tea and fruit are grown. In 1984 the city produced 10.63 mn tonnes of bamboo, 28,890 tonnes of bamboo shoots, 12,000 tonnes of tea and 55,000 tonnes of fruit.

In 1984 Ningbo raised 1.79 mn pigs and produced 48,660 tonnes of pork. Its 3,374 dairy cattle produced 6,540 tonnes of milk. The number of sheep and rabbits in stock was 93,200 and 352,270 respectively, at the end of 1984. In addition, the city raised 11.55 mn head of poultry producing 24,080 tonnes of eggs. It also kept 230,000 hives of bees, which produced 10,765 tonnes of honey.

Ningbo has 80,000 ha of shallow sea waters and 20,000 ha of polder land. In 1984 the city produced 12,500 tonnes of aquatic products, including 12,000 tonnes of sea water products and 8,715 tonnes of freshwater products.

Transport and Telecommunications

Ningbo is an important centre of water and land communications for the coastal areas of east Zhejiang Province, with rivers, railways, roads and air links extending to many parts of the country. In 1984, 18.1 mn tonnes of cargo and 60.16 mn passengers were handled. Ningbo Port handled 5.97 mn tonnes of cargo and 1.98 mn passengers.

Ningbo Harbour has 21 berths for ships with a carrying capacity ranging from 3,000 to 100,000 tonnes. It covers the Beicang, Zhenhai and Ningbo port areas with a designed cargo-handling capacity of 26.7 mn tonnes. The Beicang Harbour area, with a 20-m deep waterway, is iceand silt-free, and most of the 100,000-

tonne class ships arriving and departing from China are loaded and unloaded here. Eight berths are being built for 25,000-tonne, 10,000-tonne and 5,000-tonne class ships.

Shipping routes link Ningbo with Shanghai, Dinghai, Shenjiamen, Mount Putuo, Wenzhou, Haimen, Xiangshan, Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Fuzhou, Xiamen, Guangzhou, Zhanjiang and Hong Kong, as well as destinations in Japan and Korea. Ningbo also operates irregular shipping services with a dozen other countries including Thailand, Singapore, Australia, the Philippines, Canada, the United States and the Soviet Union. In 1984, 2.07 mn tonnes of cargo and 1.09 mn passengers was transported by sea.

Ningbo is the eastern terminal of the Xiaoshan-Ningbo Railway, which is linked with the Shanghai-Hangzhou, the Zhejiang-Jiangxi and other railway lines. The 147-km Xiaoshan-Ningbo Railway has a 56-km branch linking Zhenhai and the Beicang dock area. In 1984 the railways handled 2.34 mn tonnes of goods and carried 4.8 mn passengers.

Buses run from the urban centre to destinations both inside and outside the province, along roads totalling 2,867 km in length, which also extend to 93% of the rural townships of the city. In 1984 the city's roads transported 8.83 mn tonnes of cargo and 50.63 mn passengers.

Water transport services are available between Ningbo and the counties of Qinxian, Fenghua, Zhenhai, Yuyao and Cixi. Ships with a loading capacity of up to 40 tonnes already sail the Hangzhou-Ningbo canal which is still being built. After the completion of the project to link the Grand Canal with Qiantang River, ships will be able to sail from Ningbo all the way to Beijing and Tianjin, a distance of 1,477 km. The city's 1984 water transport volume was 6.93 mn tonnes and the number of passengers carried totalled 4.73 mn in 1984.

The city has air links with Shanghai, which were opened in 1984.

Ningbo has 446 post offices, with single postal routes totalling 5,143 km in length, reaching all villages. There are 113 cable

circuit lines and 507 long-distance telephone lines. The city has an automatic dialling system with 10,000 telephones in the city centre which can call major Chinese cities directly, as well as Hong Kong and Macao and cities in the United States, Japan and Western Europe.

Trade and Commerce

Ningbo has 52,300 shops, hotels, restaurants and other service establishments which employ 119,200 people. The 1984 retail sales amounted to RMB¥2.176 bn, and business transactions totalling RMB¥358 mn were made at village fairs and peasant markets in the city. There are companies specialising in the import and export of foodstuffs and cereals, native produce and animal by-products, textiles, light industrial goods and arts and crafts articles, chemical products, hardware and machinery. Other foreign trade-oriented units include a packaging company, warehousing and transportation facilities. In 1984 the city purchased RMB¥461 mn worth of goods for export. Its actual export volume was RMB¥162 mn.

URBAN DEVELOPMENT

Ningbo now has three industrial sectors: the chemical, machine-building and light and textile industries. Wide asphalt-cement roads are replacing the narrow, muddy roads of the past. Buildings with a combined floor space of 3.48 mn m² have been constructed in recent years, including apartment buildings of 1.29 mn m², forming a dozen residential estates. Four new, bridges have been built across the Yuyao, Fenghua and Yong rivers which snake through the city centre.

The city has 85.5 km of streets. In 1984, in addition to some taxis, it had 137 buses covering 12 routes with a combined length of 212.27 km. At the end of that year, a daily average of 472,000 tonnes of running water was supplied to some 90% of urban residents, including those on the outskirts through a network of water pipes totalling 194.2 km. Some 166 ha of the urban centre is taken up with grassed areas and the main

streets are tree-lined. The city also has nine parks and zoos covering 11 ha.

SOCIAL DEVELOPMENT

Under the city's jurisdiction are four urban districts, namely Haishu, Jiangdong, Jiangbei and Binhai and seven counties, namely Zhenhai, Cixi, Yuyao, Fenghua, Xiangshan, Ninghai and Qingxian.

The city covers 9,365 km², of which 46.6% is made up of plains, the rest being hills. The urban centre covers 347 km².

The city's total population was 4.842 mn at the end of 1984, 616,000 of whom lived in the urban centre. The population density is 518 people per km², with the urban area containing 1,528 per km².

Education

Ningbo has 6,000 schools with a combined enrolment of 734,500 students, including 6,782 college students, 4,454 secondary technical school students, 207,300 middle school students and 385,000 primary school pupils.

Science and Technology

The city has set up 33 research institutes in the chemical, electronics, machinery, agricultural, medical science, aquatic production, meteorological and environmental sanitation industries, with a total staff of 1,468. In 1984, 179 scientific achievements were awarded, of which 169 directly served economic construction. There are altogether 47,500 scientists and technicians in the city, including 20,700 specialising in work relating to natural science.

Public Health

There were 1,117 medical institutions of all kinds in 1984, with 15,462 medical and staff members. Included in this figure are hospitals, health centres and 673 clinics, containing 8,823 beds. There were some 12,800 medical workers including 5,290

doctors.

Culture and Sport

The city has 15 theatrical troupes, 651 film projecting units, eight libraries and 418 mass cultural centres. It has also made progress in the development of its mass media publications.

Ningbo sportsmen won one silver medal, one bronze medal and broke a world record in international competitions in 1984. They also won 88 gold medals and broke two national records at national and provincial competitions. Sixteen sportsmen broke 13 provincial records.

PLACES OF INTEREST

Ningbo is known as the 'land of cultural relics' and for its scenic beauty. The city has 97 sites of historic interest under special protection. One such site is the Hemudu Ruins believed to date back to the period of matriarchy some 7,000 years ago. The Tianyige Library, built in 1561 (the 40th year of the reign of Emperor Jiajing of the Ming Dynasty), has a collection of 300,000 copies, many being the only copies of Chinese classics. The Baoguo Temple, at least 1,000 years old, is the best preserved wooden structure in southern China. It has remained a mystery as to how the temple's main hall, an intricate structure of wood blocks and beams in strange shapes, has survived insect and bird damage. The Asoka Monastery was built in the second year of Emperor Taikang, of the Western Jim Dynasty (281 AD), and is known as one of the five sacred places for buddhists of the Chan Sect. Among the collections in the temple are the relics of Sakyamuni, the founder of Buddhism, a treasure known both in China and abroad. The Tiantong Temple, built in 300 AD, is another sacred place of the Chan Sect. It has 730 halls, chambers, towers, pavilions and courtyards, as well as cypress trees remaining from the Tang Dynasty and imperial stone tablets. The temple is surrounded by hills covered with ancient trees, which form one of 10 major scenic spots. A Tiantong Forestry Park covering some 340 ha will be built, and will be one of the three main forestry parks in China.

The Dongqian Lake, which covers 22 km², is the largest in Zhejiang. It is equivalent to the West Lake in Hangzhou in beauty and the Taihu Lake in magnificence. Other scenic spots include Xikou in Fenghua and hot springs in Nanxi, as well as Mount Putuo, where the Chinese buddhist Tiantai Sect originated.

In 1984 the city received 10,127 visitors, of whom 5,463 were foreigners.

DEVELOPMENT PROSPECTS

Since it was decided to open up Ningbo, an increasingly large flow of visitors from Hong Kong, Macao and foreign countries has been received both on study tours and for business discussions.

The State Council has also decided to turn Ningbo into a major heavy industrial and foreign trade centre in East China. An overall socio-economic development plan of the local government calls for work during the Seventh Five-Year Plan period (1986–1990) to rebuild the old town area and develop a seaside area for entrepot trade and large and medium-sized key industrial enterprises, the Beicang economic and technical development area, a tourist resort round the Dongqian Lake, and a banking and trade service centre in the east part of the urban centre. The city will open to foreign countries and other

parts of China simultaneously, taking advantage of favourable conditions provided by its deep-water harbour to promote the development of its industry and internal and external trade.

To promote entrepot trade, Ningbo will build another eight berths for 10,000-tonne class ships during the second half of the Seventh Five-Year Plan period. Combined, these will be able to handle 100 mn tonnes of cargo a year. Zhenhai Petrochemical Works will be used as an entrepot trade centre for finished oil products, and the Beicang Timber Plant will become a timber entrepot trade base. The city will also develop its export and entrepot trade in mineral ores, building materials, papermaking materials, chemical fertilisers, crude sugar and grain.

Xiaogang, or the Beicang Economic and Technical Development Zone, covers 3.9 km². One km² in the zone is being developed where infrastructure construction is well advanced. Construction of standard factory buildings has begun and, with the use of foreign funds, there are plans to start projects in the electronics, instrument and meters, food-processing, garments, arts and crafts, tourism souvenirs, fine chemical and light industries. These will be joint ventures, cooperation or independent foreign projects of medium and small sizes.

Development of a tourist and sanatorium centre round the Dongqian Lake is under preparation. The city's old urban area will take on a new look after its reconstruction.

THE FAMOUS CITY OF WENZHOU ON THE OUJIANG RIVER

Wenzhou Statistics Bureau

As a prosperous and beautiful ancient city, Wenzhou is one of the 14 coastal cities in China which has been opened to the outside world, and is the home of the overseas Chinese in the southern part of Zhejiang Province.

GEOGRAPHY

Located between 119°04' and 121°12 East and 27°04' and 28°38' North, Wenzhou City faces the sea in the east, borders on Fujian Province in the south, Lishui Prefecture in the west and Taizhou Prefecture in the north.

Wenzhou is endowed with a favourable geographical environment. It has four water systems, the Oujiang, the Feiyunjiang, the Biejiang and the Qinjiang rivers, running through it. It is situated in a subtropical zone and has a maritime climate, characterised by warm and humid weather all the year round. The annual average temperature ranges between 16.1°C and 18.2°C and there is a frost-free period of between 250 and 280 days. The annual precipitation is between 1500 and 1800 mm. Aquatic resources, in such seaside counties as Tongtou, Cangnan, Pingyang, Yueqing, Rui'an and Ouhai, include fish, shrimps, shellfish and algae.

Mineral resources verified so far include iron, manganese, lead, zinc, copper, molybdenum, alunite, pyropyllite, illite, kaoling, sulphur and granite, and total 40 different kinds. The Pingyang Alunite Mine has deposits of over 300 mn tonnes, and is known as the 'Alunite Capital of the World'.

There are rich forest resources in Taishun and Wencheng counties, and the southwest mountainous areas and vast rolling plains are favourable for the production of fast-growing bamboo. Covering over 666 ha of land, the dense virgin forests in the high Wuyanling Range of Taishun are one of the five largest nature reserves in the province. Wenzhou has a forest area of more than 36 mn ha, accounting for 32% of the area. Prospective timber (mainly pine) is estimated at 5.115 mn m³, and economic forests are made up of Chinese tallow trees, tung oil trees and blackthorn bushes.

HISTORY

Wenzhou has a long history and was known as a 'flourishing town in eastern Ou'. In the Spring and Autumn Period and the Warring States Period, it was called 'Ou Yue', and later became the capital of the 'Dong'ou State' in the Western Han Dynasty. In the second year of the Guangxu reign of the Qing Dynasty (1876), the Sino-British Treaty of Yantai (the Sino-British Chefoo Convention) was signed, turning Wenzhou into a trading port. Wenzhou was liberated on 7 May 1949 and became a city under direct provincial administration in August 1949.

ECONOMIC DEVELOPMENT

Guided by the policy of 'invigorating the domestic economy and opening to the outside world' the people of Wenzhou have completed such basic projects as the building of a civilian airport, and construction of the Jinghua-Wenzhou Railway, various wharves and a power station, providing a sound basis for domestic and foreign cooperation. The 1984 total product of society of the city reached RMB¥5.539 bn. National income totalled RMB¥2.63 bn and per capita income reached RMB¥427. For urban residents, the per capita income was RMB¥1,142. With the increase in production, urban and rural markets have flourished, revenue has recorded a steady rise and the wellbeing of the people continues to improve.

Industry

Wenzhou had a small industrial sector during the early post-liberation period. There were only 369 small private enterprises in the city which employed 5,000 people and had fixed assets worth RMB¥1.32 mn with the gross industrial output value totalling RMB¥20.81 mn.

The city now has quite a full range of industrial production, including textiles, leather and medicine. Up to 1984 Wenzhou had 8,331 industrial enterprises with fixed assets worth RMB¥948 mn and 700,800 employees. The gross industrial output value was RMB¥2.38 bn. The quality of industrial products has been upgraded, with 28 types being honoured by ministries and the province. There are 77 kinds of newly-developed products. There is a marked improvement in economic performance, and the industrial productivity of state-owned enterprises rose 11.92% over 1983. The city's industrial sector collected a total of RMB¥266 mn in taxes and profits, of which RMB¥16.9 mn was turned over to the state, a 26.2% increase over 1983.

Wenzhou stepped up the restructuring of its industrial system in 1984, with 98.3% of state-owned and 96.8% of

collective-owned enterprises having new authorities. Most enterprises had changed from simple production to productionmarket types.

Agriculture

Agriculture is one of the principal economic sectors in Wenzhou. In 1984 the gross agricultural output value accounted for 40.7% of the gross social output value. The city has 193,900 ha of cultivated land, 66,000 ha of tidal flats and 660,000 ha of mountain farms. Reservoirs totalling 154 can store 100,000 m³ of water and more are being built, with a storage capacity totalling 368 mn m³. Irrigated farmland accounts for 70% of the total. By the end of 1984, power created by farm machinery reached 794,500 horsepower.

In 1984 the gross agricultural output value reached RMB¥1.99 bn, a 39.2% increase over 1983. Township industrial enterprises recorded a rapid development and gross industrial output value totalled RMB¥1.032 bn. Agricultural production was initially restructured, and the output value in industry, building, transport, commerce and restaurants accounted for 45.92% of the total social output value in rural areas.

Transport and Telecommunications

Wenzhou serves as a centre for water and land communications, as well as a place where the cargo from southern Zhejiang and northern Fujian is handled. Main ports include Wenzhou, Rui'an, Panshi in Yueqing County, Qingshui in Yongjia County, Shuitonglei in Tongtou County and Biejiang in Pingyang County. Special ports and harbours in the transport department have a length of 2,048 m with 29 berths and storehouses that cover an area of 11,300 m2. Wenzhou Harbour, a trading port opened comparatively early, has 15 berths (including a berth for 5,000tonne class ships, six for 3,000-tonne class ships and four for 1,000-tonne class ships. Steamers of 10,000 tonnes can call at the harbour, and the 3,000 to 5,000-tonne

CITY PROFILES

ocean-going steamers can sail directly to the city's old port. Both regular and irregular steamers carrying passengers and cargo can travel directly to Shanghai, Ningbo, Dinghai, Nantong, Jiaojiang, Fuzhou and Guangzhou, and irregular freighters travel to Japan, Korea and Hong Kong. In 1984 Wenzhou handled 3.29 mn tonnes of cargo, of which Wenzhou Harbour accounted for 72%.

With a mileage of 2,161 km by the end of 1984, roads linked Wenzhou to Hangzhou, Jinghua, Fuzhou and Ningbo. Inland river transport is well developed, with over 100 inland rivers being navigable for 1,000 km by ship.

Communications and transport conditions in recent years have been characterised by the rapid expansion of rural collectives and urban individual households which specialise in transport: an increase in privately-owned vehicles that carry passengers and goods and a steady rise in the proportion of total transport capacity by those outside government departments.

In 1984 investment in fixed assets totalled RMB¥512 mn, of which that by state-owned enterprises totalled RMB¥127 mn, and that by township and collective-owned enterprises totalled RMB¥32 mn. Investment in housing by rural and urban individuals reached RMB¥264 mn.

Projects completed in 1984 included: the Oujiang River Bridge, the longest road bridge in the province; a 220,000-V transmission line that connects Linhai, Taizhou and Wenzhou, and a 110,000-V transmission station which links Wenzhou, Yongjia and Yueqing; a 5,000-tonne wharf at Yangfushan; the expansion of a woollen textile mill and apartment buildings with an area of 240,900 m². In addition, 17 roads were built in the counties and towns with a total mileage of 94.2 km, and houses built by rural and urban individuals totalled 3.27 mn m².

Trade and Commerce

There are 19,196 units engaged in retail sales, restaurant and service trades with 26,600 employees. Employees and personnel working in retail shops has risen above

the number in the early 1950s. For every 1,000 urban residents, there were 18 commercial and food outlets and 51 servicemen in 1984.

The total volume of retail sales of commodities in 1984 was RMB¥1.574 bn, of which urban sales accounted for RMB¥499 mn.

Major progress has been made in foreign trade, with total export-oriented purchases reaching RMB¥172 mn. Main export commodities with a total value of over RMB¥1 mn number 30, including dairy products, canned food, machinemade sweaters, rabbit hair sweaters, tourist scissors, sports shoes and rabbit hair.

Since the State Council decided to open Wenzhou to the outside world, the relevant departments of the city have made great achievements in introducing foreign capital and advanced technology and establishing joint ventures. From April to the end of 1984, Wenzhou had signed 8 agreements and contracts with foreign investment totalling US\$23.32 mn. The various kinds of projects undertaken included the breeding of aquatic products and livestock, food-processing, tannery, garments, plastics and building materials. Some programmes were aimed at development and others at technical renovation of old enterprises.

While continuing to open up Wenzhou to the outside world, internal cooperation is increasing; 96 economic and technical contracts and 58 agreements have been signed.

URBAN DEVELOPMENT

Wenzhou's urban construction was poor in the early post liberation days as the roads were uneven, there was no lighting and drinking water was not fresh. A series of transformation projects have now been undertaken by the city government. The urban area developed is now double the six km² of the early post liberation period. The city government has drawn up economic and technical development plans and designated an area of 2.2 km² in the Longwan District as an economic and technical

development zone. Roads totalling 66 km were paved in the city in 1984. The length of running water pipes was 85 km, and the construction of two waterworks in the eastern and western districts of the city will provide 105 litres of running water per capita each day. The city had 112 public buses and 14 bus routes with a total length of 321 km. Daily transport carries over 100,000 passengers. A park on a river shoal has been expanded and the Wangjiang and Jiushan parks built. The 220,000-V transmission line that links Linhai, Taizhou and Wenzhou has been connected with grids, and the Oujiang Reservoir has been completed. New residential estates were put into use. All this has greatly improved transportation, water and electricity conditions, and the livelihood of urban residents. Such problems as a dense population, small urban areas, narrow roads and crowded housing still remain to be tackled.

SOCIAL DEVELOPMENT

In September 1981 the nine outlying counties, namely Ouhai, Dongtou, Yueqing, Yongjia, Kui'an, Pingyang, Cangnan, Wencheng and Taishun, were put under Wenzhou's jurisdiction. It had an area totalling 11,784 km² and a population of 6,205,200 by the end of 1984.

With an area of 182.7 km², the city itself is located on the south bank of the Oujiang River and has the Lucheng and Longwan districts under its jurisdiction. It has a population of 519,100, with 2,841 per km².

Education

In 1984 Wenzhou had 5,742 schools of all kinds with 995,700 students and 34,300 full-time teachers. There are three institutes of higher learning. The newly-established Wenzhou University has opened with an enrolment of 2,339 students and 499 full-time teachers. It is still being expanded. There are also four universities for adults including the Workers' Vocational University, the Workers' Sparetime University of Science and

Technology, the Television University and the Wenzhou Institute of Education, with an enrolment of 2,034. There are 307 middle schools with an enrolment of 202,700; primary education is compulsory, and there is an admittance rate of 94.66% among school-age children.

Science and Technology

By the end of 1984, state-owned municipal units had 13,300 natural science personnel, of which 1,576 were engineers or more highly qualified; there were 18,400 professionals in social sciences, with 107 specialists in economic affairs. The study of production technology, development and applied sciences has been intensified in research institutes at all levels. The responsibility system is put into force under which scientific programmes are contracted and good results have been achieved. In 1984, 77 items of scientific research achievement had been assessed and approved and 21 of those are the best in the nation, such as the 'Dp-Qz Chromatogramme Digital Processor' and the 'precision automatic electrical bridge' that won a gold medal from the State Economic Commission.

Public Health

Public health has made great progress. There were 919 hospitals or clinics in Wenzhou by the end of 1984, with 8,036 beds and 14,600 doctors and nurses. Initial results have shown up in rural and urban medical services. The outpatients' service on holidays is popular, and health stations for industrial enterprises are open to the public, which helps relieve pressure on the medical' service.

Culture and Sport

Wenzhou enjoys a dynamic cultural life with 20 professional art troupes. Types of drama range from Oujiang, Kunqu, Beijing to Yueju operas, as well as conjuring, puppet shows, quyi shows (folk art characterised by ballad singing, story telling and cross-talks), songs and dances. There

CITY PROFILES

are 622 units in charge of movie-projection and 12 cultural centres, nine libraries with 930,000 books as well as museums and arts and crafts shops. The communications network involves the Wenzhou Broadcasting Station, the Television Station and TV relay stations which have already been set up in all counties.

In 1984 Wenzhou won 324 medals in contests above the provincial level, of which 120 were gold, and 16 provincial records have been broken. There are 752 sports grounds of all kinds. In recent years, 60 swimmers from Wenzhou took the first six places in national swimming competitions. The city was thus conferred with the title of the 'home of swimming' by the State Physical Culture and Sports Commission in April 1984.

PLACES OF INTEREST

Being endowed with rich tourist resources, Wenzhou boasts beautiful mountains, forests, springs and coastal areas, with the Qujiang River cutting through the city. Facing it is an islet in the Qujiang River, forming a main attraction of the city. Historic sites and sightseeing areas around the counties include the North Yandang Mountain in Yueqing County, the South Yandang Mountain in Pingyang, Yaoxi Brook in the suburbs, the Immortal Crag of Rui'an, the Daruo Crag of Yongjia and Radon Spring in Taishun County. The Yangdang Mountains, reputed for their 'next-to-none' beauty, were one of the first scenic spots to be promoted by the state. Radon Spring in Taishun County has a moderate temperature which helps to cure skin diseases, arthritis and high blood pressure. In recent years Wenzhou has seen many tourists, either visiting relatives and friends or making investigations into the economy, exchanges of culture and technology or taking part in business and journalistic tours.

DEVELOPMENT PROSPECTS

Wenzhou is a city that has been opened to the outside world and where urban reform is being tried out. The people of Wenzhou are striving to turn their city into both an important industrial port on the southeastern coast of China, and one that is open to foreign countries.

The remarks below begin with descriptive information and then was the for further " Cite BTOR.

investigation. A portion of the descriptive material would, for other countries, be too obvious to dwell upon in as much detail as it receives here; but clarification of audimentary aspects is needed in Chira's use before one can constructively oddress being policy

Equity with Showth 1984 Kanneier & Swar. Map 2 pp 194-205

WORLD BANK / INTERNATIONAL FINANCE CORPORATION

Dear David:

Sorry the time non out before I could get these notes dictated and to you, but maybe there briefer, handwritten notes will work. Then night be a little kelp, but you must remember how little I know about China right now. Anyway, this is what I would do, or at least start with.

DD ALL NOTE AT END AEFORE READING 1-3

" persie

(find out how actuals compare with budgeted amounts)

How is the Province Governmed? I understand there are howerish, Prefect, County and Journaly levels. Who reports to who and in what respect? (Draw a chart with arrows.) Who makes and approves budgets, who are the chief officers, how are they appended, and who do they report to? This would allow us to explace each turn of local (Provincial) good relative to lack other and relative to the central good. [In there a local plansing commission?] are local estimatory (such as public utilities) part toy the "local good section".

report for each level of good? In the budget a 'realistic planning document? What is the timing of the budget process, i.e., preparation, adoption, implementation. Are supplementary hudgets allowed during the year? How do they budget for a defecit? What does the budget format look like? Top to there a current and capital budget and what are the main heads in the budget; are there separate funds? What is the lotest year for which the final accounts are available? are there separate local enterprese accounts?

3. What are the exquaditure personnebulities of each level of local good?

First, which functions, and whithen current or eapital. You can get

then from the hidgel heads, or the financial reports. How much autonomy

do they have in acting expenditure levels or are they tied up by service

level mendates? Do they have any descretion at all? How do they

budget for maintenance of capital expens? Then you should

"I turn to expendes by object, i.e., wages, materials, transfers, etc.

How many employees (do local goods serve as an employer of

last resort?) Who hires, who determine compensation, so how

dose compensation, benefits compare evith non-good sector?

Are transfers to persons, businesses, other goods an emportant visue-

de la production de la constant de l

get some detail

4. Taxation: I understand there to be only a small number of local taxes:

Profits tax, Industrial and Commercial Taxes, Property Tax, Outs (?) tax,

some nursance levies and user charges. For each, you might follow

the same line of questioning:

(a) what is the bare and exactly how is it determined? How has it grown? what is exempt? by few, or by administrative practice? Athre any local descretion? any incentions?

(6) what is the rate and who sets? Has at been changed recently?

(c) To revenues respond to growth, inflation?

(d) Revew the tax administration: (i) edentification and determination of hose (ii) record keeping (iii) valuation and assessment (iv) collection. What are beg problems. The general issue is whether the problem is structure or administration.

(e) are charges covering AC? to there some returnale to the puring scheme?

with a local surpharge. We need to undertand this. also, I (own)

read about locational encentives such as entergree zones' and 'old cities'. Does this impact on local tax blee?

Agricultural taxation is now unimportant (some munor taxes on crossing?) I shouk? Is there discussion of nome form of land tax?

Lets try and undustend the practice, and perspects for a perpetty tax in cities. Any industrial on increases on real rents & (or is the such a possibility.)

Do local goots miss out on charging for some newscus that are chargeable?

- 5. Intergovernmental Iransfers (Mitter)
 1. Irace out the transfers: Central to Local and enterlocal;
 draw a chart with arrows and led label each type

 7 transfer.
 - 2. For each Type of grant or should tax, there are two dimensions: how is the total grant pool determined and how is distribution made among elegable unite?

 [Negotiation and ad how delerminations are quite possibly are some of these loan programs? Discute.
 - 3. How important are transfers in local bridgets? Have they grown with inflation, local ironomice growth?
 - 4. What about the timing and certainty of grants received?
 - 5. What reforms have been ducussed, proposed?
 - 6. So there such a thing as a deficit grant?
 - 7. In general, what encentrues are produced by the grant system, i.e., to raise more revenue or less revenue; to spend more or less efficiently, etc?
 - 8. Con we judge the effecting of grout admin?

6. Financial Condition

A. Who has defects of what size? How are they covered?

8. What are the main pressures on local grouts hidgets, e.g., population growth, inflation, maintenance, infrastructure, can't rouse tex rates, us growth in tex base, etc.

c. Is there a call for more local automy? One new tax sources, etc., being discussed.

D. Does the grant system help or harm local financial condition? to there a cry for more grant incentions?

condition? to there a cry for more grant incentions??

E. What would the Central Govt like to accomplish with local gout Junamical reform?

NOTE I know it is hard to define 'local govt' in a socialist
country and maybe there some more than a consolidated
fromish Budget. Yet, we must (to do our yob) somehow
separate (a) general govt services and financing (b) traditional,
all-financing public enterprises (c. g. 4 Williams (American, bus, etc)
and (c) next transfers to State Entoprises. The prime
in 1-3 are in this sperit - but I don't understand how
we can get in 4 tiers of local govt??

maybe these will help some. I just don't undersland the system get. maybe my week in may will give me a better idea of how to approach they, in China. Meanwhile, there thoughts could give you are idea or two. Have a good trip.

Ray

Deta, in addition to what is asked for above.

- 1. Try for two years of expenditure by function and by object, for at least one troonship, large city, etc.

 Ditto revenues. This lets us get at % distribution, growth, differences among levels of goot, per capitas, etc.
- 2. Some time Sirier on the major taxes, showing descritionary Changes
- 3. Some time series on largest grant programs
- 4. Some idea of # of local gout employees by level of gout.

Follow-up to China

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OFFICE MEMORANDUM

DATE April 16, 1986

TO Distribution

FROM Inder K. Sud, Chief, AEPUW

EXTENSION . 76383

SUBJECT China - Zhejiang Urban Services Sector Study
Draft Initiating Memorandum

- 1. Attached is a draft Initiating Memorandum for the above study. After the preparation mission returns in May, an Initiating Memorandum will be issued.
- 2. I propose to hold a meeting on Monday morning, April 21, at 10:00 am, in Room A320 to discuss the draft memorandum. I hope you can attend.

- Outline
- Attachment
- analytical Attachment
toolse to be

toolse to be

Distribution
Management

Messrs. Turnham, Karcher (AEPDR); Koch-Weser, Levy, Ahmed, Byrd (AEACH); de Ferranti, Renaud, Lee (WUD); Linn (AEADR); Huang, Biderman (AEPUW); Ms. Wallich (AEACH)

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Evoromic growth -> more demands on infractheuture

E.g., traffic: inversed traffic because of growth

And low investment for many your means backlog of read. Write Yung ask for his comments on my droft.
Maybe ZH too? Principle: enterprises should pay a part of the losts of any projects to aid them. Arone bonds to users, from the service enter ,

prise (e, e, sewage wastewater treatment plant),

Buyers of the bonds mingle bee enterprises or

individually, Not sledying land use now, In China, smal pop, gots no subsidy. Usban Soes, but people there are higher income. In this on unwarranted whom bias? In the post year, two lighters - price reform - wage reform Morley Safin I make link

FORM NO. 75 (6-83)

ROUTING SLIP

THE WORLD BANK/IFC

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Ticket to urban squa

By JAMES KYNGE

& Beijing: Every night after dark outside Heijing's railway station, ticket touts hawk hostel beds to unemployed drifters from impoverished parts of China's interior.

A yawning disparity in regional incomes is prompting poor peasants and jobless youths to turn money changer, street hawker, carpenter or housemaid and head for the city. I WAY !!

: "The Government policies are so unequal," said a young black market money changer from the desert town of Aksu in China's northwest region of Xinjiang. "I have been unemployed for two years. There is no hope for me at home."

Until the early 1980s. migration to the cities by

tees monitor the work and tel owners want to make

People who make the en-

vied journey from farm to city " are supposed to carry a letter of release from their village and register with the city au-, Shanghai alone has 1.1 milthorities on arrival.

But the hostel ticket tout requires no such letter, giving the unemployed a chance to slip their rural strait-jacket and live anonymously in the city on their wits.

"As long as he is not a. criminal, we will take anyone," said a middle-aged woman hawking introduction tickets for the prosperous Longevity Peak Hostel, a dosshouse in Beijing's western suburbs.

Inside the dingy hostel, 17-bed dormitory with their worldly possessions stacked

"This situation did not there were strict controls on exist three years ago. If you travelled then you had to country dwellers, who make have a letter of introduction up 80 per cent of China's pop- and a licence to do business," ulation of one billion: ** ** said Beijing city official Mr. ** said a carpenter from the cen-Neighbourhood commit. Zhang Zheng. "Now the hos-tral province of Anhui. Neighbourhood commit ... Zhang Zheng, "Now the hoswho pays.

"temporary residents" in find they can be sacked with-China's 10 higgest cities. tion. But the figure does not - "I have been here for three include the drifters who register with no one.

Many areas in China have prospered under the farreaching economic reforms begun in 1979. But some regions that lagged behind because of scant resources, infertility or natural disaster are feeling the pinch of rising prices and static incomes.

The new forces of competition have pushed many would-be farm workers into travelling salesmen and car-, the ranks of the young unempenters sleep side by side in a ployed, who drift to the free markets and street corners of big cities anxious to get on the up beside their beds . . to right side of the Government's policy of letting some get rich first.

"Our family's plot of land is small and I have two brothers. It cannot support me,"

But the city shatters many personal movements of every money so they take anyone illusions. Country girls among the 36,000 maids The China Daily reports working in Beijing's prosper-

that there are now 3.2 million ous two-income households out notice and some return home empty-handed.

months and have not had a customer yet," said a 16-yearold carpenter from Jiangsu province. "If you don't have a reputation or contacts few people will be willing to employ you.

"I live cheaply, but if I don't get a job soon then I will run out of money and I don't know what I'll do," he said as he sat on the pavement with his saw and axc.

Some drifters, unable to make ends meet, turn to crime. The China Daily has said the influx of rural migrants has "provided criminals with the opportunity to take shelter without being easily detected by the police."

It cited pilfering and burglary as part of a plethora of 'new urban problems" caused by the drifters.

"Twenty of my friends were rounded up and put in prison last week," said the black market money changer.

Drifters sprawl on their bundles at Beijing's main railway station

-Reuter picture.

in jail in Beijing for two years Snobbishness is common after he was caught changing among Beijing's streetwise money and I was fined 2,000 vuan (about HK\$4,800)," he

tend with contempt and dis- they ask such basic ques-

"One of my friends has been dain from their city cousins. residents.

'country dumplings' - few Peasants also have to con- people like talking to them.

tions," said one Beijing taxi driver. ··· +

"They are dark-skinned, scruffily dressed and they "You can always tell the cross roads like idiots. Like they have never seen cars before.

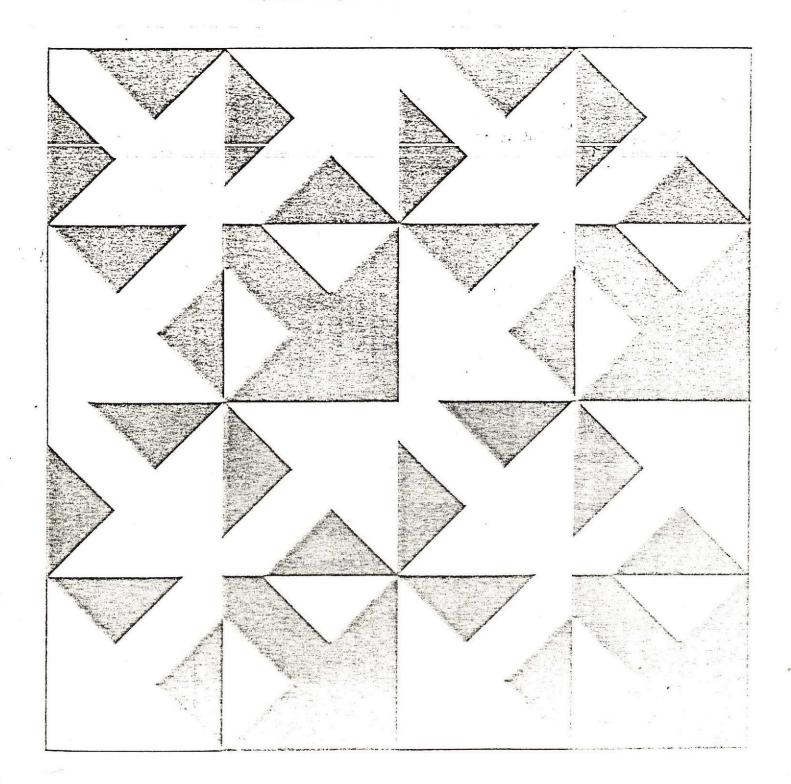
Reuter.

THE WORLD BANK/IFC

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FROM:	T7-059 6/89.5		

EDUCATION AND TRAINING FOR URBAN DEVELOPMENT AND PLANNING IN CHINA -A CONTRIBUTION FROM INTERNATIONAL EXPERIENCE

Proposed Programme of Activities 1986-88



EDUCATION AND TRAINING FOR URBAN DEVELOPMENT AND PLANNING IN CHINA - A CONTRIBUTION FROM INTERNATIONAL EXPERIENCE

Proposed Programme of Activities 1986-88

Background

This proposal arises out of discussions dealing with the possibilit of future joint activities involving the DPU and both government and academic institutions in China. These discussions evolved out of previous exchanges and visits involving DPU staff and Chinese planners covering the period from 1981; and more particularly out of the immediate experience of the visit by a DPU delegation to China in September 1984, which was generally felt to be extremely positive and of direct use to those who attended the seminars which were held at that time.

Concept

The proposed programme, running over a three-year period 1986-88, is designed to contribute from a wide range of international experience to _o.___high priority for future work: efforts by the China Academy of Urban Planning and Design to strengthen the cadre of urban planners and designers working at all levels from national to local, and to equip them with the most up-to-date knowledge and skills available. From previous discussions and visits it appears that a contribution to this effort from the position and experience of the DPU can be made in a series of related activities covering the following major themes:

- 1. the inter-relationships and integration of economic and social with physical and spatial planning;
- the evolution of and experience with new urban planning and design methodologies;
- the recent developments in Britain and in the international arena in specific subject areas within the field of urban development planning and management.

The proposed programme would include action in five areas:

- a. planning education in London
- b. specialised training courses in London
- c. specific training workshops in China
- d. action planning review projects in China
- e. provision of information and documentation.

These are described more fully in the sections and appendices that follow.

A. Planning Education in London

The DPU and the Bartlett School of Architecture and Planning offer Masters degree courses (MSc) in subjects appropriate to the postgraduate education of planners from many parts of the world. These include the one-year MSc in Urban Development Planning at the DPU, the one-year MSc option in Housing at the DPU, the one-year option in Building Design in Developing Countries at the Bartlett School, the two-year MSc/Diploma course at the DPU and the two-year MSc in Urban Planning at the Bartlett.

A small number of well qualified graduates in engineering, architecture, geography, economics and related subjects coming from China could benefit from participation in such courses alongside participants from the United Kingdom and some thirty to forty other countries. In each year of the two-year programme up to five actual, or prospective, staff members drawn from different sections of the Academy and associated bodies might usefully attend such courses, given an adequate level of language comprehension, or suitable language training. This would enable them to have a basic grounding in the theory and practice of planning and design related to the British and the international contexts.

Details of courses are included as Appendix 1. (attached Separately)

B. Specialised Training Courses in London

The DPU offers a range of specialised training short-courses in London on an annual basis. These courses, of three-months duration, cover major subject-areas in the field of urban development planning, and are in operation throughout the year in three groups - January-March, April-July and October-December.

In the past and present years the range of courses has been extended to cover specialisations of current concern in Chinese urban planning. This particularly applies to the new courses in Action Planning for Urban Development, the Planning and Management of Small and Intermediate Urban Centres, Planning Industries in Cities, and Ports in Urban and Regional Development.

These courses are designed for mid-career technical, professional and administrative cadres, to enable them to acquaint themselves with new areas, or update their knowledge of international practice in their own subjects. In each year of the programme, up to ten/twelve members of the Academy and its related institutions might benefit from sharing the experience of other senior specialists and administrators from different parts of the world, in confronting the technical and organisational issues in any one of the several specialist areas treated in the training programme.

Details of the specialised courses are included in Appendix 2. (a.s.)

C. Specific Training Workshops in China.

The DPU has developed over the past decade considerable experience in mounting in-country seminars and workshop programmes designed in collaboration with individual government agencies to meet their specific needs.

The experience of the 1984 China Seminar Programme suggests the potential of mounting further such seminar and workshop programmes, but with a greater degree of specialisation of topic, allowing for more indepth presentation and discussion. Topics which emerged quite clearly out of our joint experience on that mission included planning for major metropolitan regions, the integration of economic and physical planning, urban transportation planning, and the issues of design and redevelopment of older city centres.

In terms of the frequency and duration of future training seminars and workshops, in order to cover the highest priority subjects within the programme period, a series of two per year is suggested, involving DPU staff visits to China of a month's duration in each case. These visits, probably best scheduled in late March-April, and late August-September, would be carefully prepared with teaching materials, exhibits, and translations, so that seminar presentations could be made in perhaps two centres e.g. Beijing/X'ian, Nanjing/Shanghai, Wuhan/Chengdu, or Kunming/Guangzhau.

A range of possible workshop themes is given in Appendix 3.

D. Action Planning Review Project

The DPU has developed over several years what we regard as the most efficient and effective 'learning-by-doing' form of plan or project-related 'on-the-job' training. The advantage of this kind of training is its immediate contribution to practical problems of planning in a specific situation. One type of this training is the review and updating of existing city master-plans through the action-planning methodology. The planned methodology involved has been developed out of experiences in London, Karachi, Calcutta, Jakarta, Nairobi, Lagos, Amman and Singapore.

It seems likely that, in terms of the development of both new planning methodology, and the integration of economic with physical planning in China, such a collaborative exercise as a model effort, with a group of city planners organised under the Academy or by a local Municipal Planning Bureau, would be rewarding. It is capable of being demonstrated at various lengths from a period of three months to two years, depending on the detail required in the review and revision exercise. It would be possible to mount such an exercise within the programme period, with particular regard to its potential as a scheme for the 'training of trainers' and therefore the further strengthening of education and training work now going on under the Academy.

The 'planning through training' exercise involved is described in outline in Appendix 4.

E. Documentation and Information

The DPU has built up over many years a small specialised documentation centre and a wide international network of contacts and exchanges. It would be possible to provide regular information and documentation on a range of selected subject areas of interest in the current state of urban development and planning in China, on request from various sections of the Academy, the Ministry and individual Municipal Planning Bureaus.

A list of subject areas that could be included in such a regular service as part of the programme proposals is given in Appendix 5.

Appendix 4.

ACTION PLANNING REVIEW PROJECT

- 1. There is widespread international dissatisfaction with the concept of master planning. That aspects of it are out-of-date, are irrelevant to current circumstances, are impossible to carry out, or have always been unsuitable all such deficiencies arise from the day to day need of urban government to know in what direction it is going when making choices about laws, expenditures, and the activities of its staff.
- 2. If master planning does not provide an adequate guide to the future, a plan review is the logical occasion to evolve a procedure which does. The review can draw out the lessons of experience from what has and has not happened in connection with previous planning. Indeed, the most practical purpose of a review is to learn from the past what better to do now and in the future.
- 3. Two key lessons of experience are already apparent. One: that chosen policies, programmes and projects (the essence of plans) need to be changed or replaced as time passes because of changing circumstances and new know-ledge. Two: that ideas for appropriate changes cannot be obtained at a later date from those who prepare a plan if they are no longer present.

The two are closely related, and, as they must be heeded in a serious plan review, the following proposal has been formulated with them particularly in mind.

- 4. The project advocates a review procedure which moves planning away from reliance on an unsatisfactory master plan to the build-up of a planning process able to advise daily decision-making with perceptions of issues and problems and with recommendations for project, programme, and policy choices. To do this it is necessary to change or enhance many professional attitudes and skills, as well as to restructure or strengthen some working relationships within government. Consequently, the heart of this proposal is a programme of training and education which can bring about such changes by means of the very act of reviewing the plan. This proposal would respond to both key lessons of the past by introducing and applying knowledge of an improvement upon master planning, while installing this knowledge and its attendant skills in the staff capabilities of Chinese institutions.
- 5. The approach suggested in this project is needed because professional manpower (in the government and the collective sector combined) will now need to be stretched beyond its routines by a significant review exercise, and there is now available the training capability to expand this manpower or improve its capacity, especially to move on to an improved planning method. It offers a substantial scheme for staff training and institutional development, which at the same time carries out the desired plan review. This is possible because we know that undergoing training while performing a substantive, valuable and relevant task is a powerful way to learn. Consequently, the services offered in this proposal will produce immediate planning advice while initiating the evolution of a better planning process, one more capably staffed and less in need of central technical assistance.
- 6. This is a proposal both to prepare local staff to carry out the review, and, during their training, to produce an updated plan. At the end of the period we will not only have a revised development plan; there will be

professional staff who have experienced and been involved in the preparation of the plan and who have the capability to update the plan on a regular basis. Through the involvement of local consultants and other agencies (such as a university) they too will have a greater capacity to support planning development. Our role will be to provide training as well as technical support and specialist expertise where this is required. We are not proposing a traditional scheme of counterpart training, nor are we offering to supply advisors. Our objective is to increase the capability of professional manpower. The review will be achieved by all who are involved in the review process. Our major function will be to improve their knowledge of, and capability to perform, the tasks required.

OBJECTIVES

- 7. These are the major objectives:
- l. to <u>reassess</u> problems and conditions in a city, <u>evaluate</u> the success of past planning policies and programmes, and <u>propose</u> priorities for investment programmes and actions which will implement strategies: in short, <u>to</u> provide, immediately, advice based on up-dated planning;
- 2. to broaden the scope of town planning so that it embraces the whole of the urban development process, thereby making such planning more useful to government in its pursuit of economic development and social change;
- 3. to build up professional capability so that this urban development planning (as distinct from town planning) can be conducted continuously within city government as an ongoing service to itself, to central government, and to the public.

With respect to these purposes, the plan review is an enterprise of two aspects:

- a. to provide up-dated planning advice immediately and the means to continue to do this indefinitely; and
- b. to adequately train and educate professionals and institutions in Lusaka to provide the needed planning advice.

OPERATION

: 1

- 8. Urban development planning is a continuous process of advising decision making regarding the economic, social and institutional change of a city. It affects and is affected by the ongoing operations of the complete range of government and non-government organisation, departments and agencies operating in the city. Any attempt to reformulate urban development policy will succeed only to the extent that it takes into account the operations of such agencies and resolves policy issues in concert with them.
- 9. The development planning process must be able to adapt to change and deliberately bring it about. It must be able to respond to both regular patterns of change as well as irregular ones which cannot be foreseen. For these reasons, an effective planning process cannot be a linear arrangement of inputs and outputs. Rather it is a complex pattern of activities in which reassessment and changing conditions are constantly calling for changes in government's responses.

- 10. To fit this natural process of learning and adaptation, the review itself must consist of a number of cycles, thus allowing preliminary conclusions to be checked and new ideas to be tested in subsequent cycles. It means that the review participants can learn from their own experiences, through repetition and reassessment.
- 11. The review therefore should not be a one-time exercise but the start of a continuing process. The review team and network should be established as the nucleus of capability for government to provide policy guidance and project identification. This exercise should be the first of many cycles of plan review, incorporating data analysis, policy formulation, and programme design which will continue after the cessation of service described in this proposal.
- 12. Three cycles are proposed for the review programme here described. The first cycle would take four months. At that point an initial report would be given to the Directing Board. The Board's comments would point the way to additional diagnosis and recommendations. This initial report would not be more narrow than subsequent ones, although it would by necessity be less detailed. Eight months would be spent on the second cycle, which would end with a report drawing from the first year of work. The third cycle would take the remaining 12 months, repeating, testing and modifying the experiences of the previous cycles. Because it would mark the end of the training-while-doing period, the third report to the Board would include suggestions for continuing the review after departure of the training consultants.
- 13. Each cycle would carry out the same basic set of tasks. These are:
 - i. Identify and <u>analyse</u> the <u>existing policies</u>, <u>programmes</u>, <u>and individual projects</u> both of government and the private sector affecting the development of the city. The policies and programmes of the existing master plan would be primary subjects for this examination.
 - ii. Identify and explain the dominant problems of the city for development planning to address. These problems would be drawn mainly from two sources: a) from the current actions and policies of government and the private sector, for the targets of these would be problems which both consider most urgent and important; and b) from the working knowledge of individual specialised departments of government, including those performing urban planning and reviewing the master plan. It would be a critical function of this task to judge which are those problems which government can expect to affect with its limited powers of intervention.
 - iii. Identify and understand the present conditions in the city and why they are there. This would aim at explaining the dominant problems, so it would not be a conventional comprehensive and detailed survey and analysis. Nor would it be limited to physical characteristics. The nature of the problems would indicate what information has to be gathered and studied. As it is performed, analysis of the information will without doubt cause changes in how the dominant problems are stated. It will even suggest that new problems be taken up and some others be disregarded for the time being

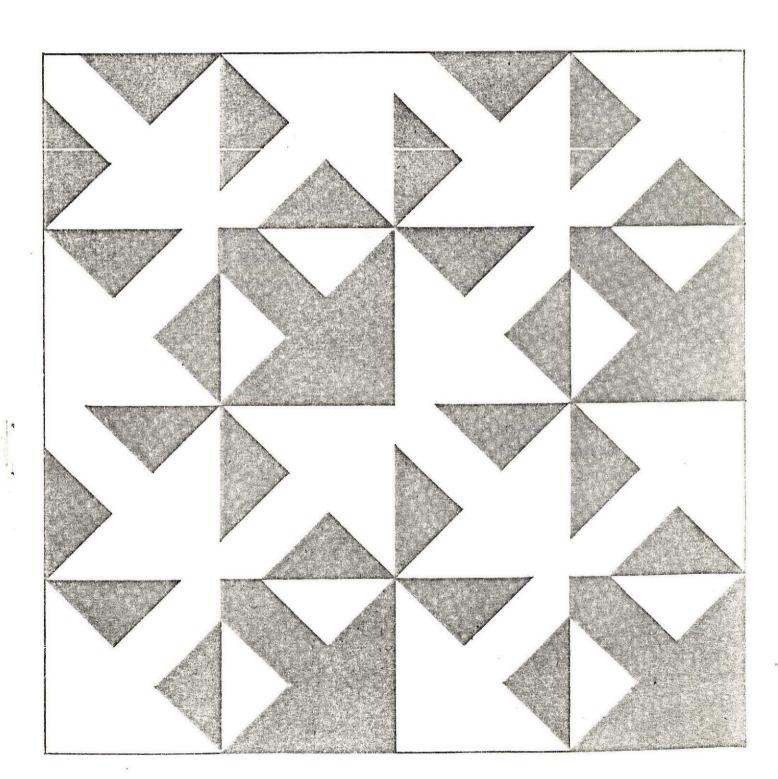
- iv. <u>Identify</u> and understand what are likely to be the <u>future</u> conditions in the city. This would interpret knowledge of the forces shaping the physical, social and economic character of the city in order to picture future conditions without changes in government interventions. It would give to the list of dominant problems that future perspective which is the substance of planning.
- v. Identify and analyse what <u>limits</u> the <u>effectiveness of government policies</u>, programmes services, and projects which are aimed at the dominant problems of development. This matter must be examined in terms of the future as well as the present. With knowledge of why government efforts are not successful, planning is better equipped to propose strategies and actions which are powerful where those which fail are weak. It is also possible to more clearly identify those problems which, however dominant, government intervention has little chance of affecting.
- vi. Recommend changes to old policies, programmes, services, and projects and recommend new ones where modifications will not be adequate.
- vii. Suggest how the recommendations might be <u>carried out</u>, and how to promote <u>administrative actions</u> which would use these suggestions. This would include the identification of <u>implementation</u> strategies and actions in terms of who would carry them out, at what time, in cooperation with whom, and using what powers and resources. Mobilising political will and the necessary resources will be prerequisites of implementation which themselves must be given strategies and actions.
- viii. Recommend how the process created by the plan review can be made to continue indefinitely beyond the formal review period. Such suggestions would deal with strategies, programmes and actions to affect the organisation and administration of the city's government and the further training of its manpower.
- 14. It is important to understand that within a cycle of the review process these tasks would not be carried out in a rigid sequence. They are closely connected and affect one another, so each must be done and then done again. The ends of the cycles would create occasions when the knowledge building up during the interaction of all of these tasks can be gathered to more clearly guide the next cycle and to be more accessible for general use by government.

DEVELOPMENT PLANNING UNIT BARTLETT SCHOOL OF ARCHITECTURE AND PLANNING UNIVERSITY COLLEGE LONDON

DPU

SEMINARS IN CHINA

A Report on the DPU Urban Planning Delegation's Programme Seminars in Beijing, Xian, Nanjing, Shanghai in September 1984



ACKNOWLEDGEMENT

The DPU team would like to thank the Academy of Urban Planning and Design, Ministry of Urban and Rural Construction and Environmental Protection for their kind invitation to China, and their hospitality to the team throughout their visit.

The team would also like to thank the British Council for meeting the cost of international travel for the team, and for their assistance and hospitality while the team was in China.

On a more personal note, we would like to express our thanks to all those who participated in the seminars, and acted as generous hosts in all the cities we visited, and most especially to Ms Xia and Ms Liu who accompanied us throughout.

Desmond McNeill Michael Safier Richard Kirkby Adrian Atkinson Peter Townroe

1. INTRODUCTION AND SUMMARY

Background

In September 1984 a team of five from the Development Planning Unit (DPU) spent a period of three weeks in China, conducting seminars in urban development planning in Beijing, Xian, Nanjing and Shanghai. The team was invited by the China Academy of Urban Planning and Design, Ministry of Urban and Rural Construction and Environmental Protection, with whom contact had been established over an extended period. They took responsibility for all local arrangements and the costs of the team while in China. The British Council met the cost of international travel for the team members, and assisted in liaison with the Academy.

The purpose of this brief report is to provide a record of the team's visit and an evaluation. It is hoped that there will be further collaboration between the two institutions in future, building on this first experience. The report may, however, also be of wider interest, beyond those directly involved in this instance. To judge from the response of the Chinese hosts, and the subjective evaluation of the team, the seminar programme was a great success, and could provide a model for use elsewhere. Indeed, with suitable modification a similar programme of seminars in the field of urban development planning could easily be mounted in other countries of the Third World. In any event, we hope that the lessons learnt from this programme, as summarised in the following pages, will be of value in the design of similar programmes — whether in China or elsewhere.

The DPU is a graduate institution within the Bartlett School of Architecture and Planning of University College London. It is an international ceture for education, training, research and consultancy in the field of urban and regional planning in developing countries. The main objective of the seminars was to allow an exchange of experience, with the DPU team introducing planners in China to recent ideas and practice in the field of urban development planning,

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not only in Britain and the 'developed' world, but also in developing countries.

Since it was not, unfortunately, possible to arrange a preliminary visit to China to discuss the programme in detail, it was necessary to plan the seminars simply on the basis of an exchange of letters with the Academy. But this provided sufficient information both to select the team and prepare a draft programme.

The team of five combined a range of disciplines and specialisations, as well as having international experience comprehensive in its geographical coverage. (See Appendix 5 for summary CVs.)

The draft programme consisted of 28 lectures or 'modules' each of approximately 40 minutes duration (allowing time for translation). If all were delivered, this would mean either three very intensive days or four days with more generous time for discussion. This programme, together with one-page outlines of each lecture, were sent to the Academy in July 1984. During August final preparations were made, including the translation of lecture summaries for overhead projection and the production of a number of large display panels to be exhibited at each seminar, to supplement and illustrate the lectures. (For details, see Appendix 4.)

The Seminar Programme

Beijing: The team arrived on the evening of 6 September, and began the first seminar the following morning at 8.30 a.m. The Academy requested that all the modules in the draft programme be covered, but identified certain ones which they wished to be particularly stressed. The draft programme was therefore modified accordingly. Three full days were devoted to the sminar, with two-thirds of the time for lectures and one-third for discussion. (See Appendix for the calendar of events and the details of this and subsequent seminars.) Thus a great deal of ground was covered in a relatively short time.

Xian: Here, two major changes were made to the programme. The first was suggested by Ms Xia Zhong Gan, of the Academy of Urban Planning and Design, who accompanied the team throughout the visit. This proposal, with which

the team agreed, was that the seminar should be more detailed and specific than in Beijing, by selecting fewer issues and allowing more time for discussion. The second change, which to some extent modified the impact of the first, was to introduce two new topics to reflect the particular interests of the participants. These were on urban transport, and the planning of old cities. (Xian is an ancient capital, where considerable restoration and preservation work is underway or planned.) On the first morning in Xian (and in subsequent spare time) nine further lectures were written (or, in some cases, rewritten). The seminar again occupied three full days, but half of this was in detailed discussions.

Nanjing: For the third and final major seminar, in Nanjing, the hosts were the University of Nanjing, Geography Department (with whom DPU has close links).

Here, once again, the programme was heavily modified. The aim was to focus still more on a few selected issues, while maintaining approximate equality between lecture and discussion time. Certain selected modules were expanded, and the whole programme restructured so as to bring out a clear theme running through the different modules, and also to highlight alternative perspectives on some of the major issues, rather than seeking to suggest total unanimity. The seminar covered two and a half days, equally divided between lectures and discussion. (Here, as elsewhere, morning and afternoon sessions were each of $3\frac{1}{2}$ hours.)

Shanghai: Here, the very tight timetable allowed only one working day, of which half had been set aside for the seminar. After discussion, it was agreed that the team would present a rapid overview of some of the issues dealt with in Nanjing, after which there would be an exchange of views with participants. This was therefore only a very brief seminar, not comparable with the other three.

In each city, participants numbered between 20 and 40 and were drawn from government agencies and academic institutions. (See Appendix 3 for details.)

The next section of this report provides an evaluation of the visit as a whole, and an analysis of some of its strengths and weaknesses.

2. EVALUATION AND ANALYSIS

Evaluation

Although no formal evaluation was undertaken (e.g. by questionnaires to participants) the team did have the benefit of detailed comments given by Ms Xia of the Academy, especially after Xian and Nanjing, reflecting both her own views (as one who attended all the seminars) and those of the many participants with whom she spoke.

In summary, this evaluation was very favourable indeed. It was greatly appreciated that the visit was clearly not made for tourist purposes: the intensity of work during the seminars, and the amount of effort put into the preparation were both complimented by several participants. Some of the specific comments may be quoted verbatim:

- 'The most successful seminar I have ever attended.'
- 'The lectures were carefully prepared. I have never paid so much attention at a seminar before.'
- 'Very systematic and comprehensive.'
- 'Much, much better than seminars we have had before.'

On a number of occasions it was made very clear to the team, both formally and informally, by our hosts in all the cities visited, that they felt the seminars had been extremely successful and well received.

The participants also expressed their satisfaction by attending punctually and regularly at each session, taking copious notes and showing active interest in discussion. (Indeed, in Xian, the discussions apparently continued long after each session officially closed.)

From the team's point of view, also, the seminars were very successful, not only because of the evident satisfaction of the participants, but also because they proved stimulating and enjoyable for the team members. They provided

an excellent opportunity to discuss a wide range of issues concerned with urban development planning, and to learn about China at a time of rapid change. The interaction between team members over the three week period generated considerable debate, which was not only interesting for the team, but was also reflected in the content and structure of the seminar programme, as it was continually revised.

Although the seminars, and lecture preparation, took up most of the working week, there were opportunities to make visits in each of the four cities - to housing estates, satellite towns, industrial areas, etc. - and discuss with the local planners some of the practical issues facing them.

As regards the relative merits of the three main seminars, it was felt that each improved upon the last, by becoming more detailed and more tightly structured. But of the discussions, those in Xian were the most rewarding, largely because of the way they were organised (as described below, under 'Issues in the Design of the Programme').

Major Strengths and Weaknesses

To begin with the weaknesses, two deserve mention. The first, inevitably, was the problem of translation. Although a number of the participants could read English quite well, very few indeed could speak it. All lectures and discussions were therefore translated, one sentence at a time, by an extremely hardworking (and inevitably overburdened) interpreter. This not only reduces, by half, the amount of information communicated; it also inhibits discussion.

The second problem was the difficulty of designing a programme with only a limited knowledge of the specific needs and interests of the participants that would attend. A preliminary visit to discuss the programme in detail, in China, would have been a great advantage.

The strengths of the team that specially deserve mention relate largely to these two problems. Firstly, the difficulties in translation were reduced by designing lecture modules specifically for sentence-by-sentence translation; by sending in advance one-page outlines of each of these modules, which were

translated into Chinese; and by displaying a summary of the main points in each lecture, in Chinese, with an overhead projector (as well as the wall panels which were mounted on display at each seminar, and which could be studied at leisure by the participants).

Secondly, and perhaps most important of all, was the flexibility of the team in rapidly modifying the programme to suit the specific requirements in each city. This was made possible by three main factors: first, the breadth of experience of the team members who could not only cover a wide range of topics, but also give examples or case studies ranging from London to Warsaw, Nairobi to Jakarta, Sao Paulo to Colombo. The second factor was the modular design of the programme which allowed major modifications to be made to the structure of the programme relatively easily. The third factor was the flexibility of team members, in being willing, and able, to modify, epxand or write new lectures at extremely short notice. This required not only hard work but also a high degree of cooperation.

On the Chinese side, also, two major strengths may be identified. The first was the degree of dedication and interest shown by all the participants, who provided encouragement by their evident interest in all the proceedings. The second was the high degree of efficiency, combined with flexibility, which was apparent in the organisation of all the seminars. All the support requested was provided, promptly and efficiently, and all the arrangements went extremely smoothly — even if last minute changes were made, to arrange additional visits and meetings, or modify the seminar timetable.

Issues in the Design of the Programme

In designing the seminar programme of this kind, a number of decisions have to be taken; number of topics, balance of theory and practice, balance of lectures and discussion, use of case studies etc., as briefly outlined below. It must be stressed that these different decisions closely inter-relate and cannot be dealt with independently.

One major decision is, of course, the choice of topics to be covered. This is constrained by the time available and is determined largely by two related

issues. The first is the trade-off between comprehensive coverage and degree of detail. Partly because no preliminary visit was possible, and also because the hosts were initially reluctant to omit anything that had been included in the draft programme, the seminars in Beijing tried to cover too much ground. But by the third seminar fewer topics were dealt with, each in more detail, and the balance then achieved was a good one.

The second related issue is the question of whether to structure the topics tightly around a central theme. This is difficult without considerable discussion in advance between team members. It can also inhibit the presentation of alternative views or perspectives, giving a rather monolithic impression which may not encourage debate. In this respect also there was significant variation between the seminars. Initially, the structure was evident but fairly loose; there were slight overlaps and gaps (though remarkably few given the limited time for discussion and preparation among team members); and alternative views were muted, but integrated within the whole. By the third seminar, a strong unifying theme was introduced, with alternative views being presented in counterpoint. The structure of the programme certainly benefitted thereby, but it was still not clear that the presentation of alternative views was ideally dealt with.

This last question raises the whole issue of how and why to generate discussion. This in turn relates to the overall purpose of the seminars, and the balance between description, analysis and prescription.

It was made clear that the team was not intended to provide instant advice on how urban planning should be done in China, but rather to introduce the participants to current ideas and practice in other parts of the world, which might connect with the Chinese situation. In simple terms, therefore, the question of the appropriate balance between description, analysis and prescription was, in part, easily solved. There should be no prescription. In practice this was a little hard to adhere to, since many of the questions in discussion were of the type: 'What would you advise ...?' Nevertheless, all the lectures, and most of the discussion, concentrated on description and analysis.

But what is the appropriate balance between these two? And, closely related, the appropriate balance between theory and practice? In general terms, the

aim was to combine them in roughly equal proportion, since an issue of particular importance to the DPU is precisely this interaction of theory and practice. This emerged during the seminars as a major topic of interest, upon which attention was increasingly focussed. This balance was well maintained, but the issue did arise as to how best to introduce the practical, descriptive components. In part this raised the common choice between detailed case study and 'apt illustration'. At the extreme this can be manifested as choice between a theorectical/analytical lecture enlivened by the occasional reference to a major world city, or an essentially descriptive lecture giving enough background information to demonstrate with some convicition one or two major conclusions of significance.

Generally, parity was effectively maintained, and the lectures did not divide clearly into one type or the other. The only significant change over the seminars was that for the third seminar, Jakarta and London were treated as case studies — at the end of the programme, bringing together many of the themes and issues already referred to.

The balance between lectures and discussion was, as already noted, changed from 2:1 in the first seminar to 1:1 thereafter. This depended for its success on two factors. First, it was important that questions be forthcoming and that they be stimulating. In this respect, Xian was most successful, because the director used the half-hour break to discuss with participants and select three suitable questions to be presented to the team. The delay caused by translation, and perhaps a certain relectance on the part of participants to appear critical or antagonistic, both inhibited discussion to some extent, but generally the problem was to stop it when the time came for closing. The second factor which contributed to the success of discussions was that the team members were never short of things to say, and were not at all reluctant to disagree (without rancour). Discussions were chaired by the team leader, and unless questions were very specific they were generally offered to more than one team member for response.

One major advantage of lengthy discussion was that it allowed participants to choose specific topics of interest to them, rather than having the team determine the matter all the time. In general, the balance of 1:1 was felt to be the right one - except in Shanghai, where only one afternoon was

devoted to the seminar, and the participants perhaps did not have time to establish the necessary rapport for effective discussion.

It was found that devoting a whole morning to lectures, and a whole afternoon to discussion, as in the first seminar, was not the best system. Thereafter, 1½ hours of lectures were followed by 1½ hours of discussion, which proved extremely successful. This leads to the question of the timetable for the seminars.

Whatever the number of days, or even weeks, it seems that there would not have been enough time to deal with all the questions raised, in the degree of detail desirable. But given the number of days available, the seminars were as intensive as they could be - form the point of view of both participants and team members - especially since some lecturs had to be written or rewritten (and most of the team at some stage succumbed to 'flu). And the length of each seminar (excluding Shanghai) was sufficient to cover a good deal of ground.

It is evident from the foregoing that the seminar programme developed and improved steadily, and what emerges is a successful model which is certainly appropriate in China, and also, perhaps, elsewhere. A further improvement which might prove effective, and which emerges from the experience of these seminars, is not simply to increase the degree of detail, but also to focus on specific issues of current importance in China — such as decentralisation policies. Such topics would have to be carefully selected. Clearly they should be of specific and current interest in China, but they should also be topics for which the ciritical analysis of experience and ideas in other countries of the world would be relevant and instructive. It is not easy to choose such issues without a good knowledge both of the country for which the seminar programme is designed, and of the type and level of participants that will attend. But, ideally, a further seminar programme in China would be designed in such a way, now that this knowledge has been acquired.

In summary, the considerable success of the seminar programme was achieved largely by a process of 'learning by doing'. The variation between the different programmes conducted in Beijing, Xian and Nanjing reflects this - and also, perhaps, demonstrates to some extent how the different issues just identified were dealt with in each case. It is hoped that some of these lessons may be of interest beyond the particular case of this seminar programme in China.

3. PROSPECTS FOR FUTURE COLLABORATION

During the course of the visit, we held a series of discussions dealing with the possibilities of future joint activities involving the DPU and both government and academic institutions in China. These discussions arose out of previous exchanges and visits involving DPU staff and Chinese planners covering the period from 1981, and more particularly out of the immediate experience of the current visit described above, which was generally felt to be extremely positive and of direct use to those who attended the seminars.

A first set of discussions, in Beijing, and carried on at subsequent venues ending in Shanghai, concerned the future relations between the DPU and the China Academy of Urban Planning and Design (CAUPD), Ministry of Urban/Rural Construction and Environmental Protection (MURCEP). In talks with the Director of the Academy, Mr Zhou Ghanzi, the Advisor, previously Deputy Director, Mr An Yong Yin, and with Ms Xia Zhong Gan, Head of the Administrative Unit of the China Academy of Urban Planning and Design, four main items of interest emerged:

- 1. The exchange of information and documentation between the DPU and the Academy, including research and training materials produced by the two bodies, with the idea of strengthening the access of the Academy to developed country and third world experience, and the availability of Chinese planning and urban development material at the DPU.
- 2. The attendance of a few selected planners and researchers from the Academy on specific training programmes at the DPU, also involving preparatory English language training. Courses mentioned included Planning Ports for Economic Development, Planning Industries in Cities, and National Urbanisation Policy.

- 3. The mounting of further seminar and workshop programmes in China, with a greater degree of specialisation of topic, allowing for more in-depth presentation and discussion. Topics which emerged quite clearly out of our joint experience on this mission included planning for major metropolitan regions, the integration of economic and physical planning, urban transportation planning, and the issues of design and redevelopment of older city centres.
- 4. The arrangement of a study tour for CAUPD staff to the UK in the latter half of 1985 or early 1986, focussing on the further development of links between the DPU (and other UK educational, training, research and consultancy groups) and the main Chinese government agency dealing with urban development, town planning and environmental questions, including those just mentioned.

A second set of discussions was held with senior members of staff at NANDA, including Professor Wang Dezi, a Vice-President of the University, and the Director and Deputy Director for the Urban Planning Group at the Department of Geography, Professor Soong Jia Tia and Professor Cui Gonghao.

The Department of Geography at NANDA is one of the two or three leading centres for the education and training of planners in China. It is of particular importance because of the increasing emphasis on the economic and social aspects of urban development compared with the already well-established architectural and engineering backgrounds which have previously dominated the field. The Department of Geography has a contract with the MURCEP to run special training courses for government planners and it is intended that these programmes be expanded.

The discussions centred around the possibility of a link between the Department of Geography at NANDA and the DPU at UCL. The link would be intended to strengthen the international experience and comparative asepcts of the urban planning programme. It would be intended to cover several major asepcts of collaboration between these two institutions, including the placing of graduate students, the exchange of teaching staff, the design of study fellowships and research programmes, the exchange of teaching and research materials, and possibly the design and development of joint study projects in third world countries.

Appendix 1

CALENDAR OF EVENTS

September

Tuesday 4 Depart London

Wednesday 5 Arrive Hong Kong (YMCA, Waterloo Road)

Thursday 6 p.m. Arrive Beijing
Discussion on programme

Friday 7 a.m. <u>Session I</u>

p.m. <u>Session II</u>

evening Welcome Banquet given by Director of Academy, Zhou Ganzhi

5110 W GM1=111

Saturday 8 a.m. Session III p.m. Discussion I

evening Entertainment (acrobatics)

Sunday 9 Tourism (Great Wall, Summer Palace and City Centre)

Monday 10 a.m. Session IV p.m. Discussion II

evening Reception at British Embassy Cultural Counsellor's home (Mr and Mrs Adrian Johnson) with Zhou Ganzhi,

An Yong Yu, Xia Zhong Gan

Tuesday 11 a.m. Peter Townroe, Michael Safier: meeting with
Qinghua University Architecture and Planning
Department

Desmond McNeill, Adrian Atkinson: meeting with

Biejing Urban Planning Directorate

p.m. Depart Beijing for Xian by air Discussion on programme

.../continued

Visit to Fangzhi Cheng (1950's industrial Wednesday 12 a.m. district in east Xian), housing areas, and tourist sites in Xian Thursday 13 Preparation of seminars a.m. Session I p.m. Entertainment (variety show) evening Friday 14 Session II a.m. Session III p.m. Saturday 15 a.m. Session IV Visit to City Wall restoration project p.m. (Gin Shi Huang's burial place, and various places Sunday 16 of historical interest, including Huaging Pool) Monday 17 Session V a.m. Session VI p.m. Tuesday 18 a.m. Depart Xian for Nanjing by air p.m. Discussion on programme Nanjing University Welcome Banquet given by evening First Vice-President Wang Dezi and attended by Xia Zhong Gan, Liu Huimin, Professors Yang Wu, Soong Jia Tia and Cui Gonghao Wednesday 19 Preparation a.m. Session I p.m. Thursday 20 Session II a.m. Session III p.m. Informal party for delegation organised by evening Lin Zibing and staff of Foreign Language Department Friday 21 Session IV a.m. Tourism (Sites of Nanjing) p.m. Saturday 22 Session V a.m. Guided visit to Ruijin New Village estate, p.m. to Yanziji and other places of professional interest

Sunday 23	a.m.	Depart Nanjing for Shanghai by train Met by personnel of City Planning Agencies
	evening	Entertainment (variety show)
Monday 24	a.m.	Guided visit to Tianshan New Village Estate and City Centre
	p.m.	Seminar/Discussion
Tuesday 25	a.m.	Visit to Port of Shanghai and trip on Huangpu River
Wednesday 26	a.m.	Depart Shanghai for Hong Kong

Appendix 2

DETAILED SEMINAR PROGRAMMES

Introduction

Listed below are the 28 'modules' which formed the draft programme of lectures. As noted in the report, both the programme and the individual lectures were greatly modified for each seminar, as the following details indicate:

Module Number			
	INTRODUCTION		
1	Learning from international experience		
2	Planning in centrally planned economies		
	URBAN DEVELOPMENT POLICY		
3	Why cities grow: macro level		
4	Why cities grow: micro level		
5	Consequences of city growth		
6	Urban planning: the discipline		
7	Urban planning: the practice		
8	Critique of urban policies: national level		
9	Critique of urban policies: city level		
10	Alternative approaches		
	URBAN DEVELOPMENT PROGRAMMES		
11	Introduction		
12	Urban land: policies		
13	Urban land: programmes		
14	Urban transport and infrastructure: policies		
15	Urban transport and infrastructure: programmes		
16	Energy, environment and ecology		

Module Number

17	Urban housing: policies				
18	Urban housing: programmes I				
19	Urban housing: programmes II				
	URBAN MANAGEMENT AND ACTION PROJECTS				
20	Introduction				
21	The institutional framework of the planner				
22	The planning process I				
23	The planning process II				
24	The key elements of implementation				
25	Methodology of project preparation and appraisal I				
26	Methodology of project preparation and appraisal I				
27	Urban management and finance I				
28	Urban management and finance II				
29	Review of major themes				

1. Beijing

(The draft programme just outlined was broadly followed, and is therefore not repeated in full here.)

Friday 7 September	8.00-11.30 a.m.	Modules 1 to 7
1	2.30-6.00 p.m.	Modules 8 to 10
Saturday 8 September	8.00-11.30 a.m.	Modules 11 to 19
	2.30-6.00 p.m.	Discussion
Monday 10 September	8.00-11.30 a.m.	Modules 20 to 27
	2.30-6.00 p.m.	Discussion

Appendix 4

MATERIALS PROVIDED

1. Display Panels

Nine Al size panels for wall display, incorporating maps, diagrams, colour photographs and text on the following subjects (Headings only in Chinese):

London - Metropolitan Government

Milton Keynes - New Town Development

Budapest - Housing

Sao Paulo - Manufacturing Industry

Jakarta - Urban Infrastructure

Nairobi - Informal Economy

World Urbanisation: Theme and Variations

World Cities: Challenge to Planning

Development Planning Unit: International Activities

2. Lecture Outlines and Summaries

Twenty eight lecture outlines, each of 1 page, sent in advance and translated into Chinese in China.

Approximately forty-five overlays for overhead projection, each being a summary, in Chinese, of the main points in each lecture. (Twenty eight prepared in advance, the balance prepared as the seminars developed).

3. Films and Slides

Two films provided on loan by the British Council in Beijing were shown in Xian - one on Cumbernauld New Town, one on the new Covent Garden market.

Slides were taken by team members, but used only sparingly, to illustrate the conservation and restoration of old buildings in East and West Europe.

4. Other Materials

A name list of the team members, a copy of the DPU brochure, and name cards were translated into Chinese for distribution in China.

In addition to the above, various publications in English were presented to the hosts in each city, including materials on London and DPU Working Papers on various topics relating to urban development planning in the Third World.

Appendix 5

SUMMARY CV's OF TEAM MEMBERS

Desmond McNeill (Team Leader)

Lecturer and Director of Overseas Services of the DPU.

Graduate in economics from Cambridge. 15 years as consultant and lecturer, with expereince in 11 overseas countries (Indonesia, Sri Lanka, India, Mali, Jordan, Egypt, etc.)

Specialisation: urban project planning and appraisal.

Geographical specialisation: South and South East Asia.

Michael Safier (Deputy Leader)

Lecturer and Co-Director of the Masters Course in Urban Development Planning at the DPU.

Graduate in economic geography, with nearly 20 years as lecturer, researcher and consultant with experience in many overseas countries (Uganda, Kenya, Zambia, Iran, Indonesia, India, Puerto Rico, etc.)

Sepcialisation: national urban policies; planning theory.

Geographical specialisation: East and Southern Africa.

Richard Kirkby

Research Associate of the Development Planning Unit.

Graduate in geography; postgraduate diploma in urban and regional planning; with over 10 years expereince as planner and researcher, including periods at Universities of Shandong and Nanjing.

Specialisation: urbansiation in centrally planned economies.

Geographical specialisation: China.

Adrian Atkinson

Part-time lecturer at the Development Planning Unit.

Masters degree in Architecture and Urban Planning; registered architect; nearly 20 years experience as practising planner in Europe and several other countries (Holland, Greece, Saudi Arabia, Iran, Iraq).

Specialisation: environmental planning; planning theory.

Geographical specialisation: Middle East.

Peter Townroe

Senior Lecturer at University of East Anglia; Co-Director of the Special Programme on Planning Industries in Cities at the Development Planning Unit. Graduate in economics, with nearly 20 years as lecturer, researcher and consultant in UK and overseas (Brazil, Pakistan, etc.) including resident consultant at World Bank.

Specialisation: Industrial location and urban development. Geographical specialisation: South America.



MEMORANDUM

TO: Potentially Interested Parties

FROM: Sandra Rosenblith

SUBJECT: HOUSING & OTHER DEVELOPMENT IN BELJING

Beijing is a totally flat city, mostly grey and beige, relatively close to the Gobi Desert. It is very dusty, and often very windy. While there, I met with an official of the City Planning Commission, visited some relatively new Chinese housing, including a visit to an apartment, toured several residential neighborhoods and commercial corridors, old and new, and read the national english language press. This memo summarizes what I saw and learned.

China's population is about 1.031 billion persons. Average population density is 105 persons per square kilometer, roughly 3 times the world average. Eastern China has 46% of the land and 94% of the people. Residents of 15 cities with populations over 1 million make up 39% of the population. China has 3 of the 20 largest cities in the world and one, Shanghai, with a population over 11 million, in the top 4.

The City Planner indicated that: in 1949, Beijing's population was 1.65 million; there are 9.75 million people in the metropolitan area today, and the goal is keeping this number at or below 10 million in the year 2000; the core urban and suburban area is divided into 3 rings, defined by major roads, containing 5.65 million people; the inner ring includes the oldest housing and densest population-traditional one story brick and stucco housing built with blank exterior walls on courtyards, along a system of relatively narrow clay alleys, near the Imperial or Forbidden City, with 30,000 people per hectare or 2.47 acres; a large percentage of this housing is privately owned by families whose ancestors were attached to the Court during the Ming Dynasty; a decision was made after the liberation in '49 to develop an industrial base in the City and pay little attention to other development; and this decision has been abandoned in favor of making Beijing a center of government and culture with facilities reflecting these functions at the core and the remainder divided into relatively self-contained neighborhoods including workplaces, housing for their employees, retail and service, schools, health care and parks and open spaces for residents.

The Planner cited these problems: core density and building deterioration; substandard and overcrowded housing; outmoded and inadequate infrastructure, including streets, water, sewer, transportation and park systems; lack of commercial space; and incompatible land uses. (See attached article "Capital Is Building A 'Green Reservoir'".)

The average total dwelling space per person is 3.5 square meters or about 35 square feet. An article in the magazine "China Reconstructs", entitled "Our Home Life: Elbow to Elbow and Cheek by Jowl", describes a large apartment—240 square feet for 4 adults. The official goal is increasing the space per person to 5 square meters or 50 square feet. The older "single family" stock is ill-suited to housing the 3 person nuclear family now encouraged. It was designed and built for extended families. Much of this housing has no running water or sewer or inadequate plumbing. The alleys it is built on are too narrow for transportation other than bicycles, motorcycles, and bicycle-powered vehicles, e.g., pedicabs, carts, etc.

The government has built numerous mid- and high-rise apartment blocks in the rings surrounding the core. The current mix of stock is roughly one third single story, one third mid-rise and one third high-rise. Mid-rises are 5 to 6 stories. Most high-rises do not exceed 10 or 12 stories. These buildings look like pretty typical Section 236 or 8 projects from the outside, except that they have small balconies. Many of the balconies have been enclosed by tenants using a variety of materials. Buildings being rehabbed and new buildings often have enclosed balconies. apartment would have 2 or 3 rooms and might have a private bathroom or at least a private W.C. The mid-rises we saw generally had 20 apartments. The apartment we visited had 4 residents—a grandmother, father and mother, and college student son. It had a central hallway about 3 feet wide and 10 feet long and 3 rooms: the grandmother's, a bedroom doubling as a dining area and kitchen with a bed, table and hot plate; the parent's, a bedroom doubling as a living room with a bed, two Barcalounger-type chairs, a wardrobe, coffee table and color t.v. set; and the son's, a bedroom doubling as a study with a bed, desk, bookcase and 5 foot tall refrigerator. There was an enclosed toilet and a water basin in the hall. The largest room was The walls and floors were bare concrete. roughly 10 by 10 feet. building halls were that familiar institutional green.

The Planner, news articles and several people we talked to said that high-rise apartments don't work well and mid-rises are preferable. Rents for all apartments are about the same-5 to 6 Yuan per month, or less than \$2. The average salary in Beijing is between 50 and 100 Yuan a month. Utilities are tenant paid, and often exceed rent, now that people have more Tenant associations are supposed to maintain the electrical appliances. People say that high-rises are too buildings on a cooperative basis. crowded and impersonal; tenants don't maintain them well; elevators break and the water pressure is too weak to get water to the upper down a lot: (See attached article "Put Heart Back Into Housing".) While we floors. were in Beijing, the newspapers announced that if the current drought continued, and people didn't conserve more water, water pressure would be inadequate to reach higher than the third floor.

when I asked the Planner what the government was going to do to decrease the density and alleviate housing conditions, he gave these answers. The government expects to build 20 satellite cities and 200 such towns outside the 3 inner rings. (See Picture attached.) The national goal in the Seventh Five Year Plan is 400 cities and 10,000 towns by 1990. No

new industry will be developed in Beijing. New industry will be located in the satellites, and industrial ventures remaining in Beijing proper will be relocated there along with their employees. He explained that since one must get a permit to live anywhere, and permits are issued according to workplace, these satellites can be settled without the problems associated with new towns elsewhere. (However, see attached article "Beijing Fair Busy With House Swappers".) The government also plans to demolish roughly 80% of the older single story housing. It will rehab the best 20% using historic design standards to preserve the cultural character of old Beijing. When I asked how the government would demolish or rehab the privately owned structures, he said it would be difficult to get the owners to sell. When I asked if it would set up a low-cost loan fund for landlord rehab, he said they had never considered it, and he thought it unlikely. The Planner continued, saying that the government had built some 6 million square meters or about 60 million square feet since '49, and that it would be able to build more housing and create more open space in the inner-city after the older structures are cleared. Its goal is reaching a construction rate of 20 million square feet overall per year in Beijing. The national goal is constructing 650 million square feet of urban housing under the Seventh Five Year Plan.

I asked how it would be possible to build so many satellite cities and towns and housing, given housing costs and the cost of new infrastructure in rural areas and upgrading the infrastructure in the inner-city. His basic response was: "I've been wondering about that. As a country, province and city, we have to balance the budget. We only have so much money to spend every year and we have a lot of problems. How do you do it?" (See attached article "State Halts 106 Building Projects".) I explained that governments issued bonds, borrowing money to pay for housing and infrastructure like water, sewer and transportation networks. He wanted to know how the loans are repaid, and I talked about taxes, sales, our rents and rent-to-income ratios, special assessments and user fees. The Planner was fascinated. allowed as how home ownership existed in rural areas because the peasants have longterm land leases, and there is room for single family housing. Over the past 5 years, 80 million farm households built homes, accounting for 42% of the country's total housing construction. He said that luxury condos are being developed for the Overseas Chinese in Beijing. (A new town for 50,000 Overseas Chinese is being developed elsewhere.) But, he thought home ownership in urban areas was very unlikely, even though the government would get its money back faster. So were increases in rents. (However, see article attached "Shanghai Savers Buy Homes".). I pointed out that the new "economic responsibility system" meant that some people were earning more and could afford to pay more for better housing, and asked if private landlords charge more and whether the concept of private, for-profit housing development exists. He answered that while private landlords might charge more, he didn't think the government could have rent schedules based on income because "in theory" everyone makes the same salary. The concept of private, for-profit real estate development applies only to joint ventures with foreign companies for hotels and projects such as the Overseas Chinese He noted that, in these cases, the developers had to pay the condos. government for the cost of the associated infrastructure (off-site improvements) before they can build.

After this exchange, the Planner did say that the government would concentrate its housing development efforts first in the outer two rings of Beijing. I wanted to know what the average cost of this housing would be. He said about \$6.25 psf for bricks and mortar and \$31 psf for everything, including relocation costs. He pointed out that low-rise buildings would be cheaper, but land is too scarce, "expensive", to make low-rise feasible. Referring to a high-rise construction site we were seeing in the second ring, where a crane was being used to lift structural steel, while laborers were manning a bucket and pulley to lift other materials, and materials were being brought to the site by horse-pulled cart, I asked how long such a building would take to construct. He estimated 3 years. I noted that even these developments would take significant time. He admitted they would, and went on to bemoan the transportation problems that this housing would exacerbate.

At present there are 5.5 million bicycles and 4,300 buses in the Beijing metropolitan area. In 1985 alone, the number of bicycles increased 38%. The ratio of buses in operation compared to those "being serviced" dropped to 44% from 92% in 1981. The average bus speed decreased to 12 to 14 kilometers per hour versus 18 to 20 in the '60s. At rush hours, between 12 and 14 people are crammed into every 10 square feet on the buses. officially accepted standard is 9 persons per 10 square feet. two, relatively small, centrally located subway systems carrying about 430,000 riders a day. Supposedly, there are no private cars. there are government cars and vans and trucks. There are 200 taxi companies with thousands of cabs, none of which even existed three years ago. 1985, the number of cars increased 130%. And, there are pedicabs, motorbikes, bicycles, horsedrawn carts and pedestrians. By our standards there are relatively few traffic lights-230. There are 4,200 traffic policemen, some of whom stand on round platforms with umbrellas directing traffic at the major downtown arterial intersections. These streets have sidewalks, bicycle lanes defined by metal fences and vehicular traffic lanes with bus stops located between the bicycle and vehicle lanes. streets have no lights, policemen or barriers. And, the sidewalks of many streets and alleys are clogged with parked bicycles, peddlars, with and without stands, and pedestrians walking and squatting on the sidewalks. A recent article in the Beijing Review says that one sixth of all the motor vehicles in the city flow through one intersection every day. At a specific smaller crossing, rush hour traffic amounts to an average of 1,570 cars and trucks, 25,000 bicycles and 8,800 pedestrians per hour.

These problems are heightened by internal and external tourism. Last year, there were 930,000 foreign tourists in Beijing. In the past 5 years, more than 61 million Overseas Chinese visited China, many of whom came to Beijing. More than 25% of the Chinese took internal trips in 1985. 300,000 people a day take buses to the Summer Palace in the Beijing suburbs during the tourist season. 8,000 cars a day pull up to the Beijing Hotel. It has parking for 300 cars.

All in all, transportation is a big problem in Beijing and the surrounding areas. The joke about the Great Wall is that its wall-to-wall people. It took us an hour and a half to drive from Beijing to within 2

kilometers of The Wall. It took us another hour and a half to get into the parking lot and get a parking space. Eventually, we got out and roamed the lot in the rain until we found someone pulling out, then stood in the space while one of us found the van and directed the driver to us. I recommend that anyone going to the Great Wall take the helicopter tour from Beijing. But clearly helicopters don't solve the day-to-day problems, and as the Planner points out, no-one seems to have any solutions.

As you can see, I could go on and on. However, with the reader in mind, I will end (I promise) with a brief discussion of retail development and a note on parks and greening. Because private retail and service businesses were not permitted after '49 up until Modernization, there was virtually no commercial space available for such ventures. The space that did exist was occupied by government-owned enterprises or used for other purposes. Retail and service businesses have sprung up virtually everywhere. Most of these are conducted on the streets or out of tiny spaces fronting on the street, very few of which have storefronts per se. The net result is more congestion, a bazaar atmosphere, with some streets virtually closed by vendors offering everything from vegetables, ice cream and fast food to clothes, pots and pans, shoe repairs and almost anything you can think of other than consumer durables. You may be amused to know that durables like refrigerators are on sale in the unlikeliest places, e.g., hotel lobbies. In any event, the government response to this is severalfold. immediate basis, it is building open covered sheds, known as "free markets", to house vendors. But the demand far outstrips the supply. Secondly, it is renovating existing commercial space in areas where hard currency can be earned. For example, we visited a street dating from the Confucian period where the government is doing a conventional commercial revitalization project, e.g., storefront renovations according to historic design standards along a three block area closed to motor vehicles, complemented by new paving, planters, light fixtures and even banners. Tenants are limited to selling antiques and arts and crafts objects. The area is anchored by a restaurant and government arts and crafts store. And, finally, the government is building new strip shopping facilities for rent to government and private businesses.

I leave you with these thoughts. Because Beijing is so crowded, there are not very many parks. Because it is so dry, dusty and windy, it is very difficult to grow grass and flowers outdoors. The government is building some parks and planting some places in them, but usually when you see plants and flowers they are in pots not the ground. The national goal under the Seventh Five Year Plan is reaching 4 square meters of trees and grass per person by 1990. Imagine these two phenomena. We were entertained in a diplomatic housing complex serving all foreign embassies but the Soviet's. Right smack in the middle was a playground donated by McDonalds where the play equipment included Ronald McDonald and a Big Mac. There are no McDonalds in China yet... And, during the first 4 months of 1986, the government planted 16 million trees in Beijing. And, they're not done yet.

NOTE: I have attached some relevant clippings on these subjects and others, e.g., building materials. All are from Chinese sources. Most are from the China Daily.

Capital is building a 'green reservoir'

special to China Daily by Tong Liuwu

Beijing has planted more than 16 million trees in and around the city in the first four months of 1986 — topping its target for this spring by '7.5 per cent — as part of its overall programme to improve the environment.

Efforts are still under way to develop five "green corridors" along the five State highways fanning out from Beijing to outlying cities. The five green "rays" with a total length of 400 kilometres, will cover areas up to 100 metres wide along highways on all four sides of the capital in three to five years.

Mayor Chen Xitong pointed out during a recent inspection of the capital's greening drive that urban development "must be guided by ecological considerations — this is our firm decision."

The mayor's statement was echoed by many persons concerned with environmental protection in Beijing, where an exploding

population and ever-expanding industry have produced more and more pollution.

The problem is growing serious in some of the city's industrial sectors, such as Changxindian, a district in Beijing's southwestern suburbs.

Water shortage

The problem in Changxindian is primarily industrial pollution, which has affected drinking water for its 120,000 inhabitants. Last December, commuters working in the district even brought their drinking water from home, while the Changxindian February 7th Locomotive Factory provided each of its employees with a mini-filter for drinking water.

The authorities installed six active carbon processors in the local water supply centre to improve the quality of piped water, but the source of pollution — industrial waste in the Yongding Canal flowing through the district — still remains, and the root of this problem is the shortage of water.

"Changxindian used to rely on underground water, but the supply was exhausted late last year so the water is now pumped from the Yongding Canal, which was previously used as an industrial water source," according to Hu Guangren, engineer in charge of water quality at the Beijing Water Company.

Before 1984, Beijing's drinking water came primarily from underground. But continuous pumping and a five-year drought have resulted in an annual fall of one metre in the city's underground water table. Hu said.

Urgent need

Strict control of industrial pollution is imperative, according to Liu Yanshen, an official of the Beijing Bureau of Environmental Protection. "But a major effort to plant trees in and around the city is vital to continuous environmental improvement," he said.

"A forest is the best reservoir," Liu pointed out. "It will not only help preserve water but also it willpurify the water flowing throuth it. A river becomes cleaner after flowing through a forest."

The city has also realized the urgent need to control industrial pollution in addition to the long-term ecological project of large-scale tree planting.

Recently Deputy Mayor Zhang Baifa announced a series of measures on pollution control and the protection of two major water sources, the Yongding Canal and the Miyun Reservoir.

"We can now fine people who are found discharging untreated waste water into canals." Liu said.

He blamed the city's pollution problems on its ever-increasing urban population and over-zealous industrial development.

There are now 5 million residents in urban Beiling — five times the number in 1949. The increase in urban population has outpaced the city's expansion of sanitation facilities such as the drainage system. "As a result, people in

many areas have to release sewage into the nearby rivers." Liu said.

The Yongding Canal, for example, has been found to have 55 pollution sources. Thirty-eight are from upstream coal mines, hospitals and residential quarters: the other 17 are along the canal's urban section.

"In the past, people tried to turn Beijing into a self-contained industrial centre," Liu said. "But the steel, chemical, paper-making and electroplate factories they built have become sources of pollution."

He noted that the Young Pioneer Lake Park in Chaoyang District, east of the city, is now deserted because waste water from the Beijing Number 1 Power and Heat Plant has turned the lake into a dark and stinking pool. About 30 other rivers or streams across Beijing are also polluted to varying degrees.

"It is unlikely that a river can pass through the city without being polluted." Liu said.

Put Heart Back into Housing

At a time when high apartment buildings are mushrooming in Beijing, replacing the traditional courtyard — siheyuan — housing, residents are beginning to feel a certain alienation in neighborhood relations.

The sineyuan-style of architecture reflects Beijing's history and culture. But it also had a positive social effect that should not be ignored by today's architects.

Sharing a common courtyard, different families develop a common bond. If it starts to rain, someone absent from home need not worry about clothes hung outside. One of the neighbors will certainly bring them in. Elderly Beijing residents recall past summer days when families shared dinners in the courtyard, chatting and sampling one another's cuisine.

The siheyuan creates a valuable social network. Generations of Beijing citizens have passed their lives in such quadrangles. The network has become a symbol of harmonious neighborhood relation. The courtyards give people a sense of safety and belong-

ing. In their special way, they contribute to social stability.

In high-rise apartment buildings, many people find themselves in a depersonalized setting. Living in isolated "pigeon holes," casual social interplay disappears. Apartments, though compressing more people into less space, lengthen the distance between individuals. This is specially harmful to the mental health of the elderly and to the psychological development of children. Experience in advanced countries shows that people are not satisfied simply with material abundance and spacious living quarters. They yearn for human interaction.

There is no doubt that densely populated Chinese cities need more apartment buildings. A comfortable, spacious apartment is something people dream about. But there is no reason why a modern high-rise cannot incorporate some of the "people" features of a silieyuan. Architects should break their present monotonous design format and think of the needs of those who will someday move into the concrete towers.

Beijing Evening News

This development in the Caihe New Village in suburban Beijing was built under a unified plan.

Beijing fair busy with house-swappers

by Gao Shi

Despite scorching sun and soaring temperatures yesterday, Beijing people flocked to the Workers' Cultural Palace in the city entre—not to let off steam but in the hope of swapping houses.

The fifth Beljing Housing Exchange Fair is being held in the Palace from May 21 to 25. The local press announced the opening in advance.

The fair aims to match up house holders with commuting problems who can "change places" to mutual advantage.

One young men in his late twen-

ties told China Daily: "I live at Jinsong in Chaoyong District, but work at a factory in Qinghe, roughly 35 kilometres away. It takes me over three hours every day to cover the distance.

To his pleasant surprise, he found three possibly ideal house-swappers through the fair's computer system.

The fair creates lively scenes: groups of people negotiating, advertising their homes and anxiously perusing registration cards pinned up on line upon line of exhibition boards.

The cards number as many as 20,000, according to Li Zhi, an official from the Beijing Estate Administration in charge of the fair.

He is also head of the Guiding Centre for National Urban Housing Exchange.

"Because of limited housing and grave traffic problems, commuting more than one hour every day is only too common among city dwellers. There are also many who frequently travel long distances to look after aging or disabled relatives, and others with three generations living together who want to trade their big, single room for a smaller two-room flat," Li said.

Generally Chinese urban individuals cannot afford to buy or build their own houses near where they work. They often scramble to rent the limited number of apartments constructed by their working units, regardless of their location. Most city residents go to work by bus, which can travel at only 10-15 kilometres per hour during rush hours.

Investigations show that housing and transport are biggest headaches for Chinese city residents. It is common to find notices stuck on lamp posts appealing for prospective houses wappers. Some people scour the city, hunting for suitable houses for exchange — not an efficient method.

"We set up house-trading centres and sponsor annual exchange fairs for people's convenience," Li noted.

At the fairs, housing details and the necessary formalities for transferring right of use are centralized. According to Li, 200,000 households have swapped through this channel since 1980.

Similar trading centres and fairs have also appeared in Harbin, Tian-jin, Wuhan and Shanghai, where the trade is no less busy than in Beijing. Some 33 cities across the country have joined the Guiding Centre for National Housing Exchange. Li said.

A National conference on housing exchange is planned in Dalian this August.

State halts 106 building projects

The government has ordered nork to stop on 106 unauthorized construction schemes which were started in the last three months of 1985. Economic Daily reported yesterday.

The authorities investigated a total of 763 such schemes outside the State budget all over China during the first three months of this year after a State Council ruling to clamp down on runaway capital construction.

Of these, work on 148 projects — mainly housing and cultural, educational and public health facilities — was allowed to continue. The 106 halted schemes are mainly office buildings.

The newspaper said final decisions had yet to be made on the other 509 projects. The government was determined to prevent unauthorized construction from draining the country's economy.

(Xinhua)

Shanghai savers buy homes

special to China Daily by Yang Zhongyi

SHANGHAI — Wang Xiaomin paid 5,200 yuan (about \$1,700) this April and moved his family of five into a new 52.8-square-metre apartment.

It consists of two bedrooms, a kitchen, one built in wardrobe and one lavatory. From now on, his family of three generations will no longer have to huddle in its original 34-square-meter dwelling.

Wang. 37. a worker at a Shanghai textile factory, says: "We long hoped to improve our overcrowded living conditions, and now the policy of selling houses to families has made it possible."

Many people in the city are now saving their money to buy an apartment. Says Li Qiang, a pharmaceutical employee: "My family has been putting aside every cent and now has 4,000 yuan (about \$1,300) in hand. Next year, we will be among the home owners."

Housing commercialization is seen as a major step to improve housing conditions for people in this city of 11 million. It is also hoped that the profits from such sales will stimulate even more building of residential buildings. So far, the push to commercialize housing is proving a success.

According to a city government official, more than 80,000 square metres of living space were sold in 1984 and 510,000 square metres in 1985. By year-end, it is expected to top 600,000 square metres.

Shanghai's housing problem has been a pressing Issue for many years. The official said that construction of large-scale industrial projects was the major priority in China's economic development and that this overshadowed the residential buildings for several decades.

In recent years, however, the Shanghai municipal government has taken measures to ease the housing crunch. According to the city construction bureau, 20 million square metres of living space have been built between 1981 and 1985. But for the 6.5 million inner city dwellers, it warns, the average living quarters still remain at five square metres per person. About 500,000 families are on the list of "having house problems," it says.

Methods of selling houses in Shanghai include:

- Houses built by factories and business units can be sold to workers at the price of 120 yuan (about \$40) per square metre. The cost of each square metre is 300 yuan (about \$100) on average.
- · Part of the housing built with

municipal government investment will be sold through the China Enterprise Corporation, which specializes in housing sales, at 240 yuan (about \$80) per square metre to staff members of cultural, educational and health organizations or institutions. A staff member needs to pay only half the sum, and the other half is paid by his work unit.

- Ordinary citizens can buy directly from the China Enterprise Corporation at a price of 360 yuan (about \$120) per square metre.
- Newly built mansions and cottages cater specially to the need of overseas Chinese or their relatives, and are sold at double the price of ordinary houses.

The commercialization of housing has brought immediate economic benefits. About 2 billion yuan (about \$600 million) was made in profits from the houses sold last year, says the China Enterprise Corporation. And it predicts even more profits will be made in 1986.

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Shi Zai

Many residential compounds built 250 to 700 years ago still stand in an 800-square-kilometre area of Yongjia, a coastal county in Zhejiang Province.

Architects from Beijing and Shanghai surveyed the old buildings in recent months. They said it is rare to find so many old buildings intact in one area.

> The buildings were found by a writer named Wang Yingqi who went to the county by chance and then wrote an article, Picturesque

Scenery with Hills and Waters in Yongjia County, which drew the attention of architects.

"The old residential compounds are located mainly in two villages, Fu Rong Cun and Chan Bo Cun. ?

Within one compound in Fu Rong Cun, three rows of houses with 24 small yards can be found. The compound was built in the Song Dynasty (AD 960-1279).

Fu Rong Cun's main road parallels a clean stream that runs through the village, which is surrounded by double stone walls.

A memorial archway dating to the Tang Dynasty (618-907) can also be seen in the village, which now has a population of 1926, all. surnamed Chen.

Less than a kilometre away is Chan Bo Cun. It is said to have been designed by a matriarch in 955. There are 513 families living in the village now.

Outside the village are two facing pavilions. The second one belongs to a neighbouring village called . Fang Ao. Both pavilions were built in the Song Dynasty.

Other villages in the county also have old buildings. In Tan Tou Cun, 50 families of 200 people liver in an old compound with 120 houses occupying a space of more than three hectares. It was built in 1632.

The vice governor of the county, Chen Yongxin, told China Daily that as the residents in rural area get richer, they are rebuilding their. old houses. But the old buildings in Yongjia County have escaped so far. Now the local government has taken measures to prevent the old compounds from being pulled down. Chen also said that there are plans to open the old buildings to , the public after they are repaired.

New house model for 'cave-men'

LANZHOU (Xinhua) - Architect Ren Zhenying has developed an improved cave design for China's 35 million cave dwellers.

Built in a hillside in this capital of Gansu Province. Ren's cave has 42 rooms with a total floor space of 1,250 square metres. The largest of the rooms is 34 metres square.

Unlike traditional cave dwellings. the 1986 model has a large door and window frames, an air vent to the outside at the back of each room and two and three-room apart-

Ren says the new cave solves the most serious problem of the old one poor ventilation.

At the same time, he says: "It stays cool in the summer and warm in the winter. "It's relatively inexpensive to build, and saves energy and land that could be used for far-

Architects from Great Britain. Japan and the United States have said the new model preserves traditional Chinese styles while offering improved living conditions to its inhabitants.

Local officials say they will promote Ren's design throughout the plateau and expect it to eventually be widely used.

A man's home is his plastic

by Li Chao

The idea that houses are built with wood and brick is rooted in people's mind. However, the Nantong Number 1 Plastic Factory in Jiangsu Province is bucking popular perceptions by introducing a house made of plastic.

"The plastic house can serve as a temporary shelter for sellers as well as travellers," said Qian Jiang, an official from the factory.

Constructed with polyvinyl chloride, the plastic house is high strength, as well as sound-proof and heat-proof. It is quick to assemble and disassemble.

"Traditional building materials are in short supply, and plastic material is an ideal substitute at a lesser cast," said Qian.

The house, consisting of a bedroom, sitting room, kitchen and toilet, covers 42 square metres.

The house is colourfully furnished with plastic furniture in mock wood veneer.

"We imported production equipment from Italy, West Germany and Japan," said Hu Ying Huai, vice department director of the manufacturer, the Nantong New Building Material Factory in Jiangsu Province. "Our products have been marketed in Europe."

According to Hu, the factory enjoyed good sales during a recent exhibition, and a contract has been signed between the factory and the Great Wall Hotel.

The production of the plastic houses and furniture is limited due to the fact that both are new products. But the future looks bright. according to Qian.

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE July 10, 1986

Files

HOM John W. Huang, AEPUW

EXTENSION

61894

SUBJECT

CHINA: Shanghai Environmental Project
Minutes of Pre-appraisal Review Meeting

Mes Cohen De Ferrant Arlosoroff Revd (In hop)

The following is a record of the comments received in the preappraisal review meeting for the above project which was held on July 7, 1986 and chaired by Mr. David Turnham, Assistant Director, AEP.

- The meeting raised various points concerning the project which have been agreed and included in the Executive Project Summary (EPS). In summary the participants felt that the proposed financial objectives were rather ambitious, and agreed that a reasonable period of time to allow the sewerage enterprise to achieve them, as described in para. 5a of the EPS, would be acceptable. They also asked for plans to be reviewed at appraisal on land acquisition and resettlement of displaced families, and on measures to be taken for environmental improvement.
- 3. The following advice was also provided to staff at the meeting for appraisal and preparation of the staff appraisal report:
- a. As the proposed project competes with other urban projects in Shanghai for development funds, it is important to examine the relevance of the investments for this project in the context of the entire investment plan for urban development in Shanghai. The ability of Shanghai to provide the huge counterpart funds required by the project should also be reviewed.
- b. At appraisal staff should ensure that the alternative chosen is indeed the least cost, and the analysis and conclusions are noted in the SAR.
- c. A major benefit of the proposed project is environmental improvement. It is important to define what this entails in terms of what is expected to be achieved, i.e., what the situation would be with and without the project. A comprehensive plan on what institutional and legislative instruments are required to bring about environmental improvement, and the means to monitor and measure changes in environmental conditions would also be required.
- d. Institutional development is an important aspect of the Bank's work, and the importance of this should not be lost sight of in the proposed project. Indeed the project would offer excellent opportunities for strengthening institutions in the environmental sector.
- e. The project has substantial power requirements. The availability of adequate power supply in Shanghai for the proposed project would be ascertained at appraisal.

f. Significant changes in project cost estimate have been noted during the course of project preparation. While it is appreciated that there is a lack of good cost estimating data in China, an attempt should nevertheless be made to obtain a reasonable cost estimate during appraisal which can be depended upon throughout the life of the project. The impact on the project cost estimate of the recent devaluation of the RMB against the US dollar has to be studied.

cleared with and c.c. Mr. Merghoub (AEACH)

c.c. Messrs. Kaji (AEADR); Kirmani, Turnham (AEPDR); Loh, Cook, Saravanapavan, Garn (WUDDR); Ms. Ogawa (AEACH); Salman (LEGEP); Mrs. Hwang (LOAAS); Calderisi, Ms. Schaeffer (AENVP).

JHuang:

EXECUTIVE PROJECT SUMMARY - APPRAISAL STAGE

Country and Borrower:

China, Government of China Shanghai Environmental Project

Project Name: Probable Cost:

US\$ 515 million

Financing Plan

IBRD

US\$ 55 million

IDA

90 million

Bilateral

70 million

Shanghai Municipal Government

300 million

Tentative Appraisal Departure: September 1, 1986

Tentative Board Date: May 5, 1987

Background

1. Shanghai, China's largest and most industrialized city, has an urban population of over 6 million, and another 6 million in its rural counties. Past emphasis on industrial production had led to the diversion of the bulk of its resources for industrial development to the neglect of other sectors. Until recently, industries have been allowed to discharge their effluents with little or no treatment into local water courses causing widespread pollution. The situation is exacerbated by pollution load from domestic waste discharge which is rising rapidly with increasing family incomes. A Bank urban sector mission in 1982 identified pollution, together with inadequate housing and public transportation, as the city's most critical problems. The present project is part of a comprehensive urban development plan prepared by Shanghai. As environmental pollution is adversely affecting the living conditions of the people, and Shanghai's image in the international trading community, both the Central Government and the Municipal Government of Shanghai are placing great importance to the improvement of environmental conditions of the city.

Project Objectives

2. The proposed project is aimed at improving environmental conditions in Shanghai through physical works, and establishing an appropriate institutional framework to deal with organizational, financial, technical and legislative aspects of liquid waste management and environmental protection.

Project Description

3. The project is the first stage of a comprehensive environmental improvement program (with an estimated total cost of \$1 billion) prepared by the Shanghai Municipal Government. The project would address the most pressing pollution problems in areas along Suzhou Creek in the northern half of the city containing central commercial districts and dense residential areas. Project physical works would comprise the construction of link and intercepting sewers to collect and convey wastewater from combined sewers in these areas for disposal at the Changjiang (Yangtze River) estuary. Institutional development under the project would include strengthening of the organizations responsible for liquid waste management and environmental protection through consolidation and clarification of responsibilities, tightening legislation and operation regulations, establishing financial goals and developing management capabilities, acquiring better equipment and instruments for operation and environmental monitoring, and staff training.

Rationale for Bank involvement

4. China has, up to now, little experience in the planning and implementation of large environmental improvement projects of this nature. Bank involvement to date has already resulted in the selection of a cost-effective plan after a thorough examination of several alternatives. The Shanghai Municipality has relied extensively on the Bank's technical advice and experience from other countries. Continued Bank advice would be needed to address the very important institutional and regulatory matters in devising the operational plan. The Bank has been instrumental in helping to secure the bilateral cofinancing for the project.

Actions to be agreed on

- 5. a. A sewerage enterprise for sewerage operations, operated on a financially viable basis, to be established by December 1987. Detailed schedule for staffing to be established at appraisal.
 - b. Sewerage charges based on water uasage to be levied on industrial and domestic users to (i) meet, in the long term, all operating and maintenance costs, and interest, plus debt amortization or depreciation whichever is greater, (ii) provide proper signals for industrial users to pretreat their effluents. Shanghai Municipality to allow the sewerage enterprise to commence charging some sewerage tariff by 1988 and to achieve the financial objectives stated above by 1993. Terms of reference for a study (to be completed by 1988) to propose appropriate sewerage tariffs and a plan to implement them are to be agreed during appraisal.
 - c. Regulations on industrial effluent discharge standards for Shanghai to be passed by end 1987. A plan for implementing measures for industrial pollution monitoring and control to be agreed during appraisal, as well as the terms of reference and timing for a study on management of Huangpu River water resources to preserve water quality and to allocate their use.
 - d. A plan satisfactory to the Bank for land acquisition and resettlement of families displaced by the project to be agreed at appraisal.
 - e. Shanghai Municipality to continue to engage competent foreign consultants to advise on project design and construction supervision.

Justification

6. Given the serious pollution problem in Shanghai, additional measures to relieve pollution are essential. The principal benefits would be better environmental conditions in areas along the two major waterways of the city. Because of difficulties to fully quantify economic benefits in environmental projects, it would not be possible to arrive at a meaningful ERR for this project, and justification of the proposed investments would be based on least cost solution among feasible alternatives.

Risks

7. In view of the lack of local experience with environmental projects of this size and complexity, the main risks are associated with the ability of the Shanghai Government to implement the project and achieve its physical and institutional objectives. These risks are mitigated, however, by the strong commitment the municipality has shown throughout project preparation to improve its environment, and the help of experienced consultants who would be engaged for project planning and implementation.

Urban housing and planning in China

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Revised MS received 7 January, 1986

ABSTRACT

In May 1985, the writer visited five Chinese cities. He was able to examine current major housing projects and interview senior urban administrators and planners. The paper is based largely upon information obtained by observation in the field and by means of the interviews, not upon detailed fieldwork. It provides an overview both of China's current urban housing situation and of the policies adopted since 1978 to solve housing problems. The relationships of current housing programmes to the recent re-evaluation of the status of urban planning in China are also outlined. In addition, the housing policies and programmes are assessed against the author's experience of urban housing development in other Third World countries.

KEY WORDS: China, Third World, Urbanization, Urban planning, Urban housing, Housing investment, Housing allocation, High-rise housing, Self-help housing

Although the rural reforms introduced since 1978 as part of the economic liberalization in China have attracted a great deal of international comment and analysis, it is also significant that as part of the same liberalization the cities and towns are in process of drastic change. As one result of the responsibility system in agriculture, free markets have been established in and around the towns and cities at which peasants may sell surplus produce, whilst free markets in other consumer goods, particularly clothing and textiles, have also been permitted, and now parallel the official urban retailing system. The post-1978 changes reflect recognition of a growing urgency for economic differences between peasants and urban dwellers to be lessened. They also reflect a recognition of the necessity both for the introduction of greater material incentives into an economic system that had stagnated badly and, as a corollary, for the creation of greater opportunities for personal consumption. As a further result of the increased emphasis upon consumption, a major expansion of housing construction has taken place.

Faced with the prospect of change within its urban areas as result of the new economic policies, China is now giving emphasis to urban planning, and a significant feature of its expanded programme of housing construction is that it is taking place within a rapidly evolving system of planning. Before

1949, urban planning in the modern sense was virtually non-existent in much of China. The period of national rehabilitation after 1949, followed by that of the First Five Year Plan (1953-57), saw the introduction not only of economic planning but also of urban planning on a national scale, both being dominated by Russian theory and practice. In many instances, generalized urban layouts were drawn up and plans for inner area rehabilitation and regeneration devised. However, few of the latter were ever carried out, and the focus of physical urban development shifted to the suburban rings around the towns and cities where a series of short-term and pragmatic decisions regarding the siting of industry and housing were made, which today have resulted in poor land-use assemblages and the creation of new urban problems (Figure 1). As a result of unprecedented investment in industry during the Plan, many cities experienced rapid development. Unfortunately, this was all too often associated with a serious waste of suburban land resources,2 and also with a marked growth of problems of pollution resulting not only from the relatively primitive production practices of many factories but also from the indiscriminate siting of such factories in relation to other land uses.

During the period of the Great Leap Forward (1958-60), urban planning became increasingly neglected, especially after the withdrawal of all

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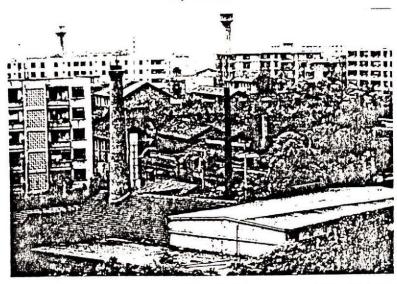


FIGURE 1. Part of the 'near suburbs' of Chengdu, Sichuan province. Old housing (centre) intermixed both with newer developments and with industry. (Photo: author)

Soviet experts from China in 1960 as a result of the Sino-Soviet ideological dispute. The Leap was characterized not only by rural re-organization through the introduction of the commune system but also by emphasis upon small-scale and individual units of production, both rural and urban.3 In addition, general administrative chaos developed as completely unrealistic production targets were demanded. In these circumstances, comprehensive planning of any kind became neglected. Hardly had China begun to recover from the adverse consequences of the Great Leap Forward, and from the Three Bitter Years—years of food shortage, hunger and sometimes actual starvation-which ensued, than Mao led the country into the disastrous Cultural Revolution, the effects of which were still being felt at the time of his death in 1976. During the period 1966-76, general planning and administrative disorganization were once again supplemented by a considerable Maoist emphasis on individual units such as industrial enterprises, offices and communes, which were allowed to operate with considerable autonomy. The highly publicized 'Red versus Expert' debate had come down heavily on the side of being ideologically correct rather than technically expert, and as a result planners of all kinds were expected to subordinate their conclusions to the objectives of proletarian politics. In 1977, when Mag interviewed Chinese urban planners, he found the

guiding slogans to be the 'Three Forms of Service', which were:- to serve proletarian politics, to serve socialist production, and to serve the livelihood of the labouring masses.4 In practice, this meant that individual production units were given considerable scope in terms of development decisions. Clearly, by then comprehensive urban planning, in so far as it had ever existed with any great strength even during the period of the First Five Year Plan, had become of very little consequence. What land-use plans were drawn up were frequently evaded by those units with access to other and higher authorities, whilst during the same period, because of the ideological bias towards the rural areas which manifested itself during the Cultural Revolution, little investment in urban housing or infrastructure took place, apart from a few show projects.

Since the beginning of 1979, however, a significant revival of urban planning has taken place in accordance with national priorities that have been revised to emphasize urban housing and the necessity for better living conditions generally. Planners who were sent to the countryside to work in communes during the Cultural Revolution are now once again at their desks, and realistic attempts are being made to guide the development of towns and cities within a framework of broad urban plans. This new situation is part of a wider reassessment of the place of professionals in Chinese life, in which the munici-

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palities have returned to centralized urban planning, and which at the highest level has resulted in the formation of a Ministry of Urban and Rural Construction and Environmental Protection. Within this Ministry, a Bureau of Urban Planning has been formed which has the responsibility for organizing and approving master plans of the major towns and cities. From the level of capital city of a province upwards, master plans must now be submitted to the Bureau for its examination and recommendation to the State Council, whilst the plans of smaller towns require approval from the Peoples' Council of each province. So far, it is claimed, twenty-seven master plans have been approved on the recommendation of the Bureau and work is actively proceeding on more.* The immediate future is thus likely to see a more comprehensive approach to the construction of Chinese cities as well as a more concerned attack upon their problems.

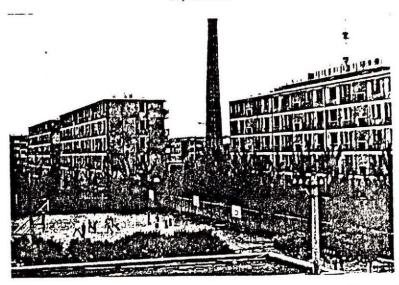
URBAN HOUSING: SOME CASE STUDIES

In Chinese cities today, the visual evidence of the unprecedented urban housing programme that was initiated in 1979 is abundant, largely in the form of new peripheral housing estates consisting of sometimes monotonous ranks of five or six storey blocks. Whilst detailed fieldwork by foreigners is still difficult to carry out in Chinese cities, the creation of a new climate of 'learning from foreign experts' by the central authorities as part of the post-Mao changes has facilitated field visits and professional discussions with urban planning authorities. The present writer was thus able to visit housing projects in Beijing, Shanghai, Nanjing, Guangzhou and Chengdu in May 1985 and hold discussions with the senior planners, architects and administrators involved. The visit not only yielded a picture of types of current housing construction, it also raised significant questions concerning, for example, the overall policy approach; housing standards; the delivery of housing in relation to need; the relationship of the housing programme to more general urban planning; housing and environmental problems; and attitudes towards self-help housing.

Due largely to its designation as national capital by the Communist regime in 1949, Beijing itself has experienced very substantial growth in the interven-

This symbol in the text identifies statements made to the writer in interviews with senior administrative and planning officials in China in May 1985. See note on Sources. ing period; indeed its built-up area has tripled in extent. There are now 5.5 million in the city proper (of which approximately 4.8 million are non-agricultural workers and their dependents) and 9.3 million in the metropolitan region, which was extended to a massive 16 800 km2 in 1958. The city proper had a population of 1.6 million in 1949, and its expansion has resulted not only from the growth of administrative functions associated with capital city status but also from its planned industrialization in accordance with a Maoist objective of turning China's 'cities of consumption' into 'cities of production'. It is claimed that the value of Beijing's industrial output has risen from 170 million yuan in 1949 to 23 000 million yuan, placing the city second only to Shanghai as an industrial centre.*

Although some large industrial plants, for example in iron and steel and chemicals, have been sited well to the west and the east of the city, a good deal of the new industrial growth has become intermixed with other urban land-uses in suburban patterns that reflect the lack of planning control in earlier years. In the older, inner parts of the city, residential accommodation predominantly consists of courtyard houses lacking in individual water supply (which is largely from wells) and toilet facilities, and which are overcrowded, dilapidated and sometimes in dangerous condition. Population densities in the inner city are high (from 30 000 to 50 000 per km²*), and environmental conditions have been made still more difficult by the indiscriminate siting of small-scale industries within the area. In all, it has been estimated that there are 13 million m² of traditional one storey houses of the 'square courtyard' type, housing one and a half million people, and with only 15 per cent of the structures in good enough condition to be retained; living space frequently amounts to no more than 3m2 per person.5 Apart from a certain amount of spot demolition-for individual projects for industrial, ceremonial or social purposes, or, most noticeably, for the creation of extra-wide 'processional' roads-re-development, and certainly comprehensive re-development, has largely by-passed Beijing's inner areas so far, and this is also the case with China's other cities and towns. In contrast, the extensive 'near suburbs', where formerly vegetable fields predominated, have become occupied mainly by new residential districts of five or six storey types, built at a standard of 300 to 500 persons per ha," medium-sized and large factories, universities and other educational institutions, and the offices of



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FIGURE 2. Part of the Tuanjiehu residential quarter. Beijing. The chimney is part of the central heating arrangements for the flats. (Photo: author)

government agencies, all interspersed with areas of cultivation, and clearly in some cases subject to considerable industrial pollution. In recent years, about one-third of Beijing's housing construction has been true high-rise,* that is, between twelve and eighteen storeys, and it is in this zone also, as well as on the urban fringe, for example near the airport, that such new departures in housing policy become apparent.

On the edge of the city there are several more recent large-scale integrated housing schemes. One such is the Tuanjiehu scheme which was commenced in late 1976 (Figure 2). The Tuanjiehu Residential Quarter, as it is called, lies on the extreme east of the built-up area. It covers an area of 40.3 ha and provides a total floor space of 560 000 m2. It is an integrated project which includes auxiliary buildings for such purposes as schools, nurseries, cultural activities and medical services, as well as for shops, markets and some service trades. In all, these auxiliary uses take up 17 per cent of the completed floor space, leaving approximately 465 000 m2 for housing purposes. Given that the envisaged population of the scheme is 30 000, this would indicate a built area of approximately 15 m² per person, and at the usual ratio in China for new construction of 55 per cent, would imply a housing standard of 8.25 m2 of living space per person. The scheme consists of 15 per cent one-room flats, 70 per cent two-room flats and 15 per cent three-room flats, the one-room flats being for newly married couples, and the one living room, as in the case of the other flats, being supplemented by a small kitchen and a toilet/bathroom. Heating is provided to each flat from a central coal-fired boiler house. As with other major housing developments, the Tuanjiehu development as a whole presents a strictly utilitarian aspect. The housing blocks are laid out regularly in rows, three-quarters of them consisting of five to six floors and the remainder of ten to sixteen floor buildings. Both open space and landscaping are minimal.

The Tuanjiehu project is currently being replicated in three other parts of Beijing; and is being repeated widely in China's other major cities. In Nanjing, for example, two major current housing schemes are those of Sojing on the north-east edge of the city at the foot of Purple Mountain (Figure 3) and at South Lake in the south west of the city, which at 64 ha is one of the largest of current schemes. The Sojing project consists of a 22 ha site upon which 4000 housing units are being built. Twenty-five blocks of six to seven storeys are in the course of construction, plus five high-rise blocks which consist of four of sixteen storeys, and one of twenty storeys in height. Ultimately, between 13 000 and 14 000 people will be housed there. Schools and other facilities are also being built, the ratio being one primary school of sixteen to twentyfive classes to one neighbourhood, which would

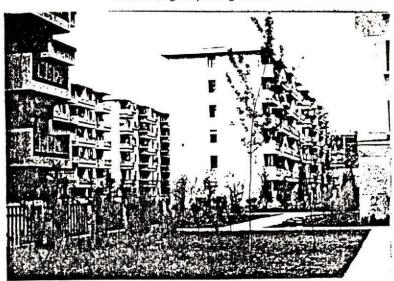


FIGURE 3. Part of the Sojing housing scheme, Nanjing. (Photo: author)

consist of about 2500 housing units. At South Lake, a further 10 000 housing units are being built. These new housing efforts are in response to the severely overcrowded and dilapidated nature of much of the housing in central Nanjing, and also to the build-up of overall housing demand which has accompanied the growth of the city since 1949. As with the Tuanjiehu project, the Sojing and South Lake schemes are the responsibility of the municipality but, as elsewhere in urban China, in Nanjing about half of all new housing has, in fact, previously been built by factories and other business concerns for their own workers. More recently, there has been a tendency to centralize housing investment throughout China, in as much as rather than undertaking individual developments, factories and other institutions have been encouraged to contribute funds to development companies in return for a share of housing within unified housing districts constructed on a larger scale.*

In Nanjing, some individual flats were examined in detail. These were in the Sojing project, and two of the three were selected at random by the writer. The first flat, which was selected by the municipal planning authority, was a first floor unit within a six storey block. This flat had a total living area of approximately 45 m². There were two bedrooms each of 14 m², a kitchen of 4 m², a dining room of 8 m² and a combined bathroom and toilet of 2 m². It represented the middle size of three types of unit

being provided within the scheme, the largest being 93 m², usually to accommodate five people.

The family of the flat examined consisted of three persons, a husband and wife and a daughter, who was a worker. The husband was an administrative cadre of the Nanjing Municipal Commission and also a newspaper editor. The wife, who had been a worker, had reached retirement and was receiving 75 per cent of her original wage as a pension. The family was classed as a middle income one, and had a monthly income of 200 yuan, of which the husband contributed 120 yuan. In the toilet/bathroom there was a bath and toilet but no sink; in the kitchen there was a sink and also two burners for cooking which were connected to bottled gas. As will be discussed below, rents for housing in China are extraordinarily low, the rent for the flat in question being 5 yuan a month. In addition, electricity cost the family 2 yuan a month, gas about 3 yuan and water under 1 yuan. Food and daily living expenses clearly accounted for the vast majority of the family budget, since the flat was very sparsely furnished. The second flat visited was of the same size but was occupied only by a newly married couple. Both were workers at the Chang Jiang (Yangtze River) radio factory in Nanjing but were said to have relatively wealthy parents. Their combined monthly income was 130 yuan, but to this had to be added a monthly bonus of 40 yuan which each of them had started to receive as a result of the greater emphasis on individual productivity that had accompanied the national economic reforms since 1978. Previous to the reforms, when all workers in the factory received the same bonus, the individual average bonus amounted to less than 10 yuan. The couple were well dressed in modern, Western-style clothes, and the flat was newly and brightly furnished. In contrast, the third flat visited was occupied by a retired couple. This was a substantially larger unit, of 93 m² and providing four bedrooms. Living together with the couple were one of their sons and also a small child belonging to the son, who was separated from his wife. The head of the household was said to be a prominent pre-1949 Communist cadre of the local area and more recently, before retirement, Director of the Nanjing Institute of Chemistry.

PRESENT AND FUTURE HOUSING POLICY

The case studies outlined above raise several significant questions, including an important one of individual access to the new housing that is now coming into the system. As might be expected, it appears that political activism and political status are substantial qualifications. From time to time, complaints about corruption arise and, in the present political climate, are published in the Chinese press; for example in May 1985 it was reported that one prominent cadre had succeeded in obtaining not only a large flat for himself but also one for his infant grand-daughter. Most corruption of this nature would appear to have a political rather than an economic basis.

In Nanjing, as elsewhere in China, so-called loving duck' flats are being built for newly married couples which consist only of one room of 16 m² plus a small bathroom/toilet and a kitchen. It is accepted officially, however, that most couples will probably remain for many years on the housing waiting list. Couples are not eligible for new housing, in any case, if their combined ages do not exceed fifty years. In addition, where housing is allocated by factories or commercial establishments, supplementary criteria would be the length of time working for the establishment and position within its own hierarchy.

Another substantial issue concerns the present and future levels both of housing investment and of housing production. During the Maoist period, and especially during its later and most extreme phase from the mid 1960s onwards, the solution of urban housing and other infrastructural problems

sought not so much through investment and construction but rather through the attempted expulsion of large numbers of urban dwellers, particularly young people, and their absorption into the countryside. The concerted xia fang (or 'sending down') campaigns began in 1955 and proceeded intermittently until the death of Mao. Between 1968 and 1976, for example, Shanghai alone was reported as expelling 1.29 million. But by one means or another very many of those 'sent down' have subsequently returned; and in the post-1978 period in particular the cities and largest towns have had to absorb substantial numbers of post-Mao returnees.* In addition, illegal residence in the urban areas, in defiance of the national registration system, has undoubtedly increased substantially as one of the unwanted results of the present period of greater liberality. In Beijing, for example, there are thought to be several hundred thousand people without permits, including up to 100 000 who, surprisingly, have been brought into the city as domestic servants.* This kind of migrational element must be added to the figures for contemporary Chinese urban growth, which are low in terms of international comparisons. Equally, from the figures for additions to the national housing stock must be subtracted an undoubtedly substantial allowance for deterioration because of the notoriously poor standards of maintenance of buildings that have prevailed in China both historically and during the Communist period.

Whilst China's statistical system over most of the post 1949 period must contain a large element of guess-work, it would appear that due to a combination of the growth of the urban population with a lack of attention both to housing construction and to maintenance, urban housing conditions have worsened on average. Kang Chao has estimated that in 1949 the urban per capita living space (a measure that does not include corridors, kitchens, toilets or bathrooms) stood at 6.25 m² but that as a result of a substantial population influx in the late 1950s, the mean had fallen to around 3 m2.8 The current figure quoted in the Chinese press is 4.6 m² but even if accurate it is a figure that certainly conceals great variations both between and within particular towns and cities. In Beijing, for example, a survey of the early 1970s, quoted by Kirkby, 10 found that 26 000 newly married couples were without their own homes; that there were 108 000 families (about 10 per cent of the total) where over-aged male and female children were sharing the same sleeping accommodation; and 10 000 households in which

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Whilst the state of China's statistical system over most of the post-1949 period implies that stratistics relating to unan conditions

the per capita living space was less than 2 m². In all, Taubmann estimates, 'According to Chinese standards about a quarter of the total urban population lives in confined housing conditions in what can only be described as a state of emergency or distress'.¹¹

Against these figures have to be set the variables of investment and of planning standards in the assessment of both the housing record of the regime and the possibilities of further amelioration of current problems. During the first Five-Year Plan, non-productive investment—to use the Chinese term-occupied a respectable position within overall financial allocations; and of all funds devoted to capital construction in general, housing received 9 per cent. In later years, however, investment that could not be considered directly productive declined significantly, and during the decade 1966-76 alone the proportion of investment devoted to housing halved. 12 The post-Mao period, in contrast, has been marked by a surge both in non-productive investment generally and in housing investment. In 1979 the comparable figure for housing investment was 14.8 per cent; this subsequently increased to 20 per cent in 1980 and to 25 per cent for the years 1981 and 1982, a change which, as Kirkby puts it, constitutes 'a real transformation of time-honoured political and economic priorities of the post-1949 Chinese state'. 13

Within China, the figure of one billion m² of new urban housing constructed between 1949 and the early 1980s is quoted constantly,* though outside observers have arrived at a somewhat smaller total: approximately 850 million m². ¹⁴ The global total of course conceals very wide yearly variations, from the average annual completion of only about 11 million m² in the late 1960s, for example, to the output of the post-Mao period which grew from 63 million m² in 1979 to 90 million m² in 1982.*

The targets for the future are impressive: 120 million m² a year until 1990 according to the Chinese press, and the completion of 2·4 billion m² of housing during the period 1985–2000. ¹⁵ However, the Chinese press also admits openly that the State could not possibly meet the costs involved. This raises the issue of standards, among others, since the lower the individual space standards it is possible to adopt, the more people that can be housed for a given capital input. In China, an original official standard of m² of urban living space per person had been adopted from Russian urban norms in the early 1950s, but by the end of that decade this

target had been halved. ¹⁶ According to Taubmann, the situation in terms of official provision has improved slightly since then, in as much as in the case of 25 new housing areas completed between 1964 and 1980 (and mainly between 1974 and 1978) the average space ranged from 4·1 to 6·8 m², with a weighted average of 5·56 m². ¹⁷ As mentioned previously, the average living space per urban resident in 1985 has been stated to be 4·8 m². The target for 1990 is to increase this average to 6 m² at an interim step towards a figure of 8 m² by the year 2000 when, it is hoped, each urban family will have a flat complete with kitchen and bathroom.*

On balance, however, it must be concluded that it is extremely doubtful whether such ambitious targets can be reached. It is not clear where the capital required could be raised-even though the new policies of industrial management introduced since 1978 allow individual enterprises greater scope for investment in housing—it is also unlikely that China would be able to assemble the required administrative, planning and constructional capacity, even if sufficient capital was to be generated. Further, the goal of providing every urban family with a flat presumably rests upon an assumption of continued relatively slow urban growth, whilst in circumstances of significantly increasing agricultural efficiency resulting from the responsibility system, it seems the more likely that accumulating labour surpluses must eventually be transferred to the urban areas. In addition, the housing standards adopted perhaps also need to be questioned, since the Chinese target for 1990 appears to be similar to that which prevailed in the 1960s and 1970s housing programme of Singapore, a smaller entity and one very much richer in per capita terms. 18 Another appropriate comparison might be with Hong Kong. There the now massive public housing programme began at a standard of only 2.23 m2 per person in 1954 and adopted the present standard of 3.25 m² as late as 1969, when the emergency phase of the programme was thought to have passed. 19

HOUSING FORM

As yet, there does not seem to be any serious debate on standards in China; rather the consensus among planners and urban administrators is that the goals outlined above are realistic ones, or at least that the planning ideal should include improved space standards as a basic goal. Debates centres rather upon the extent to which future housing design should be



FIGURE 4. Inner Shanghai. An overcrowded living environment characterized by minimal, subdivided housing, (Photo: author)

high-rise, and in this respect Hong Kong's housing experience is currently being examined with interest. High-rises are beginning to be included in housing programmes in certain cities: in Beijing, for example, where their appearance has given rise to a rash of complaints concerning non-working lifts, the inability of pumped water to reach the upper storeys and the like. Reports of social problems arising in and around the high-rise blocks are beginning to be studied with some anxiety in planning agencies, and as a result attention is currently being focused on Tianjin, where an experiment is taking place based upon high density two-storey development. In Guangzhou, in contrast, where it is planned to extend the area at present administered by the municipal government and expand the city eastwards along the Pearl River in three major groupings separated by farming land and open space, the model for the future appears to be the multi-storey city. To the east of the city at Tianhe, development is now underway to accommodate a future National Games of China. Stadia are being built and a passenger railway link with the city is to be constructed. On the basis of its initial development for the Games, Tianhe will eventually become a tourist and business centre, and also one of the new residential zones for the expanded Guangzhou.* Eventually, about 100 000 people will be accommodated, but on

the basis of the models displayed by the planning authorities, the built goal will be a mini-Hong Kong, since virtually all the business and residential blocks are to reach twenty storeys.

In Shanghai, too, there appears to be an intention to build high-rises for residential purposes near the city centre because, it is said, of the shortage of land. Even though its administrative area has been expanded, population has grown very substantially particularly in the central districts, and apparently at times when restrictions on personal movement have been relaxed as, for example, during the Great Leap Forward and during the latest post-Maoist period. At 43 000 persons per km2, the average population density of inner Shanghai is high (Figure 4), and whether substantial numbers of high-rises could be introduced into such an area without an acceptable level of disruption to already established activity patterns, and especially to transport patterns, appears to be doubtful. A more sympathetic programme might involve the rehabilitation of existing buildings wherever possible, some 'soft densification' in areas in which there was no alternative to clearance owing to the dilapidated nature of the buildings, and the paying of greater attention to the extent to which environmental improvement and the provision of basic services might substitute for the construction of new housing.

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HOUSING AND ENVIRONMENTAL CONDITIONS

A further feature of current planning practice as related to housing provision is that whilst the expanding housing programmes are now being carried out within a frame-work of co-ordinated planning at the municipal level—at least in terms of the organization of finance, construction and allocation—the sympathetic integration of housing schemes into the wider urban fabric is in its infancy. The availability of sites appears all too often to govern the location of new developments, with the result that major developments tend to be strongly peripheral. In the rush for new construction, the problems both of the old inner city areas and of the post-1949 'near suburbs' seem hardly to have been touched, despite the fact that it is widely acknowledged that very considerable problems of inner area urban renewal exist, and also that the permitting of undesirably mixed land use in many parts of the suburbs during the Maoist period has resulted in a legacy of environmentally deteriorated living conditions. In central Shanghai, for example, the average housing space is 4.4 m²; there is 0.47 m² of open space per person, and 1.6 m² of roads—all figures which indicate considerable poverty of the general living environment.20 However, living conditions in the central city have also suffered from the unrestricted growth of factories and other industrial enterprises, with the result that central Shanghai accounts for 70 per cent of the city's total industrial enterprises.* In all, about 30 per cent of the land use is accounted for by factories and warehouses-the result of Maoist policies of the past that have favoured 'production first, livelihood second' and advised the land use planners to 'stick a pin wherever there is room'.

Pollution from many of the factories has become serious and adds to the difficulties of living. Water quality, which had begun to deteriorate in pre-Liberation times, has since become rapidly worse due largely to the fact that only 200 00 tons out of the 5 million tons of waste industrial and domestic water discharged daily from the central city is treated. ²¹ Much of the untreated water is discharged directly into the Huangpu river, where since 1963 regular surges of black and foul-smelling water have appeared, one of the largest, in 1981, lasting for 151 days. The water of the river, which remains an important source of supply for drinking, has been found to contain nine times the amount of toxic

phenol over the specified norm and seven to eight times the mercury content; in addition, cyanide, chromium, arsenic, zinc and lead now exceed the norms in varying degrees. Air pollution is also serious, due largely to a high level of dependence upon coal both for industrial and for domestic heating. As Yan and Tang reveal in one example, in an area of about 60 ha of the Zhabei industrial district, there are 2000 families interspersed with 50 pollutant discharging factories. Waste gas, smog and dust particles fill the air, and the quantity of dust falling on to the area is three to eight times the sanitary norm. In addition, various harmful gases are being discharged in excessive quantities with the result that in a middle school in the district 61 per cent of the students were found to be suffering from chronic rhinitis and 35 per cent from chronic pharyngitis. Cancer incidence in the central city is said to have risen from 1.26 per cent in 1963 to 2.01 per cent in 1977, and increase which Yan and Tang attribute to the alarming deterioration of the local living environment.

CONCLUSION

The most realistic prospect for the future would seem to be that, in the light of China's need not only for increased housing but also for accelerated industrial production, the problems of the inner cities and of the often environmentally degraded 'near suburbs' will continue to receive low priority. Future housing effort is likely to be directed more towards major schemes on virgin sites, including some high-rise schemes. It is not likely, therefore, that comprehensive, integrated urban planning will be achieved in the cities within the foreseeable future. Equally, it must be acknowledged that even if the present planning situation cannot be further improved, it still represents a significant advance on the arrangements that became current during the Maoist period.

Within this overall context, two additional reservations need to be made. The first is that the Chinese authorities must realize that their ambitious housing targets for the year 2000 are in all probability incapable of fulfilment for the reasons outlined earlier. The major obstacles are likely to be not only financial but also organizational—especially the availability of trained manpower—but so far only the financial aspects appear to have been given any attention. It has become acknowledged publicly that rents charged for official accomodation are far too

low, and that, indeed, they do not even cover the cost of repairs and maintenance, and now plans are in hand for their progressive escalation. Perhaps more significantly, because of the political connotations, the sale of housing is also beginning. Pilot schemes were established in four cities in 1984 as part of wider 'commodification' movements within the economy which, it had been decided, would be acceptable during Marxism's current early, or 'lower', phase in China.* Shortages of trained manpower in construction, organization, administration and planning constitute just as serious a bottleneck, however. Such manpower could, for example, help reorganize a seriously disjointed and inefficient construction industry—one which has generated numerous public complaints regarding its performance, including the charge that one quarter of Beijing's housing completed in 1980 could not be occupied because of lack of gas, water, heating or sewerage connection23-whilst new urban organizational and planning techniques also urgently need to be adopted, perhaps following the current line of 'learning from foreign experts'.

Whilst it will be necessary to maintain at least the present level of housing investment if substantial progress is to be made even without resolving all the major problems, a second reservation concerns the seeming rigidity of the planning agencies visited by the writer in respect of stretching the available housing finance by unconventional means. The necessary policies have already been widely publicized internationally. And would need to include the consideration of investment in self-built housing; new land allocation policies aimed at giving families security to build for themselves; and a thorough examination of the case for providing basic environmental services rather than building new housing in individual instances.

Urban squatter areas are almost unknown in China: in general, those most desperately in need of housing remain living in overcrowded and degraded conditions in the inner cities. The liberation of energies on self-build housing sites, and the lack of regimentation that would inevitably be involved, would require a good deal of political consideration by the regime. Yet it is worth remembering that during the 1960s the Daqing oil field in Heilongjiang province was opened up by labourers whose activities included not only building the oil installations and growing their own food but also erecting their own housing out of stamped earth. Mao's slogan 'Learn from Daqing' has long since become dis-

credited, but perhaps it would not be entirely wise for China's new rulers to disregard every aspect of the Great Helmsman's teaching.

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The point made in the Abstract that the present paper is not based upon detailed fieldwork is a significant one in terms of current geographical studies of contemporary China. There is an urgent need to expand research on China by whatever means possible, yet a considerable difficulty in human geography is that it is rarely possible to obtain official permission to carry out detailed fieldwork. For long, research had been reduced to collating whatever published information could be obtained and interviewing decision makers wherever possible. However, the possibility of longer professional visits to China has arisen more recently, and this has led to the publication of papers based upon a certain amount of field inspection (which is quite different from detailed fieldwork of course). It was within this framework that the present paper was written and offered for publication. It is hoped that it will provide a marker which will be tested and amplified by other urban geographers and housing specialists who visit China.

A further difficulty exists in respect of the reproduction of material obtained in interviews. In general, information is now quite freely available from Chinese official sources but there is always the possibility that individuals will be embarrassed if facts or opinions not favourable to the regime are quoted against their names. For this reason, individuals have not been identified separately as the sources of the interview material.

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International Journal of Urban and Regional Research

548 The changing role of local government in the Nicaraguan revolution

Le communiqué considère les changements qui ont été apportés au système de gouvernement local au Nicaragua à la suite de la révolution de 1979. Ces changements sont importants 1) pour mieux comprendre les stratégies plus générales que l'on poursuit actuellement dans ce pays, 2) parce que les changements à l'échelon local qui se produisent à présent affecteront ces stratégies d'ensemble et 3) pour les discussions concernant la nécessité de traduire les changements révolutionnaires sous une forme institutionnelle. Le communiqué déclare en conclusion que le gouvernement local joue un rôle important en mobilisant et en dirigeant les bonnes volontés au niveau de base ainsi que les ressources centrales et en encourageant la participation démocratique tout en fournissant des possibilités pour l'expérimentation sociale en matière de relations intraétatiques et entre l'état et la population. Jusqu'à présent, la révoltuion nicaraguay-enne semble avoir développé des organes de gestion et de participation populaire sans que ceux-ci aient les retombées négatives significatives, comme la centralisation et la bureaucratisation excessives, que l'on a vues se manifester ailleurs.

Die Zeitung besprach Veränderungen in den Kommunalregierungssystemen in Nikaragua nach der Revolution in 1979. Diese Veränderungen sind wichtig 1) zum besseren Verständnis der in diesem Lande verfolgten überregionalen Richtlinien, 2) weil die Veränderungen auf lokaler Ebene, die zur Zeit stattfinden, diese überregionalen Richtlinien beeinflussen, 3) für die Diskussion über die Notwendigkeit von Institutionalisierung revolutionarer Veränderungen. Die Zeitung schließt mit der Feststellung, daß die Kommunalregierungen nicht nur eine wichtige Rolle bei der Mobilisierung und Lenkung der Basis und der zentralen Reserven, sondern auch bei der Ermunterung zu demokratischer Anteilnahme und dem Bereithalten von Möglichkeiten für soziales Experimentieren in innerstaatlichen und Staats/Volksbeziehungen spielen. Bisher scheint die Revolution in Nikaragua erfolgreich Volksbeteiligung und Verwaltung entwickelt zu haben, ohne bedeutende negative Effekte, wie übermäßige Zentralisierung und Bürokratisierung, die anderswo zum Erscheinungsbild gehören.

La comunicación trata de los cambios del sistema de gobierno local en Nicaragua después de la revolución de 1979. Estos cambios son importantes 1) para un mejor conocimiento de las estrategias más amplias que se siguen en este país, 2) por los cambios locales que se están produciendo ahora y que afectan a estas estrategias más amplias y 3) para mantener discusiones sobre la necesidad de institucionalizar los cambios revolucionarios. La comunicación concluye que el gobierno local juega un papel importante en la movilización y dirección de los recursos de la base y del centro y en fomentar la participación democrática así como en proveer oportunidades para experimentos sociales en las relaciones dentro del estado y entre el estado y el pueblo. Hasta el momento parece que la revolución nicaragüense ha desarrollado órganos de participación popular y de dirección sin efectos negativos significativos, tales como una amplia centralizacion y burocratizacion, que se han producido en otras partes.

The role of small cities in Chinese urban development /

by R. Yin-Wang Kwok

The purpose of this paper is to examine the functions of small cities in China; in relation to national economic and spatial policy. The paper will first analyse their traditional roles; then after briefly reviewing their development since 1949 it will explore their present and future roles with emphasis on the recent small-city development due to policy change in late 1978.

1 Traditional towns (pre 1949)

The functions of traditional cities were broadly two-fold: economic and administrative (Trewartha, 1952). Cities were situated on lowland river bank locations as the dominant mode of regional transportation depended on waterways. The Chinese regional cities were marketing centres for agricultural products from the rural hinterlands. They were also the retail centres for industrial goods supplied by the major large cities. Locally, these cities were centres providing social and cultural services as well as a market exchange for rural produce from the surrounding agricultural population.

They were political centres serving as seats of government and administration. Because of their commercial viability, transportation networks and governmental institutions, they were militarily and strategically important. Visibly, they were defended by massive walls with gates and towers. The positioning of garrison troops made them safe and secure, not only for the government officials who lived there but also for the wealthy village gentry who had residences in the city because of the sophisticated life style. Chinese cities traditionally were centres of transportation, trade and commerce, handicraft, government and administration, with political and economic control and influence over the surrounding countryside.

Pre 1949 Chinese cities were divided into two general types. The few modern industrial cities which originated as treaty ports were the primate and large cities. The majority of Chinese cities, specifically the small cities, however, were administrative market towns as described above. They were symmetrically planned with

The latest definition of a small city in China is one of less than 100 000 population.

major functional areas strategically positioned. The central areas were reserved for administrative offices, temples and market places — the major functions of these towns. The main through-routes which were arranged in a grid-iron pattern divided the city into specific areas for trade, guilds and entertainment. The overwhelming majority of these cities were not connected by railway. Lacking modern transportation and technological inputs, industrial development was practically non-existent. Without new stimulus for growth and lacking diversity in their economic activities, these cities remained quite stable.

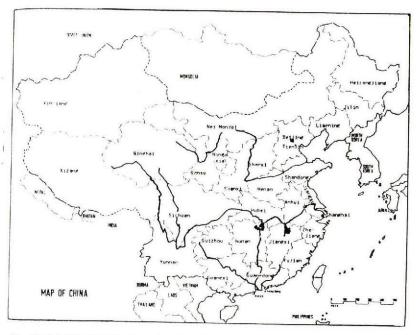
The advent of a modern railway usually has great impact in the development of cities. In the third world, a railway line opens up new resources, facilitates commerce, and provides a foundation for industrial development. Small cities along the railway line can grow rapidly. The development of railways before 1949 was either for frontier defence and military mobilization or for national reconstruction and integration. Partly because of international development, but mainly because of defence needs, the pre 1949 railway development was tied to the treaty ports and concentrated only in the northeast area and the central coastal area. The network remained highly fragmented (Leung, 1980). Because of localization of the railway system, it could only facilitate some regional and local development. The significance of railroads in Chinese city growth was relatively minor, particularly in comparison to the experience of the developed world.

As small cities were in the lowest hierarchy of the urban system, they also had the lowest level of economic and administrative organization. Cities at this basic level formed a spatially close network. Although they were situated quite near each other, their formal ties were weak. Transportation difficulties and a strong vertical administrative system resulted in tighter administrative and economic relationships between the different levels of cities rather than between cities of the same rank (Ginsburg, 1965). Politically, governmental authority filtered downwards from the centre through these small cities to the countryside. In a rural country, it was necessary for the central power to control the peasants. The strong vertical administrative system created a cellular rural society, each element of which was based on a small city. The need to control the countryside reinforced the political and military power of small cities. They became the linchpins of the traditional society and its power base. Supporting and not deviating from the central power, they were the guardians of the traditional order rather than innovators and facilitators of new development (Murphy, 1954).

Their vast numbers and their proximity to the countryside allowed small cities a close tie to the rural community. Being separated from each other, each of these cities had its own specific influence. As a group, they were the locations where exchange between the urban and rural sectors was most intensive and intimate. They were the only places where most of the peasants had contact with the urban way of life.

As in the preindustrial world, there was an enormous social, technological and cultural difference between urban and rural areas. This dualism was further enforced by the 'supplier/consumer' economic relationship. The rural areas supplied food

and light industrial inputs to the central city, and purchased services and industrial goods, while the urban areas consumed the rural production and absorbed its surplus through taxation, rent, social and cultural services. Politically, the 'master and servant' relationship described in earlier Chinese literature (since 1949) exemplified the tight control exercised by small cities over the countryside. It also connoted the tremendous unfairness which was later called the urban—rural differences. Ideologically, according to the present government, this type of inequity should be eliminated, particularly in view of the fact that the overwhelming majority of the population still live in the countryside (Kwok, 1973, 120–21).



II Post 1949 principles for urban development

As far as urban development is concerned, the present government has been consistent in advocating decentralization of administration, development of interior undeveloped regions, and elimination of urban—rural differences. To implement these broad principles, small cities implicitly played a prominent and significant role. However, these broad principles were not consistently pursued and emphasis on small city development differed in different periods. In reality, urban development responded more positively and directly to specific national strategies on industrial and agricultural development, technological adaptation, administrative organization and energy resources, than to these broad principles.

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As regards administrative centralization and decentralization, the balance between the vertical system (between administrative levels within a department) and the horizontal system (between departments at an administrative level) is a common public administration issue for all countries. The Chinese experience showed that when priority was on heavy industry and administrative centralization, the vertical system dominated. At the city level, the coordination of development between different departments was so weak that the city government lost control of land and infrastructure allocation. During the periods when agricultural development and local participation in administration were stressed, the horizontal system was enforced. Under this system the city government had greater power to allocate resources and integrate development. Whenever the ideology swung towards 'democratic' under the democratic dictatorship principle, administration would be decentralized. Consequently the dominance of the horizontal system brought about conditions conducive to city development.

The policy of opening up the undeveloped interior region resulted from the uneven pattern of regional growth. The coastal region and the northeast comprised slightly less than half of the area but supported over 95% of its population (Trewartha, 1957). The lopsided geographical distribution was considered inequitable in terms of welfare, development and population. Moreover, the vast interior region which had not been surveyed extensively was likely to have rich unexplored natural resources. Although climatic conditions were more severe than in the coastal region, it was an ideal area for national defence purposes and allowed emigration from the densely populated coastal region which was vulnerable to military attack. For these reasons, development and population movement towards the undeveloped interior region were often advocated.

These two principles and the elimination of urban—rural differences were based on the ideological rationale of democratizing decision-making and equity. Thus, they remained as the constant precepts which were applied to development. Although the Chinese planners deviated from them from time to time, they constituted the long-term goals. There was a degree of pragmatism in the emphasis placed on these principles, and much depended on economic and political conditions, political philosophy, developmental resources and existing contraints. Often, in adverse circumstances, these principles would be temporarily abandoned.

While technological advancement, industrialization and agricultural mechanization were recognized as necessary for national growth, the processes and methods for achieving them were under constant review. Nevertheless, their general implications for cities were clear — urbanization on a national scale was unavoidable. The question was not whether to urbanize or not, but how to urbanize. The planning issues raised involved decisions about desirable forms of urbanization, optimal size of cities, sources of urban investment, the relationship of private and public sectors, and the resources and services needed to effectuate urban development.

The pressure to urbanize in response to national strategies and the broad principles outlined above was immense. Within the spectrum of urban developments small cities played various important and some obscure roles as can be seen later.

Rehabilitation and the First Five-Year Plan (1949–57)

The dominance of Soviet-style planning was total during these early years. Capital intensive large-scale industries clustered in major cities and the growth poles (key point cities in Chinese terminology) in undeveloped interior regions. Transportation development (railway building), transference of rural surplus for industrial development, basic construction and physical production were the key components for development.

During this period, urban development concentrated on existing major industrial cities, key point cities and the new expanding cities in the undeveloped interior region. As all industrial products were large scale and capital intensive, they were distributed to these few designated major cities. Development policy was unfavourable to the growth of small cities.

In the rural areas, this was the period of establishing mutual aid teams, and lower and higher stages of agricultural producer cooperatives. The early agricultural strategies relied on institutional transformation within the rural sector without economic diversification or direct financing and investment. Without new activity input into the rural sector, urbanization had practically no effect on this sector.

Generally speaking, development generated no cause for establishing more small cities neither did it affect existing small cities. Governmental change did not affect the administrative structure. Essentially, they remained stable and maintained their traditional role.

IV Great Leap Forward (1958-61)

Walking on two legs' was the key strategy for the crash industrialization programme. By utilizing advanced and indigenous techniques, small and large-scale industries in both urban and rural areas were promoted in order to accelerate growth. This was the period when small-scale industries were initiated in small cities and rural areas, thus giving a new impetus for small-city growth. Implicitly, the role of small cities was to develop indigenous, small-scale industries.

Communes were established in the rural sector. The commune was a productive, administrative and military unit and included a comprehensive set of social and cultural services for the peasants. The dual aims of diversifying economic, social and political functions and increasing economy of scale engendered suitable conditions for the urbanization of rural areas.

In 1957–58, the Chinese administrative system was reorganized. The reform, which was primarily to facilitate production and give greater local participation, was to decentralize power and authority downwards. The local administrative units had not only greater control over their production, but also more authority in coordinating development. The use of the horizontal system provided further conditions for small-city development.

Unfortunately, the optimism of the Great Leap Forward quickly evaporated.

Three years of failure in industrial and agricultural sectors quickly terminated its policies. Although these policies were conducive to small-city growth, they were too shortlived to produce any significant result.

V Readjustment and consolidation (1961-65)

The Great Leap Forward revealed many unresolved problems. The most severe concerned small-scale industry and lack of agricultural investment. Small-scale industries were closed down, investment in industry was sharply curtailed and priority was shifted away from heavy industry in favour of light industry. Close links between industry and agriculture were recognized as important. In order to increase agricultural production it was necessary for industrial production to supply production inputs to the agricultural sector. Furthermore, agriculture was explicitly recognized as the sector which had the highest developmental priority.

In agriculture, the population mobilized for mass rural engineering work was transferred back to agricultural production. Most importantly, institutional change as the only strategy for agricultural development was recognized to be inadequate. Direct financing and investment in the agricultural sector was needed, because its development was fundamental to national growth.

By 1962, significant progress was made in rural electrification, providing the necessary energy source for production diversification. The small electric power installations over the countryside now provided the conditions for mini-industrial plants to operate. Significantly, the rural electrification development was instrumental in the urbanization of the countryside.

Administration reverted back to centralized planning which relied heavily on management and expertise. The Great Leap Forward experiment exposed the severe weakness of local management and technological knowledge. It was felt that a centralized administration — readopting the vertical system — would be more effective in dealing with the manpower shortage and utilizing available skills. The existing small cities with diminished power and control were confronted with a feeble mechanism to plan and implement their development.

The policies adopted in this period generally slowed down the urbanization process. The suspension of the small-scale industry initiative removed the needed generator of growth in small cities. Although the commune system remained, the withdrawal of industrial development retarded its development.

VI Cultural Revolution (1966-76)

By 1965, China had fully recovered from the Great Leap Forward. Policies of Cultural Revolution were similar to those of the Great Leap Forward. The slogan used in 1966 'New Leap Forward' reflected that similarity.

Apart from the insistence on 'political' incentives and motivation, the principle

of (local) self-reliance reintroduced the idea of rural small-scale industry, producing goods needed for consumption and production within the region. The policy of promoting small-scale industry was not only vigorously pursued in the rural areas, but widely adopted in the small and medium cities. On average, about half of the output of cement, chemical fertilizers and agricultural machinery was produced by this industrial system which was primarily in support of agricultural production. Furthermore, rural electrification was energetically developed; small hydroelectric power plants were attached to rural water conservancy projects. This was also a period of sending urban graduates to the countryside. They were to provide the modern manpower input to the rural communities in order to aid diversification in production, and the provision of social and cultural services.

In administration, mass movement and independence allowed local authorities a much greater share in planning and management of production, distribution of income, and social services. In rural areas, policy relied on the collective strength of communes and production brigades. In cities, some social economic responsibilities and authority over operation were shifted downwards to enterprise level. Financing of development was also decentralized by transferring some investment responsibilities from state to local level.

Policies in development, population migration, and administration all favoured the rise of small cities. In particular, small-scale industry became an important spur to small-city expansion and a powerful mechanism in the urbanization of the countryside through communes. (for a summary of the 1949–76 period, see Ma and Hanten, 1982, 114–46; Kwok, 1973, 81–176.)

VII Four Modernizations (1976-)

With Four Modernizations, development in China took a more orthodox direction, stressing the priority of the consumers' demands and needs. The direction of development changed from a 'permissive' concept which advocates investment priority on social overhead capital, to a 'compulsive' concept which lets market forces determine investment. Even though policy directions changed, it was not until the end of 1978 that specific policies were determined, and development began to change significantly.

Key policy changes were decided by the Third Plenary Session of the eleventh Central Committee of the Communist Party of China held in December 1978. The communique agreed in this session was fundamentally different to the Report on the Work of the Government delivered at the First Session of the Fifth National People's Congress held in February and March of the same year. The report of the Fifth National People's Congress reflected the situation in 1976–78, while the communique of the Third Plenary Session represented new directions.

The Fifth National People's Congress still stressed the priority on basic industries, Particularly steel. In agriculture, mechanization was the chief strategy for development. Administratively, it strongly advocated centralized planning and tight state

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supervision of local administrations.

The Third Plenary Session's communique stated that the proportions of consumption and investment had to be adjusted by reducing basic construction, specifically by improving light and textile industries. Agricultural mechanization was criticized as unpragmatic and not related to the national economic progress, implying that this strategy was to be temporarily abandoned. In administration, the management system was considered to be too centralized; it should be decentralized so that local enterprises and agricultural units had greater administrative autonomy. At the end of 1978, these radical changes showed that new developmental policies were directly opposed to those adopted before (Guangming Ribao 7 March 1978, pp. 1–5; Renmin Ribao 24 December 1978, pp. 1–2).

Prior to the end of 1978, industrial policy favoured the development of scale economies. As only large cities could provide these conditions, they were to receive the greatest investment for growth. Speedy agricultural mechanization was to displace a large pool of agricultural labour, which would have to be absorbed by other production and enterprises. Implicitly, this created pressure on the new urban policies. Logically, the surplus labour would be absorbed in the medium and small cities, particularly the latter as they were nearest to the new labour force. Without complementary urban policies, there was the likelihood of a large migrant unemployed population collecting in rural towns.

Centralization of administration, from past experience, had been shown to reduce the development capability of smaller cities. As the control of economy, finance, and management was vested in major cities under highly concentrated administrations, medium and small cities became dependent on large cities. Their growth was tied to major cities as they were unlikely to be able to generate economic activities by themselves. Broadly, these earlier policies engineered the growth of major large cities but provided an immense problem for medium and small cities, because they were denied the flexibility, resources and independence needed to make plans and take initiatives. The situation risked inducing serious economic stagnation and disintegration.

The impact of the Third Plenary Session on urban development was quite different. Light and textile industries did not need very specific conditions for production. As most of the countryside was electrified and some basic transportation network was provided, the small cities and the communes equally had sufficient conditions for this type of industrial development. Furthermore, since this type of production is highly market oriented, dispersal would keep it close to the rural market. The slow down of agricultural mechanization would allow a moderate structural transfer of labour from agriculture to industry and social services. Such policies also helped to retain the spatial pattern of population distribution. The pressure of urban development in small and medium cities would be less intensive, and urbanization of the rural areas could be developed steadily.

With administrative authority delegated downwards, communes and small cities received some autonomy in finance, investment and administration. Given these powers, they could develop local industry and other services. By having more

economic activities and more employment opportunities, they could expand and diversify. The overall effects of these new policies were decentralization and steady urban growth centred around small towns and communes.

VIII Post 1978 policies related to small city development

The developmental policy of the Cultural Revolution period was dominated by the concern for physical production. In agricultural and industrial sectors, production of basic goods was limited to capital goods and foodstuffs. Social services, commerce and retail sectors were neglected, thus restricting economic progress and employment acceleration in urban and rural areas. As growth in general is a function of economic and employment expansion, it is essential to review the post 1978 policies which affect these two elements.

In order to follow the directive of self-reliance, the local industrial policy had been based on 'comprehensiveness', whether in large-scale or small-scale development. The focus of the present policy was to exploit locational advantages. Each district would produce according to its natural and artificially created advantages. Products were to satisfy more than local consumption; they were to be exported in order to enlarge markets and gain income. For this economy to work, specialized production from each district would be supported by imports of other goods from other districts, thus forming a regional exchange community.

Four new urban enterprise systems were introduced.² The first system, joint enterprise with overseas firms, was to absorb foreign investment and advanced technological knowledge and machinery. Its functions were to increase productivity and diversify the economy. Practically all these ventures were large-scale operations, utilizing capital intensive modern technology. Because of their specific requirements, they could only be located in major large cities. It was decided to proceed cautiously as the general effects on the economy were uncertain.

The second system involved urban collective enterprises. These enterprises reacted to market demands, mainly as processing plants, repair and service centres, handicraft, commerce and retail outlets. Their functions were to provide additional employment opportunities and greater flexibility in responding to community needs as well as to utilize underemployed capacities. This system was considered to have a long-term role in urban economic development. Because of their close ties with markets, these enterprises sprang up in cities of all sizes.

The third system consisted of private enterprises which were small in scale and in number, concentrating on neighbourhood services and handicrafts. As they were operated individually, or by single families, they involved limited investment and were seen as incubator industries. They had relatively little effect on urban development and basically played an auxiliary role to other urban functions.

² For urban enterprise systems see *Renmin Ribao* 8 July 1980, p. 1; Zhuang Jun Dong and Tang Ben Wen, 1980, 26; *Renmin Ribao* 6 September 1980, p. 5.

The fourth system, integrated enterprise, took two forms — interregional and urban—rural. Economic integration of industries was based on production linkages, both vertical and horizontal. Key industries normally located in major cities would integrate with their forward and backward linked firms in the surrounding country-side or in other regions. As backward linkage is normally stronger as a force for growth, the supply firms were expected to grow in response to the demand of these industries. As some of the supply plants were incorporated in the small-scale industrial system located in communes and small cities, these plants would be tied more tightly to those in medium and large cities. In other words, part of the small city and commune economy would be controlled by larger cities.

The composite effects of the new urban enterprise systems asserted two new roles for small cities. Collective enterprises, because of their market orientation, would connect them more closely with rural communities through services and retailing. Flow of goods and services would come from other regions or higher rank cities through small cities to their surrounding rural communities. The nature of this relationship was exchange.

Integrated enterprises connected the production of small cities to plants in higher rank cities by supplying inputs. Depending on the demand from larger cities, production units in small cities adjusted their output and employment levels accordingly. Whenever additional employment was needed, they would hire labour from the rural communities. By transferring the labour force from agriculture to industry they became the middlemen for urbanizing the countryside. The nature of this relationship was production. The general effect of the new policies on enterprises was to establish the dual role of small cities as the key intermediary between cities and the countryside, and the rural retailer of urban goods and services.

There were policies for the rural sector which caused changes; in particular, policies of production diversification and commune enterprise (Renmin Ribao 7 January 1980; p. 4; 8 January 1980, p. 1). Commune enterprises were reported to be energetically pursued. Such enterprises included machinery, chemicals, textiles, transportation, building materials, processing of agricultural products, etc. They were labour intensive, adopted intermediate technology, required simple facilities and were small scale; they were, therefore, especially suitable as the elementary stage of rural industrialization. Communes, through these enterprises, gradually absorbed agricultural labour into industrial production, at the same time providing the agricultural sector with additional income.

In relation to production diversification, rural communities were urged to develop forestry, livestock, fishery and other agriculturally related work. Although these activities had no direct influence on rural industrialization, they provided vital additional sources of income. As income increased, rural purchasing power enlarged the demand for urban goods and services. As a result, urban production expanded.

Within the rural community, elementary industrialization was already taking place in the communes, gradually transforming them into cities. Most importantly.

the growth of rural income and purchasing power became the stimulus and driving force for the urban economy. As the rural population was large, its demand for industrial goods in aggregate would prompt a considerable growth in urban industries. When urban enterprises expanded, multiplier effects which were generated by expansion of existing enterprises or new enterprises would increase the demand for production in small cities and communes. This process quickened the urbanization of the countryside and accentuated the intermediary role of small cities.

Population movement between cities and between urban and rural areas was controlled; migration between city and countryside, in particular, was restricted. Even the 'sending down' movement which sent urban high-school graduates to the countryside during the Cultural Revolution had been terminated. With little intracountry migration, major city industrial growth which was capital intensive, and therefore had less capacity to absorb labour, was served by underemployed or unemployed urban youth. As the contemporary press coverage indicated, the pool of urban underemployed and unemployed was sizable and would supply the urban employment demand for some time to come. Regarding the rural labour force, gradual mechanization and improvement in productivity displaced some of the agricultural workforce which could be partially absorbed locally through product diversification and rural enterprises. The surplus had to seek jobs in nearby small cities, providing a labour supply for their new enterprises. As a result of this labour pressure, small cities took on the role of job providers and skill trainers for the rural labourers.

Transportation still relied heavily on inland waterways which were improved as the major regional goods transportation channels. Motorways, because of their flexibility, were considered to be the best transportation method within agricultural areas. The developmental aim was to link cities, small cities and rural areas. By 1985, all communes and small cities would be connected by motorways. Development of regional transportation would facilitate production, trade and commerce. Implicitly, it would ease technological transfer and strengthen the links of the urban system.

Energy development still depended heavily on coal as the major source. Although oil production had begun to expand, it was a potential export earning commodity. Coal resources concentrated in the north. Given the relatively elementary national transportation network, the bulk and weight of coal restricted its use as an energy source. It could not be utilized nationally, particularly in the dispersed communes and small cities. Small hydroelectric stations were widely adopted, and their development and growth were fast. Because they were complementary to agricultural waterworks, their investment requirement was relatively small, and their practical effects were immediate and broad (*Renmin Ribao* 6 August 1980, p. 1). Hydroelectric energy would continue to be the major source of power for small cities and communes, providing natural advantages for those locations with easy access to water.

IX Post 1978 small city policies

After 1978, there was considerable debate on policies for urban development the central issue was whether to develop large cities or medium and small cities. The argument for the development of large cities was that they had the advantage of economy of scale, the ability to utilize advanced technology and their labour productivity was high. As they were more effective and more efficient in production, they should have the priority (*Beijing Review* no. 11, 17 March 1980, pp. 6–7).

By the end of 1980, a definite urban development policy began to emerge. The basic directions were: 'control large cities, rationally develop medium cities.' rigorously develop small cities' (Renmin Ribao 17 October 1980, p. 1). Experience had shown that when major cities expanded into suburban rural land, they took over high yield agricultural land. Within the major cities, social overhead capital investment in transportation and housing were perceived to be at the point of diminishing returns. Another problem arose in food supply. Demand could not, at times, be met by the surrounding communes and had to be supported by imports from other regions. The import of foodstuffs incurred higher costs. Furthermore, owing to lack of advanced building parts such as elevators, high rise constructions encountered many technical and social difficulties. As major cities could not intensify their existing land usage by building upward and could not expand outward, their development had to be curtailed.

The concern with small city development was not confined to industry. In support of agricultural development, there were to be improvements in transportation, commercial services and social services such as education, health and cultural facilities. The stated purpose for generating a comprehensive set of activities was that small cities were to be strengthened as bases of rural transformation (Rennin Ribao 6 October 1980, p. 1).

Communes were given a similar role to small cities, mainly that of absorbing displaced agricultural labour. Within communes, economic and social activities were broadened along the same lines as in the small cities, providing peasants with many different choices of occupation. Urbanization of communes was already taking place in many provinces, e.g. Heilongjiang (*Renmin Ribao* 13 August 1980, p. 3). These rural cities were the manifestation of rural transformation. More significantly, they represented the method of urbanization in rural areas. Given the prevailing policy direction, small cities and communes were put into the forefront of urban development in China.

For urban industrial development, there were now three sources of investment; government, collective and private. Government investment could be allocated at the state, provincial, or local levels, the last of which applied to only a few major cities. State investment was usually assigned to modern and large-scale enterprises, which naturally were located in large cities. Provincial investment was dispersed over the entire province, but supported sizable modern industries. In reality these projects were situated mainly in larger or medium cities. Because it was available

solely in major cities, local investment focused only on large cities. All government investment that affected urban development, therefore, had a bias for large and medium cities. The other two sources of investment—collective and private—were open to all cities. As the chances of receiving governmental investment in small cities were meagre, collective and private investment became the important sources for industrial development.

Governmental investment in large and medium cities for industrial projects were the main engine for national growth. These new industrial projects sustained and supported development in designated cities. New production demand which filtered down through the integrated enterprise system was a major force for industrial expansion in small cities and communes, and collective investment was to provide a large portion of the needed capital. In this investment structure, collective economy became a major developmental force in small cities and communes.

X Future development of small cities

The traditional functions of Chinese small cities involved economic and administrative control over the tural area. They were the lowest branches of the central administration, extending the state's power over the rural population. By and large, this remained unchanged after 1949, not because of the government's support for their original roles, but because there was no positive policy or instrument to change them. The Great Leap Forward in 1958 instigated some policies with potential for modifying their roles, but they were ineffective because the movement was shortlived. It was not until the Cultural Revolution in 1966 when rural electrification had begun, that small cities' functions began to take a different direction. What emerged was that, in order to reduce urban -rural differences, the unavoidable lask was to diversify and urbanize the rural economy. Communes were the key to rural transformation. Although it was not recognized at first, small cities began to emerge as the urban counterparts. After 1978, during the Four Modernizations period, the parallel roles of small cities and communes became obvious. The evolution of small cities was gradual but radical. They changed from an instrument of government control to an instrument of economic and social transformation of the rural sector.

At present, the isolation of small cities from one another due to lack of formal economic and political ties is gradually being broken down. Many small cities within provinces or provincial districts are already linked together economically. As the towns specialize in production according to local circumstances, their production units begin to integrate vertically and horizontally in order to complement each other's speciality. By forming a regional industrial system, they maximize on the limited capital and technology of each unit. When a consumer goods production expands, a larger market is needed. The town exports its surplus to other cities, and builds up a trade association within the region. Under these circumstances, the separation of small cities slowly dissolves.

With the introduction of collective and private enterprises, small city entrepreneurs employ their marketing, management, and technical skills for planning and implementing production. Following modern examples, they learn to expensent and improvise in the face of insufficient resources or lack of capital or technology. Step by step, they assume the role of developers and some, as they grow more adventurous, become innovators and creators. Through this progression, small cities cease to be seats of tradition, and advance into the mainstream of modernization. This is the optimistic view.

Entrepreneurship, management and innovation are known to be the most scarce commodities in the third world. With the large number of small cities in China, the development of these capabilities has to be on an immense scale. Extensive training programmes for various enterprises and establishments have to be set up. In order to build up this human capital which is an essential condition for production growth, both the state and local government have to participate.

The pattern of post 1978 urban development does not entirely conform to the broad principles, though many policies reflect them. Administration has been decentralized by delegating downwards. The process is reinforced by enterprise autonomy. Financial and business independence allow more flexibility in production, and greater latitude for economic operation. Within the small cities, the public collective and individual units have added a variety of incentives and different approaches, thereby giving diversity and vitality to their development.

The undeveloped interior region, however, receives little attention, partly because of the changed international situation. Cordial relations with the west lessens the vulnerability of the coastal region. The undeveloped interior region, under the present political relationship with the Soviet Union, seems less secure militarily Spatial inequality gives way, perhaps temporarily, to international politics, at least in developmental terms. Another reason for this diversion is that social overhead capital is high for new development. Policy has shifted away from basic construction and capital investment and opening up new frontier areas obviously goes against the present trend.

As regards urban—rural differences, post 1978 development policies are potentially powerful and effective tools to redress these inequalities. The plans to increase rural income, diversify the rural economy, introduce social and cultural activities to the countryside and bring small cities and communes to rural communities are all positive attempts to improve and modernize rural areas. They will also bring the standard of rural life closer to that of the cities.

The changed role of small cities has not fundamentally affected their economic and administrative functions. Markets and governmental offices for the rural communities are still located in small towns. The real changes have occurred in their production and social functions. In production, they have been brought into the national industrial network through links with industries in larger cities. Socially, they extend social services to the rural area. The ability of the small cities and communes to accomplish their functions depends on how they fit into the urban system structurally, how they respond to market demands and their own capability to set

up plants, shops and agencies. Most importantly, they are taking on the principal role of transforming the countryside by providing conditions for a different employment structure. The variety of non-agricultural activities in small cities and communes is the mechanism for rural urbanization.

Because of the hierarchical industrial structure, small cities and communes are tied to the urban system by production. As they fulfil key functions between the cities and countryside, they are the sole transfer points. In order to move physical goods they need the support of an efficient regional transportation system. For circulating capital, they will require effective commercial establishments with regional and national contacts. Since market and trade networks are indispensible for external links, these are the primary requirements. A commitment to the development of a coordinated regional and national transportation system as well as commercial and banking networks will be needed to facilitate the flow of commodities and money.

The natural resources and locational advantages of a small city or commune are the determinants of its production and exchange activities. Specializations which offer exports and increased income will be based on these special conditions. The degree of specialization and its compatibility to market demands will determine its growth potential. These natural conditions have to be matched by appropriate manpower and available capital. As most small city production still utilizes intermediate technology, labour skill is a chief element for productivity and production quality. Local training programmes to provide suitable skilled labour will have to be established. The general norm for labour development in China is through on-the-job training. In order to provide a level of production quality, the guidelines control programme will have to be set up and properly financed by the state with active local cooperation.

Capital sources come mainly from collective savings. Collective enterprise depends on local entrepreneurship. Its development can be helped by local government support in the form of information and management assistance. Collective enterprises can be effectively developed with proper coordination and cooperation between the public and private sectors. The capacity to save and the ability to invest are the decisive factors for the success or failure of collective enterprises. Since they are the mechanism for economic growth in small cities, their development will increasingly depend on private savings and collective entrepreneurship. Because of the importance of private savings, incentives instigated by the state have to encourage personal savings so that capital can be accumulated for investment. As ownership and utilization of capital can be politically sensitive issues, the state has to structure a uniform policy for capital accumulation and guidelines on collective investment.

In summary, small cities and communes have definite tasks in Chinese development, and the post 1978 policies are largely favourable to their development and Browth. However, there are still some uncertainties relating to the conditions required for small-city growth. There are three basic conditions which are unclear or for which there is no definite policy. Human capital and capital accumulation

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are two prerequisites for Chinese small city development. Both will need strong national policy backing, particularly human capital development. Substantial efforts will have to be mobilized in order to generate labour and management skills. Capital accumulation from personal savings mainly rely on individuals' expenditure patterns. Nevertheless, incentives and encouragement by the state can initiate and promote this favourable social behaviour. There is no evidence that a concerted effort is being made to provide these two conditions. When collective enterprises in small cities begin to flourish, interregional flows of commodity and money will be indispensible for further growth. The transportation and commercial networks which are being installed will have to be coordinated at both the micro and macro levels. So far planning in these areas has not directly addressed itself to the needs of small cities. These are the difficulties which face small city growth. If favourable conditions can be provided, small cities will play a dominant role in Chinese development

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Le but de cette étude est d'examiner le rôle des petites villes en Chine dans la politique nationale économique et de l'aménagement du territoire. Elle analyse tout d'abord leurs rôles traditionnels, surole rapidement leur développement depuis 1949, puis explore leurs rôles présents et futurs en mettant en évidence le développement récent de la petite ville depuis le changement de politique à la fin de 1978.

En Chine moderne, le developpement urbain est étudié par rapport au développement économique national, étant donné qu'il est considere comme faisant partie de l'ensemble de la politique nationale. En particulier, le changement de politique nationale récent apporté par la Troisième Session Pléniaire du Onzième Comité Central du Parti Communiste de Chine, est considéré comme ayant un impact important sur la politique urbaine. Les tensions d'après 1978 affectant le développement urbain sont évaluées sur le plan pratique en identifiant les conditions à remplir et les mesures nécessaires à son application.

Die Arbeit untersucht die Funktion der chinesischen Kleinstädte in bezug auf Volkswirtschaftsund Raumpolitik. Sie beginnt mit einer Untersuchung der traditionellen Rolle der Kleinstädte, geht dann kurz auf deren Entwicklung seit 1949 ein und analysiert schließlich deren gegenwärtige und zukunftige Rolle, wobei die Betonung auf der im Anschluß die politischen Veranderungen Ende 1978 eingeleiteten Kleinstadtentwicklung liegt.

Die Städteentwicklung im modernen China wird im Rahmen der allgemeinen politischen Entwicklung betrachtet, da sie Teil eines politischen Gesamtpakts ist. Ein ausschlaggebender Einfluß auf die Städteplanungspolitik wird insbesondere den jungsten politischen Veränderungen nach der dritten Vollversammlung des ellten Zentralkomitees der Kommunistischen Partei Chinas im Dezember 1978 beigemessen. Abschliebend untersucht der Verfasser die seit 1978 besonders betonte Kleinstadtentwicklung in bezug auf ihre Durchführbarkeit, indem er die fehlenden Voraussetzungen und politischen Maßnahmen identifiziert, die zu ihrer Verwirklichung erforderlich sind.

El objeto de esta ponencia es el examinar las funciones de pequeñas ciudades en la China en relación a la política nacional económica y espacial. La ponencia primero analizará sus papeles tradicionales; entonces, después de un breve examen de su desarrollo desde 1949, explorará sus papeles actuales y futuros, haciendo entasis en el reciente desarrollo de pequeñas ciudades debido al cambio de política al fin de 1978.

Se mira el desarrollo urbano en la China moderna en su relación con el desarrollo económico nacional, puesto que se considera como parte de la política económica nacional. En particular, el reciente cambio en la política nacional en la Tercera Sesión Plenaria del Unidécima Conitté Central del Partido Comunista de China, que se celebró en diciembre de 1978, se considera tuvo un impacto significativo en la política urbana. Entonces se evalúa el énfasis en el desarrollo de ciudades pequeñas, desde 1978, en términos de su viabilidad, identificando las condiciones que faltan y las políticas necesarias para su implementación.

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PROVINCIAL VARIATION OF URBANIZATION AND URBAN PRIMACY IN CHINA/

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Abstract

Compared to other developing countries, China has a low urbanization level as a result of government policy to control urban development since 1949. However, there is much regional variation in urbanization and urban primacy among its 26 provinces. This paper attempts to analyze the provincial variation in urbanization and urban primacy of China in 1978 by factor analysis and regression techniques. In China, government policy does not only slow down the overall rate of urbanization but also has profound influence on provincial variation in urbanization and urban primacy. Low urban primacy in the eastern provinces is mainly the result of the urbanization policy of controlling the development of large cities that favours the development of small and medium cities. The spatial industrial policy of decentralizing industries from the coastal provinces to interior provinces encouraged high urbanization and urban primacy in the western interior provinces of China.

I. Introduction

The major characteristic of urbanization in China since 1949 is its slow urbanization rate. From 1949 to 1981, China's total population increased from 544 million to 996 million, a total increase of 83.1% at an annual growth rate of 1.91%. In the same period, urban population increased by 141.3% at the rate of 2.97% per annum and the urban population increased from 57.6 million to 139 million. Despite the faster growth rate of urban population over the total population, there is no significant change in the urbanization level of China because most of the population is still rural. The urbanization level of China was 10.6% in 1949 and was slightly increased to 13.9% in 1981. The 2.97% annual growth rate of the urban population of China is much slower than that of other countries in Asia. The urban population of ASEAN countries, excluding Singapore, has increased 304.3% from 1950 to 1980 with an annual growth rate of

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3.78% (26). The 13.9% urbanization level of China in 1981 was also low when compared to the general urbanization level of over 20% in the less developed countries such as 26% in Africa, 61% in Latin America and 22.5% in ASEAN countries.

Despite the overall slow urbanization rate and low urbanization level in China, its twenty-six provinces experience different urbanization rates and patterns. Although many studies have been done on urbanization of China in general (8, 6, 7, 19, 20, 9), and there are studies on regional disparities (28, 22,10), not many studies have been addressed to the provincial variation of urbanization in China. The work by Onoye (21) is one of the few studies that deal with provincial urbanization. This paper attempts to examine the pattern and possible causes of provincial urbanization of China by analysing the provincial data of 1978.

II. Urbanization, Politics and Public Policy

Public policy and politics exert much influence over the urbanization rate and level of China. The dominating policy of controlling urban growth after 1949 is partly due to the political ideology of China and partly due to necessity. The consistent political ideology of eradicating the "three great contradictions"-the difference between workers and peasants, city and countryside, and manual and mental labour-of the Chinese government before and after the revolution has led to a policy of balanced development in the urban and rural areas. This political ideology is much reflected by two economic policies that strongly influenced the urbanization rate and urbanization pattern of China. After abandoning the Soviet model of economic development in 1957, the economic policy of "agriculture as the foundation and industry as the leading sector" was adopted. It is quite explicitly stated that the role of cities is to serve agriculture (25). The economic policy of walking on two legs that attempts to have simultaneous development of industry and agriculture, heavy and light industry, large enterprises and medium to small enterprises, modern production methods and indigenous methods, and enterprises run by the central government and those by local authorities during the Great Leap Forward and reached its peak in the Cultural Revolution also has profound influence on the urbanization pattern of China. This economic policy encourages urban-rural convergence, dispersal of industries to rural areas and the establishment of small production units in small cities and rural areas. The result of this economic policy does not only slow down the rate of urbanization but also restructures the urban system of China. Since the Great Leap Forward, an urban system development strategy of curtailing the growth of large cities and the development of medium and small cities in China was adopted. Small scale industries that utilize local resources were developed in medium and small cities (4, 15). Such strategy of urban system development is still the dominating policy of China in the post-Mao period. In the "Chinese Communist Central Party Decision towards Some Problems in Accelerating Agricultural Development" passed by the Fourth Plenary Session of the 11th Party Central Committee in 1979 stated that "it is important to stress the construction of small cities and towns, and to equip them with modern industrial transportation facilities, modern commercial facilities, and modern educational, scientific, cultural and sanitary facilities, so as to be the progressive base for changing the structure of the rural villages" and the "active development of small cities, rational development of medium cities and controlled development of large cities."

URBANIZATION AND URBAN PRIMACY IN CHINA

The prevailing political attitudes of the Chinese leaders before and after the revolution also plays an imperative role in controlling urban growth (17). Pre-revolution cities were often denounced as consuming and parasitic and a vehicle of foreign imperialism and colonialism. It was a place of exploitation of the countryside that was responsible for poverty in the rural areas. After the revolution, the desire to control urban growth was manifested dramatically by the hsia-fang (downward transfer) movement in 1957 and the shang-shan hsia-hsiang (up to the mountain and down to the countryside) campaign in the Cultural Revolution. In the period of 1969 to 1971, approximately four million urban dwellers, mostly educated youths, were "deurbanized" by sending them to the rural areas (24).

The necessity to control urbanization, especially the growth of large cities, is also due to urban unemployment and political disturbances. The industrial development in the cities and the land reform program of the first Five Year Plan during 1953-57 had attracted and pushed peasants to migrate to the cities. However, the growth of industrial employment in the cities cannot cater to the sudden large increase in population and there was an increase in unemployment in the cities. Some migrants had to move back to the villages because of unemployment in the cities. In 1968, as an effort to reestablish control over Chinese youth in large cities and partly to find a solution to the long existed problem of urban unemployment, China launched a great drive to resettle urban youths to the countryside. This caused highest level of migration out from the large cities towards smaller cities and countrysides ever experienced in China.

Although the general urbanization trend since 1949 favours the development of small and medium cities and slow urbanization growth, there is fluctuation in different periods of time that reflects changes in the government policy towards urban areas. Urban policy of China before the death of Mao that has profound influence on its urbanization pattern can be classified into the following five major periods: a) Period of Rehabilitation (1949-52); b) First Five Year Plan (1953-57); c) The Great Leap Forward (1957-60); d) Economic Recovery and Adjustment and the Third Five Year Plan (1960-66); e) Cultural Revolution (1966-76) (15, 4). Dominating urban policies at different periods of time has different influence on the urbanization process of China. The greatest increase in urban population and urbanization level occurred between 1950 and 1960 (Fig. 1). This is the period of rehabilitation and the First Five Year Plan. In 1949, immediately after the revolution, the immediate task was to put the economy back in order. Although cities were considered to be "consumer cities" with people not conducive to socialist development, they were the places where most of the industries of China were located. In order to restore industrial production, the existing industrial cities left over by the previous nationalist government were quickly rehabilitated and the general guideline for city development was "to transform the consumer city (xiafei chengshi) into production cities (shengchen chengshi)." The First Five Year Plan which followed the Soviet model of economic development also favoured the development of cities. The emphasis of economic development was given to industries, especially heavy industries. A policy that favoured the decentralization of industries from the established northeast bases and a few coastal ports towards the inner part of the country was also stressed (29). The outcome of the First Five Year Plan was the growth of large cities that were already industrial centres with good industrial linkages, skilled labour forces and transportation facilities and the development of "new industrial cities" in the



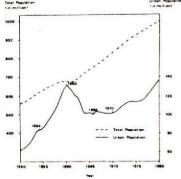
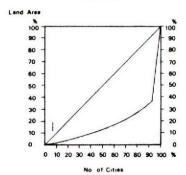


Fig 2 LORENZ CURVE OF NUMBER OF CITIES AND LAND AREA OF CHINA



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inner part of the territories. Most of the "new industrial cities" were small cities of 100,000 to 300,000 population. Betwen 1950 and 1960, urban population increased rapidly. The increase in urban population was 111.9% and the urbanization level increased from 11.2% in 1950 to a record high of 19.7% in 1960.

From 1960 to 1976, the successive mass movement of the Great Leap Forward and the Cultural Revolution that favoured rural development and deurbanization led to a decline in the urbanization level and absolute number of urban population. In these two decades, absolute urban population decreased by 22.9% and the urbanization level declined to 12.2%. Urban population and urbanization level began to rise slowly after the death of Mao and the downfall of the "Gang of Four."

III. Provincial Distribution of Cities

Cities in China are unevenly distributed and mainly concentrated in the northeast, east and coastal provinces. This is mainly the result of the two tier urban system of China that is based on the indigenous administrative and marketing centers and the rapid growing treaty ports before the revolution (18, 6). Before 1949, most of the cities in China were concentrated on the eastern coast of China. Zhou (31) estimated that in 1947, excluding Taiwan, there were 60 cities in China and 50% of them were located aong the coastal provinces, 38.3% in the inland provinces and 11.7% in the frontier provinces (see Table 1). As most of the large cities are located in the coastal provinces, this pattern is skewed if urban population is taken into account. The distribution of urban population is 68.88% in coastal provinces, 29.8% in inland provinces and 1.4% in frontier provinces. After the revolution, the policy of spatial decentralization of

TABLE 1

REGIONAL DISTRIBUTION OF CITIES AND URBAN POPULATION
IN CHINA, 1949 AND 1980

			1949		1980	
Region	% of Total Land Area	% of Total No. of Cities	% of Total Urban Population	% of Total No. of Cities	% of Total Urban Population	Population
Coastal Provinces	13.58%	(30)50.0%	68.8%	(47)28.8%	45.6%	41.05%
Inland Provinces	31.35%	(23)38.3%	29.8%	(92)56.5%	46.5%	52.83%
Frontier Provinces	55.07%	(7)11.7%		(24)14.7%		6.12%
Total	100.00%	100.09	100.0%	100.0%	100.0%	100.00%

Source: Zhou (1983), pp. 17-19.

¹Zhou's definition of frontier provinces are Nei Mongol, Gansu, Qinghal, Ningxia, Xinjiang, and Xizang. Coastal provinces are provinces along the eastern coast of China from Liaoning to Guangxi provinces.

industry and urban centers to the interior and inland provinces had corrected such concentrated and skewed distribution to a large extent. From 1950 to 1980, 103 new cities were developed in China. Sixty-nine of them were located in the inland provinces and 17 located in frontier provinces. There were only 17 new cities added to the coastal provinces where most of the cities were located before the Revolution (Table 1). The deliberate spatial decentralization policy has produced a spatially more balanced urban distribution and reversed the skewed pattern of the pre-Revolution period. The absolute number and relative percentage of cities of inland provinces had surpassed that of the coastal provinces. Inland provinces had 56.5% of the total number of cities whereas coastal provinces only had 28.8%. There are also marked changes in the distribution of urban population. The coastal provinces had decreased in the importance of concentration of urban population. It decreased from 68.8% in 1947 to 45.6% in 1980. In contrast, inland provinces and frontier provinces experienced an increase in its proportional share of urban population. The inland provinces had a slightly higher percentage of urban population than the coastal provinces and despite an increase in the proportional share of urban population, the frontier provinces remained to have a low percentage of 7.9% of urban population.

The Lorenz curve (Fig. 2) constructed to examine the spatial distribution of cities in relationship to the land area in 1978 showed that most of the cities are located in a small percentage of the territory of China (30). The Gini coefficient is 34.9% indicating that the distribution of cities in China is still quite concentrated.

Three major patterns of city concentration can be identified. The first pattern is the concentration of cities in the eastern region bound by Beijng-Guangzhou Railway and the Beijing-Harbin Railway. This region consists of oneseventh of the total land area but has 70% of China's extra large, large, and medium cities and 48% of small cities and towns over ten thousand population. The second pattern is the clustering of cities and towns in the plains, deltas and industrial districts of China. Five major clusters can be identified. They are:

- Shanghai-Nanjing-Hangzhou cluster, centering around Shanghai:
- Zhujiang River Delta cluster, centering around Guangzhou;
- Chengdou Plain cluster, focusing on Chengdou:
- capital region cluster, centering around Beijing, Tianjin and Tangshan;
- south of Liaoning cluster, centering around Shenyang and Anshan.

These clusters are either deltas or plains with abundant natural resources and a long history of development. They have a high density of population and abundant agricultural or industrial production. Especially the first three clusters, they are China's important agricultural and commercial centers. The capital region and south Liaoning clusters are China's major producing areas of coal, iron and also China's metal, machinery, petrochemical and industrial centers.

The third pattern is the concentration of cities outside the above mentioned clusters but along major transportation routes. There are three major types of concentration. One type of concentration is along the coast, such as Wenzhou of Zhejian province, Fuzhou and Xiamen of Fujian province, and Shantou of Guangdong province. Another type of concentration is along major rivers such as Yichang and Wuhan of Hubei province, and Jiuliang of Jiangxi province on the Yangtze River. The last type of concentration occurs along

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CONKELATION MAINIX OF POPULATION AND ECONOMIC VARIABLES OF PROVINCES IN CHINA 1978	PULATION A	ND ECC	NOMIC VAR	IABLES OF F	ROVINCES	IN CHINA 1978	11
	Industrial/			rer Capita	rer Capita	rer Capita Per Capita Fer Capita lotal	
Population A	Igricultural	Area	Population	Agricultural	Industrial	Population Agricultural Area Population Agricultural Industrial Production	

		Industrial/			Per Capita	Per Capita	Per Capita Per Capita Fer Capita Total
	Population	Population Agricultural Output Ratio	Area	Population Density	Population Agricultural Industrial Density Output Output	Industrial	Production
Population	1.000	.092	377	. 723	020	015	018
Industrial/Agricultural Output Ratio	.092	1.000	390	.075	.680	.754	.716
Area	377	390	1,000	-, 586	-, 133	174	152
Population Density	.723	.075	-, 586	1.000	.077	.050	.064
Per Capita Agricultural Output	020	.680	133	.077	1.000	.991	866.
Per Capita Industrial Output	015	757.	174	.050	.991	1,000	768.
Per Capita Total Production Output	018	.716	152	. 064	866.	786.	1.000

railway routes and major transportation intersections, such as Zhengzhou of Henan province, Xian of Shaanxi province, and Changsha of Hunan province.

Although cities and urban population are spatially concentrated in the coastal and inland provinces, they are spatially balanced with the distribution of population in China. In 1980, the distribution of urban population roughly corresponded to the population distribution of the three regions. Coastal provinces that have 41.1% of the total population had 45.6% of the total urban population; inland provinces have 52.8% of the total population and 46.5% of total urban population; and frontier provinces had 6.1% of the total population and 7.9% of the urban population (Table 1). Although the distribution of urban population is more or less proportional to the distribution of the total population of China, coastal and frontier provinces have higher share in urban population than their total population, indicating a slight concentration of urban population in these provinces.

IV. Provincial Variation of Urbanization Level

Normally one would expect urbanization to be associated with the concentration of cities and urban population. Provinces with high proportion of cities and urban population should have high urbanization level. However, as urbanization is measured by the proportion of total population in the province living in urban areas, urbanization level can be low if there is a large number of rural population to counteract the large urban population. In China, because the "most urban" areas are found in the "most rural" areas, high urban population does not necessarily imply urbanization (13).

The provincial distribution of urbanization level of China is not related to its distribution of cities and urban population. It is the reverse of the latter distribution. Provinces with high concentrations of urban population and cities do not have high urbanization level. Most of the relatively highly urbanized provinces are located at the western and northern parts of China, such as Xinjiang, Qinghai, Nei Mongol, Heilongjiang, Jilin and Liaoning (Fig. 3), which have proportionally a very small amount of cities and urban population. Moderately urbanized provinces are found in the inland provinces of China as well as the coastal provinces of Guangdong and Fujian. Although the coastal and inland provinces have the largest proportion of cities and urban population, they do not have a higher urbanization level than the frontier provinces. This is probably because these provinces are also agricultural provinces and the urban population is offset by the large rural population.

Variation in the urbanization level of provinces in China may be explained by the interaction of natural, political, economic, population and historical factors. To some extent, the natural, political and historical characteristics of a province can be considered to be a reflection of its economic and population characteristics. Viariables related to the population and economic characteristics of the provinces in 1978 were used to examine their relationship with the provincial variation of urbanization level. The correlation matrix in Table 2 shows that there is intercorrelation among the population and economic variables. Factor analysis was used to reduce the redundancy of some of the variables and to examine the population and economic structure of the provinces. Two factors that explained 78.5% of the total variation of the variables were identified by factor analysis with varimax rotation (Table 3). The first factor is INDUSTRIALIZATION that measures the productivity and industrialization of a province. Variables of per capita agricultural output, per

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capita industrial output, per capita economic output and industrial/agricultural output ratio have high positive factor loadings on this factor. This suggests that high productivity as indicated by per capita agricultural, industrial and economic output is associated with industrialization as indicated by high industrial/ agricultural output ratio. The second factor is POPULATION DENSITY that measures the population density of the province. This is a bi-polar factor that has high positive factor loadings with population and density and negative factor loading with land area. This factor structure reflected the general population distribution characteristics of China. Provinces with large population, such as the eastern provinces, generally have small land areas and therefore have high population density. Western provinces that have large land areas have small population and low population density, for example, like Xinjiang, Xizang and Qinghai. As these two factors are orthogonal to each other, it further suggests that industrialization of a province is not related to its population size or density. Provinces with large population and high density may not have high per capita economic output.

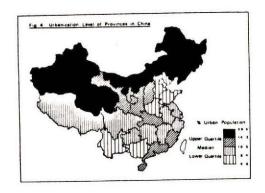
TABLE 3
FACTOR STRUCTURES OF PROVINCES IN CHINA, 1978

	Industrialization (Factor I)	Population Density (Factor II)
Population	0433	.7492
Industrial/Agricultural Output Ratio	. 7836	. 1947
Area	1835	6644
Population Density	.0182	.8921
Per Capita Agricultural Output	.9798	.0125
Per Capita Industrial Output	.9971	.0212
Per Capita Total Production Output	.9901	.0166
Variance	51.21%	26.25%

The spatial distribution of factor scores of the INDUSTRIALIZATION and POPULATION DENSITY factors are shown in Figures 4, 5 and 6.2 Industrialized provinces with high per capita economic output and industrial/agricultural output ratios are mostly concentrated in the Northeast, North and Northwest regions of China. This may reflect the extensive agricultural and capital intensive industrial system of these provinces. Jiangsu, Shangdong and Guangdong are the provinces outside these regions that also have high INDUSTRIALIZATION scores which may reflect their land fertility and the level of industrialization. Southwest China on the whole has low INDUSTRIALIZATION score. Provinces with high population, high density and small land areas are mainly concentrated

²The six major regions of China (Fig. 3)—Northeast, North, East, Central, South Southwest and Northwest—are used to facilitate the discussion below.





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in the East and Central South regions where most of the fertile land and rural population of China are located. Most of the industrialized North, Northwest and Northeast provinces that have high INDUSTRIALIZATION scores have low POPULATION DENSITY scores. Sichuan and Guizhou in Southwest China differ from other provinces in the region by having moderate POPULATION DENSITY scores whereas Xizang and Yunnan have low population density.

Provincial variation of urbanization level can be explained by the industrialization and population density of the province. A multiple R of 0.863 with 0.01 significance level was obtained in a multiple regression analysis of urbanization level with the factor scores of INDUSTRIALIZATION and POPULATION DENSITY as independent variables. These two factors explained 74.5% of the provincial variation of urbanization level. The multiple regression equation is

URBAN% = 13.17 + 3.35 INDUSTRY - 4.14 POPDENSITY

which shows that highly urbanized provinces are associated with high per capita economic output, high industrialization level, low population density and large area. This is generally the case for Nei Mongol, Heilongjiang, Liaoning, Jilin and Qinghai. Provinces with low urbanization level are found in provinces that have low per capita economic output, high population density and small area and this can be illustrated by the provinces of Henan, Shangdong, Guangxi, Hubei and Yunnan.

The provincial urbanization pattern is much related to the industrial decentralization policy of China and the differential control of urban population among the provinces. High urbanization level exists in the Northeast provinces because of their abundant iron, coal and petroleum resources which made them continued to be the industrial core of China. However, industrialization of the North and Northwest provinces is the result of the spatial industrial policy adopted after 1949 to decentralize industry from the coastal industrial core to the interior (29). The North and Northwest provinces were the major recipients of new industrial developments and most of these new industrial developments were located in urban areas. Examples of these industrial cities in the Northwest are the petrochemical centre of Lanzhou in Gansu and machinery centres in Xian and Baoji of Shaanxi and Xining of Qinghai; in the North are industrial centres of Taiyuan in Shanxi and Baotou in Nei Mongol, and textile centres of Shijiazhuang and Handan in Hebei. As these provinces are generally large in area and do not have a large rural population, the increase in urban population concomitant to industrial development encourages urbanization. Moreover, the national policy of controlling the growth of large cities and the promotion of rural development affects them lesser than it affects the more populated and dense East and Central South provinces where most of the large cities are located. Population pressure was severe in the East and Central South provinces and the household registration system for controlling the migration of peasants into cities was strictly enforced in these provinces. In contrast, the North and Northwest provinces have lesser population pressure and the household registration system was more relaxed. Peasants could migrate to the cities much easier in these provinces than the densely populated provinces. The internal migration policy of sending a large number of "hsia-fang" youths to the Northeast, North and Northwest provinces further encourages urbanization in these provinces. As most of the "hsia-fang" educated youths were originally from cities and most of the new industrial development was concentrated in the

cities of these provinces, they tended to end up in the urban areas of these provinces. The provinceal urbanization of China can be considered as the product of the industrial decentralization policy that encourages urbanization and industrialization in the less densely populated North and Northwest provinces, and the control of urban population in the densely populated East and Central South provinces that discourages urbanization. Such pattern is reflected by the statistical analysis of the urbanization level, economic and population data of the provinces of China in 1978.

V. Provincial Variation of Urban Primacy

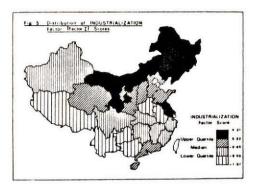
Provincial urbanization is a measurement of the proportion of the total population of a province living in an urban area, but it does not indicate whether urban population is concentrated in one large center or proportionally spread among the urban centers within the province. The concentration of urban population in the urban system of a province can be indicated by the use of primacy index that measures the dominance of the largest city over the second city.

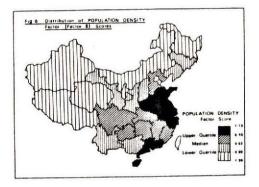
City size distribution is one of the most actively researched areas in the urban system study. However, after reviewing past research on city size distribution, Carroll (5) observes that the results of the massive body of research are inconclusive and further research is needed to refine some of the most worthy theories. There was much controversy over the causes of specific types of city distribution, notably primate and rank-size distribution. There is no simple relationship between city size distribution and the level of economic development of urbanization (1). City size distribution in general is the result of a complexity of factors that are related to the past cultural history, types of economy, administrative structure, size, urbanization history, relationship with world economic system and government policy (2, 12, 27, 16). A dynamic model that attempts to associate city size distribution with stage of economic development in time was developed by El Shaks (11). The relationship between primacy and economic development is curvilinear. Rank-size distribution is associated with social equilibrium that occurs before economic development and at the later stage of economic development. Primacy distribution is caused by social disequilibrium as a result of rapid economic growth in the middle stage of economic development. Implicit to the model is that primacy distribution will occur in the early and middle stages of economic development when previous equilibrium of the urban system is interrupted by concentrated development in a few selected large cities. With the passage of time, economic development will trickle down from the large city to other cities in the urban system and restore equilibrium of the urban system which is rank-size distribution. This model has only considered the effects of economic development and does not take into account factors that are found to be influential by other studies such as government policy, types of economy and relationship with world economic systems.

The city size distribution of the urban system of China approaches that of rank-size distribution and the primacy of Shanghai, the largest city in China, is small and declining after the revolution (23). Although the national primacy index of China is low, there is much variation in the primacy index of the provinces of China in 1978. It ranges from 1.00 in Shandong to 11.76 in Qinghai

With the exception of Guangdong and Hubei, provinces with high primacy index are mainly concentrated in the Northwest and Southwest regions of China. Most of the Northeast, Eastern, North and Central South provinces have

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moderate to low primacy indices.

The pattern of provincial urban primacy distribution is not related to the industrialization and population density of the provinces. Although it seems that urban primacy occurs in provinces with low population density, yet Northeast and North provinces that have low population density do not have high primacy indices. Similarly, low primacy index is not related to industrialization. Although provinces with low primacy indices such as Northeast and North provinces are also industrialized provinces, yet industrialized provinces in the Northwest such as Xinjiang, Qinghai and Gansu do not have low primacy indices. But, to the contrary, they have high primacy indices. The lack of relationship between provincial urban primacy and industrialization and population density is confirmed by stepwise multiple regression analysis on the industrialization and population density factor scores. A low multiple R of 0.39 that is not significant at 0.05 level is obtained. This suggests that provinces with large population, high density and high per capita economic output may have high or low urban primacy index. Other factors such as the history of urban development of the province and government policy may offer better explanations than industrialization and population density of the provinces.

A curvilinear relationship seems to exist between urban primacy and urbanization level when the scattergram is inspected (Fig. 7, 8). A second-degree polynomial regression of primacy index on urbanization gives a multiple R of 0.47 which is marginally significant at 0.05 level but is higher than that obtained from using industrialization and population density factor scores. The second-degree polynomial regression equation is:

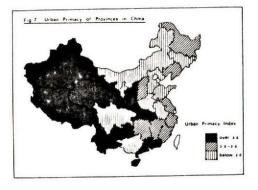
Primacy = -5.58 +1.28 Urbanization - 0.037 Urbanization²

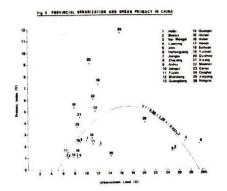
Three patterns can be identified from the scattergram. First, provinces with high urbanization level and moderate primacy indices such as Heilongjiang, Nei Mongol and Jilin. Second, provinces with low to moderate urbanization level and low to moderate primacy indices, such as Shandong, Guangxi, and Henan. Third, provinces with moderate urbanization level but high primacy indices, such as Qinghai. Gansu. Hubei. Shaanxi and Yunnan.

The curvilinear relationship between provincial urban primacy index and urbanization level may be explained by the urban development history of the provinces which is the result of the interaction of national urbanization policy and the difference in development potential among the cities within a province.

In China, the largest city of a province is usually the provincial capital. Only 5 out of the 26 provincial capitals of China are not the largest city in the province. They are Shandong, Hebei, Nei Mongol, Anhui and Sichuan. Their respective provincial capitals are Jinan, Shihjiazhuang, Hohhot, Hefei and Chengdu, and their respective largest cities are Qingdao, Tangshan, Baotou, Huainan and Chongqing. In the imperial period, a large important market town of a province that had favourable site and locational advantages was often chosen to be the provincial capital which further enhanced its importance and urban growth. Subsequent modernization in transport, industrial development and mineral exploitation in the late Qing dynasty and early period of the nationalist government had created new cities which challenged the importance of some of the old provincial capitals on one hand and on the other hand reinforced the dominance of others. New cities that were created along modern transportation routes developed rapidly. Some of them grew to about the same size as their provincial capitals. Examples of these cities are Chongqing in

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Sichuan and Qingdao in Shandong. They even surpassed the population of their respective provincial capitals of Chengdu and Jinan. The urban primacy indices of these provinces are as low as 1.39 and 1.002. The development of modern transportation network had made some of the provincial capitals lost their transportation advantage as administrative centers and cause a change of provincial capitals to cities that are more conveniently located in the new transportation network. For example, because of the development of the Beijing-Guangzhou railway and the upgrading of the Beijing-Harbin railway, two cities along these railways, Chengzhou and Changchun, developed very rapidly and the transportation advantage of the original provincial capitals of Henan and Jilin provinces declined relatively. Subsequently, the provincial capital of Henan province was shifted from Kaifung to Zhengzhon and Jilin province was shifted from Jilin to Changchun. As these two provincial capitals are new, their population size is similar to that of the old provincial capitals and these two provinces have low urban primacy indices of 1.45 and 1.63.

In contrast, if the geographical location and development potential of the original provincial capital is larger than other cities in the provinces, modernization will reinforce their advantage to attract industrial development that leads to further urban development. Their size continues to grow and create primacy over other cities in the provinces. Examples of such cities are Wuhan of Hubei and Guangzhou of Guangdong. They have high urban primacy indices of 7.36 and 5.03 respectively. The high urban primacy of Hubei is probably due to the special characteristics of its provincial capital of Wuhan. Wuhan is the communication center between the north and south, east and west of China. It is located at the confluence point where Beijing-Guangzhou railway and Yantze river meet. It also has abundant natural resources at its vicinity. Since 1949, it has been one of the "key point" cities of China.

The pattern of provincial urban primacy distribution was further modified by the spatial decentralization policy that encouraged concentrated urbanization in the provincial capitals of the provinces in the western part of China and the control of urban development in the large cities of provinces in the eastern part of China after 1949. In general, this has led to a high urban primacy in the western part of China and low urban primacy in the eastern part of China. However, this general pattern is modified by individual characteristics of the provincial capitals which happen also to be the largest cities in the provinces.

such as Wuhan and Guangzhou.

As most of the large cities of China are located in the eastern part that consists of the North, Northeast, East and Central South provinces, the policy of China to control the growth of large cities and encourage the development of medium and small cities mainly affect the large cities of these provinces. Urban development in the large cities of these provinces is curtailed and urban development is dispersed to medium and small cities. As a result, most provinces in the eastern part of China have a low urban primacy index that is decreasing through time. The average urban primacy index of eastern provinces declined from 3.10 in 1953 to 2.38 in 1978.

Industrial development does not have a sound base in the western part of China that consists of the Northwest and Southwest provinces. The concomitant urbanization policy of industrial decentralization from the coastal provinces to interior provinces is to develop "growth poles" in these provinces. Large cities in western provinces which also happen to be provincial capitals were selected to be sites for industrial development. Provincial capitals with good transportation linkages grow rapidly as a result. For example, Lanzhou in Ganzu, Xining in

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Qinghai, Kunming in Yunnan, Guiyang in Guizhou and Urumqi in Xinjiang. Because of scarce resources, less attention was paid to industrial development of medium and small cities in these provinces. This caused the provincial capitals of the western provinces to grow faster than other cities. The urban primacy index of Gansu increased from 6.30 in 1953 to 9.8 in 1963 and Xingjiang from 1.30 to 4.93. But after 1963, as the provincial capitals reached a certain scale, attention was paid to other medium and small cities in these provinces and urban primacy began to fall slightly. Although the urban primacy indices of these provinces has declined, they still remain the highest urban primacy indices in China. From 1953 to 1978, the average primacy index of the western provinces has increased from 3.41 to 4.43.

In summary, provinces with high urbanization and moderate primacy are Northeast provinces that are industrialized, have a number of large cities, and with population of large cities under control. Provinces with low urbanization and low to moderate primacy are the Eastern and Central South provinces that have a high rural population and the growth of large cities is under control. Provinces that have moderate urbanization but high urban primacy are either provinces that are recipients of industrial development of industrial development of provinces urbanization policy or provinces whose provincial capitals have favourable locations that favour their dominance over their second largest cities.

VI. Conclusion

Although cities in China are largely concentrated in the eastern provinces, eastern provinces do not have the highest urbanization level. Provinces with high urbanization levels are generally those industrialized provinces with small population density such as the Northeast and Western provinces. There are two types of more urbanized provinces. They are the old established industrial provinces of the Northeast and the Western provinces that received industrial development after 1949.

The provincial distribution of urban primacy is not related to the level of industrialization or population density of the provinces. A curvilinear relationship seems to exist between provincial urban primacy and urbanization. Such relationship can be explained by the urban development history of the provinces, the national urban development strategy, and in some cases, the uniqueness of the location of the provincial capital. In general, the more industrialized and urbanized provinces in the Northeast have more balanced urban systems and low urban primacy indices. Low primacy indices are also found in provinces that have low urbanization level. Although the absolute urban population of these provinces are not low compared with other provinces, they have low urbanization and industrialization levels because of the presence of large amounts of agricultural population and activities. As these provinces already had a large number of large cities, the general policy of controlling the growth of large cities was most influential in these provinces and favoured the development of small and medium cities and low urban primacy levels had resulted. High urban primacy is found mainly in western provinces that received development recently as a result of the industrial decentralization policy. Most of the provincial capitals in the interior provinces were chosen as growth poles which led to rapid urban growth and urban primacy. Provinces whose provincial capitals have unique locational advantages also experienced high urban primacy.

Provincial distribution of urbanization and urban primacy in China is mainly the result of historical factors and government policy. In China,

government policy does not only control the overall urbanization level at a low rate but also exercises great influence on the spatial pattern of provincial variation in urbanization level and urban primacy. The urbanization policy of controlling the development of large cities and the development of medium and small cities favours a low urban primacy in the provinces of the eastern part of China and the spatial industrial policy of decentralizing industries from the coastal provinces to interior provinces encourages urbanization and causes urban

primacy in the provinces of the western part of China.

Future patterns of provincial distribution of urbanization level and urban primacy will very much depend on future urbanization and spatial industrial policy of China. China has recognized the important role of its existing industrial base and cities in future economic development. Cities will play an increasingly important role in the "Four Modernization" program of China. Moreover, as labour productivity in the rural areas gradually increases, labour surplus will occur in the rural areas. Small and medium cities will be needed to absorb excessive agricultural labour into non-agricultural activities and there may be a general increase in the urbanization levels of the provinces in China. High urbanization rates may be experienced especially in the densely populated agricultural provinces in the east that at present have low urbanization levels. The development of transportation networks and new industrial cities in the western provinces may lower their existing high urban primacy. There will be a decline of urban primacy in the western provinces if the general policy of balanced development and the control of large cities are to be continued in the future.

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RECENT URBAN POLICY AND DEVELOPMENT IN CHINA: A REVERSAL TO "ANTI-URBANISM"

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INTRODUCTION

Rapid urbanization is synonymous with modernization and industrialization. In the Third World countries, it is also the natural phenomenon of modern economic development. National development in China has been consistently committed to modernization and industrialization, resulting, unavoidably, in urbanization. At various stages since 1949, for ideological and political reasons, China made several attempts, through state intervention, to slow down and dampen the process of urbanization. However, the "Anti-urbanism" quickly gave way to a positive and explicit acceptance of urban development in the post-Mao era: moveover, urbanization is asserted as the major focus of national development.

Prior to 1976, no developmental policy favoured urban development.

Development strategies were essentially designed for rural urbanization and small city development, but to contain growth of larger urban places. More specifically, the rural commune, in 1958, was introduced as an alternative to

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urban expansion. In 1978, Hua Guofeng in the First Session of the Fifth National People's Congress made the first explicit statement on national commitment to urban housing and urban services (Zhonghua remin gongheguo diwujie quanguo renmindaibiao dahui diyici huiyi wenjian, 1978, p. 84.) Subsequently, from 1978 onwards, there was a continuous discussion on urban development strategy—whether development should concentrate on small cities or large cities. By 1980, that debate was settled. The urban planning policy to "control the size of large cities, rationally develop medium cities, and rigorously develop small cities" was adopted (Chengshi, guihua. 1982, No. 1, p. 1). Based on this policy, this paper addresses itself to the rationale of the present trend of Chinese urban development, its implications and its problems.

The Third Plenary session of the 11th Party Central Committee in

December 1978 and the Third Plenary Session of the 12th Party Central

Committee in October 1984 have major impact on China's development, thus the direction on urbanization. The economic policy of December 1978 was directed at the rural sector. It was a policy that was generally accepted as successfully implemented. It started a rural urbanization process and exerted an impetus to urban growth. Partly in response to the success of transformation in the rural sector, the policy of October 1984 was designed as the parallel policy of the former. Urban reform policy went much further, as it designated the city as the economic centre of the next stage of development. This paper reviews the relevant parts of these policies and assesses how they affect urban development, with special emphasis on medium and small cities.

POPULATION CHARACTERISTICS

Table 1 shows the total and the urban population since 1949. The growth of the total population began to stabilize in recent years--cultural Revolution period (1966-76). Since then, urban population had been growing. From 1978, the urban population growth rate steadily escalated to 23.54% of the total population.

[Table 1]

Because of the absolute size of the population, population control and family planning were sporadic themes since 1949. In view of China's development and available resources, it was strongly felt, recently, that there should be some desirable population limits. In one study, the population limit in 2080 was variously projected. In relationship to the rate of economic development, a stabilized working population of 448 million was estimated. This made a total population of 650 million to 700 million. According to food resources and diet, with the assumption of food production increasing by 150% by 2080, the maximum population would be 680 million. If population was measured by ecological condition, more specifically by fresh water resources, as China had one of the lowest per capita fresh water areas, the optimum population was calculated to be between 630 million to 650 million (Liu, et al, Song, 1981, pp. 29-30). These different projections were substantially lower than the population figure of 1983 which was 1024.95 million. Although these estimates should not be taken too seriously, it was evident that there was not only a real need to stabilize the population, but also a desire to reduce the population size.

Table 2 on projected age structure was determined based on the female fertility remaining between 1.55 to 1.70. There was a clear sign of the reduction of the young dependent population (below 16). The productive work force increased absolutely and proportionately. The structural shift away from the non-productive young population implied a lesser quantitative demand on social service investment for youth. The proportionate increase in the aged dependent population had the reverse implications—great demand on social service investment for the aged. As the productive population increased proportionately, it demanded more employment opportunities. Moreover, it also represented a large proportion of fertile population who would produce a larger young dependent population in the future.

[Table 2]

The one-child population as a population control mechanism was introduced in 1979 (Beijing Review, 1979, No. 15, pp. 6-7). As some Chinese planners pointed, this policy would produce a family structure consisting of members without sibling or uncle and aunt. This would fundamentally change the Chinese concept of family and social structure.

Diagram 1 shows the hypothetical situation where a couple at approximately 30 years of age could have 5 dependent family members to support and could, although highly unlikely, at a maximum have 13 dependent family members. While social service investment for young dependent population might proportionately reduce, the aged dependent population would have to be supported either by family members or by the state. Some investment in aged social services must increase in order to relieve the load imposed on family expenditure on aged dependents.

[Diagram 1]

Projections of Chinese population, resulting in the recent birth control measure, showed that there would be a huge aggregate bulge of aged dependent population by 2035. The increase in dependency ratio would present formidable social and economic problems (Coale, 1981, pp. 930-94). In order to support the large portion of aged population, whether through direct subsidies and services by the state, or by making the individual household takeing care of its aged dependents, state income or household income would have to increase substantially. Productivity would have to increase proportionately, implying more efficient production technology to be adopted and greater skilled labour to be employed. In this context, the future increase on investment on the aged dependents, meant that human capital development had to be instituted presently in order to increase labour efficiency in the future. At the same time, efficient production techniques signified that advanced technology with scale economy, which tended to be effectively located in cities, were likely to be selected.

One analysis of human capital investment for an individual from 0 to 16 years of age showed ¥1600 for a rural child, ¥4800 for a child in a medium size city (3 times that of a rural child) and ¥6900 for a child in a large city (over 4 times that of a rural child) (Liu, et al., 1981, p. 89). For efficient human capital investment in youth, rural form of settlement was more economically viable, but less suitable as the technological content of the rural education was far inferior to that of urban education. From these simple comparisons, it became clear that birth control in general, one-child family policy in particular, generated some major economic issues for urban policy formation.

The trend of population growth appeared to demand the types of production technology and labour which were prone to urban setting. The structural shift in the age pyramid would require sizeable expenditure of human development and aged social services. These economic pressures were imposing and imminent and they were the crucial urban issues which had to be taken up immediately.

RURAL REFORM POLICY (DECEMBER 1978)

The main policy objective was rapid growth in rural production. Two conditions were required--observation of economic law and political stability. The mechanisms adopted were economic management improvement and technological adaptation. In administration and management, party and government were to be separated; government and enterprise were also to be separated in order to give enterprise greater elbow room and flexibility. Essentially, enterprises were given greater production and financial autonomy.

As the policy concentrated on stimulating agricultural production, the reward to the peasants was based on "to each according to his work," and land was allowed to be assembled and re-allocated to those whose production required agricultural land, thus shifting the disguised agricultural labor into non-agricultural occupations. For non-food grain agricultural products, production and exchange were entirely through the market. Concomitant to the rural free market, a production responsibility system was established so that means of production and land were allocated to families who would be responsible for state tax, contracted quota, but be allowed to keep all surplus. The surplus was the incentive for quantity and quality improvement in production and efficient management (Zhonggong zhongyang wenxian yanjiushi, 1982, pp. 1-15).

The market price now determined and adjusted demand and supply, and diversification. This policy did not abandon planned economy entirely but drastically reduced its controlling function, and was later applied as a guide for the entire economy.

These institutional changes encouraged rural families to enter into specialized production--commercial commodity production for profits. They became small scale enterprise units which would manage their own production and trade. Production specialization and diversification as well as division of labour began to take place in the rural sector. New economic activities which were non-land based began to spring up. The diversification of rural economy generated two major effects. First, transfer of land began to take place. For families whose production was not land based, the unused land was transferred to other productive farming families for a fee. The transfer fees--rent--were a transfer of rights, not ownership. Land was gradually assembled by productive peasant families while freeing other families into non-agriculatural production (Jungji Yanjiu, 1984, No. 9, pp. 39-41). Through land rights transference, agricultural employment was reduced, scale of production was to enlarge gradually and agricultural efficiency was to improve. The displaced labor moved into non-land activities -- animal husbandry, small scale processing, retails and services.

Second, the diversification of economic activities created a demonstration effect whereby productivity was transformed into profits and material rewards. As productivity began to increase, producers were prompted by the advantages of scale economy. Gradually small production units would enlarge and more labour replaced. One estimate suggested that two-thirds of the present agricultural labour would be replaced by non-agricultural jobs (Jingji Yanjiu, 1984, No. 8. p. 51). Productivity and specialization

increased the rural income. Savings from income growth was to be invested in non-agricultural activities, thereby gradually urbanizing the countryside.

The net production effect of this policy was twofold. Internal to the rural sector, it generated an urbanizing process through employemnt and production changes. Externally, through commercial commodity and trade, the rural sector was linked directly into the existing urban economic system. The effect of this policy was substantial, particularly in the Changjiang Delta in Jiangsu Province and the Zhujiang Delta in the Guangdong Province where the rural population density was exceedingly high. Taking Taihu District (in Jiangsu Province) as an example, in some rural counties, 73.6% of the gross industrial and agricultural output value came from industries. In one country, only 62.1% of the labour force worked in farming. In other countries, labour force engaging simultaneously in agriculture and industry consisted of 34% of the labour force. These were clear evidence of rapid industrialization in the rural areas (Wu, 1984). In one estimate, 100 million peasants would be transferred into the non-agricultural sector in the year 2000 (Renkou Yanjiu, 1983, NO. 6, p. 8). The rural reform policy, by its successful implementation and experimentation, generated an immense bottom-up pressure for urbanization.

URBAN REFORM POLICY (OCTOBER 1984)

Essentially, this policy applied a similar set of rural policy changes in the urban setting. There were two problems which this policy was designed to solve. First, it responded to the urbanization pressure built up by the rural reform policy. Second, because urban enterprises had no autonomy and were

tightly controlled by the state, enterprises had no responsiblity for production or profits, and worker's productivity was low. The existing urban enterprises which numbered over 1 million and employed over 80 million workers had a major contribution to national economy. Through taxation, they provided for over 80% of the national expenditure (Zhonggong zhongyang guanyu jingjitizhi gaige de jueding, 1984). As this sector was considered most important in the national economy, any improvement in this sector would greatly advance national development in general, and urban development in particular.

The separation of the government and urban enterprise was necessary in order to provide enterprise autonomy. They were allowed to retain and allocate investment, plan production, hire and expel employees, determine bonuses and, within state limit, determine prices. This policy would enliven urban economic activities and stimulate diversity and specialization in production and services. Potentially it would be a major factor for urban growth.

In addition to state enterprises, collective enterprises had been introduced for some time. Private or individual enterprises were now also accepted. Multi-enterprise systems allowed for the co-existence of state, collective and individual enterprises, whereby collective and private enterprises were to link with the state enterprises. As they all could contribute to socialist production, standard of living and employment in a different way, they became the necessary components of socialist economy. Cities were to facilitate the development of collective and individual enterprises by providing them with facilities and conditions conducive to their operation and protecting them by law (Ibid.).

The introduction of the multi-enterprise system and enterprise autonomy

was a reaction to the planned industrial system previously adopted. Planned industrial system unified all production units into one large state corporation, whereby each individual unit was essentially a branch operation. For each unit, input was allocated and output was distributed, regardless of its comparative productive advantages or spatial cost variation. Three phenomena resulted. First, trade and marketing between industrial units were largely eliminated. In reducing business services and management functions to a minimum, this system created little horizontal economic activities. Second, there was no necessity to adjust input-output relationship. As the production unit had little influence over input and output, there was no incentive to innovate technology, increase productivity or improve efficiency. The industrial structure became progressively more rigid, unadaptive, and eventually out-of-date, and production quality deteriorated. Third, as a closed system, it had little multiplier effects. The only economic impacts were limited to income effects whereby the workers, through wages, provided consumer demand, and service effects whereby the production units, through maintenance and operation, required technical services. As personal and household consumption was not considered important, and services, as a non-productive sector, were placed second in developmental priority, both were poorly supplied, therefore further reduced economic effects. Urban economic growth, which generally relied on multiplier effects, was retarded. The gradual removal of the planned industrial sytem started a reverse process, whereby multiplier began to increase, urban growth escalated.

Urban reform policy explicitly assigned cities as centres for development, thus reversing the pre-1976 policy. Through the newly established inter-enterprise linkages, they would spatially integrate with the production units in the surrounding hinterland. As urban enterprises grew,

cities with production complexes would be suitable as growth poles which would extend the growth effect to their surrounding rural areas.

Urban reform also formalized policies which were already in practice since December 1978--"open" policy. As foreign investment, management, and advanced western technology were accepted as the desirable elements to spur economic growth, the "open" policy for foreign investment and international trade was considered essential in facilitating modernization. The use of foreign capital, technology and entrepreneurship was necessary to complement the socialist economy.

The general effect was expected to be similar to the rural reform policy--urban economy would be stimulated and enlivened, and urban production would increase, bringing with it greater income, employment and diversity. Implicitly large-scale urban development and expansion would unavoidably follow. The urban reform policy, when implemented, would create a top-down pressure for urbanization.

DISTRIBUTION OF CITES

The size distribution of cities in Table 3 followed the definition and classification used in China. China had a normal urban hierarchical distribution of cities. Distribution of economic activities at different classes of cities confirmed the economic dominance of large cities as generally found in the Third World. From the selected indicators, it could be seen that scale caused economic concentration. The large cities had greater and better production capacity, human capital, financial resources and institutions. Because of the greater local income, they also were stronger

consumer markets. Much of their economic strength was derived from their regional role in production and services. Population in the surrounding areas, by making use of the large cities, through consumption and exchange, contributed to the large city economy (Kwok, 1986b).

[Table 3]

The concentration of cities in coastal areas and around major river systems, as illustrated in Diagram 2, were well demonstrated. The well-known spatial disparate pattern of the cities was represented by the concentration of metropolises and large cities in the coastal area. The 15 selected major coastal cities had 4.71% of the total population, and occupied only 0.93% of the total land area. 7.69% of the industrial and enterprise units were located there producing 23.19% of the gross industrial output value (Shanghai shehui kexueyuan, 1984, p. 54).

[Diagram 2]

Amongst these coastal cities, there was further concentration in the three metropolises: Shanghai, Tianjin and Guangzhou. They owned 54.79% of the industrial and enterprise units of these coastal cities. Their combined gross industrial output value was 73.69% of that of these coastal cities (Ibid.). The economic dominance of the coastal cities in general, and the three metropolises in particular, demonstrated their production and locational advantages, which were not totally due to scale economy. Apart from the three

metropolises and Daliean which had over 1 million population, the rest of the 15 cities included large and medium cities. With one small city, Weihai, they represented cities of various sizes; therefore, not all of them had scale economy advantage. Coastal cities, with the sea and river system providing natural transportation routes, attracted industry and enterprise. It was natural that the open cities—originally 14, now reduced to 4—which were designated to receive foreign investment, were all coastal port cities.

URBAN PLANNING POLICY

The urban planning policy to "control the size of large cities, rationally develop medium cities and rigorously develop small cities" was implicitly based on the theory of urban systems as urban hierarchy, especially regional hierarchy of cities, characterized the Chinese city distribution. Cities of similar population sizes were assumed to have the same characteristics and structure. Complexity and functional variety of cities were ignored and all cities would be reasonably grouped to three different classes. Although different policies were applied to different classes of city, for each class of city, a uniform policy would suffice for their different conditions and problems. With such strong assumption and simplification, the implementation of this generalised policy would be problematic.

As this policy was introduced in 1980, it was designed primarily to respond to the bottom-up pressure of urbanization. The rural economic growth was immediately and comprehensively felt in the small cities, which also were the class of cities designated to be developed in the previous period--Cultural Revolution. Traditionally, their economy and administration were

closely tied to the rural population (Kwok, 1982). The bias towards the small towns was the logical extension of historical continuation. "Control of the size of large cities" was a constant theme in China's urban development. The purpose to limit large cities' growth was to avoid urban diseconomies, congestions and environmental problems as well as potential high crime rate which existed in advanced capitalist countries, and Third World countries. It also reduced the social overhead capital investment in urban public services, which were already heavily utilized.

Russian "De-ubanism" which advocated the reduction of regional polarization and urban rural differential, and Mao's "Anti-urbanism," which favoured development in the rural sector, both were against development of large cities (Kirkby, 1984, p. 1-18), although both urbanization ideology did not challenge the necessity of industrialization in development.

Urbanization, as a natural result of modern industrialization, was tacitly accepted; distribution of urban development, however, was heavily influenced by this set of ideals. The Chinese rural commune and the Cultural Revolution's slogan of elimination of the differences between the cities and countrysides were the explicit policy manifestations of this ideology.

The mechanism to limit urban growth was by controlling population movement. Since the late 1950s, household registration tied to employment and food rationing was an effective way to spatially stabilize population movement, and slowed down urban growth. Nevertheless, large cities' economy continued to grow, because of their advantageous condition for modern production activities. Against the early policies for small city development, resources in large cities were often decentralized into smaller cities and rural areas to assist their growth, still large cities grew at a faster rate (Buck, 1981, pp. 140-142).

"Rationally develop medium cities" responded to the intention of decentralizing urban development spatially. Geographically, medium cities were more evenly distributed than large cities. As medium size cities were sizeable in population—between 200,000 and 500,000—they presumably should have built—in external economy and scale economy for industrial development. They had, supposedly, better basic infrastructure, communication, administration and services and labour skills than those in small cities, and often were the nodes of regional transportation networks. Therefore, there existed some adequate production conditions and economic potential for industrial development.

The medium cities were to be developed as "economic centres"--growth poles. Urban revenue was to be generated by exports. They would select production by making use of the outputs in its hinterland, and in establishing production links, medium cities would spatially integrate their regions. Through export growth, their development would filter down into the entire region.

"Rigorously develop small cities" reflected the emphasis of the past urbanization ideology. As they were locationally closest to the rural areas, they were more evenly distributed geographically. These were the key points for rural urbanization. Already they were providing services to the rural sector and this role would expand. They would also function to diversify the rural economy, particularly in production, retail and commerce (Hebei xuekan, 1984, p. 4).

In respect to the rural areas, there were several specific roles which the small cities were to fill. First, they would induce rural economic and cultural development by extending cultural, educational and technological services to the rural population, i.e. human capital development. Second,

they would absorb the rural surplus labour by providing non-agricultural employment. As production diversification, labour specialization took place in the countryside, rural labour structural shift in favour of the non-agricultural employment would provide a new labour force which was to be accommodated in the small towns. This last role was the key to reduce rural-urban differential—a reflection of the Russian/Maoist ideology of urbanization. The objective was to spread the benefits and opportunities of urbanization into the rural area (Shanghai shehui kexueyuan, 1984, p. 39).

Although the functions of cities of different classes were specific, the inter-linkages and the hierarchical relationships between the levels of cities were less well defined. "Large cities as centres, medium cities as framework, small cities as transition (Ibid., p. 34) indicated that economic development would still be led by large cities because of historical inevitability as well as their production strength. It placed the centre of development in those cities. As the development of large cities was to be limited, this statement seemed to be contradictory to the current urban development policy. Small cities as the rural-urban transitional points was obvious and inevitable; otherwise the massive rural migration would be channelled to the large and medium cities, the growth of which would be rapid and excessive. The medium cities, in this statement, had an additional function. Apart from being growth poles, they formed the network of urbanization, providing the link between the large and small urban places, although the nature of its linkage function was unclear.

EFFECTS ON URBAN DEVELOPMENT

Taken together, the rural reform and the urban reform policies had produced

three major factors for urbanization--the diversification of rural production, the creation of urban enterprises, and the invitation for foreign investment.

There were three effects from production diversification in the rural sector. First, the expansion of non-agricultural production and agricultural commodity production provided for both household consumption and industrial production. The rural production as input to industrial production established a direct linkage to the urban industrial network. Because the present rural production units were still in relatively small scale, goods were transported to the nearby cities; therefore regional networks of rural production were relatively small in area. Nevertheless, this set up a regional linkage centering on small urban place with a good access to transportation network.

Second, the increase of rural household income generated higher rural consumption. The rural demand for better and more goods and services livened up the rural market, invariably located in the small cities which had a traditional retail and service role for the agricultural sector. The retail and service sector in the small towns, as a result, expanded.

Third, the growth of rural income also meant greater rural savings.

Investment in the non-agricultural sector and agricultural commodity

production continuously improved these sectors. Apart from this type of local
investment, rural residents began to invest in cities in the retail, service
and construction sectors (Wenhui Bao, 1981, August 15; and Nangfang Ribao,
1984, June 14). This was a direct investment which contributed to urban growth

The urban reform policy opened up new enterprises, allowed for market operation and accepted profits as productive motive. Under this system of economic operation, agglomeration of enterprises would be mutually beneficial. Enterprises, particularly the small scale, risk-taking ones and

the innovative ones, would find the large city environment minimize uncertainty, therefore more suitable for their opertation. Those medium cities with sizeable production infrastructure, management and labour skills, inter-regional transport and communication, financial services, and public administration, would also be agreeable to some enterprises. The encouragement to collective and private enterprises and the greater autonomy enjoyed by state enterprises would increase the number of urban firms and potentially could be one of the most important causes for rapid urban development.

The open policy for foreign investment and specifically the opening up of coastal cities and special economic zones might gradually take up momentum, when there was greater relaxation on the restriction to access of domestic market and the export of resources. However, there were few cities in China that had the appropriate conditions for foreign investment. Generally, the requirements of foreign investment favoured the metropolis (Kwok, 1986a). Amongst the coastal open cities, Shanghai, Tianjin, Dalian and Guangzhou at present could develop those conditions, and were retained as the open cities. Shenzhen could be added into this list because of its proximity to Hong Kong and the heavy investment committed to its development. The rest of the open coastal cities, because of the need of major and large scale investment in order to produce the environment to attract foreign investors, were dropped from the open cities list, at least temporarily. The impacts of the open policy, most likely, would affect only a few metropolises in the coastal areas. If so, through the hierarchical downward transfers, their growth and development was expected to direct growth in small cities. Judging from experiences elsewhere, their growth effects were unlikely to be easily transmitted to other cities.

Objectively, given all the present economic policies, the national policy for modernization and industrialization by technological and labour improvement, led, normally, to city development. Furthermore, production for the market and surplus as production incentive led to scale economy and external economy, the necessary conditions for modern production. All these demonstrated that to 'control the size of large cities' appeared to be contradictory and economically unnecessary.

The bias towards smaller city development was because migrating population could be distributed proportionately to different sizes of cities. In view of the scale of urbanization, this policy appeared to be a sound alternative, as it would reduce the extensive expansion of large cities. If the large cities were to absorb the rural migrants, the speed and size of their population growth, because of their relatively limited number, would necessitate rapid and huge investment in infrastructure and services. This would also have magnified the many urban problems of skewed primacy as witnessed in other Third World countries. Spreading growth to smaller cities would disperse migrating effects and costs (Ye, 1982), and each expanding city would minimise its social investment. On the other hand, in order to make smaller cities attractive to migrants, greater quantity and variety of social services were recommended (China Reconstructs, 1983, Vol. 32, No. 11, p. 9), particularly essential in respect to professional and managerial workers. Moreover, this policy necessarily caused scattered development in production. Scale economy in production might be curtailed, and capital efficiency might decrease. Furthermore, the labor skills, management capability and social overhead capital needed might not be available or effectively provided in small urban places. The smaller city policy was therefore not without some serious social and economic problems, which should be dealt with so that it could be feasibly implemented.

Apart from the already mentioned doubts whether city size alone should be the basis of policy formation and the singularity of urban planning policy should be applied to each class of cities, there were other questions such as the bottom-up and top-down direction of the urban planning policy and the relationship between cities. As large cities were recognized as the centres of economic development, spurred on by future foreign investment in some instances and engineered through urban enterprises in others, large city development took a "top-down" direction. As Chinese cities along river system traditionally had strong hierarchical linkage, regional centres might have a downward growth effect. The national system as a whole, as in other Third World countries, the filtering down effect was often ineffective because of infrastructure, communication, finance and management bottlenecks. In order that growth could be transferred downwards, an integrated regional industrial policy applied to the urban systems and a national industrial support network to integrate the spatially dispersed production units, should be developed simultaneously. The lack of any national and regional infrastructure and institutional arrangements to support the urban planning policy made it seem incomplete and unrealistic.

The rural reform policy set up a rural urbanization process which was from "bottom-up." This policy directly united the countryside to the small cities which were the key points for the transitional process. This transformation was rapidly taking place in China. Rural towns now became the lively retail and service centres of the countryside. These urban places and their surrounding hinterland were economically and culturally integrating gradually. The real test was whether they had sufficient conditions to develop into industrial production centres. Because of this uncertainty, it was not clear how this process could be transferred upward to the medium

cities. Whether this policy would create cellular urban regions or integrated regional economy seemed to depend on the development of inter-regional channels and facilities for commodity, personnel and information flows.

The medium cities, which functionally were to be the key regional growth poles, were also designated to be the network linking up the urban system. Were they the production and service centres for the small cities? Were they the backward linked production units of the large cities? Were they to serve both these functions? They obviously had a major function in the urban system. Because of the lack of clearer definition on how these transference processes were to be carried out, their role was therefore ambiguous and remained a vacuum. Whether the "top-down" and the "bottom-up" processes were to be taking place either simultaneously or separately, the medium cities naturally would play a transference role, but it was unclear how they were to fulfill it.

More significantly, the long-term effect on urban development was caused by the population structural change. In view of the population trend, social services and investment for the aged dependent population would be needed. The medium-term shift towards the working age group necessitated a swift increase in economically viable employment. As these job opportunities could not be found in the agricultural sector, the labour force of which was already shrinking, they had to be found by the expansion of the modern economic sector, which would, most likely, be urban oriented. The direct impact of population change would be a long-term process of urbanization.

Equally important, the short-term effect of labour structural change--shift from agricultural occupations, was partially similar to that of the population change. Creation of non-agricultural employment meant exploration in new production technology and human capital development.

Training and education facilities must expand to supply appropriate labour skills. The shift to non-agricultural occupation also changed the household structure into smaller basic units. Many social services traditionally provided within the agricultural community were no longer available to the smaller household units. The supply of these social services had to be increased to accommodate this new demand.

These two primary causes for urbanization pointed to the necessity of urban economic development which could absorb the growing population, and which would increase productivity. They also drew attention to the urgent need for investment in education and social services. These urbanization issues for the near future called for, most crucially, a set of strategies for urban investment—the possible ways to accommodate the population and labor changes through industrial development, but such strategies were absent. The spatial issue of urban location to direct population growth, to which the present urban planning policy addressed, though necessary, received prime attention. In view of the present context, it appeared to be secondary.

As in many Chinese policies, the present urban planning policy had an element of experiment. Urban development naturally responded to national development policy. The present urban planning policy, in many instances, was at odds with the national development policy and internally was amigous with some missing links. Perhaps when the 1978 and 1984 reform policies took full effects, urban planning policy would be adjusted to function consistently with economic development.

TABLE I: TOTAL & URBAN POPULATION 1949-83

Year	Total Population (in mil.)	Annual Population Growth Rate (%)	Urban Population (in mil.)	Annual Urban Population Growth Rate (%)	Urban to Total Population (%)
1949	541.67		57.65		10.64
50	551.96	1.90	61.69	7.00	11.18
51	563.00	2.00	66.32	7.51	11.78
52	574.82	2.10	71.63	8.01	12.46
53	587.96	2.29	78.26	9.26	13.31
54	602.66	2.50	82.49	5.41	13.69
55	614.65	1.99	82.85	4.36	13.48
56	628.28	2.22	91.85	10.86	14.62
57	646.53	2.90	99.49	8.32	15.39
58	659.94	2.07	107.21	7.76	16.25
59	672.07	1.84	123.17	15.39	18.41
60	662.07	- 1.49	130.73	5.67	19.75
61	658.59	- 0.53	127.07	- 2.80	19.29
62	672.95	2.18	116.59	- 8.25	17.33
63	691.72	2.79	116.46	- 0.11	16.84
64	704.99	1.92	129.50	11.20	18.37
65	725.38	2.89	130.45	7.34	17.98
66	745.42	2.76	133.13	2.05	17.86
67	763.68	2.45	135.48	1.77	17.74
68	785.34	2.84	138.38	2.14	17.62
69	806.71	2.72	141.17	2.02	17.50
70	829.92	2.88	144.24	2.17	17.38
71	852.29	2.70	147.11	1.99	17.26

Year	Total Population (in mil.)	Annual Population Growth Rate (%)	Urban Population (in mil.)	Annual Urban Population Growth Rate (%)	Urban to Total Population (%)
72	871.77	2.29	149.35	1.52	17.13
73	892.11	2.33	153.45	2.75	17.20
74	908.59	1.85	155.95	1.63	17.16
75	924.20	1.72	160.30	2.79	17.34
76	937.17	1.40	163.41	1.94	17.44
77	949.74	1.34	166.69	2.01	17.55
78	962.59	1.35	172.45	3.46	17.92
79	975.42	1.33	184.95	7.25	18.96
80	987.05	1.19	191.40	3.49	19.39
81	1000.72	1.38	201.71	5.39	20.16
82	1015.41	1.47	211.54	4.87	20.83
83	1024.95	0.94	241.26	14.05	23.54

Source:

State Statistical Bureau, PRC (1984). <u>Statistical Yearbook of China 1984</u>, Hong Kong: Economic Information and Agency, p. 81.

TABLE 2 PROJECTED AGE STRUCTURE OF THE URBAN POPULATION, 1975-2000

	<u>75</u>	80	<u>85</u>
0 - 16	36.75%	31.54%	26.30%
17 - 55(F) / 17 - 60(M)	55.65%	60.06%	64.98%
55(F) / 60(M)	7.60%	8.40%	9.64%

N.B. 1975 year end figures are based on a survey. All other figures are projections.

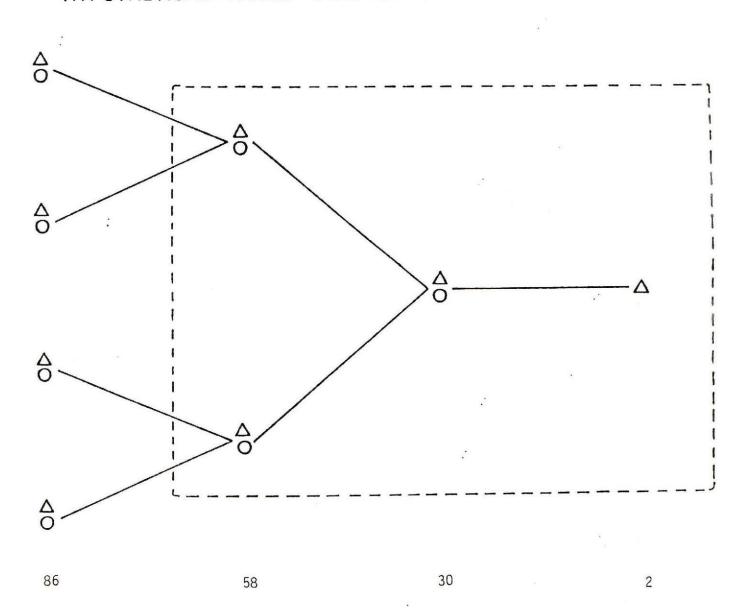
Source: Liu, Zheng, et al., eds., (1981) China's Population:
Problems and Prospects, Beijing: New World Press, p. 121.

TABLE 3 SIZE DISTRIBUTION OF CITIES AND URBAN ECONOMIC ACTIVITIES DISTRIBUTION IN CHINA, 1982

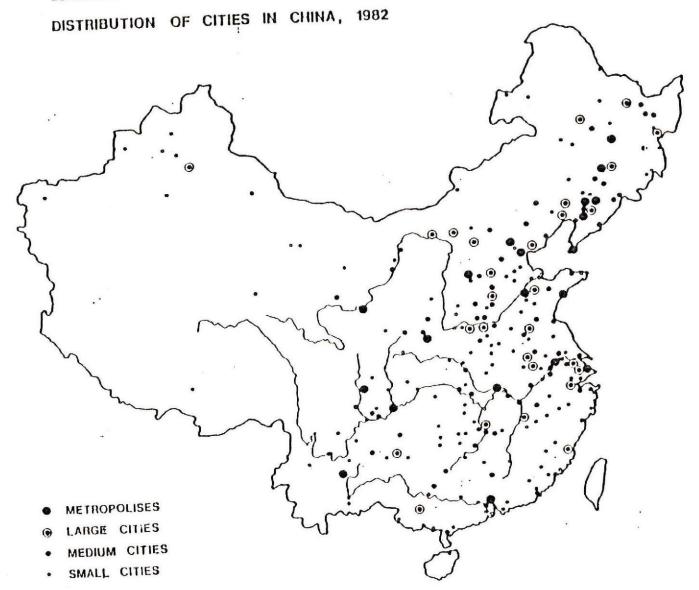
	Population	No. of Cities	Percentage of Total No. of Cities	Non-Agricultural Population ('000)
Metropolises	Over 1 M	19	8.19	41,005
Large Cities	500,000 - 1 M	29	12.50	20,805
Medium Cities	200,000 - 500,000	70	30.17	21,674
Small Cities	< 200,000	114	49.14	12,832
	-	252	100.00	96,316

Source: Shanghai shehui kexueyuan, Jingji yanjiusuo, Chengshijingji yanjiushi (1984), Fazhanzhongde zhongguo chengshi (The Chinese Developing Cities), Shanghai: Shanghai shehui kexueyuan, Jingji yanjiusuo, pp. 45 and 53.

HYPOTHETICAL FAMILY STRUCTURE (ONE CHILD FAMILY)



AGE



Scurce: Shanghai shehui kexueyuan, Jingji yanjiusuo, Chengshi jingji yanjiushi (1984)

Fazhanzhong de zhongguo chengshi (The Chinese Developing Cities): Shanghai:

Shanghai shehui kexueyuan.

NOTE

 The 15 selected coastal cities are: Dalian, Yingkou, Qinghuangdao, Tianjin, Weihai, Yantai, Qingdao, Lianyungang, Shanghai, Hangzhou, Ningbo, Fuzhou, Xiamen, Shantou, and Guangzhou.

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METROPOLITAN DEVELOPMENT IN CHINA: STRUGGLE BETWEEN INDUSTRIALIZATION AND IDEOLOGY

R. Yin-Wang Kwok*

INTRODUCTION

Metropolises, in the Third World, the primate cities in particular, have a key economic, political and social function in national development. Whether the large cities generate positive or negative developmental effects has been an issue for constant debate. Urbanization policy concentrating in secondary cities has been suggested as viable alternative; others argue that it is more efficient to expand the large cities. Given this context, this paper discusses the role of metropolises in contemporary Chinese development. Since 1949, the Chinese government has committed to industrialization and modernization as its developmental goal. It also stresses socialism as both the ideal and the mechanism for societal organization. China's economic development naturally leads to some form of urban pattern; while its social development affirms that equality in distribution is the fundamental principle to determine the specific form of urbanization.

The Chinese urban policy in general, metropolitan policy in particular, responds to the dictates of its national developmental path, which constantly adjusts itself between the ideology and the real conditions. The interplay between ideal and practicality gives rise to many conflicts, particularly in the present, post 1978 period. This paper attempts to examine principally the relationship between ideology and industrialization and its impacts on urbanization, and will discuss first the ideology and developmental policy,

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then the evolution of urban development, and finally the post-1978 urbanization, with specific reference to Shanghai--China's "primate" city.

IDEOLOGY AND DEVELOPMENTAL POLICY

The Chinese ideology on urbanization is a combination of Russia's concept of "De-urbanism" and Mao's concept of "Anti-urbanism" (Kirkby, 1985, pp. 1-18). The view of "De-urbanism" accepts the economic advantages and necessity of city formation and growth, but is concerned with extreme concentration of urban growth. The two effects of concentration—regional polarization and urban—rural difference, are contradictory to the socialist principle on equity. Implicitly, unlimited urban growth must be checked; spatial balance of investment and fair allocation to the rural sector must be parts of the fundamental objective of development. Because Mao's revolutionary base was the peasants—the oppressed class—his view of development was rural bias. City dwellers were the minority and the privileged, and they prospered at the expense of the countryside. Development, therefore, must benefit the peasants.

Spatially, development in China was, and still is, imbalanced.

Population, agricultural and industrial production concentrated in the coastal area while the interior area was hardly developed (Trewartha 1957, p. 236).

Reduction of the regional polarization of development has become an ideological objective of urban distribution policy.

Urban Rural differences characterised the countryside as the "supplier" and the city as the "consumer." Cities grew because they were supported by the countryside, as benefits gained by the cities were provided by the rural sector. The "master" (urban) and "servant" (rural) relationship expressed the

exploitative and unjust condition which should be eliminated (Kwok, 1974, p. 121). In view of the overwhelming majority of the rural population, development policy, in redressing this difference in favor of the countryside, should restrain urban growth, in particular the metropolitan growth.

The primate city, Shanghai, was and still is the nation's industrial and commerce center, thus the representative city--whatever happens here happened or would happen in other cities. Early literature on Shanghai described it as the relic of colonialism, imperialism and capitalism. (Shanghai Jingji shihua, 1963; and Shanghai de gushi, 1963). Its detrimental social conditions were undesirable and unacceptable, while its economic contributions were viewed as the prime example of polarised development. Shanghai gave such a negative image of metropolis that, the containment and restriction of which was affirmed to be the appropriate guide for urban development.

These three principles--redressing regional polarization, eliminating urban-rural differential, and containing urban growth--were derived from China's specific ideology in urbanization. They became the tacitly accepted directives which underlie debates on development and urban policy formation.

In economic development, China has been firm and consistent in its adoption of industrialization, although its priority has shifted over time. Production linkage and agglomeration arising from the acceleration of industrial activities generate urban expansion or city formation. Adaptation of western production technology in the Third World generally causes rapid growth in large cities as they meet the industrial input and output requirement. As technological adaptation takes place in China, similar rapid growth in metropolises would have resulted. The Chinese debates on development have never challenged industrialization as a proper tool, but have been focused on the form of industrialization to be adopted--relationship of

industrial and agriculture, scale of production, technological adoption, labor utilization, source of investment, spatial location, social/political effects, etc. Mao, in discussing the relationship of industry and agriculture and the importance of industrialization (Mao, 1965), clearly accepted the necessity of industrialization. In China's industrial policy, scale economy, externalities and agglomeration, which are the bases of urban economy, and the requisite elements for modern production, however, were seldom emphasised before 1978. While industrialization was generally and continuously accepted as a method of development, its naturally manifested effect—urbanization—though never seriously examined, was therefore tacitly accepted. From 1976, urbanization was gradually accepted and affirmed in 1984, as necessary and important in national development. The issue has never been whether urbanization will take place in modern China— statistics show that it clearly occurs (Table 1). The real issue and policy debate has always been on the form of urbanization pattern which is appropriate to China.

The ideology of urbanization--against concentration of urban development, and in favor of the rural sector, does not reject the industrialization policy, but the agriculture/industry inter-relationship often leads to some contradictions as development evolves. Amongst the major contending issues--scale of production, technology adoption, labor utilization, growth location, and spatial interdependence are most prominent in China's modern urbanization in general, metropolitanization in particular.

EVOLUTION OF URBAN DEVELOPMENT

During the Rehabilitation (1949-52) and the First Five-Year Plan periods, the average annual urban growth ratio was approximately 7.6% while the average total population annual growth rate is approximately 2.24% (derived from Table 1) with a net increase of 41.84 million urban population. These early years together formed one of the two high urban growth periods. The percentage of urban total population raised from 10.64% to 15.39%, and much of this growth was caused by rural migration.

This period of urban growth was primarily responsive to the concurrent development policy which, following the Russian model, firmly relied on capital intensive heavy industries, agglomerated in the key-point cities. The majority of these key-point cities were located in the interior area as regional growth poles (Jihua Jingji, No. 12, 1957, p. 4). This major effort to reduce regional polarization necessitated the shifting of industrial resources, both capital and labor, from the existing coastal bases. These industrial cities, Shanghai in particular, provided some of the needed labor and technical know-how. This strategy also required extensive investment in inter-regional infrastructural network. By 1956, due to the shortage of social overhead capital, technology and skilled labor, as well as the retarded growth in the existing industrial sector, industrial development was partially shifted back to the coastal cities (Liu, 1956, pp. 18-26). The change of policy was explained as it was more effective to utilise the coastal bases to support the industrial development in the interior area.

The advanced technology used in industrial development led to the formation of large cities and rapid expansion of cities. In fact, key-point cities were doubled and trebled within a decade (Gongren ribao, Jan 4, 1958).

The policy of distributing investment in the interior area to reduce regional polarization and limiting growth of the existing major coastal ciites was intended to accomplish ideological objective and met with limited success. The industrial economic requirement and the shortage of resources, however, forced a reversal from the ideological goals, and resulted in a continuous urban growth in the coastal metropolises.

The urban growth rate, and the coastal metropolises specifically, would have been more spectacular, had it not been the low labor absorption capacity of the capital intensive heavy industries which dominated the industrial program. A succession of policies to control population movement was able to limit urban growth to some extent. Household registration, travel restriction, and grain rationing, introduced in 1955, tied the population to residence where they were registered. By restricting population mobility, the rural/urban population flow was partially stabilized.

The years of Great Leap Forward (1958-61) and the Readjustment (1962-66) witnessed an irregular population movement between urban and rural areas. The urban annual growth rate fluctuated from an all time high of 15.39% in 59 to an all time low of -8.25% in 62 (Table I). The harvest disasters and the rural reorganization for massive construction projects during the Great Leap Forward led to peasant imigration to cities. By 1960, the urban population grew to 19.75% of the total population—the highest point before 1981. Repatriation of rural migrants and relocation of urban population followed, reducing the urban population from 130.73 million in 1960 to 116.46 million in 1963. Once the emigration measures were removed, urban population grew quite significantly again in 1964 and 65.

The Great Leap Forward, through rural commune, potentially could have started a nation-wide rural urbanization process. The commune would have

brought forth a mode of economic, social and cultural diversification, which would transform the rural sector into an urbanised countryside. The indigenous leg of utilizing intermediate technology under "walking on two legs" strategy was to establish a small scale industrial production system in the rural sector. By regulating production of technology and spatial distribution of industries, urbanization brought on through industrialization could have moved away metropolises and spread to small towns and villages. The purpose of the Great Leap Forward, in the context of urbanization, was anti-metropolis and anti-city, but not anti-urbanization. Because of natural disaster, mismanagement and lack of technological knowledge, aggravated by total withdrawal of Russian aids, the national crisis and economic setback terminated the development policy. The resultant social turbulence was reflected in the abnormal pattern of urban growth.

Readjustment introduced conciliatory and more conventional measures to mollify and revive the economy to normalcy. The economy proved to be resilient, responsive, and returned to pre-Leap peak by 1965. Concurrently, rapid urban population growth was checked, and lowered to less than 18% of the total population—a low urbanization level compared to the Third World average of 23.85% in 1965 (United Nations, 1982, p. 28). This level of urbanization was maintained quite steadily in the following period.

During the Cultural Revolution (1966-76), urban growth was rigorously controlled; the average annual growth rate was kept to 2.07%--the lowest rate. Annual urban growth rate never exceeded 3%, and was often kept below 2%; furthemore, it was brought in line with the total population growth rate. The proportion of urban population was gradually reduced to 17.16% in 1974 (Table 1), well below the Third World average of 28.19% in 1975 (United Nations, 1982, p. 28). Much of the slow growth rate was due to the

definitional change of urban place introduced at the end of 1963. Comparing the 1953 to 1982 census, urban places below 100,000 population was reduced from 5404 to 2664 (Goldstein, 1985, pp. 6-8). This reduction in number of small urban places by more than 50 percent occured after 1963, and from Table 1, the reclassification was probably implemented in the years of 1964-67.

The low level of urbanization in these few years was partly due to development policies which reverted back to Great Leap Forward--most notably, the rural commune and small scale industrial system--dispersing development to the countryside. The implementation of the "sending-down" movement of transferring urban youth to the rural areas was to install modern human capital to the rural area and to limit urban growth (Bernstein, 1977). Local self-reliance demanded localities to become self-sufficient in subsistence and production, thus contained and atomised growth in the countryside (Donnithorne, 1972). These strategies could bypass the development of cities and metropolises and limit investment in the inter-regional network on infrastructure, communication and financial services, but they also relied heavily on adequate local technical capability, resources and management. Since technical knowledge and management were largely lacking, the emphasis on grain production for self-sufficiency often displaced the development of specialised production according to regional advantages. Inefficiency and mismanagement necessitated a fundamental change in this bold, ambitious and imaginative experiment which potentially could have provided an alternative to the general Third World urbanization pattern. Nevertheless, this period was effective in restraining urban growth.

The pre-1976 urbanization policy could be summarized as "anti-metropolise." Although the industrial development of the First Five-Year Plan--large scale, capital intensive and agglommerative, should have

been located in large cities. Economically, it would have been more efficient if they were installed in existing industrial bases. Urban development consciously avoided the creation of such metropolises or the expansion of the coastal large cities, by decentralising development into the interior area where growth would be slower. While the industrialization policy, because of the choice of technology, naturally led to metropolitan development, by selection of industrial location and the spatial distribution of investment, ideological objective was partially accomplished. The existing city growth was further contained by the strategy of household registration which stabilized urban rural population mobility and movement.

The lack of resources for the development of interior required diversion of resources from the existing industrial bases, quickly revealed that the policy could not produce the desired effects at that stage of development. The reality of scarcity forced on the realization that, at least initially, industrial development must take place in locality which already had some developmental strength and advantages. The early industrial dispersal not only weakened the existing economic capacity and performance, but drained the rare resources without immediate gains which the nation could not afford.

Industrial policies in The Great Leap Forward and Cultural Revolution, by specific stress on intermediate technology and small scale, attempted to avoid agglomeration. Spatial distribution of industry was directed to rural areas and small towns. Industrial policy was ideologically determined, thus potentially should provide the desirable urbanization effects—growth in small towns and rural urbanization.

This policy, however, required that, at "grass-root" level in the rural sector, appropriate fundamental production skills, investment resources, technological and managerial capability, were sufficient to the development

demand. In general, all these factors were inadequate qualitatively and quantitatively. In order to bring these small industries into the national economy, national networks of transportation, communication and finance should be set up to link up the spatially dispersed production units. These infrastructure supports were sparse and there was no national policy nor investment for their provision. If these sets of conditions, which were likely to be similarly deficient in other parts of the Third World, were improved, these policies had the potential of reverting the normal trend of Third World urbanization.

After two years of political an ideological adjustment in 1977-78 under Four Modernization, a series of developmental policies were introduced, and fundamentally changed the urbanization ideology.

POST 1978 URBANIZATION

Economic Reform policies since 1979 brought in a period of rapid urban growth. Between 1979-83, the average annual urban growth rate was 7.01%. The percentage of urban to total population raised steadily from 17.55% to 23.54% in 1983 (Table 1), still below the projected Third World average--30.79 for 1980, and 33.66% for 1985 (United Nations, 1982, p. 28). This high period of urban growth was partly constituted by the repatriation of the "sending-down" youth back to the cities.

Rural reform policy announced in December 1978 reverted to the peasant family as a rural production unit which, apart from grain production, worked largely under market conditions. The permission of agricultural land transference and encouragement of production diversification allowed for the

growth of the non-agricultural sector in the rural area. Internal to the countryside, production diversification and specialization started up a set of urban activities—a gradual economic, social and cultural transfer out of the rural pattern.

Industrial production, industrial crops, commercial crops, and other rural production were marketed towards the cities, thus directly linked up the rural production with the urban production. As rural household income improved, higher demand for industrial goods and services increased the retail and service sectors in cities where rural residents traditionally used. Rural savings were largly reinvested in rural enterprises, but at times in cities in retail services and construction. These economic activities initiated in the countryside extended the rural economy upward into the existing urban network. As the rural enterprise units were generally small, output and income were limited. The rural economic infusion, because of the limitation of small scale, usually took place in nearby towns—the small cities.

The policy of "control the size of large cities, rationally develop medium cities and rigorously develop small cities" was adopted in 1982 (Chengshi Guihua, 1982, NO. 1, p. 1). Small cities were the vanguard directly responsive to the "bottom-up" urbanization pressure. The continuous containment of large cities was consistent with the past urbanization ideology. The medium cities were seen as regional growth pole, where industrial development would be promoted.

Urban reform policy in October 1984 partially was a parallel policy to the rural reform policy. Stated explicitly, cities were recognized and affirmed to be the centers of economic development. The "Anti-urbanism" ideology was diametrically reversed to a positive policy of fostering urban development. Cities were no longer the delinquency of development. In

recognition of the inevitability and the economic reality of their role in modernization, cities became the centers of economic development, as industrialization logically necessitates some agglomeration. The reversal of ideology was not entirely thorough as it was still anti-metropolis, but its change and the effects of rural reform policy were sufficient to generate a large scale and rapid urban expansion.

Multi-enterprise system, allowing for the co-existence of state, collective and individual enterprises was confirmed. Under socialist economy, state enterprises were the mainstay of the eocnomy. Collective and individual enterprises would supplement state enterprises. Individual enterprises, in particular, were generally kept small so that they would not dominate the industrial structure, thus avoiding a rapid and large scale change into private economy. All enterprises were given much freedom and independence in production, marketing, technology, and management. Increasing acceptance of the wage principle of "to each according to his work" closely tied productivity to work, but also widened the income gap. All these had some major implication to the process of urbanization. In the individual sector, where the wage principle was adopted, worker productivity was high, thereby giving it impetus for growth. Individual firms, started as family production units, were "incubator" industries. Because of having to maintain at small scale, these firms kept the characteristics of the incubator industries. Their operation relied heavily on external economy which was necessitated by their market, labor, service and input requirements. As elsewhere, this set of production conditions was available only in large cities. As individual enterprises flourished, large cities, metropolises especially, grew simultaneously.

"Open" policy for foreign investment and international trade was

re-affirmed, and later, led to the designation of fourteen coastal cities, four special economic zones 1 and Hainan Island as specific developmental areas to receive foreign investment. By 1985, the state decided to concentrate investment in only four coastal metropolises--Dalian, Tianjin, Shanghai and Guangzhou (Wenhui Bao, July 13, 1985). Despite much of the earlier efforts to disperse development away from the coastal cities, the economic strength still remained in the eastern region. In one study of fifteen selected coastal cities 2 which consisted of 4.71% of the population, they produced 23.19% of the national gross industrial output value (Shanghai shehui kexueyuan, 1984, p. 54). Because of the existing industrial base, the coastal cities were seen as having great potential for growth. Particularly, advanced technology, which was much wanted, to be introduced and supported by foreign investment could be located there. After the designation of the fourteen coastal open cities, it soon became apparent that few of them had the appropriate infrastructure, communication, services and human capital to attract foreign investment. The large investment required to build up all fourteen cities could not be justified economically. Moveover, foreign investment tended to concentrate on a few metropolitan areas (Chu, 1985). Thus, investment in coastal cities, instead of being dispersed, now also centralised in the four metropolises which had reasonable pre-conditions and in which foreign ivnestors had shown interest.

There was no evidence of urban primacy existing at the national level, assessed by population size; i.e. there was no concentration of population in large cities (Goldstein, 1985, pp. 36-39). Traditionally, Chinese cities formed regional hierarchies usually based on river systems as waterways were the major routes of transportation. Even though land transportation was continuously developed, waterways still were a major transportation channel

for freights. Regional primacy existed (Yeh and Xu, 1984), specially in those provinces where metropolises were located. Of the twelve provinces ³ where the twenty metropolises were placed, all but three showed strong primacy conditions (Goldstein, 1985, p. 38). These three provinces—Jilin, Shandong and Sichuan—statistically had no primate condition, but their primacy indices were well above the national average. Where metropolises existed, they tended to form urban hierarchies, exacted their economic dominance over their regional hinterland. What can be inferred from these indices was that although metropolises in China probably were less powerful in the national economy, they were influential in the regional economy. Thus, they were well suited to be regional growth poles.

China's own modern inudstry, as elsewhere, required scale economy, external economy and human capital, in order to function efficiently. The metropolises in general and Shanghai in particular have substantial industrial base. In Table 2, the metropolises included all cities of 1 million or more non-agricultural (inner city) inhabitants in 1983. They consisted of 5.17% of the total population, but produced 42.4% of the national GIOV. Shanghai, 0.62% of total population contributed 10.46% of the national GIOV. Contrary to the absence of urban primacy in population nationwide, there was considerable concentration of industries in metropolises. There was also a much higher portion of industrial workers in the workforce, and, using the share of population as a criterion, a higher share of retail sales. More importantly, industrial workers' productivity was markedly higher than the national average. In Shanghai, all these indicators were higher than the metropolitan average. Its industrial workers' productivity was over three times the national average, and close to twice the metropolitan average. By workers' productivity, there was substantial economy to place industries in

metropolises, at Shanghai especially. In human capital development, close to half of the students of higher learning (post-secondary) were trained in metropolises, where colleges and tertiary training institutes agglomerated. All these were conditions attractive to modern industrial development. From these indicators, there was considerable advantage for industries to concentrate in metropolitan areas; and the larger the cities, the greater the attraction.

[TABLE 2]

The metropolitan inhabitants also received higher wages both in state and collective enterprises which were still under some control. There was no data available in the individual enterprises, where wages were not controlled. However, individual enterprise wages were higher than those of the state and the collective enterprise, and the wages within this system would probably be higher in metropolises than those in smaller cities. Using hospital beds as an indicator of social services, on the average, metropolitan residents had more than twice the hospital beds compared to the national average. Shanghai residents, according to these indicators, enjoyed an even higher level of living standard. Since 1976, urban housing became a major issue which the state attempted to solve (Dagong Bao, Sept 2, 1980). With social services gradually improving, the substantial benefits enjoyed by the metropolitan inhabitants were obvious attractions to the rural population.

Temporary migration of rural population in cities had been instituted as an alternative to permanent migration. Originally, temporary mobility was sanctioned to provide the rural labor force non-agricultural employment opportunities in small towns. Such measure would increase rural income and

absorb rural surplus labor without rapid urban growth, and avoid migration in large cities (Goldstein and Goldstein, 1985, p. 3). With the implementation of the rural reform policy, structural shift of rural labor into non-agriculatural employment took place and increased steadily. Temporary migrant population, because of the difficulties in enumeration and reporting system, could settle in cities from a few days to several years. In 1982, it was estimated that approximately 1% of the total population (slightly over 10 million) was mobile (Ibid., p. 17). As directives for temporary immigration was relaxed to permit peasants to stay in cities so long as they could obtain grain, independant of state supplies, peasants who secured urban jobs could generally live in cities, since the urban market could now sell food grain at prices comparable to those of the state. The relaxation of the migration barrier saw increasing number of peasants entering into cities at all levels to engage in construction work, household services, retail and restaurant services, agricultural markets, rural-run enterprises, and selling rural products. By recent estimates of ten selected metropolises. 4 there was approximately 3.29 million temporary population, 10.4% of the permanent residents of these metroplises (Ming Bao, Jan 14, 1986). The metropolises, because of their sizeable population, provided more employment opportunities in those occupations taken by peasants. As they became the magnets of immigration, metropolitan growth would continue. The rapid growth of temporary population accelerated urban expansion at all levels, and, as the size of the urban mobile labor force increased, it would, in time, become permanent urban residents.

China was particularly attracted to adopt western advanced technology as an instrument for economic growth. Large scale production in western advanced technology generally preferred to be located in large cities in the Third

World since the industrial supports were not well developed enough to allow it to be foot loose. Specialization in modern production, under the same condition, rationally require spatial agglomeration. The emphasis in industrial modernization favored large cities as they provide the necessary infrastructure, labor and institutional environment. As China, invariably, would further develop post-industrial activities—services, information, communication, finance, professional consulting and high education, all of which clustered in metropolises, metropolitan development would be unavoidable.

The accumulative effects of the post-1978 policies would be massive scale of urbanization. Many components contained in the urban reform policy in particular, would naturally spur and quicken metropolitan growth. In a sense, the development policy appeared to be contradictory to the urbanization policy which would still "control the size of large cities." Metropolitan development, in the present developmental context, would be a positive force. Its consequential negative social and economic effects, as witnessed in Third World metropolises, would follow, though the Chinese planners had persistently attempted to avoid them. Urbanization policy in the future, if the present developmental path remained unchanged, would have to resolve these problems and minimize social costs.

SUMMARY

Apart from the distinctive change in ideology from 1978, the pre-1976 experiments on urbanization relied mainly on the manipulation of locational distribution, of industrial agglomeration (First Five-Year Plan) and production technology (Great Leap Forward and Cultural Revolution). In

theory, these methods were both innovative and bold; logically, should work. In reality, they demanded the necessary conditions which did not exist and could not be produced readily. The infrastructure support and the local resource support which China lacked, would need considerable investment and time to develop. The practical conditions rendered the theoretically sound policies ineffective. Relatively, population policy, in the form of household registration, appeared to contribute more towards stabilizing population mobility, slowing down urban growth and therefore attaining the ideological objective of urbanization.

The post-1978 era brought in a different set of developmental criteria. The overriding concerns to develop the "productive" sector, invest in capital goods for future consumption of pre-1976 era were changed into the commitment to raise productivity, and improve the living standard. Saving and work without tangible benefits had demoralized the working force and dampened incentive. Provision of goods and services for social and individual consumption became important. Efficiency in production was essential. Economic rewards for work directly linking wages to productivity provided the incentive to improve efficiency. The resolution towards economic growth replaced the ideal of equality as the immediate goal of development. In fact, income differential was viewed as an indicator of work intensity, and some inequality in income was viewed as having a positive demonstration effect to the less productive workers. Moreover, it was accepted as a reasonable, if not a necessary, condition for economic growth in short term.

Given this developmental environment, efficiency, and growth rate were viewed as the criteria of industrial development. As capital intensive industries had the highest productivity and growth rate (Rawski, 1979, p. 46-48), advanced production technology would be the natural choice. These

large scale units which needed higher skilled labor input, would likely be established in existing large cities and especially in metropolises which had many production advantages. As population policy was relaxed considerably, immigration to urban areas would escalate, the enlarged pool of labor would have to be absorved by the expansion and creation of urban economic activities. With labor pressure in cities increasing, urban development had to be responive. Even though concentration of industrial development in metropolises had been resisted because of its polarization effects between city and countryside as well as between regions, such imbalance could be accepted as short-term necessity. As growth took place in those metropolises and large cities with ample endowment for modern industrialization, income differential between the growing cities and other localities would increase. This spatial inequity, if considered to be a temporary inevitability, would be the next developmental issue to be resolved. Within the present policy context, centralized development in metropolises as an alternative would not be inconsistent or disagreeable. In view of the trend of Chinese development, metropolitan expansion would be a natural consequence; size of large cities would unlikely be controlled. Industrialization, in this round, probably had the upper hand over ideology.

TABLE I: TOTAL & URBAN POPULATION 1949-83

Year	Total Population (in mil.)	Annual Population Growth Rate (%)	Urban Population (in mil.)	Annual Urban Population Growth Rate (%)	Urban to Total Population (%)
1949	541.67		57.65		10.64
50	551.96	1.90	61.69	7.00	11.18
51	563.00	2.00	66.32	7.51	11.78
52	574.82	2.10	71.63	8.01	12.46
53	587.96	2.29	78.26	9.26	13.31
54	602.66	2.50	82.49	5.41	13.69
55	614.65	1.99	82.85	4.36	13.48
56	628.28	2.22	91.85	10.86	14.62
57	646.53	2.90	99.49	8.32	15.39
58	659.94	2.07	107.21	7.76	16.25
59	672.07	1.84	123.17	15.39	18.41
60	662.07	- 1.49	130.73	5.67	19.75
61	658.59	- 0.53	127.07	- 2.80	19.29
62	672.95	2.18	116.59	- 8.25	17.33
63	691.72	2.79	116.46	- 0.11	16.84
64	704.99	1.92	129.50	11.20	18.37
65	725.38	2.89	130.45	7.34	17.98
66	745.42	2.76	133.13	2.05	17.86
67	763.68	2.45	135.48	1.77	17.74
68	785.34	2.84	138.38	2.14	17.62
69	806.71	2.72	141.17	2.02	17.50
70	829.92	2.88	144.24	2.17	17.38
71	852.29	2.70	147.11	1.99	17.26

Year	Total Population (in mil.)	Annual Population Growth Rate (%)	Urban Population (in mil.)	Annual Urban Population Growth Rate (%)	Urban to Total Population (%)
72	871.77	2.29	149.35	1.52	17.13
73	892.11	2.33	153.45	2.75	17.20
74	908.59	1.85	155.95	1.63	17.16
75	924.20	1.72	160.30	2.79	17.34
76	937.17	1.40	163.41	1.94	17.44
77	949.74	1.34	166.69	2.01	17.55
78	962.59	1.35	172.45	3.46	17.92
79	975.42	1.33	184.95	7.25	18.96
80	987.05	1.19	191.40	3.49	19.39
81	1000.72	1.38	201.71	5.39	20.16
82	1015.41	1.47	211.54	4.87	20.83
83	1024.95	0.94	241.26	14.05	23.54
*					

Source: State Statistical Bureau, PRC (1984). <u>Statistical Yearbook of China 1984</u>, Hong Kong: Economic Information and Agency, p. 81.

TABLE II: ECONOMIC INDICATORS OF METRPOLISES 1983:

(Including metropolises of over 1 million inner city population 1)

	National	Metropolitan	Metropolitan to National Total (%)	Shanghai	Shanghai to National Total (%)
Population	1024.95 M	52.95 M	5.17	6.39 M	0.62
Workers	115.15 M	27.34 M	23.7	3.74 M	3.25
Workers/Population ratio	11.23%	51.63%		58.52%	
Industrial & Enterprise units	392,500	38,182	9.7	4946	1.26
GIOV	¥608.80 B	≱258.40 B ²	42.4	¥52.03 B ²	10.46
Per workers GIOV	¥ 5287	¥9451		¥17,238	
Retail Sales Value	≯284.94 B	≱45.80 B	16.1	≯7.75 B	2.72
Students of Higher Learning	1.207 M	0.600 M	49.7	0.048 M	4.00
Hospital Beds	2.110 M	0.266 M	12.6	0.034 M	1.61
Hospital Beds per 1000 population	2.06	5.02		5.38	
Average Wages:					
State-owned	¥865	¥926		¥947	
Collective	¥698	≱729		≱750	

Sources:

Compiled and derived from State Statistical Bureau, PRC (1984), Statistical Yearbook of China 1984, Hong Kong: Economic Information & Agency, pp. 23, 48-79, 81, 110, 193, 345, 457, 488 and 519.

Notes:

In 1983, there were 20 metropolises with more than 1 million inner city population. They are: Shanghai, Bejing, Tianjin, Shenyang, Wuhan, Guangzhou, Chongqing, Harbin, Chengdu, Xi'an, Nanjing, Taiyuan, Changchun, Dalian, Lanzhou, Kunming, Jinan, Anshan, Fushun, Qingdao.

²All metropolitan GIOVs including Shanghai were given at 1980 constant prices, the aggregate of which was converted to 1983 current price by the GIOV ratio of those two years given in the <u>Statistical Yearbook of China 1984</u>, p. 24.

NOTES

- The fourteen coastal open cities are: Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantung, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang and Beihai. The four special economic zones are: Shenzhen, Zhuhai, Shantou in Guangdong province and Xiamen in Fujian province.
- The fifteen major coastal cities in this study are: Dailian, Yingkou, Qinhuangdao, Tianjin, Weihai, Yantai, Qingdao, Lianyungang, Shanghai, Hangzhou, Ningbo, Fuzhou, Xiamen, Shantou and Guangzhou.
- 3. The twelve provinces are: Gansu, Guangdong, Heilongjiang, Hubei, Jiangsu, Jilin, Liaoning, Shaanxi, Shandong, Shanxi, Sichuan and Yunnan.
- 4. The ten metropolises are: Shanghai, Beijing, Tainjin, Shenyang, Wuhan, Guangzhou, Harbin, Xian, Nanjing, and Changchun.

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Big change in cities forecast

Chinese cities will undergo major changes in the way they provide services to their populations, Zhou Ganzhi, deputy minister of Urban and Rural Construction and Environmental Protection, told a meeting in Shanghai on Saturday.

Zhou spoke at the inaugural meeting of the Chinese Society of Urban Economics, People's Daily reported yesterday.

He cited 10 changes being introduced in urban planning, construction and management:

Utilities and other essential facilities will be operated like businesses rather than like welfare agencies providing free or cheap services.

Services now provided by units for their members or employees will be socialized — that is, provided by outside agencies on a commercial basis.

The use of land in urban areas will be commercialized, rather than allocated by governments.

Housing will be commercialized. Rents will be much higher, being based on actual costs.

Large and medium-sized cities will increase their focus on building multi-storeyed and even high rise residential buildings because of the scarcity of land.

Traffic control will be transformed from the horse and buggy age to the automobile age.

Urban administration will rely more on the rule of law rather than the rule of individual officials.

The urban environment will be improved. More cities will open to the outside, abandoning previous efforts to be wholly self-sufficient.

Zhou said that in the Sixth Five-Year Plan period (1981-85), the Chinese population and cities had grown very fast. Cities increased from 245 in 1982 to 333. Cities with more than one million population increased to 20.

AIDE-MEMOIRE

These notes summarize the outcome of meetings between staff of the Chinese Academy of Social Sciences (CASS) and representatives of the World Bank, at the World Bank Resident Mission office in Beijing on September 20 and 26, 1986. The subject of the meetings was a shared interest in collaborating on a joint research study on urban development issues in China. Present at the meetings were Messrs Liu Weixin and Yang Chongguang from CASS and David de Ferranti, Roy Bahl, and Andrew Hamer, Alain Bertaud, and Jun Zhang from the Bank.

It was agreed that a joint study is possible and desirable, and that further planning should proceed immediately to finalize the necessary arrangements. The objectives and design of the study were also discussed and agreement was reached on the broad outlines of the effort as described herein.

The objectives of the study will be to develop improved information on and understanding of illustrative examples of innovative new approaches being tried in China on issues relating to urban land use and development, housing, and municipal finance. The study will select a small number of municipalities (for example, two to four) to be the case study sites for the analysis. Selection will be based on (i) evidence of an interesting novel strategy, policy or program pertinent to the study's focus, (ii) evidence of interest and willingness on the part of the local officials to cooperate with the study, and (iii) other considerations as may be mutually agreed to by the joint study team. At each case study site, the study will collect and analyze data and draw conclusions and recommendations about how the strategies, policies, or programs of interest actually work in practice, what their effects are, whether they achieve their objectives, and how they would be improved.

The study will be carried out by a team led jointly by staff from CASS and representatives from the World Bank. The team also will include (i) Chinese researchers, officials, and/or support staff as needed, in the case study sites, Beijing, or elsewhere in China, and (ii) experts from outside China if required. All participants from within China will be under the direction of the team leaders at CASS; all participants from outside China will be under the direction of the team leaders at the World Bank, except where the Bank researchers delegate that responsibility to CASS.

In addition to the case studies, it is anticipated that the team leaders at CASS will make one or more visits to the Bank to discuss the study and learn about the approaches and experiences of other places to urban development issues.

The data collection for the case studies is anticipated to include large numbers of interviews with local government officials, enterprises managers, representatives of other institutions, and possibly a sample of households. This work is expected to involve fortal surveys, with questionnaires, sample selection procedures, and an crerall analytic design.

The team leader from CASS and from the Bank will be jointly responsible for all aspects of articulating the precise questions and hypotheses to be addressed, and developing the methodology. The Bank representatives have offered to prepare initial drafts of the questionnaires and a detailed description of the methodology, to be revised together with the CASS team leaders.

It is the intention of the Bank representatives to arrange for funding to certain expenses of the study. The basic principle for determining what will be covered will be that whatever precedents were established in the previous Bank/CASS collaboration for the study of enterprises will be adhered to have. It is expected that the Bank will cover expenses for the foreign travel for the CASS team leaders and the fees and travel of all outside experts used.

The principal steps in the study will be as follows.

- 1. Finalize agreements, specify the precise questions to be addressed, identify candidates for case study sites, develop the methodology, identify the people to be part of team. This step will take from month 1 to month 2 or 3. Since the Chinese and Bank participants will not be meeting together in this period, communication will have to be by letter and cable.
- 2. First visit by Bank team to China. Meetings in Beijing and then in two of the prospective case study sites. Pilot testing of survey procedures and questionnaires. Wrap-up meetings in Beijing to finalize methodology and selection of case studies. This step will take about three weeks during month 3 or 4.
- 3. Data collection at the case study sites. Beginning of analysis of the data. This step will take from month 4 or 5 to month 6 or 7.
- 4. Second visit by Bank team to China. This step should take place after all the data have been collected on at least one of the study sites, and when preliminary results are available for that site. Ideally, the second site should still be in process and the remaining sites (1 or 2) will

only be in the very early stages. The purpose of the second visit will be to review together the progress of the study and the preliminary results. Further analysis will be done on the available data during the visit. If changes in methodology are needed, they will be decided upon at this time, before the remaining data collection is done. This visit will be for about 3 weeks.

- 5. Completion of data collection and analysis. Preparation of preliminary reports. This step will take from month 7 or 8 to month 9 or 10.
- 6. Visit by CASS team leaders to Bank. During time at Bank, review progress and finalize the preliminary reports. Agree on what further analysis and report writing are to be done. During visit, CASS team leaders will also visit research groups to learn about their experiences. This step will take about 5 weeks beginning in month 9 or 10.
- 7. Completion and distribution of final reports. End of study. This will be about month 12.
- 8. Follow-up dissemination of the findings will be undertaken through meetings in China and attendance at international conferences, as opportunity permits.

This aide-memoire has been read and mutually agreed to by Messrs Liu Weixin and Yang Chongguang from CASS and David de Ferranti, Andrew Hamer, Alain Bertaud and Jun Zhang from the Bank.



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Mr. David de Ferranti Operation Policy & Research Division Water Supply & Urban Development Dept. The World Bank

Jan.9,1987

Dear Mr. David de Ferranti,

Thank you for your cable dated on Dec. 9, 1986.

We suggest your visit to China start on March 15 and we've made some preparations for that.

We haven't got the letter so far which you mentioned in your cable and we are looking forward to it.

With my best regards!

Sincerely Yours

Liu Weixin

ZCZC WUDC1416 WUDS2128

WDIAL REF : WUDOD OINFO

-SUBJECT: RESPONSE TO LETTER OF NOV.12 - CASS EXT.61465

-DRAFTED BY: DEFERRANTI:SBJ

-AUTHORIZED BY: DAVID DE FERRANTI, CHIEF, WUDOD

716 20070 =

-CASS

-BEILING, CHINA

-ATTN: MR. LIU WEIXIN

BT

WASHINGTON, D.C., JANUARY 16, 1987

TO MR. LIU WEIXIN, DIRECTOR, DEPT. OF SCIENTIFIC RESEARCH AND MANAGEMENT INSTITUTE OF FINANCE AND TRADE ECONOMICS. INFO: MR. YANG CHONGGUANG, SECRETARY GENERAL OF THE CHINESE SOCIETY OF URBAN ECONOMICS, DEPARTMENT DIRECTOR, INSTITUTE OF FINANCE AND TRADE ECONOMICS, CASS.

AAA. THANK YOU FOR YOUR LETTER OF NOVEMBER 12, 1986. WE HOPE YOU RECEIVED OUR CABLE OF DECEMBER 1986, IN WHICH WE CONFIRMED THAT OUR NEXT WORLD BANK MISSION TO CHINA ON THIS STUDY PLANS TO ARRIVE IN BEIJING ON FEBRUARY 23, FOR A PERIOD OF TWO WEEKS. I APOLOGIZE FOR THE DELAY IN RESPONDING TO THE REST POINTS OF YOUR NOVEMBER LETTER, WHICH OCCURRED BECAUSE OF AN EXTREMELY HEAVY WORKLOAD AND STAFF ABSENCES HERE THAT HAD NOT BEEN FORESEEN WHEN WE HET WITH YOU IN BEIJING, HOWEVER, THOSE DIFFICULTIES ARE BEHIND US NOW, AND WE FULLY INTEND TO MOVE AHEAD NOW AS QUICKLY AS POSSIBLE. BBB. PLEASE ALLOW ME, ON BEHALF OF ALL THE PARTICIPANTS OF THE WORLD BANK TEAM, TO EXPRESS OUR WARM WELCOME TO MR. ZHANG ZHUOYUAN, DIRECTOR OF THE INSTITUTE OF FINANCE AND TRADE ECONOMICS OF THE CASS, WHO WILL BECOME THE LEADER OF YOUR TEAM. I TRUST WE CAN ALSO STILL COUNT ON THE CONTINUING SUPPORT FROM YOU AND MR. YANG CHONGGUANG, UHO PARTICIPATED IN THE INITIAL DISCUSSIONS IN THE WORLD BANK RESIDENT MISSION OFFICE IN BEIJING, CCC. WE AGREE WITH YOUR TENTATIVE PROPOSAL THAT THE CASE STUDY WORK WOULD BE COMDUCTED IN THE FOLLOWING FOUR CITIES: SHANGHAI, YANTAI, FUSHUM, AND BENGFU. DDD. IN REGARD TO TRAVEL BY CASS STAFF OUTSIDE CHINA, I AM PLEASE TO CONFIRM THAT THE WORLD BANK WILL PROVIDE THE FINANCIAL SUPPORT FOR THIS PURPOSE. CONSIDERING THE RESEARCH THAT HAS BEEN DONE, THE BARRIER OF LANGUAGE, AND THE BANK'S CONNECTIONS, WE SUGGEST THAT ENGLAND AND THE UNITED STATES WOULD BE THE BEST CANDIDATE COUNTRIES TO VISIT. OF COURSE, THE VISITS WOULD ALSO INCLUDE A STOP AT WORLD BANK HEADQUARTERS IN WASHINGTON, BEFORE WE MAKE ANY FURTHER ARRANGEMENT, HOWEVER, WE WOULD LIKE TO HEAR YOUR IDEAS ABOUT WHICH COUNTRIES TO VISIT. THE RESULT WILL BE WRITTEN INTO THE AIDE-MEMOIRE, MOREOVER, YOU SHOULD INFORM US, AT YOUR EARLIEST CONVENIENCE, THE BETAILED GOALS THE CASS MEMBERS WANT TO ACCOMPLISH IN THEIR VISIT, SO AS TO HELP US FORMULATE AN APPROPRIATE VISITING PROGRAM. BECAUSE OF THE SEVERE BUDGET CONSTRAINT OF OUR DIVISION, THE LICELD BANK CAN ONLY SPONSOR THREE CASS MEMBERS FOR ONE FOUR-WEEK

INTERNATIONAL TRIP THAT WILL COMBINE THE VISITS TO TWO COUNTRIES AND THE WORLD BANK HEADQUARTERS. EEE. I AM PLEASED TO INFORM YOU ALSO OF THE PROGRESS WE HAVE MADE IN THE PAST TWO MONTHS. WE HAVE FORMED A CHINA URBAN STUDY TEAM IN THE OPERATION POLICY AND RESEARCH DIVISION WATER SUPPLY AND URBAN DEVELOPMENT DEPARTMENT. THE TEAM WILL REPRESENT THE WORLD BANK SIDE IN PARTICIPATING IN THE JOINT RESEARCH. I HAVE ASSIGNED MR. BAHL, AN ECONOMICS AND FINANCE PROFESSOR FROM SYRACUSE UNIVERSITY, TO BE THE TEAM LEADER. HE WILL BE RESPONSIBLE FOR PROVIDING THE GUIDANCE TO THE MEMBERS OF THE WORLD BANK TEAM, AND HE WILL REPORT TO ME DIRECTLY. THE OTHER MEMBERS OF OUR TEAM INCLUDE: MR. JORGENSEN, AN ECONOMIST AND STAFF OF THE WORLD BANK, WHO WILL FOCUS ON COMPARATIVE STUDIES OF LAND POLICIES IN PLANNED ECONOMY COUNTRIES; MS. YOUNG, AND ECONOMICS STUDENT FROM HARVARD UNIVERSITY, WHO WILL STUDY THE ISSUES ON LOCATION OF ECONOMIC ACTIVITIES IN CITIES; AND MR. ZHANG, A PLANNING STUDENT FROM MASSACHUSETTS INSTITUTE OF TECHNOLOGY, WHO WILL STUDY THE IMPACTS OF THE LAND USE CHARGE IN URBAN AREAS. MR. MCGREEVEY, AN ECONOMIST AND SENIOR BANK STAFF, WILL ALSO BE INVOLVED IN THE RESEARCH WORK. I HAVE URGED THE TEAM MEMBERS TO PREPARE DETAILED OUTLINES OF THE STUDIES THAT WILL BE DONE. WE LOOK FORWARD AS WELL TO GETTING INPUT FROM YOUR SIDE IN THE MEXT MISSION ABOUT THE STUDY SCHEME, SO THAT IT WILL REPRESENT THE MUTUAL INTERESTS OF, AND WILL YIELD MUTUAL BENEFITS TO, THE PARTICIPANTS OF BOTH SIDES. FFF. AS SOON AS POSSIBLE IN THE NEXT FEW WEEKS, WE WILL BE IN TOUCH WITH YOU AGAIN TO INFORM YOU OF THE DETAILED GOALS OF THE BANK MISSION AND OTHER INFORMATION CONCERNING THE DETAILS OF THE TASKS TO BE CARRIED OUT. GGG. THE TRADITIONAL CHINESE NEW YEAR, SPRING FESTIVAL, IS COMING SOON. WE WISH YOU ALL HAVE A VERY HAPPY SPRING FESTIVAL. REGARDS, DAVID DE FERRANTI, CHIEF, OPERATIONS POLICY AND RESEARCH DIVISION, WATER SUPPLY AND URBAN DEVELOPMENT DEPARTMENT, THE WORLD BANK. THE WORLD BANK.

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DATE: February 4, 1986

TO: D. de Ferranti

FROM: Roy Bahl

SUBJECT: China Issues and Policy Paper

1. The work is underway. Steen and Jun have begun a good program of background research, aimed at two papers on land taxation. Their draft outlines are attached. Bill Byrd was encouraging about the possibilities of getting what we want from an enterprize survey.

- 2. Other than a daily progress chat with Steen and Jun, and a few products that we must create (a draft survey instrument), I will now turn my energies fully to the Policy paper.
- 3. The data received from Zhejiang were incomplete. I will wait until the middle of next week for the remainder and then begin the revision of the local finance paper.
- 4. The first draft of the policy paper is coming along -hopefully I'll have a rough first version next week. We have now
 had first meetings with EMENA and Latin America. Recardo has
 begun the data work.

cc: Jun Zhang Steen Jorgensen

URBAN LAND TAXATION IN DEVELOPING COUNTRIES

Introduction

Forms of urban land tax; Importance of land tax; Purposes of urban land tax; The place of land tax in a tax system;

Eroperty Identification and Ownership
Definitions of property rights; Land tenure structures is developing countries: Land reform

<u>Valuation of Urban Land</u>

Determining the property values: Site values and improvement values; Capital value approach; annual rent approach;

<u>Taxation of Urban Land</u>

Tax base and tax rates; Issures of predistortion in developing countries; Tax exemption and reduced tax;

Administration System

Components of the administration system; Importance of tax administration; Difficulties in administering the system;

Impacts of the Taxation
Revenue impact; Allocative and efficiency impact; Equity
Impact;

Problems in the Existing System

Property identification; Problems in bookkeeping and information updating; Problems in valuation of land; Problems in collection;

<u>Case Studies</u>

Philippines; Hong Kong; Taiwan; Singapore

Conclusion

TENTATIVE OUTLINE FOR "ISSUES IN LAND TAXATION IN CAPITALIST AND COMMUNIST ECONOMIES"

- I. Introduction
 - Background
 - Outline
- II. Definitions
 - What is a property right
 - When will P.R. produce efficiency
 - Relevance for communist countries
- III. Why Taxation

Capitalism

- Efficiency
- Equity
- Revenue

Communist Countries

- Goals
- Relevance of capitalist reasons
- IV. Selected Examples of Taxation in Capitalist Countries
 - Types of taxation (History?)
 - Site value
 - · Incremental value
 - Transfer
 - Case studies
 - · Australia
 - Denmark
 - Vermont??
- V. Taxation of Land and Property in Communist Societies
 - Types of taxes, valuation
 - USSR
 - Yugoslavia
- VI. Lessons for China
 - Objectives
 - Market vs. taxation
 - Equity and efficiency
- VII. Concluding Remarks
- VIII. Literature

THE URBAN INSTITUTE

2100 M STREET, N.W. / WASHINGTON, D.C. 20037 / (202) 833-7200

GC.

WILLIAM GORHAM

President

November 20, 1986

Do Emal

Cullok

Sud of

Mr. Ping-Cheung Loh Director, Water Supply and Urban Development Department World Bank 1818 H Street, N. W. (N736) Washington, D. C. 20433

Dear Ping Loh:

Enclosed is a letter which resulted from my recent trip to China.

It is clear to me and I believe to many of the officials with whom I met that many of the analysis techniques we have developed here would be useful to them.

If you are interested we could discuss -- perhaps with Inda Sud.

Sincerely,

This

Encl. Letter to Ma Hong, 11/18/86.

Dove a meeting with Sorbon, hue, might be useful if you thought some yout work might be my the eards

THE URBAN INSTITUTE

2100 M STREET, NW / WASHINGTON, DC. 20037 / (202) 833-7200

WILLIAM GORHAM
President

November 18, 1986

The Honorable Ma Hong
Chief Director
Research Center for Economic, Technological
and Social Development of the State Council,
Peoples Republic of China
22 Xianmen Dajie
Beijing, China

Dear Mr. Ma Hong:

In accordance with our recent discussions in Beijing about a cooperative program between the DRC of the State Council and The Urban Institute, I am forwarding in this letter my understanding of a program concept which might be mutually agreeable. I would be very obliged if you and your staff would react to these ideas in as much detail as possible. When we are in agreement on our initial conception of the program (recognizing that will inevitably evolve as we gain experience), I will use our exchange of correspondence as a basis to seek the required external financing from one or more U.S. foundations.

Program Goals

The principal goal is to transfer certain policy analysis and policy evaluation tools which have been developed in the United States over the past 25 years to organizations in the PRC who are in a position to use them as an aid to more effective government decision making.

A second goal is to improve the quality of policy analysis on selected, high priority topics through collaborative work by joint teams of U.S. and Chinese analysts.

The Means

A collaborative arrangement between the DRC and the Urban Institute which encompasses exchange of personnel and collaborative research and under which each institution would serve not only as the main participant but also as a link to other relevant organizations in each country. It is envisioned that this will be an on-going program lasting for a number of years.

Specific Program Elements

The two general program elements correspond to the two program goals stated above: in-service training for select Chinese at the Urban Institute, and collaborative research in several high-priority areas. Candidates for the priority areas include housing policy, setting urban infrastructure priorities, settlements policy, and income transfer and distribution policy.

In-service training.

The broad model is for two to five Chinese at a time to visit The Urban Institute for periods of six months to a year where they would work with senior Institute researchers to advance their knowledge of the tools of quantitative policy analysis and evaluation, in part by conducting actual analyses of problems (either U.S. or Chinese). We can outline two approaches for the structure of such training, based on our past experience in hosting visitors from other countries who have come to improve their analytic skills by being exposed to and participating in the analyses of the Institute.

Note that these approaches are not mutually exclusive: it could be possible for different visitors to select different approaches. It would be essential, however, that the choice be made well before they arrive in the U.S. so that appropriate arrangements can be made at the Institute.

Model 1: Focus on on-going Institute projects. In this approach, each visitor selects either a substantive area (housing, infrastructure investment priorities, urban transport policy income distribution) or a particular type of analysis (e.g.., evaluation, feasibility studies, needs assessment) which would be the focus of his activities at the Institute.

If he chose a substantive area, the Institute would insure exposure to a series of problems involving different analytical techniques within the subject area. Administratively, the person would be assigned to the Research Center specializing in that substantive area. (Research Centers are the basic organizational element at the Institute, each of which has a particular subject focus, e.g., health policy, transportation.)

If the visitor chose an analytical technique as his focus, then he would shift among two to four centers which had different types of projects on-going. For example, selection of evaluation as the focus might take the visitor to a center doing or designing an impact evaluation for some months and then to a center conducting a process evaluation for the next period.

Under this model, whether a substantive or analytical focus were chosen, the visitors would work with Institute staff on Institute projects. In addition, however, there are two other common elements of the program that would apply regardless of which type of focus the visitors selected. (a) The Institute would arrange a set of seminars by Institute staff on analytic techniques and interesting policy analyses tailored to the interests of the visitors. (b) The Institute would arrange for the visitors to meet with experts in their areas for substantive discussions and to attend seminars and workshops at other institutions in the Washington area. Of course, the visitors would be expected to take full advantage of the Institute's regular seminar series.

Model 2: Focus on Chinese problems. Under this approach each visitor, or the group of visitors as a whole, would define a problem that he (they) would want to work on before coming to the Institute. Examples of such projects might be the design of an impact evaluation of the introduction of specific new economic incentives at the national or local level or, the application of the Housing Needs Assessment Model to country as a whole and several major individual metropolitan areas.

Institute staff would correspond with each visitor to try to insure that the visitor brought the essential relevant information for working on the project with him. While at the Institute, the visitor would work quite closely with Institute staff on learning the essential analytical techniques and applying them to his problem to the extent feasible. It is anticipated that a report on the topic chosen would result by the conclusion of the visit.

The visitors would also have the benefit of the presentations on analytic techniques and the attendance of various seminars at the Institute and elsewhere outlined earlier under the first model.

Collaborative research.

Our thinking in this area is less well developed than for the training component, even though we feel strongly that execution of such work be an element in the overall program. Our view now is that collaborative projects will evolve naturally from the training efforts, that is, appropriate topics will suggest themselves as both sides get to know the other better and Institute staff obtain a more complete appreciation of the priority issues in China and you understand better how various techniques can be most effectively employed.

Visitor Qualifications

The qualifications of the visitors follow directly from the type of training programs outlined. Three qualifications seem imperative: experience in a range of policy analysis in China, knowledge of quantitative methods, and good working knowledge of English. Without all three of these attributes, the return on the type of training proposed would be significantly limited. Consequently, it is essential that each proposed visitor has all of these prerequisites.

Financing the Program

The PRC will pay for all costs associated with the fellows: salary, transportation to and from the PRC, and living allowances in the U.S. The Urban Institute would be responsible for costs associated with their training and project research at the Institute. This will include U.I. staff time allocated to their program and their projects. We intend to apply to an American foundation for a grant to cover these costs.

This is our initial thinking about the shape of a DRC - Urban Institute relationship. I hope to have your response soon.

Mr. Peter Geithner of the Ford Foundation of the United States is planning to be in Beijing during the first week in December. Since his organization has provided financial support to activities akin to what we are contemplating, he may seek your views on the ideas I have outlined here.

I end this letter with many thanks for your hospitality and cordiality during our recent trip. I look forward to a mutually satisfying and long-term institutional and personal relationship.

Sincerely, Tollow

William Gorham

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

de Ferranti (Lead)

DATE "

March 9 1987

TO

Files

FROM

Benjamin Gu Kok (PMDRT)

EXTENSION

33443

SUBJECT

China: Zhejiang Urban Sector Report, Yellow Cover Review Meeting Minutes

- 1. On March 2 a review meeting was held on the Zhejiang Urban Sector Report, Mr. Oktay Yenal, Chief Economist, AENVP, chaired the session. Present were Messrs. Karcher (AEPDR); Merghoub, Levy (AEACH); Fleisig (AENVP); Sud (WUD); Bahl, Zhang (CONS); Ahmad, Huang, Hamer, Barrett, Uchimura, Biderman (AEPUW); and Ms. Ogawa (AEACH).
- 2. The consensus of the meeting was that the report was good and that it should be modified in an expeditious fashion and released as a Green Cover report. Certain general comments were made that referred to the whole report. The chairman advised that the report should be brief on the workings of an urban model based on free mobility of households, private land markets and markets determined costs and prices. Instead, gross inefficiencies arising from quantitative allocation systems as is the case at present should be illustrated and second-best solutions should be offered. To the extent possible relevant examples should be given from international experience.
- 3. Regarding the discussion of the housing sector, the report should indicate how the Chinese authorities can implement the report's recommendation of incorporating shadow land prices into their planning in the absence of actual land prices and markets.
- 4. Regarding the sewage sector, the authors were asked to clarify what the recommended "intermediate solutions" would mean.
- 5. On the size of urban investment expenditures planned for the next five years, the report should make clear why a faster rate of increase was warranted--compared to the past five years. How should the expenditure plans be prioritized? Were planned expenditures in some areas more out of line compared to others and resource constraints?
- 6. On local finance structure, the report should, as it does, emphasize the merits of flexibility and autonomy but recognize that, in the absence of elected local governments, moves in this direction will be limited. The report should therefore offer ideas in the direction of making the revenue and expenditure systems more coordinated and transparent. An agenda for action or studies could be offered which emphasized:
 - (a) the importance of cost recovery for urban services while recognizing its linkage to wage reform;

- (b) the need to have more explicit tax revenue sharing formulas that are linked with the <u>total</u> tax revenues collected to be complemented by block grants to take into account the differential needs and potentials of local units;
- (c) the desirability of reducing revenue earmarking;
- (d) the desirability of allowing local governments to set their own taxes and fees in some defined areas; and
- (e) the desirability of allowing local governments to borrow from the Banking system or some central fund for certain purposes.

Cleared w&cc: Messrs. Yenal (AENVP); Merghoub (AEACH); Ahmad (AEPUW)

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FORM NO. 75
THE WORLD BANK/IFC

Mr. David de Cer	ranti .
APPROPRIATE DISPOSITION	NOTE AND RETURN
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PROJECT

ECOVILLE

PROJECT ECOVILLE
Working Paper No. 24

Urban Population Growth and Urbanisation in China Since 1949: Reconstructing a Baseline

Kam Wing Chan *
 Xueqiang Xu **

HIAS-ABC

RROJECT ECOVILLE IS THE URBANIZATION COMPONENT OF THE TRIAS ABO PROGRAMME FOR ANALYZING BIOSPHERIC CHANGE



Institute for Environmental Studies Institut pour l'Etude de l'Environnement

UNIVERSITY OF TORONTO / TORONTO, CANADA

PROJECT ECOVILLE Working Paper No. 24

Urban Population Growth and Urbanisation in China Since 1949: Reconstructing a Baseline

Kam Wing Chan *
Xueqiang Xu **

*University of Toronto

**Zhongshan University

NOT FOR QUOTATION WITHOUT THE PERMISSION OF THE AUTHORS

June 1985





Project Ecoville is being conducted in cooperation with UNESCO-MAB Project 11 – Urbanization

The idea of clarifying the confusion over China's urban population statistics was first developed in 1983 when both of us were at the University of Hong Kong. Xueqiang Xu worked on the interpretation of the urban population statistics and definition of urban places in 1983 initially. Further research and analysis, particularly on the changing definition of urban population and the trends of urban growth and of rural-urban migration, were undertaken by Kam Wing Chan in 1984 at the University of Toronto. We are most grateful to Professor Joseph Whitney and Professor Thomas Rawski, both of whom urged us to write the paper and guided us through the whole exercise. Our thanks are also due to Professor Victor Falkenheim, Professor James Simmons and Professor Neil Field for their comments and suggestions.

Kam Wing Chan

Xueqiang Xu



PROJECT ECOVILLE

Project Ecoville is the urbanization component of the IFIAS Programme for Analyzing Biospheric Change (ABC). It consists of long term, interdisciplinary research on the environmental implications of rapid urbanization. It springs from a concern for certain irreversible changes observed in the biosphere as a result of the very rapid and large-scale spread of urbanization in the third world in the post-colonial period.

In addition to the global implications for the biosphere, Project Ecoville also focusses on implications for the quality of life of the inhabitants of the largest third world cities. Studies include assessments of the management alternatives available to the citizens and the decision makers of these cities.

The Secretariat for Project Ecoville is located at the Institute for Environmental Studies, of the University of Toronto. The Secretariat has helped to organize conferences and workshops in Mexico City, Nairobi, Hong Kong, Kuala Lumpur and Toronto. Members of the Ecoville Network represent 26 countries. (See the last page for a complete list.)

THE IFIAS-ABC PROGRAMME Analyzing Biospheric Change

The aim of the ABC Programme is to find practical solutions to the problems that are faced as expanding populations attempt to secure their utilization of natural resources. Studies in progress include the utilization of coastal waters, urbanization, agricultural development and trends in the chemistry of the atmosphere. An integrated project involving all four problem areas is planned for Mexico.

IFLAS

The International Federation of Institutes for Advanced Study, Ulriksdals Slott, S-17171, Solna, Sweden

IFIAS was founded in 1972 under the auspices of the Nobel Foundation in Sweden and the Rockefeller Foundation in the United States. It is a nongovernmental and non-profit organization presently comprising some thirty prominent research institutes and universities. IFIAS tries to forge a connection between the social and natural sciences and to expand the space and time horizons beyond the normal range of forecasting.

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In 1971, the Man and Biosphere Programme (MAB) was initiated by UNESCO to establish the scientific basis necessary for land use planning and for management of the resources of the biosphere. MAB Project 11 -Urbanization - cooperates closely with Project Ecoville in defining research priorities, producing publications and supporting regional workshops. Through MAB Project published the introductory UNESCO to the Study Approaches of the Environmental Implications of Contemporary Urbanization, (Rodney White and Ian Burton (eds.), Paris, 1983).

1. THE "MYSTERY" OF CHINA'S URBAN POPULATION SIZE

As part of her development strategy and experience, post-1949 China's urbanisation patterns and policies have been the focus of a great deal of attention. The main elements of this "Chinese Model" have been the massive "rustication" movements, recruitment of large numbers of city dwellers for work in rural areas, strict controls on rural-urban migration through food rationing and household registration, and the expansion of rural employment by developing rural industries. managing urban growth has been a headache to most governments of the widely been accepted that China, developing countries, it has particularly in the Maoist era, has been successful in containing urban population growth and that the "Chinese Model" may offer great promise as an alternative approach for many developing countries striving for economic growth, but simultaneously confronted with acute problems of rapid urban demographic explosion.

Despite a voluminous literature on China's urbanisation and the tremendous improvement in statistical information in recent years - especially with the release of the 1982 Census results - the study of urban population trends continue to be plagued by definitional problems, and, indeed, the actual size of China's urban population remains a "demographic mystery." One only needs to examine the recent and vivid account by Leo Orleans to realise the paucity and confusion about urban population statistics appearing in both Chinese and foreign sources, and the problems in dealing with the quantitative aspects of China's urban growth. For example, in mid-1982, the State Statistical Bureau (SSB) of China reported that the "urban" population was 138.7 million (or 13.9 percent of national population) for year-end 1981. In December of 1982,

another figure of 206.6 million (20.6 percent) was reported for mid-1982. Shanghai offers another familiar example. It is often reported that Shanghai, with a population of over 10 million, is the world's largest city; but many Chinese academic writers place the city's population at only 5-6 million.

Indeed, a relatively complete set of time-series urban population statistics for the post-1960 period only appeared in 1981 in Zhongguo shehui kexue and later in other Chinese sources including the Zhongguo tongji nianjian 1981. This series (hereafter referred to as Series A), giving the following post-1960 urban population figures (in millions): 130.7(1960), 101.7(1965), 102.3(1970), 111.7(1975), 128.6(1979) and 138.7(1981), has been quoted widely in the subsequent literature.9 Hence, a widespread impression that China's urban population had stopped growing, or actually decreased, during the 1960s and early 1970s has been created. Moreover, given that the urban rate of natural increase continued to be positive, this implies a net urban outmigration in this period, which is consistent with the impression one gets from the established literature emphasising the importance of the rustication of urban youths and intellectuals in China's "anti-urban" development strategy. Moreover, many Chinese researchers also claim that there has been no obvious urbanisation in the post-1949 China by comparing the "urban" percentages of 1950 (11 percent) and 1980 (13 percent) though there are some others who hold the opposite view or indicate that these urban population figures are not directly comparable due to inconsistent definitions. 12

Given the importance of the subject and with the availability of more information, this paper will re-explore this issue in some detail.

The paper is divided into two parts: the first (Sections 2 and 3) examines the urban definitions, and the relevance of various urban and quasi-urban population statistics in representing China's urban population; the second analyses the trends in urban population growth and urbanisation since 1949 in general (Section 4) and during the Cultural Revolution period in particular (Section 5). Special attention is given to studying the rural-to-urban migration in 1966-76. Together these two parts will help us to situate the various urban "numbers" previously published in a proper perspective so that an accurate picture of China's urbanisation and urban growth can be constructed and the question of whether she has succeeded in achieving slow urban growth answered.

2. CHINA'S URBAN POPULATION STATISTICS

Basically, there are two types of urban places in China: the municipalities (shi) and towns (zhen). 13 A large municipality, which usually also administers a number of counties (xian), can be further sub-divided into two parts: the City Proper (shiqu or shixiaqu) and the Suburban Counties (jiaoxian or shixiaxian). To better illustrate this point, the example of Shanghai can be used (Figure 1). The municipality is divided into: (a) City Proper - officially designated as "urban." Large part of it is built-up area; (b) Suburban Counties - a much larger area comprising 10 counties and is predominantly agricultural in nature (Figure 2).

Accordingly, the population within the municipality (Total Population of Municipality, TPM) is further classified into two parts - the Total Population of City (TPC) and the Total Population of Suburban

Counties - based on "regular residence". In the 1982 Census, a regular resident (changzhu renkou) of a particular place is defined primarily by his/her residence (at least one year) and not by household registration. 14

It should be noted that the TPC, however, can be easily confused with the TPM in Chinese. Though, precisely, the TPC is referred to as shiqu zongrenkou in Chinese writings, more often, it is also reported as shi zongrenkou, which is ambiguous, because in Chinese shi could mean either "municipality" or "city." For example, Shanghaishi zongrenkou could mean the total population of Shanghai Municipality or City (Proper) as defined previously. The exact meaning, therefore, can only be discerned with reference to the context.

For the purposes of grain distribution and residence control, the Chinese household registration (hukou) also distinguishes the population as "agricultural" and "non-agricultural." The defining criterion of non-agricultural or agricultural population hence depends on whether they are entitled to commodity food grain (shangpinliang) rations from the state. As a result, this distinction may not reflect the actual nature of one's occupation or residential location. For example, rural commune members working in non-agricultural jobs, in the forms of contract workers (hetong gong), temporary workers (linshi gong), or in the categories of "both workers and peasants" (yigong yinong) in urban areas are classified under the household registration as "agricultural" population because they are still tied directly to the communes and are not eligible for commodity grain or other urban rations.

As a result of this multi-level classification, population statistics for a municipality like Shanghai are quite complicated and

may be confusing. There are three seemingly valid indicators of "city TPM. the TPC population" for Shanghai: the and household (Non-agricultural Population of City, defined by classification). Their relationships are explained by using a Venn diagram (Figure 3). One point to which we shall return in the next section is that the NPC has been on many occasions referred to as chengshi renkou (literally, "city population"), which is a major source of confusion. For municipalities which do not include any counties, there is no distinction, either areally or administratively, between a city and a municipality. Therefore, the population of municipalities is only classified as agricultural and non-agricultural without the complication of the suburban counties. Likewise, nor do towns include any counties. The Total Population of Town (TPT) is classified as the Non-agricultural Population of Town (NPT) and the agricultural.

Based on the three different statistics of "urban" population at the individual city/town level (TPM, TPC/TPT, and NPC/NPT), one can also sum up each of them to form three statistics of "urban" population at the national level: the Total Population of Municipalities and Towns, the Total Population of Cities and Towns, and the Non-agricultural Population of Cities and Towns. Their full definitions are explained in Table 1.

3. DEFINING CHINA'S URBAN POPULATION

"Urban" population generally refers to the resident population of urban areas, officially designated by the country under study. Because there are no universally acceptable urban criteria which can be applied

to countries of different cultures and economic backgrounds, researchers accept as "urban" those areas officially demarcated by individual countries, unless the general principle of non-agricultural predominance of urban areas is at variance. As the urban and rural boundary in reality is more a matter of gradation than of a distinct dichotomy, it is almost unavoidable in many developing countries that a small proportion of agricultural population, which is usually involved in market gardening and residing in the outer part of the urban areas but sharing the urban facilities, has to be included as part of the urban population. This sets out the general principle for defining urban population in China in the following discussion.

Total Population of Municipality (TPM)

Suburban counties under municipal administration have never been officially designated as urban areas. As already illustrated by Figure 2, the suburban counties are essentially rural. One Therefore, it is inappropriate to accept the TPM, which includes suburban counties, as an indicator of urban population. Nor is it correct to suggest, as someone does, that Chinese municipalities (with counties) are statistically comparable to the SMSAs (Standard Metropolitan Statistical Areas) of the U.S.A. At the present stage of China's economic development, in terms of the non-agricultural activities and commuting pattern, the suburban counties of a large Chinese municipality could hardly be compared to the suburban areas of an SMSA. Moreover, these suburban counties are neither part of the labour market nor the commuting zone of the urban core (City Proper), which is an important criterion, apart from non-agricultural predominance, for defining metropolitan areas in most

western countries.²² Therefore, these municipalities function as urban-centred planning units rather than urban units per se. To take the TPM as a measure of "urban" population will artificially exaggerate China's urban population.²³

Furthermore, there is no definite functional criterion as to how and how many counties should be included in municipal jurisdiction of each city in China. For example, at the end of 1981, there were municipalities like Shanghai, Hangzhou and Lhasa, each administering seven to ten counties, and those like Nanjing, Wuhan, Harbin and Fuzhou, each administering three or fewer counties. 24 Thus, the TPM statistics are not comparable in a functional sense. Moreover, the comparability of the TPMs is further weakened by the frequent boundary changes of municipalities, involving additions and deletions of counties. again, inevitably causes artificial "increases" or "decreases" in the their jurisdictions. total size of population under particularly true with the renewed implementation of the policy of municipal administration neighbouring counties under putting (shiguanxian) in 1981 in order to promote economic and administrative integration of the urban and rural sectors. 25 As a result of this, the TPM of a municipality mighthave increased by millions overnight. 26

Total Population of City/Town (TPC/TPT), and Non-agricultural Population of City/Town (NPC/NPT)

In China the TPC/TPT includes a portion of residents who are classified as "agricultural" by household registration, but actually most of them are in non-agricultural jobs, working as contract workers, as temporary workers, and in those categories called "both workers and

peasants" in industry, construction, transportation and services; ²⁷ some of them are urban residents' spouses staying in urban areas but do not have "non-agricultural" hukou; the remaining specialises in market gardening catering for the urban market. In general, their lifestyle is also very "urban," and, in a functional sense, they are part of urban population. ²⁸ Hence, the TPC/TPT will be equivalent to the number of the defacto urban population, including all the regular residents in the designated urban areas; whereas the NPC/NPT, defined by the non-agricultural hukou registrations (excluding the above categories quasi-non-agricultural population in urban areas) would only represent the number of the de jure urban residents eligible for urban rations. For our purposes of studying actual urban population growth, the defacto urban population would be more representative than the dejure one. In the same vein, the TPCT is seen as a more representative indicator of the urban population than the NPCT.

Hence, among the three apparently representative indicators of urban population — the TPMT, TPCT and NPCT, the TPCT, as an aggregate, is demonstrably the most useful measure of China's urban population, one which comes closest to what would be considered urban in other countries. This however does not mean that the TPCT statistics are without problems. The accuracy of the TPCT is affected by problems in implementing the official urban criteria in some areas, and by the incomplete coverage of enumeration. However, it seems that the latter problem is not unique to the Chinese system: underestimation of urban population due to incomplete coverage occurs in many other systems. 29 Unrecorded urban residents are mostly "illegal" and "semi-illegal" migrants from the countryside, such as rusticated urban youths drifting

back to cities without authorisation, and, generally, peasants staying in urban areas for various reasons but without proper work or residence permits. Though the exact size of this group, commonly known as the "black" households (heihu), is hard to know and probably might never be known, it is suspected that this group has increased in size since the early 1960s when the government began to implement strict controls on urban inmigration. In any case, as an approximation of the total number of residents in all urban areas in China, the TPCT is still the more preferred indicator than the NPCT.

Definitions of Urban Places

Another closely related issue is the defintion of urban places, on which the TPCT is based. Some writers believe that the changing definition of this term is the main cause of the inconsistencies in Chinese urban demographic data. According to our survey, this appears only to be a minor one.

When China released the 1953 Census count, which included the number of urban places and the size of urban population, there was no clear indication of the urban criteria used by the authorities in demarcating urban areas. But the fact that there were 920 towns with population size less than 2,000³¹ indicates that the minimum population size for urban designation must be below 2,000. A set of revised criteria for urban designations was announced in 1955³² and an accompanying note by the SSB suggested that these criteria closely approximated those used in 1953 with some amendments, mostly concerning small towns. The 1955 criteria for town designations were (i)seats of county governments; and (ii)settlements reaching a population size of

2,000 of whom at least 50 percent were non-agricultural. ³³ As only a small number of the 920 towns with size below 2,000 reported in 1953 were seats of county government, or had grown to a size of 2,000 in 1955, the majority of them were pulled out from the category of towns in the mid-1950s when the 1955 definition was implemented. ³⁴ Settlements with population size over 2,000 (probably between 2,000-3,000) might also be excluded if they did not meet the criterion of non-agricultural predominance.

Another revision of these criteria took place at the end of 1963 when the economy was under "re-adjustment." Again, this change involved the definition of town; that of city remained basically unchanged. The previous condition of designating seats of county governments as towns was withdrawn. Furthermore, for a settlement to be officially designated as a town, a slightly higher standard was required (the minimum population size was raised to 2,500 and the non-agricultural proportion, to 75 percent). A "tightening" of urban designations involving towns, probably as a measure to remedy some of the previous mis-designations, was made in 1980-82 when China was in the process of preparing her third census. However, there was no change in the urban criteria of 1964.

All the tightening of urban criteria and designations would lead to decreases in the number of towns, as is reflected in Table 2. Most drastic of these reductions occurred in 1953-56 and 1963-64, consistent with the major changes in the town designation criteria we have identified. Despite the glaring reduction in the number of towns since 1953, its effect on the total size of urban population is less than many people have imagined. Almost all these changes involved the lowest

layer of the urban hierarchy — towns of the size range of 500—3,000. If we assume quite generously that on the average, each of them has a population of 2,000, and 2,700 of them have been re-classified since 1953, the total size of the urban population re-classified will be 5.4 million, which is about four percent of the total urban population reported for 1964, or less than one percentage point of the urbanisation level (measured by the percentage of national population living in urban areas) in the same year.

The above thus shows that, compared to the urban criteria used in 1953, those used in later years became increasingly more restrictive. In other words, the later criteria of urban designation tend to under-estimate the size of the urban population under 1953 definition. But for the purposes of analysing the macro picture of China's urban population growth, this does not seem to pose any great problem. In general, the official criteria for urban designations so far used have been relatively consistent, particularly regarding the cities and larger towns where over 95 percent of the urban population are found.

Finally, though the urban criteria published appear to be quite consistent, the actual demarcation of the urban boundaries might not strictly follow these criteria. This has happened in a few localities like Zibo and Liupanshui where large areas of farm lands and farm population are included in the urban jurisdiction, 40 and a number of rural towns where the geographical boundaries are not well-defined. 41 However, according to Hu Xuwei, one of the deputy editors-in-chief of Jingji dili (Economic Geography), the upward counting of urban population due to these is offset by roughly the same amount of people who reside in settlements which have already met the criteria of urban

designation but have not yet been so classified. 42 Thus, in balance, the TPCT would still represent the total urban size of China.

Definitions of Urban Population

As we shall demonstrate, the changing definitions of <u>urban</u> <u>population</u>, rather than those of <u>urban places</u>, are the central source of confusion in causing the inconsistencies mentioned in Section 1. In China, there are two ways of calculating "urban" population, 43 but only one of them is used officially by the SSB at any one time.

Between the years 1949-63, the TPCT was used to define "urban" population. A change in the definition took place in 1963/64, later explaimed in TJNJ 1981 when it first released the official urban data, resulted in adopting a narrower definition - the NPCT - as the "urban" population. 44 This explains why the NPCT has also been used by the Chinese as chengzhen renkou ("population of cities and towns"). 45 Such a change occurred at more or less the same time when the criteria for designation of urban places was also under revision. The precise reason for this change has not been totally clear. Nor was the change widely known then inside China; indeed, confusion over these two definitions was still found in Chinese publications as recently as in 1982 and 1983. 46 Perhaps the use of the NPCT as "city and town population" was not just a simple matter of convenience; 47 it did help urban governments to determine the respective size of the de jure urban population eligible for rations under their jurdisdictions, 48 which was a more pressing and important issue in the early 1960s, when the experience of pervasive shortage of food in cities was still remembered. An accurate definition of urban population, moreover, would have been of value only to demographers, urban geographers and urban planners, a virtually non-existent group at that time.

Another change of definition occurred in 1982, when the urban population reverted to the TPCT, probably because of the many problems associated with using the NPCT to represent the urban population. For example, in the post-1976 period when city planning grew in importance, urban infrastructural facilities planned on the NPCT figures were inadequate measures of the urban demand; moreover, the NPCT is not internationally comparable. The TPCT was used in reporting the urban population figures in the 1982 Census, and it has been increasingly used to represent the urban population. In summary, the statistics that have been used to define "urban" population in different periods by the statistical authorities are: 1949-63 TPCT; 1964-81 NPCT; and 1982-present TPCT.

4. TRENDS OF URBAN POPULATION GROWTH AND URBANISATION, 1949-82

It will be argued in this section that the "mystery" of China's urban population is due to a misunderstanding of how urban population statistics have been defined in China and about the changes in the official "urban" definition. This is in part due to the failure of most of the Chinese writers and statistical publications to recognise or make known these changes before 1982 and in part caused by insufficient awareness of the definitional complexities by other researchers using statistics published since 1982.

Basing on the different definitions identified in Section 4, we are able to construct a baseline for China's urban population by piecing

together previously released, but undifferentiated, "urban" population statistics from various sources and reclassifying them according to the NPCT and TPCT (Table 3). From this table, it can be seen that the difference between the two "urban" population aggregates — the TPCT and NPCT — can be as large as 60 million, as in the case of 1982. This also explains why such a large "inconsistency" exists in reports on the 1981-82 "urban" population brought out in Section 1. A comparison of the urban population figures in Table 3 and the widely-cited Series A indicates that the latter consists of two distinct series, divided by a hidden discontinuity in 1963-64. Using Series A i.e. comparing the NPCT of the 1970s with the TPCT of the 1950s and early 1960s, would understate the post-1964 urban population growth.

Our re-interpreted urban population figures indicate that China's urban population was 206.6 million in 1982, which makes her the country with the largest urban population in the world. Even with such a large urban population, China remains one of the least urbanised countries. The urbanisation level of China (around 21 percent) is relatively low by international standards (Table 4); lower than the world's average, it is close to those of India, Indonesia and Nigeria.

The increase of urban population between 1949-82 was quite significant (154 million, or 4.7 million per year). The growth would be even larger if the urban population were defined by the 1953 urban criteria. Like many developing countries, the average annual urban growth rate is high (about 4.0 percent), much faster than the average annual growth rate of her national population of the same period (1.92 percent). A comparison with other populous developing countries shows that the long-term growth rate of urban population of China is lower

than that of Brazil, but is close to that of Indonesia and Nigeria, and much faster than that of India (Table 4). 54 Similarly, in terms of the rate of urbanisation — the difference between the growth rates of urban population and of national population — China ranks second, slightly behind Nigeria. Indeed, China's rates of urban population growth and urbanisation over the last three decades are comparable to those found in other populous developing countries. One should, however, be cautioned that these average rates mask enormous variations in different periods, as will be examined below.

5. URBAN GROWTH AND RURAL/URBAN MIGRATIONS DURING 1966-76

Probably because of the well-publicised rustication movements (xiafang and shangshan xiaxiang) in this period and the official pronouncement of a strict ban on rural-to-urban migration in the early 1960s, and of the definitional problems associated with China's urban population statistics examined in previous sections, several writers were led to write about that the urban population during this period had stopped growing or actually decreased. Moreover, the predominance of urban exodus caused by rustication has been emphasised in the literature to the extent that rural-to-urban migration is treated as not significant or can be discounted altogether. These assertions and presumptions, however, need to be reassessed in the light of the revised interpretation of urban statistics and the new information on this issue.

While evaluation of these would be impossile without detailed demographic data for 1966-76, this has been less so with the timely

release of information contained in the SSB, Zhongguo tongji nianjian 1983. 57 Of particular interest is a set of urban population data defined by shizhen zongrenkou (all regular residents within urban districts,) which is equivalent to the TPCT used in this paper. We are not in the best position to judge the accuracy of this set of presumably retrospective data; but a general article commenting on the statistics for the "ten-year-disaster period" (1966-76) presented in that yearbook, explains how statistics of this period was gathered. The author, Li Chengrui, the head of the SSB, suggests that the data in general are reliable. 58 Furthermore, a comparison of the figures we have compiled in Table 3 with those presented in the SSB's own series indicates that the two sets of data are in general consistent (Table 5). 59 This also confirms the validity of our interpretation of the change of definition of urban population we suggested in the previous section.

Figure 4 presents the general trend of urban population growth based on this new series, along with the NPCT we have compiled. One can observe from this set of data that there were great fluctuations in the urban growth between 1949-1982: there was rapid growth in the 1950s and in the late 1970s to early 1980s, absolute decline in the early 1960s, and moderate growth in 1966-76. In absolute terms, the urban population increase during the Cultural Revolution period was much more sizeable than the figures implied by Series A. For example, while data of Series A show an urban population increase of about 10 million between 1965-75, the new SSB series indicates that the increase for the same period is nearly 30 million (Table 5).

A detailed inspection of the TPCT trend in Figure 4 and Table 5 shows an abnormal urban population growth in 1964, which is suspected to

be a statistical phenomenon caused by the different enumeration method used and the retrospective adjustment made in the 1964 Census rather than a real growth. On this, however, should not affect the intra-period comparison of the urban population growth in the post-1964 era as the post-1964 method is internally consistent: the analysis of urban growth in 1966-76 will generally not be affected. There is, however, a slight "undercounting" of urban population size of the 1970s and 1980s when compared to the pre-1964 TPCT statistics.

Furthermore, with the availability of more information about the natural increase rates for cities, an estimation of the net rural-urban migration during 1966-76 (the Cultural Revolution decade), a period generally believed to be marked by net urban out-migration, also becomes possible. Detailed migration statistics and urban natural increase rates are still wanting, but as presented in Table 6, the upper bounds of the average annual urban rate of natural increase between 1966-76 can still be estimated from the available natural increase rates for shi (cities) for 1966 and 1971-76, supplemented by other information. the absence of specific rates for zhen(towns) located in counties, we have estimated them by using either the rates for counties or for the This is likely to overstate the overall urban rates nation as a whole. of natural increase and, hence, underestimate the net urban inmigration determined by the "Residual Method" used in Table 7, because the natural increase rates for towns would most likely be lower than those for counties or for the nation. Despite this, computations in Table 7 still show that the net urban inmigration (urban inmigration less urban outmigration) in these years was still positive, amounting to 2-4 million. 62 or 7-12 percent of the urban growth of the same period.

It is possible, however, that the overestimation of natural increase rate and understatement of rural-urban migration might be offset by the to the differential understatement of natural increase rate due Based on Coale's understatement of birth and death registrations. estimates, the reported national natural increase rate is computed to be undercounted by about 8 percent for the 1966-76 period. Birth and death registrations may have been more accurate in urban areas, and the urban rates of natural increase were also lower, so we expect the Again, if we assume a fairly high undercounting to be lower. understatement percentage for urban areas (say, 6 percent) and adjust the urban rate of natural increase accordingly, there would appear that the average annual urban rate of natural increase would be very close to, but still less than, the average annual urban population growth rate. Since all these adjustments tend to place the urban rate of natural increase on the high side, we can confidently conclude that the outmigration cannot exceed the gross urban gross urban actual the resulting actual net urban inmigration would be inmigration; positive, but its volume would be small. It also follows that the widely held impression that the predominance of urban out-migration during 1966-76 is erroneous. A more balanced view perhaps should point out the probable different patterns within 1966-76: there was net urban outmigration in 1966-69 but net inmigration in 1970-76.

While the amount of <u>net</u> urban inmigration during 1966-76 might be limited, that of the <u>gross</u> urban inmigration was not. According to the figure reported by Wu Yuren, an eminent analyst of urbanisation in China, close to 30 million urban people were resettled in the countryside during this period. Given that the computed net urban in-

migration is non-negative, this would imply that the total urban inmigration must exceed or equal to 30 million. It may require some
explanation as to why and how such a massive inmigration of over 30
million people was possible during 1966-76, a period when migration
controls were reportedly very stringent, and quasi-compulsory movements
to resettle urban youths and intellectuals in the countryside were in
action.

In China, as in many other developing countries, the wide gap in real income between peasants and non-agricultural workers will always be a major incentive for agriculturalists to become urban workers. as we know, there are several ways whereby rural-urban migration, defined to be the change of one's residence from rural areas to cities or towns, is possible. The first way of these is through the conversion of household registration from agricultural to nonagricultural status. 67 This occurs generally when peasants formally join the state or urban collective sectors by enrolling in colleges and universities, and, more importantly, through civilian job recruitment (zhaogong) and army recruitment (canjun). The zhaogong is, however, strictly controlled by state because this is usually the largest source agriucltural-to-non-agricultural conversions, and, as a result of these conversions, the state has to shoulder a large cost of subsidising for food, housing, medical care, fuel and so forth for the population holding non-agricultural household registers. However, apparently, the state has encountered many difficulties in controlling this flow of people, as reflected by the frequent issuing of directives on this problem. It is also reported in one of these directives that during the Cultural Revolution decade, large numbers of people were recruited from rural areas by "going through the back door."69

The other form of rural-urban migration is through the employment of rural residents for work in the urban areas as temporary workers, as contract workers or in the category of "both worker and peasants" in both the state sector and collective sector. The system of temporary and contract workers was initiated in the early 1960s and probably has expanded since then because of its popularity and strong attractions for industrial managers, urban administrators, peasants and rural cadres. Though the temporary and contract workers are employed in state-owned enterprises, these forms of employment differ from permanent state non-agricultural employment since they enable state enterprises either to meet seasonal demands for construction workers, or to evade state control on the size of their labour force and to pay wages lower than those specified in state wage scales. 71 Peasants working in any of these categories are not considered permanent state or urban employees, and thus are not eligible for rationed food and other subsidies, but they might receive higher earnings (than those they would otherwise get working as farmers) and other benefits. 72 Moreover, not all the "temporary" workers are that temporary; according to Blecher's study of the Shulu County, most contract workers there had been so employed for many years. 73

Those so-called "both workers and peasants" are, however, found in commune- and brigade-run enterprises, mostly in small rural towns. The size of this category of population has expanded quite rapidly since the early 1970s with the development of rural industries. This group of people, however, has maintained their "agricultral" household registration status and, again, are not eligible for rations and

subsidies available to the non-agricultural households.

As pointed out before, even though part of all these "transitional" populations are regular residents of urban areas according to the definition used in the censuses and hence are part of the TPCT, they are not considered as part of the non-agricultural population (NPCT) in official statistical accounting. When one recalls that the Chinese system of internal migration controls is largely implemented through the prevention of unauthorised conversion of registration status, and the official definition of "urban" population (which was also the target of control) in 1964-81 was defined by the NPCT, it can be understood that the movements of the above categories of "peasants" were relatively unrestricted. 74 According to reported figures, there were 9.3 million peasants working in state-owned enterprises in the categories of non-permanent employment and about 50 million in the category of "both worker and peasant" in 1980. The number of people in these categories has probably increased quite rapidly since the early 1960s for the reasons discussed above.

Therefore, through these means, about 13-14 million rural labourers who were recruited to work in the urban areas during 1966-76 became regular urban residents. To this must be added an unknown number of their dependent family members, returned urban youths and intellectuals previously rusticated, and migrant peasants working as "both workers and peasants" and staying in rural towns. Hence, it should come as no surprise that the volume of gross rural-to-urban migration might well exceed 30 million during 1966-76.

Furthermore, as revealed by the available NPCT and TPCT statistics presented in Table 8, the absolute increase and the growth rate of the

urban "agricultural" population were much higher than those of the "non-agricultural" population between 1965-75. These huge differences in growth and growth rate were caused by a higher rate of natural increase of the "agricultural" population but, more importantly, also by a much larger amount of net urban inmigration of the "agricultural" population in this period. In other words, the rural-to-urban migration of those not involving any conversion of household registration from agricultural to non-agricultural status was the more important form of rural-urban demographic transfer. Perhaps this was a more feasible rural-urban migration option for the majority of the peasants, given the difficulties of conversion of household status.

Based on the above, one can also tentatively comment on another important, though from the point of this paper, tangential issue - the distribution of growth by city(town) size. The subject is important of controlling the growth of large urban since China has a policy places and developing medium and small ones. In general, medium and small settlements have a much higher proportion of "agricultural" population than the larger cities do. 80 Given that this category of population has also had a higher growth rate, one can infer from these that the general growth rates of the smaller settlements would be higher than those of the larger ones. Moreover, based on the examination of urban "non-agricultural" population (NPC and NPT) data, the smaller settlements also appeared to be growing faster in the 1970s. 81 Faster growth of population in these settlements was mainly concentrated on the industrial cities (shi) of size ranging from 50,000 to 800,000, largely a result of the state's heavy industrial investment in the interior regions. Many small rural market towns (zhen), like those cited by Fei Xiaotong in his study of small towns in Wujiang County, declined and suffered seriously from depopulation due to the restrictions on trading, such as the closing down of rural free markets, which are the economic base of these towns. Therefore, while the issue is too complex to be adquately treated here, it appears that the policy results of developing the medium and small settlements are mixed.

The urbanisation level during 1966-76 was rather stable at around 17-18 percent. Demographically, this stability was caused by the general decline in the urban rate of natural increase and not by net out-migration from urban areas. Therefore, except for the re-adjustment period of 1961-63, when there was a real net urban outmigration in the wake of the failure of the Great Leap Forward, one finds it difficult to accept the general observation that there was a "deurbanisation" trend in the 1960s and 1970s resulting from a net out-migration from cities. 83

Although rural-to-urban migration in 1966-76 had not been completely arrested, it is fair to say that the relatively moderate urban growth of that period - the calculated average annual urban population growth rate is about two percent, fairly remarkable by Third World standards - did partly reflect the effect of the various counter-urban growth policies and partly the declining urban rate of natural increase. However, while those policies, including the rustication, which was carried out with both persuasion and coercion, helped to bring about this result, the social costs should also be considered. Apparently, the rustication of youths and intellectuals has brought about a series of undesirable consequences not only to the latter, but also to the nation as a whole. The restrictions imposed on the conversion of

household status (from agricultural to non-agricultural), which helped to discourage rural-to-urban migration, was also generally regressive: it served to protect the existing priviledges enjoyed by the relatively well-off urban elite from being shared by the generally less priviledged rural masses, and took away their chance of upward social mobility through, for instance, enrolling in better urban schools and of escaping famines, which still occasionally visit China's countryside. 86

Furthermore, it is also questionable whether the various types of quasi-involuntary <u>xiaxiang</u> and <u>xiafang</u> prgrammes could have been implemented for long in normal years, quite different from the "Three Difficult Years" of the early 1960s when the whole country suffered from economic depression, or from the "Ten Years of Chaos" of the Cultural Revolution. The low urban growth of 1966-76 was immediately followed or offset by a phenomenally high one in the post-1977 era with an annual growth rate averaging about five percent, ⁸⁷ resulting in an average annual urban growth rate of about four percent for the whole post-1949 era. It is quite obvious that the modest urban growth of 1966-76 was achieved at a high economic and human cost. Given the importance of the rustication movement in China's urbanisation process, it certainly deserves further examination and re-evaluation in the immediate future in the light of new information on this topic and our revised understanding of the urban trends in this period.

6. CONCLUSION

This paper seeks to contribute to the understanding of urban growth and urbanisation in the post-1949 China by investigating the

"mystery" of the size of China's urban population and its growth. We have provided a systematic and detailed review of the rather complicated Chinese system of urban demographic statistics. This paper has also demonstrated that a number of the significant "inconsistencies" of China's urban population size are explainable; indeed, many of them are created because of the lack of information or appreciation of different ways China's "urban" populations are classified and defined, particularly in relation to the categorisation of the "agricultural" population residing in areas under urban administration.

By studying the precise meaning of the statistics, and the changes in the definitions of urban places and of urban population, we have also established that the Total Population of Cities and Towns (TPCT), defined to be the total number of regular residents in all designated urban places, is the most relevant measure of China's total urban population among the available statistical indicators. Although factors like changing criteria of urban places and changing methods of enumerating regular residents will affect the comparability of the TPCT data, these factors appear to be questions of only secondary importance for the purposes of studying China's macro urban growth trends.

More importantly, by identifying a shift in the official definition of urban population in 1963-64, we have also pointed out that the commonly cited set of urban population statistics, Series A, in fact consists of two different time-series. The differentiation of them has great significance in comprehending the apparent "slow" urban growth in the post-1964 period. Based on this we have reclassified the known urban data and have reconstructed a baseline of China's urban population between 1949-82. All these have been confirmed by the more recent

writings from China. This also leads to the observation that China has had a much larger urban population and faster urban growth rate than what many people were previously led to believe. Based on our findings, China's average annual urban population growth rate in 1949-82 is close to those of other developing countries like Nigeria, Indonesia and India.

Further analyses into the growth patterns in 1966-76 suggest that in contrast to the general impression this period also experienced substantial urban population growth - mainly attributable to urban natural increase - though the growth was much lower than that in the Urban exodus induced by rustication was massive, but was offset by equally sizeable cityward migration. As a result, the net effect of urban-rural migration on the urban population size was small. number of rural-to-urban migrants during this period were temporary workers, contract workers and those designated "both workers and peasants," drawn from the countryside and allowed to stay in urban These people, however, were not granted any full urban resident status, which determined the supply of urban rations and other benefits, and were not recorded in the previous narrowly defined urban statistics. Because of the existence of this voluminous urban inmigration, our study suggests that China did not reach a stage of stable urban population size in 1966-76, nor did it experience any significant net urban outmigraton taking the period as a whole.

One can easily see that the understanding of all these definitional complexities, including their precise meaning and their difference in different times, will have important implications for future research on China's demography, urbanisation, urban planning and many other related

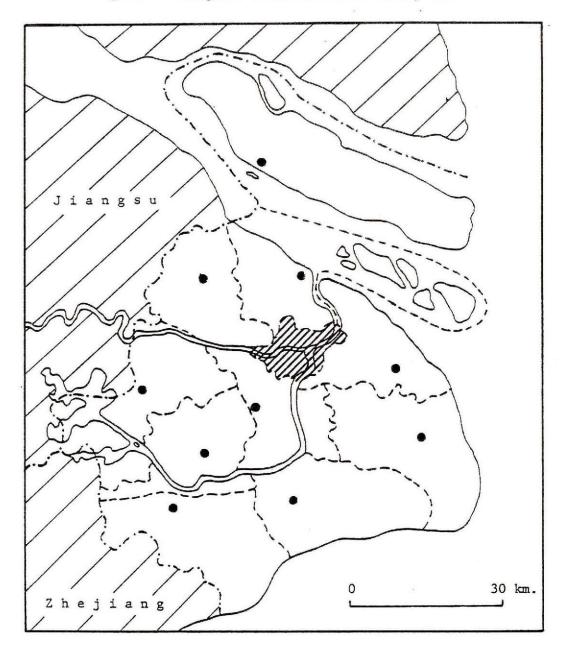
it is believed that such an understanding is helpful, if not essential, to one who wishes to tap the past fragmented pieces of urban demographic information, as well as the more complete and recent ones. A full evaluation of the Chinese urbanisation model, however, would have to include, in addition to an analysis of urban trends and rural-to-urban migration presented in this paper, assessments of other aspects of urbanisation in China, namely, the differential growth of large, medium and small settlements; the impact of the rustication movements and the development of rural industries; the relationship between urbanisation and economic development, and so forth. Though some of these have been touched upon in passing, to examine all these aspects fully would have taken us beyond the scope of this essay. Suffice it to say, that our previous understanding of China's urban population statistics and, hence, its growth trends and migration patterns in the 1960s and 1970s are rather inadequate. As a result, the presumed Chinese success of low or "zero" urban growth in the Maoist period, which has been shown to be premised on misunderstood statistics, will need to be thoroughly reassessed.

November 8, 1984

Revised March 30, 1985

Toronto

Figure 1 Shanghai: Administrative Units, 1978



City Proper

---- Boundary of County

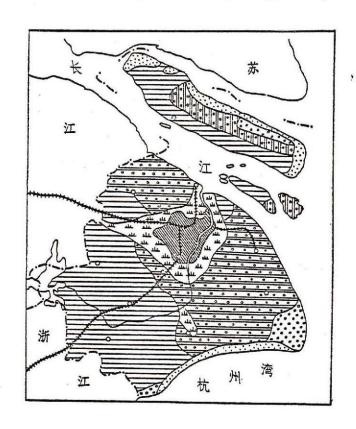
Seat of County
Government

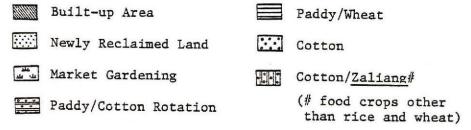
---- Boundary of Municipality

Sources: Map of Shanghai Proper, (Shanghai: Shanghai renmin chubanshe, 1977); and Shi Weile (ed.), Zhonghua Renmin Gongheguo zhenqu yange (1949-79) (Changes of Administrative Units in People's Republic (1949-79)), (Jiangsu renmin chubanshe, 1981).

Figure 2

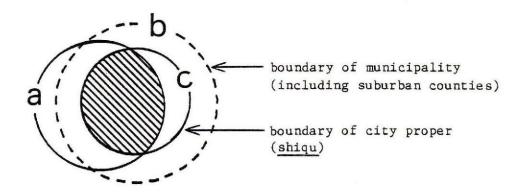
Land Use of Shanghai Municipality, Early-1970s





Source: Shang Sidi et al, Shanghai dili qianshuo (Introduction to Geography of Shanghai), (Shanghai: Shanghai renmin chubanshe, 1974), p.108.

Figure 3 Venn Diagram Showing the Relationship Between NPC, TPC and TPM for a City



Population Classification

a Non-agricultural population based on household classification.

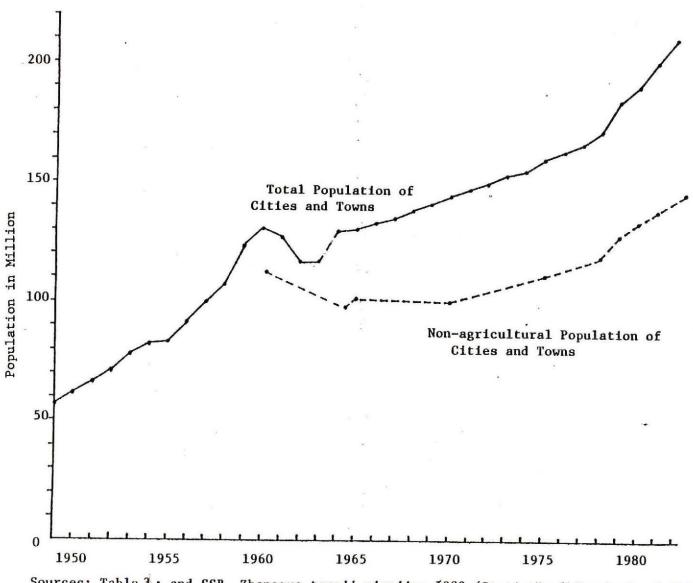
TPM: Total Population of Municipality (including suburban county population), not used to define urban population.
[11,628,000]

C TPC: Total Population of City Proper (Shiqu zongrenkou), used to define the urban population in 1950-63, and 1982-. [6,134,000]

NPC: Non-agricultural Population of City (Chengshi renkou), narrow definition of urban population, used through 1964-81. [6,086,000]

Figures in [] indicate the population numbers of Shanghai in the corresponding categories as of the end of 1981.

Figure 4 Urban Population of China, 1949-82



Sources: Table 3; and SSB, Zhongguo tongji nianjian 1983 (Statistical Yearbook of China 1983), (Beijing: Zhongguo tongji chubanshe, 1983), p.103.

Table 1 Categories of "Urban" Population at the National Aggregate Level

	Category A	Abbreviations	Definitions = Sum of all TPMs and TPTs (i.e. the total population living in all muncipalities and towns)		
1.	Total Population of Muncipalities and Towns	ТРМТ			
2.	Total Population of Cities and Towns (shizhen zongrenkou o chengzhen zongrenkou)		= Sum of all TPCs and TPTs (i.e. the total population living in all cities and towns)		
3.	Non-agricultural Population of Cities and Towns (Chengzhen feinongye renkou**)	NPCT	= Sum of all NPCs and NPTs (i.e. the total non-agricultural population living in all cities and towns)		

Other abbreviations used and their Chinese equivalents:

TPM = Total Population of Municipality;

TPC = Total Population of City (Shi zongrenkou*);

TPT = Total Population of Town (Zhen zongrenkou);

NPC = Non-agricultural Pop. of City (Shi feinongye renkou**);

NPT = Non-agricultural Pop. of Town (Zhen feinongye renkou**).

Notes:

* See also discussion in text and footnote 15;

** These terms have been also commonly abbreviated as chengzhen renkou ("population of cities and towns") without the word feinongye, which may easily cause confusion. One must be careful not to confuse the chengzhen zongrenkou(TPCT) with the chengzhen renkou (NPCT).

Sources: Prepared by the authors based on Figure 3, and Li Chengrui, "Zong renkou pucha gongbao kan zhongguo renkou tongji shuzi de zhunquexing" ("The Chinese population as shown by the population census Communique - some comments on the accuracy of Chinese population statistics"), Jingji yanjiu (Economic Research), 1982 No.12, (December 1982), pp.28-38; and SCPCO & SSBPSD, Zhongguo disanci renkou pucha de zhuyao shuzi (Important Figures from China's Third Population Census), (Hong Kong: Jingji daobaoshe, 1982), p.2.

Table 2 Number of Cities and Towns Officially Designated, 1952-82

Year	Cities	Towns	All
1952	159(1)	n.a.	n.a.
1953	166(3)	5,402(2)	5,568
1956	n.a.	3,672(2)	n.a
1957	176(1)	3,621(2)	3,797
1963	n.a.	4,032(9)	over 4,000(8)
1964	168(10)	3,148(10)	3,316
1976	189(11)	3,261	3,450(11)
1979	191(3)	n.a.	n.a.
1980	223(4)	2,874(4)	3,097
1981	229(5)	2,843(6)	3,072
1982	236(7)	2,664(7)	2,900

Notes: m Mid-year; n.a. Not available

Sources:

- (1) SSB, Weida de shinian (The Ten Great Years), (Beijing: Renmin chubanshe, 1959), p.11.
- (2) Morris B. Ullman, <u>Cities of Mainland China:1953 and 1958</u>, p.3.
 (3) Zhu Zhuo, "Shilun woguo renkou heli fenbu wennti" ("On the rational distribution of the Chinese population"), Renkou yanjiu, No.3 (October, 1980), p.12.
 - (4) Ma Hong (ed), Xiandai Zhongguo jingji shidian, p.425.
 - (5) SSB, Zhongguo tongji nianjian 1981, p.91.

 - Zheng Zonghan, "On small towns," <u>SSC</u>, 1984, No.4. footnote 1.
 SCPCO & SSBPSD, Zhongguo disance rekou puchande zhuyao shuzi, p.2.
 - (8) Hu Xuwei, "Dui woguo chengzhen hua shuiping de pouxi," p.25.(9) Unpublished data, the Zhongshan University.
- (10) Renkou pucha qiansuo (A Brief Discussion of Population Censuses, (Beijing: Zhongguo tongji chubanshe, 1982), p.25.
- (11) Yang Deqing(ed), Renkouxue gailun (Theories on Demographic Science), (Shijiazhuang: Hebei renmin chubansh, 1982), p.71.

Table 3 Urban Population* and
Non-agricultural Population of Cities and Towns(NPCT), 1949-82
(Millions)

Year End	Urban Pop. (TPCT)	NPCT	National Pop.	% of Na Popul	tional ation	Sources
කරුණ යන් වන හෝ කර ු කර	I	II	III	I/IIIx100	II/IIIx100)
1949	57.650		541.670	10.6		(1)(2
1950	61.690		551.960	11.1		(2)
1951 1952	66.320 71.630		563.000 574.820	11.8 12.5		(2) (1)(2)
1953m	75.260a		580.600	13.0		(1)
1953	77.670		587.960	13.2		(2)
1954 1955	81.550 82.850		601.720 614.650	13.6 13.5		(2) (2)
1956	89.150		627.800	14.2		(2)
1957	99.490		646.530	15.4		(2)
1960	130.730		660.250	19.8	16.8	(3)
1964m	127.103	97.910	694.582	18.3b	14.1	(1)(4)
1965		101.700	725.380		14.0	(1)
1970		100.750	825.420		12.2	(5)
1975		111.710	919.700		12.1	(5)
1978		119.940	958.090		12.5	(1)
1979		128.620	970.920		13.2	(5)
1980		134.130	982.550		13.7	(6)
1981	206 500	138.700	996.220	20 (13.9	(1)
1982m	206.589	146.570	1003.937	20.6	14.6	(4)(7)

Notes: * based on the Total Population of Cities and Towns (TPCT)

Sources.

(1). SSB, Zhongguo tongji nianjian 1981 (Statistical Yearbook of China 1981)(Beijing: Zhongguo tongji chubanshe, 1982), p.89.

(2). Tongji Gongzuo (Statistical Work) ,No.11,(June 1957);

m Mid-year

a The first figure reported in 1953 Census was 77.257. SSB(1982) has adjusted this to 75.260.

b SCPCO & SSBPSD (1982) reported 18.4, but careful calculation indicates that this should be 18.30.

^{(3).} Zhang Zehou and Chen Yuguang, "On the relationship between the population structure and national economic development in China", Social Sciences in China, (1981), No.4, pp.73;

(4). SCPCO & SSBPSD, Zhongguo disanci renkou pucha de zhuyao shuzi (Important Figures from China's Third Population Census), (Hong Kong: Jingji daobaoshe, 1982), p. 2.

(5). Ma Hong (ed.), <u>Xiandai Zhongguo jingji shidian</u> (<u>Dictionary of Economic Events in Modern China</u>), (Beijing: Zhongguo shehui kexueyuan chubanshe, 1982), p.14;

(6). Zhongguo jingji nianjian Editing Committee, Zhongguo jingji nianjian 1982 (Yearbook of Chinese Economy 1982), 1982, p.VIII-3;

(7). Yao Shimou, "Some development problems in the large cities of China", lecture presented at Michigan State University, February 1984;

Table 4 Urban Population and Urbanisation Level: China and Other Countries, 1950-1980

	URBAN	URBAN POPULATION			URBANISATION LEVEL		
Countries	1950 198	O Av.Annual	1950	1980	Av.Annual Rate of		
	(millions) Growth Rate(%)	(% u	rban)	Urbanisation (%)		
China	61.69 206.	59а +3.9ъ	11.1	20.6a	. 2.0b		
India	59.25 154.	52 +3.2	16.8	22.3	0.9		
Indonesia	9.36 31.	29 +4.1	12.4	20.2	1.6		
Nigeria	3.60 14.	81 +4.1	10.5	20.4	2.2		
Brazil	19.06 82.	17 +5.0	36.0	65.0	2.0		
USSR	100.00c 166.	20 +2.4d	48.0c	63.0	1.3d		
USA	97.61 167.	05 +1.8	64.1	73.7	0.5		
All Develor	oing Countries	Excluding China	A CONTRACT OF THE STREET	TO PORT OF THE SAME			
•	213.83 741.	and the second of the second o	19.6	32.6	1.7		
All Develor	ed Countries						
	448.93 834.	40 +2.1	52.5	70.2	1.0		
World	724.45 1767.	56 +3.0	29.0	39.9	1.1		
Notes:	a 1982 figure;	b 1950-82;					

c 1959 figure; d 1959-80.

Average Annual Growth Rate: computed by use of a compound interest

Average Annual Rate of Urbanisation: defined as the difference between the average annual growth rate of urban population (RU) and the average annual growth rate of national population (RN) i.e. RU - RN. Alternatively, it can be approximated from : $[n \int UP(t+n)/UP(t) - 1] \times 100$, where UP(t) and UP(t+n) are the percentage of urban population at year t and year t+n respectively. n is the number of years betwee t and t+n. For a detailed discussion of this, refer to UNPD, p.34.

Urban Population: defined by the population residing in urban areas officially designated by their respective countries.

Sources: China: computed from Table 3; USSR: USSR State statistical Administration, Narodnoe khoziaistvi SSSR 1922-1982: Iubileinyo statisticheskii ezhegodnik (The National Economy of the USSR: the Jubilee Statistical Yearbook), (Moskva: Finansyi Statistik , 1982), p.9; USA: US Bureau of the Census, Statistical Abstract of the United States: 1982-83, (Washington D.C., 1982), p.21; Other Countries: UNPD, Pattern of Urban and Rural Population Growth, p.136; The figures for the world's total have been adjusted by applying more updated data for China.

Table 5 Urban Population(TPCT), 1949-82

End	Urban Population		f National	Annual I	
Year	(million)	Popul.	ation	(mill.)	(%)
1949	57.65 (57.65)	10.6	(10.6)		
1950	61.69 (61.69)	11.2	(11.1)	4.04	7.0
1951	66.32 (66.32)	11.8	(11.8)	4.63	7.5
1952	71.63 (71.63)	12.5	(12.5)	5.31	8.0
1953	78.26 (77.67)	13.3	(13.2)	6.63	9.3
1954	82.49 (81.55)	13.7	(13.6)	4.23	5.4
1955	82.85 (82.85)	13.5	(13.5)	0.36	0.4
1956	91.85 (89.15)	14.6	(14.2)	9.00	10.9
1957	99.49 (99.49)	15.4	(15.4)	7.64	8.3
1958	107.21	16.2		7.72	7.8
1959	123.71	18.2		16.50	15.4
1960	130.73(130.73)	19.7	(19.8)	7.02	5.7
1961	127.07	19.3		-3.66	-2.8
1962	116.59	17.3		-10.48	-8.2
1963	116.46	16.8		-0.13	0.1
1964	129.50(127.10m)	18.4	(18.3m)	13.04*	11.2*
1965	130.45	18.0		0.95	0.7
1966	133.13	17.9		2.68	2.1
1967	135.48	17.7		2.35	1.8
1968	138.38	17.6		2.90	2.1
1969	141.17	17.5		2.79	2.0
1970	144.24	17.4		3.07	2.2
1971	147.11	17.3		2.87	2.0
1972	149.35	17.1		2.24	1.5
1973	153.45	17.2		4.10	2.7
1974	155.95	17.2		2.50	1.6
1975	160.30	17.3		4.35	2.8
1976	163.41	17.4		3.11	1.9
1977	166.69	17.6		3.28	2.0
1978	172.45	17.9		5.76	3.5
1979	184.95	19.0		12.50	7.2
1980	191.40	19.4		6.45	3.5
1981	201.71	20.2		10.31	5.4
1982	211.54(206.59m)	20.8	(20.6m)	9.83	4.9
Avera	ge Annual Increase			4.66	4.0

Notes: * Refer to the discussion in text.

m Mid-year; () TPCT figures compiled in Table 3. Source: SSB, Zhongguo tongji nianjian 1983, p.103.

Table 6 Estimates of the Upper Bounds of Average Annual Urban Rates of Natural Increase, 1966-76

				Rates of	5-cm est out care est vet care			
Year, i		Cities,		Townsa,		Urb	an(Cities and	
		(rc)		(rt)		Towns) (ru)		
10//	-		E 0 C	9 70) /.	max made made max		
1966		1.	.526	2.72		-		
1967	-:		b	2.55		:		
1968	:	Version A	Ag: 1.60	2.73	38	:		
1969	:	Version 1		2.60	8(
1970	:			2.58	33	:	Not	
1971	_	1.	.595	2.42	29	:		
1972			401	2.32	26	:	Available	
1973		1.	. 239	2.20)3	:		
1974			926	1.86	50	:		
1975		0.	.932	1.65	58	:		
1976		0	.652	1.35	50	_:		
Average	-	A	В				А В	
Annual 1966-76	Rate,	1.333	1.478	2.27	75	1.6	53 ^d 1.749 ^d	
Percent Urban P	age o	f, e	56	34			100	

Notes and Sources:

- a In the absence of specific rates for towns, those for counties (1966, and 1971-1976) and for the nation (1967-70) are used. Source: SSB, Zhongguo tongji nianjian 1983, p.105. Obviously, these rates will be higher than the actual rates for towns. Thus, they would represent the upper bounds rather than the actual rates.
- b Version A assumes that the rc of 1967-1970 follows those of 1966 and 1971, whereas Version B assumes that there would be an increase in the rc due to a relax of birth controls caused by chaos in cities.
- c This is the "geometric mean" of all the respective annual rates. It is computed by:

$$\begin{bmatrix} 1976 \\ \hline 1 \\ i=1966 \end{bmatrix} (1 + \frac{r_i}{100}) - 1] \times 100$$

where r_i = annual rate of natural increase in year i.

- d Calculated by multiplying the average rc and rt by weights derived from the proportion of each group.
- e Estimated from 1973 data in Zhongshan University, Chengshi guihui yuanli cankao ziliao (Reference materials for the principles of city planning), (Unpublished, 1981), p.67. The respective proportions reported in 1982 census are 70% (cities) and 30% (towns), see SCPCO & SSBPD, Zhongguo disanci renkou pucha de zhuyao shuzi, pp.14-15.

Table 7 Estimates of Components of Urban Growth, 1966-76*

		Average Annual Rate (%)	Components of Urban Growth (%) (million)
(a)	Version A#		27 2443
	Urban Natural Increase	1.65(1)	87.8(4) 26.6(6)
	Net Urban Inmigration	0.23(2)	12.2(5) 3.7(7)
(b)	Version B# Urban Natural Increase	1.75(1)	93.1(4) 28.2(6)
	Net Urban Inmigration	0.14(2)	6.9(5) 2.1(7)
	Urban Population Growth	1.88(3)	100.0 30.3(8)

Notes and Sources:

- # Refer to note b in Table 6.
- (1) refers to Table 6;
- (2) = (3) (1)
 - i.e. rate of net urban _ rate of urban _ rate of urban natural increase
- (3) calculated from Table 5;
- $(4) = (1)/(3) \times 100;$
- $(5) = (2)/(3) \times 100;$
- $(6) = (1)/(3) \times (8);$
- $(7) = (2)/(3) \times (8);$
- (8) calculated from Table 5.

^{*} The period is from end-year 1966 to end-year 1976. The the methodology used here is the "Residual Method". See UNPD, Pattern of Urban and Rural Population Growth, pp.22-27. Urban growth is disaggregated into two components: urban natural increase and net urban inmigration. The latter also includes net population gain/loss due to urban reclassification.

Table 8 Growth of "Agricultural" and "Non-agricultural" Population in Urban Areas, 1960-80 (in millions)

	POPULATION	RESIDING IN URBAN	AREAS
Year	"Non-agricultural" (NPCT)#	"Agricultural"#	Total (TPCT)
1965	101.70	28.75	130.45
1970	100.75	43.49	144.24
1975	111.71	48.59	160.30
1980	134.13	57.27	191.40
965-75: Absolute Inc	rease		
(million) Annual Growt	10.01 th	19.84	29.85
Rate (%)	0.94	5.39	2.08

Notes: # based on household classification. For definitions, refer to discussion in Section 2.

Sources: Table 3 and Table 5.

FOOTNOTES

- 1. For example, Rhoads Murphey, "Aspects of urbanisation in contemporary China: a revolutionary model," Proceedings of the Association of American Geographers, Vol.7, (1975), pp. 165-168; Reiitsu Kojima (ed), Chugoku no toshika to noson kensetsu (Urbanisation and Rural Development in China), (Tokyo: Ryukeishosha,1978); Laurence Ma, "Counterurbanisation and rural development: the strategy of hsia-hsiang," Current Scene, Vol.15, Nos. 8 & 9, (August-September 1977), p.1-11; and Murphey, The Fading of Maoist Vision: City and Country in China's Development, (New York: Methuen, 1980).
- 2. Laurence J.C. Ma, "Preliminary results of the 1982 Census in China," Geographical Review, Vol.73, No.2 (April 1983), pp.189-210.
- 3. Leo A. Orleans, "China's urban population: concepts, conglomeration and concerns," in Joint Economic Committee, U.S. Congress, China Under the Four Modernisations, Part I, (Washington D.C.: US Government Printing Office, 1982), pp.268-302. Another more recent, but unsuccessful, attempt by Orleans and Ly Burnham to solve this "riddle" has come to the authors' attention in the last stage of revising this paper ("The enigma of China's urban population," Asian Survey, Vol.24, No.7, (July, 1984), pp.788-804). Central issues like the changes in urban definition have not been revolved (compare Table 1 in their paper and Tables 3 and 5 in this paper).
- 4. State Statistical Bureau(SSB), Zhongguo tongji nianjian 1981 (TJNJ 1981) (Statistical Yearbook of China 1981), (Beijing: Zhongguo tongji chubanshe, 1982), p.89.
- 5. State Council Population Census Office and SSB Population Statistics Division (SCPCO & SSBPSD), Zhongguo disanci renkou pucha de zhuyao shuzi (Important Figures from China's Third Population Census), (Hong Kong: Jingji daobao she, 1982). p.2.
- 6. See United Nations Population Division (UNPD), Pattern of Urban and Rural Population Growth, Population Studies No. 68, (New York: Department of International Economic and Social Affairs, 1980), p.136.
- 7. See for example, Zhang Changgen, "Shanghai: Population developments since 1949," in Liu Zheng et al, China's Population: Problems and Prospect, (Beijing: New World Press, 1980), p.129.
- 8. Zhang Zehou and Chen Yuguang, "Shilun woguo renkou jiegou yu guomin jingji fanzhan de guanxi" ("On the relationship between the population structure and national economic development in China,") Zhongguo shehui kexue (Social Sciences in China), 1981 No.4, (July, 1981) pp.29-49; TJNJ 1981, p.89; and Ma Hong et al (eds), Xiandai Zhongguo jingji shidian (Dictionary of Economic Events in Modern China), (Beijing: Zhongguo shehui kexueyuan chubanshe, 1982), p.14.
- 9. This series was cited in J.S. Aird, "Population studies and population policy in China," Population and Development Review, Vol.8, No.2 (June, 1982), p.280 Table 2; A.J. Jowett, "The growth of China's population, 1964-1982," The Geographical Journal, Vol.150, No.2, (July, 1984), pp.156, Table II; Shigeru Ishikawa, "China's economic growth since

- 1949 an assessment," The China Quarterly, No.94 (January, 1983), pp.242-281.
- 10. See for example, Tian Xueyuan, Xinshiqi renkoulun (Theory on Population of the New Era), (Heilongjiang renmin chubanshe, 1982), p.25; and Zhang Chunyuan, et al (eds.) Renkou jingjixue (Population Economics), (Beijing: Beijing daxue chubanshe, 1983), pp.329-330, Table 17-3.
- 11. Thomas G. Rawski, Economic Growth and Employment in China, (Oxford University Press, 1979), pp.25-28. One must, however, be cautioned that some of data in his Table 2-3 are not comparable.
- 12. Wu Youren, "Guanyu woguo shehuizhuyi chengshihua wenti," ("Questions on China's urbanisation"), in Beijing College of Economics (ed.), Zhongguo renkou kexue lunji (Symposium on Chinese Population Science), (Beijing: Zhongguo xushu chubanshe, 1981), p.96; Hu Xuwei, "Dui woguo chengzhen hua shuiping de pouxi" ("Analysis of China's urbanisation level"), Chengshi guihua (City Planning Review), 1983, No.2, pp.24; and Orleans, "China's urban population ..."
- 13. For definition of urban places published in 1955, refer to State Council Legal System Bureau (ed.) Zhonghua Renmin Gongheguo fagui huibian July-December, 1955, (Collection of Legal Documents of People's Republic of China, July-December, 1955), (Beijing: Falu chubanshe, 1980), pp.409-417; for the current one, see SCPCO & SSBPSD, Zhongguo disanci renkou pucha ..., p.2.
- 14. Li Chengrui, "Zong renkou pucha gongbao kan zhongguo renkou tongji shuzi de zhunquexing" ("The Chinese population as shown by the population census Communique some comments on the accuracy of Chinese population statistics"), Jingji yanjiu (Economic Research), 1980 No.12, (December 1982), pp.35-37.
- 15. One must be particularly careful in interpreting news reports and translated materials from China regarding the terms "population of municipality," "population of city," "urban population" and the like. News reporters and translators are often not aware of the differences of these terms in their Chinese meaning in the stricter sense and thus, these terms are used interchangeably in many occasions.
- of Economics: Agricultural Economics), (Shanghai: Shaghai cishu chubanshe, 1983), pp.127-128; Kam Wing Chan, "Zhongguo nongye renkou ji dayuejin shiqi jihuang siwan renshu" (China's agricultural population and the death toll due to famines in the Great Leap Forward Period," Jiushi niandai (The Nineties), No.179, (December 1984), pp.101-103.
- 17. Discussions of these categories of people are in Ma Xia, "Guanyu zhangshixin nongye renkou liaodong wenti de tansuo" ("An exploratory study on the movement of temporary agricultural population"), Renkou yu jingji (Population and Economy), 1984, No.1, (February, 1984), pp.10-13; Nicholas Lardy, Agriculture in China's Modern Economic Development, (New York: Cambridge University Press, 1983) pp.196-197; Marc Blecher,

"Peasant labour for urban industry: temporary contract labour, urban-rural balance and class relations in a Chinese county," <u>World Development</u>, Vol.11, No.8, (August, 1983), pp.731-745; Yao Shimou and Wu Chucai, "Wuguo nongcun renkou chengshihua de yichong teshu xingshishilun woguo de yinong yicong renkou" ("A special form of urbanisation of rural population in China - a comment on the population of both workers and peasants"), <u>Dili xuebao (Acta Geographica Sinica)</u>, Vol.37, No.2 (June 1982), pp.155-162.

- 18. In some countries where urban designations may not imply non-agricultural predominance, an additional explicit criterion of economic activities may have to be introduced. See UNPD, Pattern of Urban and ..., p.9. This is not very relevant for China where most of the urban designations require meeting a criterion of non-agricultural predominance in economic activities in the designated areas.
- 19. For example, the percentage of urban labour force engaged in agriculture ranged from 11.3% to 22.8% during 1950-71 in Nicaragua, Peru, Romania and Turkey. <u>Ibid.</u>, pp.9, and 74. Most of these urban farmers are found in small and medium cities and towns.
- 20. Other studies also confirm the same point, see Alan L. Eyre, "Shanghai'- world's second city?" Professional Geographer, Vol.23, No.1, (January 1971), pp.28-30; and Norman A. Chance, China's Urban Village: Life in a Beijing Commune, (New York: Holt, Rinehart and Winston, 1984), Ch. 2. Indeed, the suburban counties are often referred to as nongcun(rural villages).
- 21. See, for example, Morris B. Ullman, Cities of Mainland China: 1953 and 1958, International Reports Series P-95, No.59, (Washington, D.C.: US Department of Commerce, 1961), p.4.
- 22. Peter G. Goheen, "Metropolitan area definition: a re-valuation of concept and statistical practice," in Larry S. Bourne (ed), Internal Structure of City, (New York: Oxford University Press, 1971), pp.47-58; and James W. Simmons and Larry S. Bourne, "Defining urban places: differing concepts of the urban system," in Bourne and Simmons (eds.), Systems of Cities: Readings on Structure, Growth, and Policy, (New York: Oxford University Press, 1978), pp.28-41.
- 23. Under this definition, which has been used in many UN studies, China's urban population becomes 167 million (22% of the nation's total) an 195 million (23%) in 1970 and 1975 respectively. UNPD, Pattern of Urban and ..., p.136.
- 24. Ministry of Domestic Affairs, Zhongguo xingzheng quhua jiance (A Handbook of Administrative Districts in China), (Beijing: Ditu chubanshe, 1982).
- 25. This programme was first initiated in the late 1950s. A renewed emphasis has been made since the early 1980s. Mingbao (Ming Pao, Hong Kong), January 1, 1983, p.5. At the end of 1981, only 56 municipalities, out of a total of 230, included one or more counties

under their administration. This number has increased to 121, out a total of 286, in 1984. <u>Dagongbao</u> (<u>Ta Kung Pao</u>, Am.Ed.), March 21, 1984, p.1.

- 26. One example one may use to illustrate this is the case of Chongqing. This municipality covered an area of 9,800 sq.km., and had a population of 6.4 million before the shiguanxian programme was implemented in April 1983. After that, however, with the inclusion of eleven counties and another small city, the total municipal area has expanded to 22,909 sq.km, and the municipal population to 13 million, being China's largest "city" by TPM. See "The nation's largest city," in Dagongbao (Am.Ed.), March 21, 1984, p.1.
- 27. This does not imply that <u>all</u> temporary and contract workers will be counted as part of the TPCT. Only those who are regular residents of urban areas will be counted.
- 28. Zhang Tingwei, "Dui chengshihua fazhan dongli de tantao" (Discussion on th driving force of urbanisation), Chengshi guihua, 1983, No.5, pp.59-60; Hu Xuwei, "Dui woguo chengzhen hua shuiping de pouxi," pp.25-26; see also footnote 17 above.
- 29. Owing to the incompleteness of enumeration, most national census figures underestimate the number of urban residents by about 5-10%.
- 30. Orleans, "China's urban population ..." pp.273-277; and J. Aird, "Population studies and population policy in China," pp.279-282.
 - 31. State Council (ed.) Fagui huibian July-December, 1955, p.413.
 - 32. Reproduced in Ibid, pp.409-417.
- 33. The 1955 urban criteria also included a provision for defining a special urban category called "urban-type residential areas" (chengshi xing juminqu), which mainly referred to sites of institutions and enterprises and their residential areas whose number of regular residents were between 1,000 and 2,000, of whom 75 percent were "non-agricultural." This type of urban settlements, however, was not considered as "towns."
- 34. See State Council (ed.) <u>Fagui huibian July-December, 1955</u>, p.413. Some of these small settlements were, instead, reclassified as "urban-type residential areas." However, they probably remained in the "urban" category.
 - 35. Hu Xuwei, "Dui woguo chengzhen hua ..." p.25.
- 36. The State Council issued a set of revised criteria for defining towns in 1964 stipulating that a "town" was a settlement (i)with a population of more than 3,000 of whom more than 70 percent were "non-agricultural," or (ii)with a population of 2,500 to 3,000 of whom more than 85 percent were "non-agricultural." See Ibid. The widely

quoted definition of urban places in <u>TJNJ 1981</u>, p.495, which only specifies (i) above represents a partial description of the criteria which have been used since 1964.

- 37. SCPCO & SSBPSD, Disanci renkou pucha ..., p.2.
- 38. Of course, there are also some "movements" between the two categories of "cities" and "towns." Towns might expand to become cities, and cities might decline to become towns.
- 39. Calculated from 1964 data reported in SCPCO & SSBPSD, Disanci renkou pucha ..., p.1.
- 40. Hu Xuwei, "Dui woguo chengzhen hua ..," p.24; and Wu Youren and Zhuang Linde, "Guanguo woguo chengshi jiaoqu fanwei de wenti" ("Questions on the boundary of urban suburbs"), in Geographical Society of China (ed), Gongye buju yu chengshi guihua (Industrial Location and City Planning), (Beijing: Kexue chubanshe, 1981), pp.144-149.
- 41. For example, see Wang Shiqing and Qi Hanbing, "Xianzhen guihua zhong jige wenti de fujian" ("Some preliminary views on planning of county towns"), Chengxiang jianshe (Urban and Rural Construction), 1983, No.7, (July, 1983), pp.6-8.
- 42. There are more than 300 county towns (xian zhen) which, though have attained condition suitable for urban designation, are still excluded from the urban category. See Li Mengbai "Woguo chengzhen fazhan de zhanwan" (Prospect of urban development in China), Chengxiang jianshe uction, 1983, No.12, (December 1983), p.17; also Hu Xuwei, "Dui woguo chengzhen hua ..."
 - 43. Li Chengrui, "Cong renkou pucha gongbao..," pp.31-32.
- 44. See the Explanatory Notes of TJNJ 1981, p.495. A recent confirmation of the above is in Hu Kaihua and Chen Wei, "Woguo chengzhen renkou tongji de youguan wenti" (Questions related to China's urban population statistics), Renkou yu jingji, 1984 No.3, (June 1984), pp.39-42 and 24.
 - 45. Li Chengrui, "Cong renkou pucha gongbao ..," pp.31-32.
- 46. Examples of the NPCT and the TPCT not being differentiated can be found in Ma Hong et al (eds.), Xiandai Zhongguo jingji shidian, p.14; and Zhang Chunyuan et al (eds.), Renkou jingjixue (Population Economics), (Beijing: Beijing daxue chubanxue, 1983), p.330.
- 47. In fact, the definition of urban population based on a <u>de jure</u> criterion is not particularly unique to the Chinese case; the same thing is found in the USSR, see Cecil Houston, "Administrative control of migration to Moscow, 1959-75," <u>The Canadian Geographer</u>, Vol.23, No.1, (Spring, 1979), pp. 32-44.

- 48. By defining the urban population on a narrower population base, the state would apparently reduce its moral, if not financial, commitment to providing rations and services to urban residents without non-agricultural household status.
- 49. Hu Xuwei, "Dui woguo chengzhen hua shuiping..," pp.23-26; Wu Yuren, "Guanyu woguo shehuizhuyi chengshihua wenti," p.96; and Zhang Tingwei, "Dui chengshihua fazhan dongli de tantao," p.59.
- 50. For example, the Shanghai's population in 1982 was reported by residence (city proper/suburan counties) instead of the conventional household classification (agricultural/non-agricultural) in Academy of Social Science, Shanghai, Shanghai jingji, (Economy of Shanghai), (Shanghai: Shanghai shehui kexueyuan chubanshe, 1983), p.1237; and SCPCO & SSBPD, 10 Percent Sampling Tabulation on the 1982 Population Census of the People's Republic of China, (Beijing: Zhongguo tongji chubanshe, 1983). There are, however, still some cases where the NPCT/non-NPCT division is used as an approximation of the urban/rural dichotonmy, particularly in social and economic surveys.
- 51. This change in the definition was made known by the statistical authorities in 1982 (see footnote 44 above) and other subsequent publications. However, a few later writers, including some citing figures from the TJNJ 1981, were still not aware of this change or incorrectly interpreted it. Examples of these include John Aird, "The preliminary results of China's 1982 Census," CQ, No.96, (December, 1983), pp.613-640; and Jowett, "The growth of China's population ...," p.156; and Orleans and Burnham, "The enigma...," p.790.
- 52. The urban population of the USA and the USSR was about 149 million (1980) and 173 million (1982), respectively. See US Bureau of Census, Statistical Abstract of the United States: 1982-83, (Washington D.C.: US Government Printing Office, 1981), p.21; and USSR State Statistical Administration, Narodnoe khoziaistvi SSSR 1922-1982: Iubileinyo statisticheskii ezhegodnik (The National Economy of the USSR: the Jubilee Statistical Yearbook), (Moskva: Finansy i Statistik, 1982), p.9.
- 53. There is another possible source of underestimating the actual urban size in the post-1964 period when compared to the pre-1964 one due to a change in the enumeration criterion in 1964 Census. Refer to discussion in Section 5.
- 54. A note of caution is necessary here. Statistics in Table 4 are based on estimates from each country and hence are subject to variability in both definition and accuracy. But in general, they are still indicative of the long-term urban trends.
- 55. Refer to discussion in Section 1. Pi-chao Chen, "Overurbanisation, rustication of urban-educated youths, and politics of rural transformation," <u>Comparative Politics</u>, Vol.4, No.3, (April 1972), pp.373-374, also cites statements indicating that the Chinese government may have hoped to stablise the urban population at 110 million during

the mid-1960s.

- 56. For example, see Reiitsu Kojima, "Shakaishugi kensetsu to toshika" (Socialist development and urbanisation), in Kojima (ed), Chugoku no toshika to noson kensetsu, pp.19-22; Laurence Ma, "Anti-urbanism in China," Proceedings of Association of American Geographers, Vol.8, (1976), pp.114-118; Charles P. Cell, "The urban-rural contradiction in the Maoist era: the pattern of deurbanisation in China," Comparative Urban Research, Vol.7, No.3, (1980), pp.48-69; Ishikawa, "China's economic growth since 1949," pp.250-251.
- 57. SSB, Zhongguo tongji nianjian 1983 (TJNJ 1983) (Statistical Yearbook of China 1983), (Beijing: Zhongguo tongji chubanshe, 1983), pp.103-105.
- 58. Li Chengrui, "Shinian neiluan qijian woguo jingji qingkuang fenxi jianlun zheyi qijian tongji shuzi de kekaoxing" (An analysis of China's economy in the ten-year-disaster period and comments on the reliability of statistics of this period"), Jingji yanyiu, 1984 No.1, (1984), pp.23-31.
- 59. Some of the minor differences in the 1950s' figures are presumbly due to the retrospective adjustments of the previous data by the SSB.
- 60. In fact, one would note on inspection of the TPCT data three sudden ups and downs of urban increase in 1955, 1960-63, and 1964. While the drop in urban growth in 1955 is likely to be mainly caused by the revision of urban criteria, and the trough of the early 1960s is definitely a result of the decline in urban increase rate and of the then massive resettlement of urban people, the precipitous increase of 13 million of urban population within one single year of 1964 is likely a statistical phenomenon. Much of this "abnormal" growth occurred in the first half of 1964, as shown in the mid-1964 figure (127.1 million). One suspects that this anomaly was caused by:
- (i) The retrospective inclusion in the 1964 Census of urban residents not counted or registered in any previous enumerations. Incomplete population registration in 1960-63 would be likely in time of massive migration. Indirect evidence of this is found in Renkou pucha qiansuo (A Brief Discussion of Population Censuses) (Beijing: Zhongguo tongi chubanshe, 1982) pp.46-47).
- (ii) The change of criterion in classifying "regular" residents. Before 1964, a migrant would be counted as part of the regular resident population of the "destination" place irrespective of his length of stay there; starting from mid-1964 (the Second Census), the new enumeration method required a migrant to have stayed in the "destination" place for at least one year to be counted as a regular resident of that "destination" place, otherwise he would still be included as one of the population of his former residence (See ibid., p.47.) The new enumeration method will shift (or delay) the effect of net migration on the urban size by one year compared to the previous method. In a situation experiencing net urban outmigration, as was in 1964, the urban population size calculated by the new method would tend to "overcount" the urban size when compared to statistics based on the previous method,

resulting in an abnormal growth.

- In a more general case of net urban inmigration, the post-1964 calculation method (see footnote above) would tend to "undercount" the urban size when compared to the pre-1964 one. Over the the long term, however, this discrepancy will diminish to insignificant level.
- This net immigration figure calculated here also includes net population gain or loss due to urban reclassification, the extent of which cannot be gauged from the existing information. The figure, however, excludes illegal and semi-legal urban inmigration, which would most probably have increased since the early 1960s.
- Based on Ansley J. Coale, Rapid Population Change in China, 63. 1952-1982, (Washington D.C.: National Academy Press, 1984), pp.28 and 69, the completeness of birth registration in China averaged about 91 percent for 1966-76 while death registration averaged about 84 percent over the same period. When applied against 1966-76 vital rates in TJNJ 1983, p.105, these figures would yield an undercounting percentage of about 8 percent in the reported/rate of natural increase for this / national مع وحديث والمسترير في المنهيم المعتصرين في الم period.

- 64. Adding six percent to the higher version of the average annual urban rate of natural increase (1.75) yields a rate of 1.86, which is still lower than the average annual growth rate of urban population (1.88).
- One also suspects that outmigration occurred mostly in large cities and inmigration in smaller urban places.
- This total includes the resettlement of 17 million urban youths 66. in the countryside through shangshan xiaxiang. The remaining 13 million include the number of relocated urban workers and intellectuals, and their families through xiafang. See Wu Youren, "Guanyu woguo shehuzhuyi chengshihua wenti," p.97. Similar evidence is found in: Feng Lanrui and Zhao Lukuan, Zhongguo chengzhen de jiuye he gongzi (Employment and Wage in Urban China), (Beijing: Renmin chubanshe, 1982), p.6; Orleans, "China's urban population..," pp.279-283; and Beijing Review, Vol.25, No.39, (September 27, 1982), p.20.
- 67. Lardy, Agriculture in China's Development, pp.196-197; and Yu Hongjun and Ning Yuemin, Chengshi dili gailun (Theories of Urban Geography), (Hefei: Anhui keji chubanshe, 1983), pp.155-156.
- Examples are: State Council, "Directive on the strict control of the flow of rural labour force into cities to work and the conversion of agricultural population into non-agricultural population," Guowuyuan gongbao, February 10,1982, pp.885-887; and ----, "Directive on the strict forbidding unhealthy tendencies in the work of recruiting and assigning state workers and staff," ibid, June 10,1982, pp.339-342.
 - State Council, "Directive on the strict forbidding unhealthy 69.

- tendencies .., " ibid, pp.339-342.
- 70. A detailed explanation of these is found in Blecher, "Peasants labour for urban industry."
- 71. <u>Ibid</u>; John Emerson, "The labour force of China 1957-80," in US Congress, China Under the Four Modernisations, Part, I, pp.224-267; Lardy, Agriculture in China's Development, pp.196-197; and Chance, China's Urban Villages, pp.51-54.
- 72. A portion of their salaries, however, has to be handed over to the production teams to which these temporary and contract workers belong. In addition to other possible benefits such as free housing and learning of skills, there is also a likelihood that they might one day be granted a regular worker (non-agricultural household) status. See Blecher, "Peasants labour for urban industry;" and Ma Xia, "Guanyu zhangshixin nongye renkou..."

73. Blecher, Ibid.

- 74. There are some close parallels here with the problem of "temporary" and "permanent" residence status in the Soviet cities and the associated statistical accounting problems. See C. Houston, "Administrative control of migration to Moscow, 1959-75," pp.32-44.
- 75. Ma Xia, "Guanyu zhangshixin nongye renkou..." and State Council, "Directive on the strict control of the flow..," Guowuyuan gongbao, February 10,1982, p.885.
- 76. This has been widely reported in Chinese media; see Feng Lanrui ad Zhao Lukuan, Zhongguo chengzhen de jiuye he gongzi, pp.6-7; and also Beijing Review, Vol.25, No.39, (September 27, 1982), p.20.
- 77. Rusticated urban youths began to legally flow back to cities since 1974 under various names, see Feng and Zhao, <u>Ibid</u>, p.7; also Thomas P. Bernstain, <u>Up to the Mountain and Down to the Villags</u>, (New Haven: Yale University Press, 1977), Ch.6.
- 78. Wu Yuren and Zhuang Linde, "Guanyu woguo chengshi jiaogu...," p.146. Natural increase was not likely the sole contributor of a rapid annual population growth rate as high as 5 percent; large part of this growth rate must be attributed to inmigration.
- 79. The definition of various urban size categories is in City Planning Regulations, Article 2, reproduced in Xinhua yuebao (New China Monthly), 1984, No.1, pp.84-86. The policy of favouring the growth of smaller settlements has been the official guidelines for locating new industries since the late 1950s. It was made as an official urban policy in 1980. See Buck, "Policies favouring the growth of smaller urban places," Laurence Ma and Edward Hanten (eds.), Urban Deveopment in China, (Boulder: Westview Press, 1981) pp.123-124; and Renmin ribao, October 16, 1980, p.1.

- 80. According to $\overline{\text{IJNJ 1981}}$, p.92, the NPC/TPC ratio for cities with NPC over one million was 0.81, and for those between 0.5 to one million, it was 0.71 (1981 end-year). The overall NPCT/TPCT ratio for all cities and towns was 0.71 in mid-1982 (computed from Table 3).
- 81. Xu Xueqiang, "Trends and changes of the urban system in China," Third World Planning Review, Vol.6, No.1 (Feruary, 1984), pp.47-59.
- 82. Fei Xiatong, "Xian chengzhen da wenti" ("Small towns, a big issue"), Liaowang(Lookout), 1984, No.2-5, (January 16-30, 1984).
 - 83. Refer to footnote 56 above.
- 84. The average annual urban population growth rates for India and Brazil between 1960-75 were 3.4 percent and 4.8 percent respectively (computed from UNPD, Patterns of Urban ..., Table 48.)
- 85. Some of these problems are discussed in John P. Emerson, "Urban school-leavers and unemployment in China," CQ, Vol.93, (March, 1983), pp.1-16; Feng Lanrui ad Zhao Lukuan, Zhongguo chengzhen de jiuye he gongzi, pp.6-7; and Feng Haohua, "Dui Qinghai yimin yu kenhuang de lishi kaocha" (A historical survey of the migration to, and opening up of Qinghai), Jingji yuanjiu, 1983, No.3 (May 1983), pp.52-57.
- 86. Of course, in certain periods like the early 1960s, the availability of surplus grain from rural areas for urban population might act as an effective constraint to the increase of urban population, see Ishikawa, "China's economic growth since 1949," p.257.
- 87. Computed from 1978-82, <u>TJNJ 1983</u>, p.103. This sudden rebound of urban growth rate was due to the return of urban people previously rusticated. This suggests that the rustication movement only delayed, rather than actually reduced, the urban population growth.

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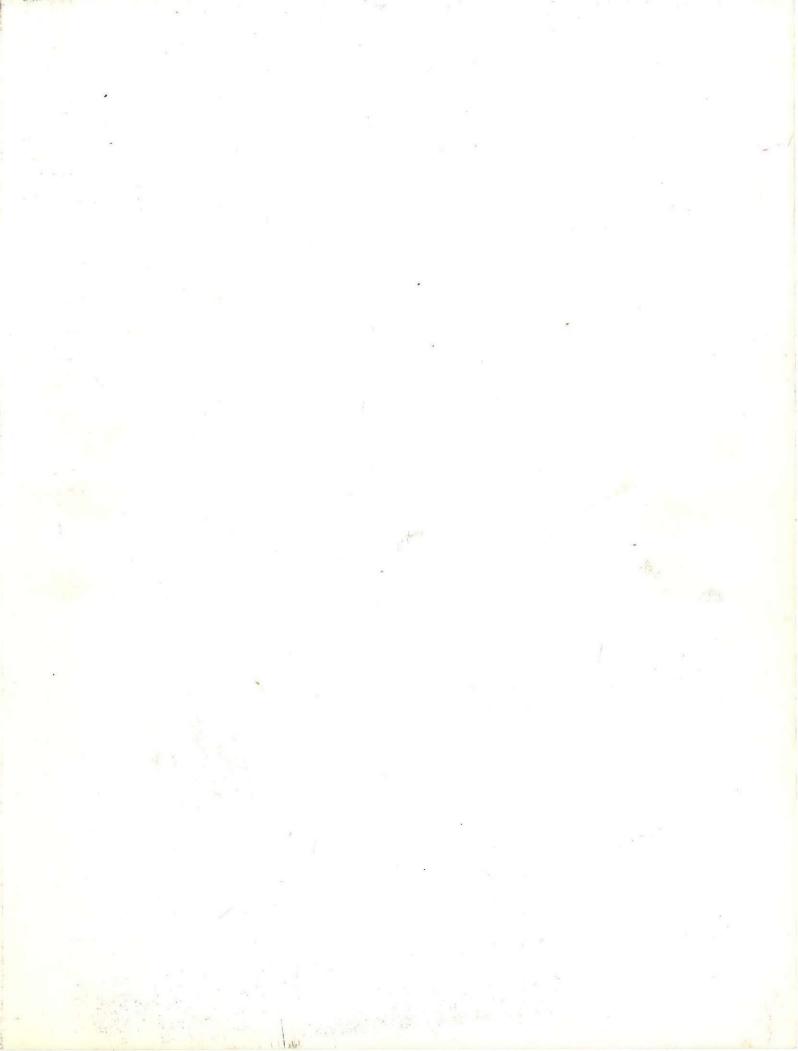
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7 A I R E

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September 24, 1986

AIDE MEMOIRE

- The World Bank Urban Services Sector Mission visited Zhejiang from August 31 to September 23 in order to review and analyze the urbanization trends and patterns in Zhejiang, the current situation in urban finance, urban planning as related to land development and housing, and the status of urban services, focussing primarily on water supply, sewerage, and tranport and traffic management. The mission visited the cities of Hangzhou, Shaoxing, Ningbo, Wenzhou, and Quzhou, and the towns of Jianqiao, Keqiao, Xikou, Baixiang, Tangxia, and Huzhen. These cities and towns covered the range of large, medium, and small urban centers and represented the major geographical locations in Zhejiang. The objective of the mission was to gain a better understanding of the key issues involved in rapid urbanization and their implications. From the experience in Zhejiang, which has been selected as a representative province where urbanization has been rapid, the sector study is expected to shed light on urbanization issues on a national level. This in turn will help the World Bank and the Chinese Government to formulate a longer term lending program for the sector. For these reasons, the World Bank believes that this sector study to be very important, and it has mobilized substantial resources for the study. The purpose of this memorandum is to express the mission's appreciation for the efforts of the Chinese government at various levels in collaborating with the World Bank study, to record its initial impressions, and to enumerate information requests that are still outstanding. The views expressed in this aide memoire are those of the mission, and are subject to further review by World Bank management.
 - 2. The Chinese Government, at various levels, has been very supportive of the Zhejiang Urban Services Sector Study. To collaborate with the World Bank study, the central, provincial, and local governments mobilized large numbers of staff, experts, and substantial resources; the various levels of government ensured that the mission had the appropriate counterparts and that its requests for information and data were adequately satisfied. Throughout the mission, despite the long hours and long distances of travel, the collaboration between the Chinese teams and the World Bank mission was cordial and friendly. Because of this, the World Bank team has achieved most of its mission objectives. This is an excellent beginning to what the mission hopes will be a long period of mutual collaboration.
 - 3. The central government was instrumental in paving the way for this sector work. The State Council authorized this sector study. The State Planning Commission assisted the mission during the planning stage, and sent a representative to Hangzhou for the provincial wrap-up meetings. A Ministry of Finance representative participated in the city and town visits and in the provincial wrap-up meetings. Experts in Beijing were also made available for discussions on local finance.

The Ministry of Urban and Rural Construction and Environmental Protection (MURCEP) sent high level representatives during the preparation mission last April/May; six representatives also participated in the mission's activities this trip. These individuals from the central ministries provided critical information on central government policies and viewpoints in the areas of urban development, finance, transport, water and sewerage, and planning issues related to land development and housing.

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of existing and future projects will be needed to ensure economic use of scarce resources. The existing level of resources are insufficient for the kind of urban infrastructure investment required. Pending further analysis, it appears that new ways and mechanisms are needed to mobilize the large financial resources required, including, perhaps, new local level taxes, domestic borrowings (through bond issues or loans), foreign borrowings, higher levels of user charges to ensure greater cost recovery in public utilities and housing, making subsidies more transparent, and encouraging more attempts at self-financing, etc. There also appears to be room for improving the yield of current taxes, and a need for reviewing the taxation schemes and their administration. The mission has looked at some project proposals prepared by the municipal governments visited, but only in a very preliminary way and in the course of sector work. After this mission, the World Bank hopes to initiate discussions with the central government ministries (State Planning Commission, Ministry of Finance, and MURCEP) regarding the location, form, and content of the two urban projects in the five-year lending program.

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 - 6. System Reform Commission

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September 24, 1986

AIDE MEMOIRE

- The World Bank Urban Services Sector Mission visited Zhejiang from August 31 to September 23 in order to review and analyze the urbanization trends and patterns in Thejiang, the current situation in urban finance, urban planning as related to land development and housing, and the status of urban services, focussing primarily on water supply, sewerage, and tranport and traffic management. The mission visited the cities of Hangzhou, Shaoxing, Ningbo, Wenzhou, and Quzhou, and the towns of Jianqiao, Keqiao, Xikou, Baixiang, Tangxia, and Huzhen. These cities and towns covered the range of large, medium, and small urban centers and represented the major geographical locations in Zhejiang. The objective of the mission was to gain a better understanding of the key issues involved in rapid urbanization and their implications. From the experience in Zhejiang, which has been selected as a representative province where urbanization has been rapid, the sector study is expected to shed light on urbanization issues on a national level. This in turn will help the World Bank and the Chinese Government to formulate a longer term lending program for the sector. For these reasons, the World Bank believes that this sector study to be very important, and it has mobilized substantial resources for the study. The purpose of this memorandum is to express the mission's appreciation for the efforts of the Chinese government at various levels in collaborating with the World Bank study, to record its initial impressions, and to enumerate information requests that are still outstanding. The views expressed in this aide memoire are those of the mission, and are subject to further review by World Bank management.
- 2. The Chinese Government, at various levels, has been very supportive of the Zhejiang Urban Services Sector Study. To collaborate with the World Bank study, the central, provincial, and local governments mobilized large numbers of staff, experts, and substantial resources; the various levels of government ensured that the mission had the appropriate counterparts and that its requests for information and data were adequately satisfied. Throughout the mission, despite the long hours and long distances of travel, the collaboration between the Chinese teams and the World Bank mission was cordial and friendly. Because of this, the World Bank team has achieved most of its mission objectives. This is an excellent beginning to what the mission hopes will be a long period of mutual collaboration.
- 3. The central government was instrumental in paving the way for this sector work. The State Council authorized this sector study. The State Planning Commission assisted the mission during the planning stage, and sent a representative to Hangzhou for the provincial wrap-up meetings. A Ministry of Finance representative participated in the city and town visits and in the provincial wrap-up meetings. Experts in Beijing were also made available for discussions on local finance.

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FOR MR. LI JIAHONG, DEPUTY DIRECTOR, CONSTRUCTION BUREAU, ZHEJIANG PROVINCE, HANGZHOU, PEOPLE'S REPUBLIC OF CHINA, COPY TO MR. WANG LIANSHENG, DIRECTOR, EXTERNAL FINANCE DEPARTMENT, MOF, BEIJING, CHINA, COPY TO MR. WANG YIPING, DIRECTOR, STATE PLANNING COMMISSION BEIJING, CHIHA, WITH COPY TO MR. EDWIN LIM, RESIDENT MISSION, BEIJING, CHINA.

RE: ZHEJIANG URBAN SERVICES SECTOR MISSION

ALPHA THANKS URTEL WHICH WE RECEIVED AUGUST 18 WELCOMING ME AND MY STAFF TO ZHEJIANG. I SHALL BE IN HANGZHOU FROM SEPTEMBER 20-24. I AM LOOKING FORWARD TO CLOSE COLLABORATION WITH YOU.

BETA FOR YOUR INFORMATION, THE SECTOR MISSION ARRIVING IN HANGZHOU AS FOLLOWS:

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- HAMER ARRIVING 31 AUGUST 1520 HRS VIA CA 504 FROM HONG KONG. 2.
- ZHANG ARRIVING 31 AUGUST 1945 HRS VIA CA 3501 FROM GUANGZHOU.
- SAE-HAU ARRIVING 1 SEPTEMBER 1520 HRS VIA CA 504 FROM HONG KONG.
- UDDIE, ACCOMPANIED BY MRS. ODDIE, ARRIVING 31 AUGUST BY TRAIN 5. FROM SHANGHAI. HE WILL NOTIFY YOU OF TRAIN NUMBER AND TIME FROM SHANGHAI.
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Messrs. Bertaud (CON), Hamer

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THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE October 9, 1986

TO Mr. Inder K. Sud, Chief, AEPUW

FROM B. Cu Kok, A.M. Hamer (AEPUW), U. Sae-Hau (AEACH),

A. Bertaud, R. Bahl, and J. Zhang (Consultants)

Manger

The Public Address of the Consultants of the Consultants

EXTENSION 61895

SUBJECT Back-to-Office Report - CHINA - Zhejiang Urban Services Sector Survey

Introduction

- In accordance with terms of reference issued August 14, 1986, a mission comprising B. Cu Kok, A.M. Hamer (AEPUW), U. Sae-Hau (AEACH), M. Oddie, A. Bertaud, D. Kneebone, R. Bahl, and J. Zhang (consultants) visited China to conduct urban sector work. The mission's objective was to use Zhejiang as a representative province for China to review and analyze the current status, issues, institutions, and policies related to: (a) urbanization trends and patterns; (b) urban planning, especially as it related to urban land development and housing; (c) provision of urban services, focusing on water supply, sewerage, and urban transport and management; and (d) municipal finance, clarifying the intergovernmental fiscal relationships below the level of the Province. Messrs. Bruestle (UNDP/RAS) and D. de Ferranti (Chief, WUDOD) joined the mission for part of the time to provide assistance on water supply and sewerage and on municipal finance, respectively. Messrs. Goering (RMC) and Sud (Chief, AEPUW) participated in the provincial wrap-up meetings in Hangzhou on September 23. Together with Mr. Sud, some members of the mission visited Beijing September 24-28 and briefed the central ministries (Ministry of Finance, Ministry of Urban and Rural Construction and Environmental Protection, and State Planning Commission) about the findings of the mission and future lending program. The mission members also discussed with representatives of the System Reform Commission, the China Academy of Social Sciences, and the China Urban Science Society the preliminary results of the mission as well as possible collaboration in future sector work. Mr. Pearce (Acting Chief, RMC) and Ms. Ogawa (AEACH) also participated in the wrap-up meetings with the central ministries and in the discussions on future lending program.
- 2. Mr. Cu Kok began work in Beijing on August 28, and the full mission arrived in Hangzhou on August 31. Mr. Cu Kok coordinated the mission's work. The mission was divided into five teams as follows: Messrs. Hamer and Sae-Hau worked on urbanization issues and demographic projections; Mr. Bertaud worked on urban planning issues related to land and housing; Messrs. Bruestle and Oddie concentrated on water supply and sewerage and Mr. Kneebone on urban transport issues; and Messrs. Bahl, de Ferranti, and Zhang studied municipal finance. The mission worked in Zhejiang September 1-23, and visited the cities of Hangzhou, Shaoxing,

Ningbo, Wenzhou, and Quzhou, and the towns of Jianqiao, Keqiao, Xikou, Baixiang, Tangxia, and Huzhen. The Chinese counterparts at the provincial level were organized into the Zhejiang Provincial Sector Study office with four teams: urban development (including planning); urban finance; water supply and sewerage; and urban transport. In each of the cities, municipal officials were also organized into four corresponding teams, and in each of the towns, the mission's teams were able to conduct discussions with appropriate officials on each of the four major topics of population trends, planning, finance, and infrastructure (focusing on water supply, waste water disposal, and transport). A partial list of the Chinese officials met during the mission is appended as Annex 1 and the mission's aide memoire (expressing thanks and detailing outstanding information requests) is appended as Annex 2.

3. The mission was able to accomplish the tasks it outlined for itself in the initiating memorandum dated August 11, 1986. The following praragraphs summarize the mission's preliminary findings and outline the main topics to be addressed in the sector report. These findings will need to be further refined and modified after a thorough analysis of information collected during the mission and upon the receipt of data outstanding.

Preliminary Findings and Topics to be Covered in Sector Report

Urbanization Trends and Patterns. One of the first tasks confronting the mission was to clarify the definition of "urban." In China, the concept of "urban" has undergone a number of changes, due both to adjustments in the administrative boundaries of cities and towns and in the definition of what constituted a town. Concepts such as "the City" (shi) includes the "City Proper" (shiqu) and the counties under the administration of the City (shixiaxian). The "City Proper" includes "the built-up area" (jianchengqu) and its suburbs (jiaoqu). Just as there is confusion regarding what constitutes the "urban area," there is also confusion as to what constitutes the "urban population." The official Chinese definition of urban population includes all residents in cities and towns as administratively defined (chengzhen renkou). However, using this definition overestimates the size of the urban population, since outside of the built-up areas of the cities, the population is typically rural or semi-rural. On the other hand, if one uses the "non-agricultural population" (fei nongye renkou) as a proxy one would underestimate the size of the urban population. In previous years, the nonagricultural population in the cities and towns constituted those with official urban household registration. These were the ones entitled to official grain subsidies and corresponded almost exactly to the urban population. But with the advent of market economy, there are increasingly large numbers of people living in cities and towns who may retain their agricultural population (nongye renkou) status, receive no grain subsidies, but live almost indefinitely in the cities, with or without temporary registration. The mission, after some study, decided that the most meaningful concept of "urban" for purposes of discussing urbanization issues would be the "built-up areas" of cities and towns, and the "urban population" would be those living

 $[\]frac{1}{2}$ Annexes 1 and 2 are retained in the files, they are available upon request.

permanently in these built-up areas, whether they have permanent urban household registration, temporary registration, or without any registration at all.

- Using these definitions, the mission found that all cities and towns it visited have been growing since 1980. Based on information provided, preliminary analysis indicates that the "permanent" populations of the built-up areas of cities have grown at 3-6% p.a., and towns have been growing at 5-8% p.a. The "temporary" residents of these cities and towns have grown to be very significant in the last 5-6 years, and now constitute about 10-20% of the population in these urban areas. While the official government policy remains to "strictly control the size of large cities, rationally control the size of medium cities, and vigorously encourage the growth of small cities and towns", the policy seems to be applied only in the case of official changes in household registration. In actuality, there appears to be little concerted effort to control the movement of population into urban centers regardless of size. Businessmen, tradesmen, and household labor appear to be able to move into cities with relative ease, so long as they take responsibility for securing housing and food. With the liberalization of urban and rural economies, these problems are increasingly easy to resolve. At the same time, jobs in the tertiary sector have become more readily available for "temporary" migrants to the urban areas. Typically, these "temporaries" are able to find lodgings either on construction sites, with their employers, or are able to find lodgings with relatives or in hostels or rented rooms.
- 6. The mission also found that growth trends of the recent past are likely in the foreseeable future. While precise projections of future urban population of individual cities and towns would be difficult, given the absorptive capacities and growth prospects of different cities, the mission would be able to delineate different scenarios of urbanization. As Zhejiang hopes to more than quadruple output during the period 1986-2000, it is likely that its urbanization would be more rapid than that of China as a whole. It is quite likely that Zhejiang's total urban population would increase by 50% over the period 1986-2000, implying an annual growth rate of about 3% p.a. Such rapid urbanization raises major challenges: (a) additional land needs to be brought into urban use, provided with infrastructure for significant additional housing, industry, and other uses; (b) there is a need to expand urban services (water supply, waste disposal, and urban transport of particular importance for urban growth) both to meet existing backlogs and to serve needs created by additional population growth; (c) additional resources on a continuous basis will be needed at the local level for major investments in urban infrastructure and services and in operations and maintenance, implying a great effort at resource mobilization at the local level and cost recovery from major services; and (d) finally, the issue of "temporary residents'" requires careful review. They are often left out of the urban planning process; as they are unlikely to return to the rural areas, ignoring them could create serious anomolies and problems for the future.

- The urbanization section of the sector study will: (a) analyze the various concepts of "urban" and demonstrate why the mission's choice is the most relevant in discussing urbanization issues; (b) analyze the past urbanization patterns and trends in Zhejiang, focusing particularly on the five cities and six towns visited by the mission; (c) examine the effects of recent liberalization of the urban and rural economies on urbanization; and (d) project probable urbanization levels in Zhejiang for 1990 and 2000, using different assumptions regarding migration, employment, and demographics. In the process, the report will examine the Government's official and de facto policies on urbanization and the feasibility of continuing with administrative controls on city size in view of Zhejiang's and China's economic growth objectives and policies. The likely themes of this chapter will be: (a) that urban inmigration controls based on administrative means (while theoretically feasible and possible under the present system) are incompatible with China's macroeconomic growth objectives; (b) that rapid urbanization is inevitable; and (c) that a more rational approach would be to plan for rapid increase in the supply of serviced land and housing, and to make possible the mobilization of the resources required to meet these needs.
- Urban Planning and Housing. The mission found that urban planning systems currently in place cannot deal effectively and efficiently with the problems expected during rapid urbanization. In the cities, the present planning process is rather rigid and crude, with many unintended and undesirable side effects. Although theoretically the towns are also expected to adhere to the same system of urban planning, they in fact follow a pragmatic "grassroots" approach which is more appropriate to the needs generated by rapid urban expansion. In the cities, much more emphasis is placed on fulfilling production quotas (for example, floor space and water supply capacity) and on control (for example, zoning and distances between buildings) than on efficiently managing land and capital resources and maintenance of assets. Distribution indicators are almost never used to monitor the fulfillment of objectives. The use of land is uniformly priced in the cities, although there are significant variations in the compensation cost of land at various locations. The cost of infrastructure and locational advantages are not reflected in the land price, thus resulting in often irrational land use patterns. In some towns visited, the variation in land use price is much greater, and reflects locational and infrastructural differences.
- 9. The approaches used by the cities can be expected to contribute to major urban sprawl and uneconomic land use over the next several years: (a) discrete road, housing, and industrial estate projects are planned without considering how these would fit into a longer term urban development strategy; (b) land development and housing projects generate an unanticipated need for a major expansion of urban services, especially given the large differences in service standards between existing and new areas; (c) land use in new developments is often quite inefficient since cities use criteria prescribed from Beijing and applied locally without examining economic or local land use considerations; (d) since cities have no mechanisms for recovering costs of trunk

infrastructure in small, incremental projects, they tend to plan only large projects outside of existing urban areas as this is the only way they can recover cost of infrastructure through the price they charge to enterprises or individual purchasers; (e) the cumulative maintenance implications of replacing existing low-rise housing with new serviced apartments are often not considered during planning; (f) increasing disparities in access to housing are apparent, while the process of planning concentrates only on floor area completed rather than the number of units completed or their size distribution. If land requirements continue to follow recent trends, the built-up areas in most cities in Zhejiang Province will be three times their present size by 2000; some towns will quadruple in size. Such an expansion will imply a rapid increase in the demand for urban services. In Shaoxing, for example, the water consumption and domestic effluents in the city's waterways and canals will be five times their current levels. The street and open areas to be maintained by the city will be four and a half times what it is today. If the city succeeds in its objectives to widen roads and to reduce the population density, more than 70% of its existing housing stock will be demolished, despite an explicit historic preservation objective.

- 10. The approach in the towns has been much more pragmatic. Privately developed housing plays a key role in shelter planning. Most infrastructure has also been financed by the users themselves. As a result, standards of density, floor space, and construction of these are very reasonable and economical in terms of land use. Their expansion is much more incremental and integrated with existing infrastructure. The cities should be encouraged to follow this approach.
- The urban planning chapter of the sector report will: (a) examine and discuss the present practices in land use planning and point out, through specific illustrations, the resulting inefficiencies; (b) project tentatively the need for urban land in the future and see how it can be accommodated both through more efficient use of existing areas and through the development of new areas; and (c) discuss how land pricing can affect land use planning. For housing, the report will: (a) analyze the existing approach and quantify its implications in terms of cost, affordability, and overal resource requirements to meet the Government's targets; and (b) using specific examples, develop a strategy which emphasizes a combination of more affordable standards, preservation and upgrading of existing stock, and better cost recovery. The implications of the current Chinese thinking on liberalizing housing ownership will also be considered. The analysis will also show the trade-offs between location, housing standards, and infrastructure costs. The likely themes of this chapter will be that more flexible, incremental, and appropriate approaches to urban planning, for both serviced land development and housing should be followed, and that greater use of market mechanisms (including a possible land use fee or tax, and the use of more sharply differentiating costs and standards) should be encouraged.

- Water Supply and Sewerage. The mission found that the cities 12. of Zhejiang are relatively well-off in terms of water resources. population coverage in cities range in the 90-95% range for Hangzhou and Ningbo, dropping to 85% in Shaoxing and 70% in Wenzhou. Most water companies appeared to be efficient and well-run. The main problem in water supply appears to be the lack of sufficient developed water supply facilities in all cities to meet their current and future needs. Also, the existing distribution network is old and needs to be repaired or replaced. Lack of adequate investments in the past has resulted in these problems. In the past, most of the investments in water supply have come from the cities themselves, and given their limited financial resources, this has resulted often in ad hoc investments rather than in systematic programs for improving the water supply situation. Given the rapidly growing urban populations in all cities and towns, increasing per capita consumption of water because of the conversion from bucket latrines to flush toilets, and the increasing demands of industry, there is a need to develop longer term master plans for physical and financial planning. All the cities visited have prepared proposals for projects to meet their immediate and short-term needs; some cities have plans to meet their needs to the year 2000. In general, the proposals appeared to be reasonably well-prepared. If need be, further preparation work can be expedited for a possible water supply project in Zhejiang.
- 13. Zhejiang is fortunate in having water resources that can be exploited at a reasonable cost. Adequate supplies are available to provide water for all the cities visited. However, longer term plans cannot be implemented due to a shortage of funds. Since grant funds will always be limited, consideration needs to be given to developing a sustained source of loan funds from which cities can borrow for water supply projects which meet technical, financial, and economic criteria. Also, consideration needs to be given to allowing water companies to recover a greater proportion of their costs, including not only operations and maintenance, but also a proportion of their capital expansion needs. The development of such a fund and the institutionalization of such appraisal capabilities could form the justification for a water supply project for Zhejiang, which could also be a model for the rest of urban China.
- 14. The cities which the mission visited also need to expand their sewerage systems. Again, the Province is fortunate in that, most cities are located near bodies of water with sufficient assimilative capacity to absorb the current and expected future loads. The building of interceptors to channel the waste water to the nearest river or sea is thus considered the preferred solution, rather than the building of costly treatment plants. Non-construction methods of controlling sewerage discharges, and the control of point sources of discharge, especially the effluents of the Quzhou Petrochemical Complex, would also need to be considered.
- 15. <u>Urban Transport</u>. The mission found that during the last five years there has been a serious deterioration in the traffic situation in most cities visited. This has been caused by a dramatic increase in

both bicycles and motor vehicles. The main problem has been the conflict between the bicycles and motor vehicles. In most cities, the speed of public transport has declined markedly; buses now travel at speeds no faster than bicycles, and during rush hours, transit moves at walking speeds. This means that more buses are now needed to carry the same numbers of persons as before. In addition, the quality of buses has visibly declined because of use beyond their normal reasonable life. Low bus fares, which haven't changed in years, have been the principal cause of deterioration. Road safety has also deteriorated in most cities. Accidents per 10,000 population now varies from 4 to 7 per annum. There are also serious conflicts between inter-city traffic and local traffic. Among the cities the mission visited, Hangzhou has by far the worst problems.

- There are serious obstacles to dealing with the traffic 16. problem. Most of Zhejiang's cities are "walled cities" with very narrow road widths; road space is as small as 3-4% of their built-up areas, as compared with about 8% for Shanghai, and 10-15% in cities in more developed countries. Road widening in Zhejiang cities is essential if the traffic situation is to be improved. However, this will require the demolition of a large number of houses along the roads to be widened; this will be costly and will add further to housing shortages. Such road widening projects will have to be considered in the overall context of urban planning mentioned earlier, to make sure that current road networks are utilized efficiently before the decision is made to go ahead with physical widening. In the past, there has been a serious underinvestment in new roads, although all cities have undertaken very limited amounts of road construction. This is typical of the lack of investment in cities in the past 35 years. The urban planning processes mentioned earlier, which has considered the location of residential projects separately from industrial projects, have contributed to making work trip distances long.
- 17. Traffic management, which should emphasize the separation of bicycles from motor vehicles, is very important. Separate roadways for bicycles, pedestrian lanes, one-way streets, reversible lanes, area restrictions, etc. are all needed. Investments in traffic signals and automatic controls so that such signals would be synchronized are also needed. However, traffic management measures can only become effective if coupled with investments in road widening, rationalization of road networks within the cities, and investment in ring roads around cities to accommodate inter-city traffic. There is also an urgent need to develop rational traffic regulations and to educate the public through education campaigns, followed by strict enforcement. Combined with the traffic engineering measures discussed above, a systematic program of replacement, augmentation, and maintenance of public transport needs to be considered. This must also be combined with a program of raising fares from time to time.
- 18. The urban infrastructure and services chapter of the sector report will: (a) describe and analyze the status of each of the services (water supply, sewerage, and transport) and assess their

adequacy in serving current needs; (b) review the policies and institution related to the provision of these services, including an examination of their sources of funding, organization and management, tariff policies, key regulations; (c) estimate the order of magnitude of investments required; (d) analyze the feasibility of preliminary project proposals submitted to the mission and (f) provide recommendations for short and medium term to improve the coordination among different agencies and their effectiveness in the provision of these key urban services. The likely themes in this chapter will be that: (a) there has been a serious underinvestment in infrastructure and services in the past so that these are currently unable to satisfy present demands; (b) with increasing rapid urbanization, the demands on these infrastructure and services would be even greater; (c) there should be longer term programs for investment in infrastructure and services; (d) consideration needs to be given to making these services much more self-reliant financially, including greater use of cost recovery and of loan funds from which cities may be able to borrow; and (e) stronger institutions for the operation and management of these infrastructure and services are needed.

- 19. Municipal Finance. The system of urban public finance in Zhejiang operates under the following division of responsibility and authority. The central government is responsible for all tax policy and it alone determines the rate and base of each tax. The provincial government determines how revenues will be shared among local governments in the Province. The municipal government is responsible, with a minimum of supervision, for assessing and collecting virtually all taxes. Taxes are collected at the lowest level and "shared up" with the province. The province then "shares up" a predetermined percent of revenues with the center. Zhejiang turns over 45% of all revenues collected in the province. Since the provincial government has no substantial service delivery responsibility, it distributes the remaining revenues as grants and subsidies among its local governments.
- The system gives municipal governments very little financing 20. choices. There is no local autonomy on the financing side and very little on the expenditure side. All tax rates and bases are centrally determined; budgeted expenditure levels are capped by "target" amounts provided by the Province; and public employment levels and compensation rates are set by the Center. User charges can be adjusted within limits by local governments, but once determined, can be revised only with the greatest difficulty. In Hangzhou, for example, water charges have not changed in the last 30 years. With few exceptions, the tax systems look alost identical from one city to the next. Capital expenditures are financed mostly through ad hoc allocations from general revenues of local governments and grants from higher levels. Borrowing is rare, and there is very little evidence of the use of self-financing schemes. There is presently no legally sanctioned mechanism to call on local area resources to finance a project with local area benefits (although in some cities and towns, experiments are being undertaken by local governments to finance capital projects with local benefits from levies on local beneficiaries).

- Municipal governments receive tax revenues from three major sources: profits tax, sales tax, and user charges. The profits tax appears to be rather cumbersome, and consists of the following elements: (a) a basic 55% rate (or a graduated rate schedule for smaller firms); (b) an adjustment (or excess profits) tax rate of 0-30%; (c) a 15% central government tax on retained earnings; (d) a 10% tax on any capital construction from retained earnings; and (e) a graduated tax rate applied to "excess" wage bonuses paid from retained earnings. The revenues from the profits tax and the adjustment tax are shared between the province and the municipality; roughly, the city receives an amount equivalent to what it received under the remittance system in 1983 plus 70% of any increase above that amount. The Municipality keeps about half of the wage bonus tax but the capital construction tax is turned over to the Province and the retained earnings tax to the center. There are three types of sales tax: (a) a gross receipts (turnover) tax levied on a wide range of product at a great number of tax rates (ranging from 3 to 70%); (b) a value added tax on selected sector of the economy (with rates between 6-25%); and (c) a gross sales tax on services (with rates between 3-5%). Municipal governments receive little revenue from the sales taxes; between 90-95% in the increase in collections over the previous year goes to the province, as does an amount equivalent to the previous year's collections. The tax equivalent to 7% of total sales tax liability, known as the "Urban Maintenance and Construction Tax", accrues entirely to the Municipality. This tax, earmarked for urban maintenance and construction, is the chief source of funds for municipalities for urban construction and maintenance. It is important to emphasize, however, that the Provincial government can and does alter these sharing percentages to favor some local governments more than others.
- If urban governments are to generate substantially larger re-22. sources for investments in infrastructure and services, they need to be given more resources. There are several ways to do this. One is to give municipalities more autonomy in revenue raising and in the use of resources. The current system gives local governments no authority to levy taxes independently, change user rates, borrow, or undertake selffinancing schemes. One possibility, now under discussion, is to authorize municipal governments to levy specific local taxes, perhaps a land use tax. However, this is a relatively costly tax to administer, and should be studied further. Other ways to increase local revenues are to impose local option surcharges to existing taxes, with the proceeds accruing to the local governments; to change the tax sharing arrangements, allowing local governments to keep a larger percentage of collections; or to reassign particular taxes exclusively to municipal, provincial, or central levels. Still another way to mobilize financing for local infrastructure is develop a mechanism for local government borrowing. There may be quite adequate repayment potential for certain long-lived municipal projects, especially if repayment is made directly from project beneficiaries, e.g. users of toll roads, of a water supply company, of a gas company, etc. Finally, greater emphasis should be placed on generating at least a share of investment financing from user charges. Although it is generally the policy that users must pay for

services, actual performance varies considerably. As already noted, user charges, once fixed, are often not revised regularly (as they should) to cover increases in costs or to generate funds for future investments.

- Tax administration could potentially be an important public 23. finance problem. The tax system itself is new and complicated, is almost entirely self-assessed, requires extensive book audit, and is presently done on a manual basis in Zhejiang's cities. The municipal governments seem to have relatively free hand in carrying out the tax administration function. The mission made a rough, preliminary estimate that municipalities retain about one-third of what they collect. Since their primary objects of taxation are profits and sales of their own enterprises, the municipalities might be expected to be less than fully motivated to aggressively push for improved administration. As the balance of economic activity shifts toward the harder to tax collectives and private businesses, an even more significant amount of taxes could go uncollected. While it seems intuitively clear that such problems would exist with administration, provincial and local authorities steadfastly refused to engage in any discussion about problems of tax administration. They pointed to a sense of duty on the part of taxpayers, the severe panalties meted out to tax offenders, and to an adequate, well-trained staff of assessors and collectors. The feeling was entirely different at the center, where tax administration is seen as a major problem. Although China has recently instituted a modern system of profit tax and sales tax, local government assessment and collection capabilities may not yet have caught up. This is a very complex area and it needs early attention if the gains from reform are to be fully realized.
- 24. The sector report will: (a) describe and analyze the present system of municipal finance and intergovernmental relationships in Zhejiang; (b) describe and analyze the sources of revenues and their magnitudes; (c) analyze expenditure levels and trends for urban infrastructure and services. Information regarding the growth and structure of municipal revenues and expenditures has been requested but has not yet been fully provided; the descriptive analysis will probably be affected by these data limitations. Nevertheless, with the information on hand, the report will sketch out some of the key issues in municipal finance that need to be resolved if municipalities are to be able to finance the infrastructure and services implied by rapid urbanization. For some of the issues, particularly that of tax administration, impressionistic discussion will be possible, but given the reluctance of local and provincial governments to provide information or discuss the issue, it will not be possible to provide an analytical basis for some of the statements. The report will also attempt to sketch out alternative ways of enhancing the capability of municipal governments to mobilize resources to meet their own investment requirements. This last section will be particularly helpful to central authorities in their attempts to consider tax reforms. The likely theme of the chapter would be that local governments should be given more flexibility and financing autonomy.

Proposed Timing

25. The proposed timetable, which is unchanged from that proposed in the initiating memorandum, for the sector report is as follows:

White Cover December 15, 1986
Yellow Cover January 15, 1987
Green Cover April 15, 1987
Discussion with Government May 15, 1987
Grey Cover June 15, 1987

cc: Messrs. Yenal (AENVP); Karcher, Turnham, Zincir (AEPDR);
Linn (AEADR); Costa (2) (WUD); Levy, Byrd (AEACH); Lim,
Pearce, Goering, Veniard, Khanna (RMC); Sud, Huang,
Fernandez (AEPUW)

Ms. Ogawa, Wallich (AEACH)

Regional Information Center; Mission participants: Messrs. Hamer (AEPUW); de Ferranti (WUDOD); Sae-Hau (AEACH); J. Zhang, Oddie, Kneebone, Bahl, Bertaud (Consultants); Bruestle (UNDP/RAS)

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MASTER OF SOCIAL SCIENCES

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A postgraduate programme in urban studies is offered by the Centre of Urban Studies and Urban Planning, leading to the degree of Master of Social Sciences in Urban Studies awarded through the Faculty of Social Sciences.

In line with similar Master's programmes elsewhere, the M.Soc.Sc. in Urban Studies programme is professionally oriented so that there is potential for graduates' career development. The programme aims at training graduates for the public in policy research, analysis, planning and management; and to have multidisciplinary understanding and ability to coordinate and work with other urban specialists.

The objective is to understand the social, economic, political and cultural aspects of urbanization so that graduates can analyse future social trends, design policies, guide development and manage social programmes. Graduates will also learn methods and techniques which are used by urban professionals.

ENTRY REQUIREMENTS slubsdat sali-sass

The admission requirements for the M.Soc.Sc. in Urban IS Studies programme are: a Bachelor's degree with honours of the University of Hong Kong, or an equivalent qualification from another university or comparable institution.

A qualifying examination may be set for selected applicants.

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The full-time curriculum extends over one academic year, and the part-time curriculum over two academic years on a day-release basis. There will be a minimum of 300 hours of prescribed work.

Both the full-time and part-time programmes will be offered in 1986-87.

CURRICULUM CONTENT

The schedules for the 1-year full-time programme and the 2-year part-time programme are shown below:

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HIRBAN STUDIES CORE COURSES AND ADDITIONAL PROPERTY HARRING

Students are required to take all Core Courses: blooms among the state of the state

Theories of Urban Development: Economic and Spatial Aspects

This course explores the economic and spatial components of urban development by reviewing the relevant theories. Topics examined include relationship of industrialization and urbanization, internal and external relationship, economic functions of the cities, role of land and transport, and nature of urban growth.

SERCIAL EXACTORS INDUSTRY AND TRADE

Theories of Urban Development: Political Economy and Socio-Spatial Aspects in the puriod by a middle discovering state

This course examines contributions to the social and political analysis of spatial development with particular reference to urbanisation. Though it pays some attention to 'classical' contributions, including the ecological tradition, it concentrates particularly on the 'new' urban theory. The issues that will be discussed include:— the relation between capital accumulation and urban development; the role of the state and public policy; social conflict and urban change; the dynamics of urbanisation in the contemporary world-system.

Methods of Urban Analysis I amazana in molisalayan bas

This course examines statistical, qualitative and computer methods relevant to urban analysis. It will cover the fundamentals of descriptive, inferential, and multivariate statistics and qualitative research techniques: survey, sampling, hypothesis testing, time series, regression analysis, cluster and factor analysis, epistomology and ethnographic methods.

Methods of Urban Analysis II we and asplants serves and

This course examines the analytical models and management techniques commonly used to assist decision making in the urban field and will focus on some selective models and techniques: population estimation, social and spatial analysis, economic base and multiplier analysis, optimization methods, system simulation and dynamics, project appraisal and planning, programme evaluation, urban and regional modelling and urban policy analysis.

URBAN STUDIES SPECIALIZATION COURSES CARROLD AND RELIGITE MARKET

(Not all specialization courses are available each year. Applicants should consult the Centre for further information.)

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SPECIALIZATION: INDUSTRY AND TRADE

Industrial and Trade Development of ansangalaysa and an

This course addresses the wider context within which urban and regional development problems and policies are formed. It examines industrialization strategies in less developed and developed market economies and in centrally planned economies, contrasting the variety of state activity both within and between different socioeconomic systems. It then traces the spatial ramifications of industrial and trade policy on Third World countries and cities in general and Hong Kong in particular.

Seminar on Industrial and Trade Development

Topics to be addressed will deal with the urban application of the following subjects: the effects of international investment on spatial structure; the interrelation between changing social structure, industrial organization and economic growth; structure and regulation of international trade; government intervention in economic development; the changing international division of labour; migration, and employment generation; technology transfer; spatial ramifications of nonspatial policy decisions.

SPECIALIZATION: HOUSING AND COMMUNITY DEVELOPMENT

Housing Policy and Management

This course examines the problems, policies, finance and management of housing. It will focus on: nature of the housing problem, demand and supply of housing, typology of housing, the social, economic, political and cultural aspects of housing, slums and squatter housing, housing policies, housing allocation, and housing management in both private and public sectors.

Community Development againstiq bas Isabeiggs Joseph

This course examines the issues, strategies, and process of community development. It focuses on the problems in communities, community organizations, citizen participation in community development, community revitalization and economic development in urban neighbourhoods.

and regional modelling and urban policy analysis

Community Services and Facilities and made of asimuse falses?

This course examines the organization, management, and delivery of urban services. Topics to be concentrated on will be selected from the following: environmental hygiene and public health; food hygiene; market and hawker control; sports and cultural facilities; urban services such as utilities, drainage and sewage.

Seminar on Urban Services and Facilities

Seminar topics to be addressed will be selected from the following: environmental hygiene and public health; food hygiene; market and hawker control; sports and cultural facilities; urban services such as utilities, drainage and sewage.

SPECIALIZATION: SOCIAL POLICY AND ADMINISTRATION
(Given in the Department of Social Work)

Social Policy Issues in Hong Kong Holdward They oldebros and

This course examines the kinds of social policy issues in Hong Kong and factors contributing to them. Case studies on some aspects of social services provision will be made. Overall examination and discussion of policy-issues will then be generated and deduced.

Area A: First Part: case studies on aspects of social service provision system e.g. education/labour/medical/welfare/housing will be made to examine their development and constraints and to identify some policy issues.

Area B: Second Part: Those policy-issues being identified will be analysed by looking at the following: economics of social services; politics of social services; social and cultural dimension and implication of social services.

Comparative Social Administration in Asia

This course studies the influences of metropolitan and cosmopolitan social policy models and patterns of administration upon selected Asian countries, and develops an analytical and comparative approach to their evaluation, including the selection of a few particular social services for cross-country examination.

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1986-87 HK S4,800 HK S2,400

SPECIAL STUDIES

Special Studies in Urban Studies I & II

Each course is for students who wish to pursue research in a particular area or an in-depth examination of a single problem in urban studies. Individual students will work under the supervision of a member of the teaching staff. The subject of study, and arrangements for supervision, should be approved by the Director prior to registration.

Seminar on Urban Services and Facilities

Examinations. All courses are half-year courses. An examination is held in each course at the end of the teaching of the course.

Dissertation. A student must participate in prescribed dissertation seminars and is required to satisfy the examiners in a dissertation on an approved topic related to his chosen specialization. The dissertation, of not more than 15,000 words, shall be presented not later than four months after the end of the academic year in which the teaching programme ends.

CLASSES thank to general contributing to them gast in services on some aspects of social services on some aspects of social services.

Teaching will be by means of lectures, tutorials, seminars and field studies. The teaching schedule per week for the parttime programme will be about 3 half working days and/or evenings. Students will be expected to complete set assignments.

FACILITIES Silver State Face: Those policy-lasues being

Facilities available to full-time and part-time students include the Library, sport facilities, the University Health Service, and student amenity areas.

The Centre of Urban Studies and Urban Planning is on 2nd floor, Knowles Building. Lectures will be held in classrooms in the University's main estate, but the Centre has its own seminar room and studio.

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The annual composition fees for the academic year 1986-87 are:

Full-time students Part-time students

1986-87

HK\$4,800

HK\$2,400

In addition, students are required to pay Caution Money (\$200, refundable on graduation subject to no claims being made) and Graduation Fee (\$200).

Financial assistance is available to local full-time students on application to the Joint Committee on Student Finance.

APPLICATION FOR ADMISSION

Application for admission to the M.Soc.Sc. in Urban Studies programme should be made on the prescribed form, available at the Information Bureau (Main Building), or the Centre of Urban Studies and Urban Planning; or by post through written request made to the Registrar together with a self-addressed, stamped envelope. Completed application forms should be returned to the Registrar, University of Hong Kong no later than April 15, 1986.

Selected applicants will be interviewed, and results are expected to be promulgated by late July 1986.

MASTER OF SCIENCE DESCRIPTION OF SCIENCE (URBAN PLANNING)

A postgraduate programme in urban planning is offered by the Centre of Urban Studies and Urban Planning, leading to the degree of Master of Science in Urban Planning awarded through the Faculty of Architecture.

In line with similar Master's programmes elsewhere, the M.Sc. (Urban Planning) is professionally oriented so that there is potential for graduates' career development. The programme aims at training graduates for the public and private sectors. Graduates are expected to be part of an urban planning professional team in developing land and land-related projects, and to have multi-disciplinary understanding and ability to coordinate and work with other urban specialists.

The objective is to concentrate on land development and physical planning, with emphasis on the available techniques and measures of achieving objectives. Students will also be introduced to relevant concepts and techniques drawn from other disciplines such as economics, political science and sociology.

ENTRY REQUIREMENTS

The admission requirements for the M.Sc. (Urban Planning) programme are: a Bachelor's degree with honours of the University of Hong Kong, or an equivalent qualification from another university or comparable institution.

A qualifying examination may be set for selected applicants.

DURATION OF THE PROGRAMME

The full-time curriculum extends over two academic years, and the part-time curriculum over three academic years on a day-release basis, with a minimum of 300 hours of prescribed work.

Both the full-time and part-time programmes will be $% \left(1\right) =1$ offered in 1986-87.

CURRICULUM CONTENT

The schedules for the 2-year full-time programme and the 3-year part-time programme are shown below:

Full-time Schedule

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Part-time Schedule

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URBAN PLANNING CORE COURSES

Students are required to take all Core Courses:

Theories of Urban Development: Economic and Spatial Aspects

This course explores the economic and spatial components of urban development by reviewing the relevant theories. Topics examined include relationship of industrialization and urbanization, internal and external relationship, economic functions of the cities, role of land and transport, and nature of urban growth.

Theories of Urban Development: Political Economy and Socio-Spatial Aspects

This course examines contributions to the social and political analysis of spatial development with particular reference to urbanisation. Though it pays some attention to 'classical' contributions, including the ecological tradition, it concentrates particularly on the 'new' urban theory. The issues that will be discussed include:— the relation between capital accumulation and urban development; the role of the state and public policy; social conflict and urban change; the dynamics of urbanisation in the contemporary world-system.

Methods of Urban Analysis I readland wrategas bed at notice load to

This course examines statistical, qualitative and computer methods relevant to urban analysis. It will cover the fundamentals of descriptive, inferential, and multivariate statistics and qualitative research techniques: survey, sampling, hypothesis testing, time series, regression analysis, cluster and factor analysis, epistomology and ethnographic methods.

Methods of Urban Analysis II

This course examines the analytical models and management techniques commonly used to assist decision making in the urban field and will focus on some selective models and techniques: population estimation, social and spatial analysis, economic base and multiplier analysis, optimization methods, system simulation and dynamics, project appraisal and planning, programme evaluation, urban and regional modelling and urban policy analysis.

Planning Theories

This course examines the theories of urban planning in Western countries. It focuses on the theories of planning, budgeting and management, social relationships in planning, planning approaches and processes, role and legitimacy goal formation, evolution of planning practice and planning education, planning organization and administration.

Planning Practice and Administration in Hong Kong

This course provides a detailed understanding of the professional planning practice in Hong Kong. It deals with the practical dimensions of planning including: planning principles, history, policies, strategies, procedures, administration, legislations and common law.

transport, and nature of urban grown

Urbanization in Contemporary China and salasalasd as assessed as

This course reviews the urbanization pattern and its developmental context in People's Republic of China. Subjects discussed include evolution of urban development, population and human capital, agricultural and industrial policies, rural urbanization and development of urban system, regional and spatial development.

Urbanization in Contemporary Southeast Asia vient and it a shortse

This course offers lectures and seminars on topics related to the urbanization, urban policies, and development planning of southeast Asia, in particular, the ASEAN. Session discussions include an overview of the demographic situation and national development, urbanization and urban development, rural development urban functions, problems of underdevelopment, problems of urbanization, mobility and circulation, internal migration, urban policies, growth strategies, policy monitoring, policy evaluation, and comparative studies of urbanization.

URBAN PLANNING SPECIALIZATION COURSES
(Not all specialization courses are available each year. Applicants should consult the Centre for further information.)

SPECIALIZATION: PHYSICAL PLANNING

Urban Land Use Planning

This course examines the nature and functions of urban land use planning: role of planning; operation of planning system; land use theory and planning; transportation and land use; land inventory system; land use and suitability analysis: locational requirement and planning standards; land use plan formulation and evaluation; and plan implementation and land use guidance system.

Physical Planning and Urban Form

This course examines the nature and functions physical planning and its relationship to urban form and will cover: educational, professional and theoretical constraints of urban design neighbourhood planning; urban redevelopment and conservation; new town planning; urban-ecosystems, culture, land use and urban form; urban morphology; site and infrastructure development; and high density development.

SPECIALIZATION: TRANSPORT PLANNING DEVELOPED LANGUAGE MOITASLIANDES

Methods and Techniques in Transport Planning and Ismolass

This course focusses on the transport planning process and examines the following: traffic generation forecasts; spatial patterns of traffic; modal split models; traffic assignment methods; transport evaluation; network and local planning; traffic engineering considerations and basic transport economics.

Transport Policy galiable estallog has embldang

This course focusses on key issues in transport policy and the implementation of transport plans and programmes. It examines the role of private and public modes within the overall urban transport system as well as pedestrian movement planning, airport development and seaport development. The course uses examples drawn from various countries to evaluate the appropriateness and effectiveness of alternative policies and implementation mechanisms. mabbus thus completes

SPECIALIZATION: ENVIRONMENT AND ENERGY TAXIDATES DELINATE MARRIE

Environmental Aspects of Urban Planning

This course examines the relationship between environmental management problems and the urban planning process. It examines linkages between ecosystems and planning activities; the sources and nature of air, water, land and noise pollution; waste disposal problems; the use of environmental standards and approaches to environmental regulation and control; industry and the environment; institutional structures for environmental policy making; the use of environmental impact assessment methods.

Energy Policy and Land Use Planning

This course explores the links between the design and implementation of energy policy and the operation of the land use planning system. The following topics are covered: energy sources and resources - coal, oil, natural gas, nuclear energy, renewable energy; energy supply/demand relationships and forecasting; frameworks for national energy planning; industrial demand for energy; energy and transport; energy and urban form; technology assessment of energy systems; risk and hazard assessment.

SPECIALIZATION: REGIONAL DEVELOPMENT AND TRANSPORT SHOUTH STILL SERVE

Regional Development Planning

In largely rural Third World societies, regional development planning is a necessary context from which to view both rapid urbanization and the stresses of incorporation of 'backward areas' into the modern world. This course utilizes the theories and techniques of regional science to analyze the interrelationships between cities and their hinterlands, dealing with problems and policies affecting rural-urban relations and national urbanization strategies.

Seminar on Regional Development Planning

Topics to be addressed will be selected from the following areas: rural development planning; internal migration; urban labour markets and employment generation; rural-urban conflict; regional industrialization strategies; industrial location and the interregional division of labour; diffusion paradigm; and, sudden shift analysis.

SPECIALIZATION: RECREATION AND TOURISM

Recreation state services to enter the services and the product

This course will examine the economic, social, cultural, political and special significance of recreation as well as the planning problems and opportunities associated with them. Topics discussed will include work and leisure, recreation planning, provision of cultural and sports facilities.

Tourism Tourism bas and of the saldslive solution

This course will review the developmental and social effects of tourism and the associated planning problems and opportunities. It will engage topics such as theories of leisure, tourism planning, conservation of rural and urban areas, preservation of physical structure, economics and impact of tourism particularly in developing countries.

SPECIAL STUDIES

Special Studies in Urban Planning I & II | 1000000 | Indian and I

Each course is for students who wish to pursue research in a particular area or an in-depth examination of a single problem in urban planning. Individual students will work under the supervision of a member of the teaching staff. The subject of study, and arrangements for supervision, should be approved by the Director prior to registration.

URBAN PLANNING REQUIRED WORKSHOPS

Urban Planning Workshop I & IIva at sontables Islananta

Physical planning projects by teams in studio; project work simulating real practical situations; meeting and discussion with planning professionals and communities; application of techniques and methods; communication and presentation techniques; analysis of planning practice, individual planning report of no more than 7,500 words.

Examinations. All courses are half-year courses. An examination is held in each course at the end of the teaching of the course.

Workshop Report. In the final year, students are required to participate in the Urban Planning Workshops, and to present for examination in the final year a Workshop Report of not more than 7,500 words.

MIRECTOR: BLASS SALE HEAR SHOW ON SEALS COMMENTED

Kwok, R.Y.W., M.S.Arch., M.S.U.P., Ph.D. (Col.), Dip.Arch. (Lond. Poly.), Dip.T.S. (A.A.), R.I.B.A., H.K.I.A.

ASSISTANT DIRECTOR:

Hills, P.R., B.A. (Lond.), M.A. (York), Ph.D. (Aston)

TEACHING STAFF: .d. 48 (11120M) .A.M (gnsynth) .A.M . .H.J .gns

Centre of Urban Studies and Urban Planning

- Fong, P.K.W., B.S.Sc. (C.U.H.K.), M.U.P., Ph.D. (N.Y.), M.B.I.M., M.R.A.P.I., A.I.C.P., H.K.I.P.
- Yeh, A.G.O., B.A. (H.K.), M.Sc. (A.I.T.), M.R.P., Ph.D. (Syracuse), M.I.Env.Sc., M.R.A.P.I., H.K.I.P.

Staff Jointly Appointed in the Centre and in Other Departments

- Cuthbert, A.R., M.Sc., Dip.Arch., Dip.T.P. (Edin.Coll. of Art), R.I.B.A., M.R.T.P.I., H.K.I.P. (Centre and Department of Architecture)
- Henderson, J.W., B.Soc.Sc., M.Soc.Sc. (Birm.) (Centre and Department of Sociology)
- Ying, K.P.H., B.S. (Houston), M.A., Ph.D. (Ohio State) (Centre and Department of Geography and Geology)

APPOINTED FELLOWS:

- Arn, J.A.F., B.A. (Sask and W. Ont.), M.A., Ph.D. (Tor.) (Department of Political Science)
- Bolton, K.R., B.A. (Kent), M.Sc. (Edin.) (Department of English Studies and Comparative Literature)
- Clark, D.J., B.A.LL.B. (Otago), D.Phil. (Oxon), Barrister and Socilitor of the Supreme Court of New Zealand (Department of Political Science)
- Chow, N.W.S., B.A., Ph.D. (H.K.), M.A. (Manc.), Dip.Soc.St.
- (H.K.) (Department of Social Work)
 Ganesan, S., B.Sc. (Sri Lanka), M.Eng. (Tokyo), Ph.D. (Lond.), C.Eng., M.I.C.E. (Department of Architecture)
- Grant, J.S., A.B. (Brown), A.M. (Wash.), C.Phil. (Calif.) (Department of History)
- Hau, T.D.K., B.A. (Stan.), M.A., Ph.D. (Calif.) (Department of Economics)
- Irwing, R.T.A., B.A., Ph.D. (Sheff.) (Department of Geography and Geology)
- Leung, W.T., B.A., M.Phil. (H.K.) (Department of Geography & Geology)
- Luke, K.K., B.A. (H.K.), M.Phil. (York) (Department of English Studies and Comparative Literature)

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MacPherson, K.L., B.A., M.A., Ph.D. (N.Y. State) (Department of
     History)
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Martin, R.M., B.A., LL.B., M.U.R.P. (Adel.) (Department of Law) Newton, J., M.A. (Cantab.), M.Sc. (Lond.) (Department of Management Studies)

Pearson, V.J., B.Sc. (Wales), M.Sc. (Brist.) (Department of Social Work)

Postiglione, G.A., B.S. (N.Y. State), Ph.D. (N.Y.) (Department of Education)

Skeldon, R., B.Sc. (Glas.), M.A., Ph.D. (Tor.), F.R.G.S.. F.A.G.S. (Department of Geography and Geology)

Wang, L.H., B.A. (Nanyang), M.A. (McGill), Ph.D. (Tor.), F.I.S., M.C.I.T., (A.)S.I.P. (Department of Geography and Geology)

Chan, N.K., Hon.D.Tech. (Lough.), F.I.H.K.E., F.I.C.E., F.I.H.E., J.P.

(H.K.), Dip.Civic Design (Liverpool), Chau, C.S., B.Arch. F.R.T.P.I., J.P.

Edwards, J.O., F.I.H.M., M.R.S.H. Ford, D.R., M.V.O., O.B.E., J.P. desaged person and production

Hayes, J.W., M.A., Ph.D., (Lond.), J.P.

Ho, E.P., C.B.E., B.A. (H.K.), J.P.

Leeds, P.F., A.C.I.S., F.C.I.T., J.P.

Liao, D.P.H., C.B.E., B.Arch. (H.K.), Dip.Landscape Design (Durh.), F.H.K.I.A., F.I.H., J.P.
MacPherson, I.F.C., O.B.E., M.A. (Oxon), J.P.

McLean, A.A., M.A. (Edin.), M.A., Ph.D. (Mich.)

Pang, Y.L., I.S.O., B.Arch. (H.K.), M.Arch. (Melb.), F.H.K.I.A., F.R.A.I.A., R.I.B.A., A.C.I.Arb., J.P.

Pryor, E.G., B.A., Dip.T.P. (Auckland), Ph.D. (H.K.), M.N.Z.P.I., H.K.I.P.

Pun, K.S., M.A., Ph.D. (H.K.), M.T.C.P. (Syd.), M.R.T.P.I., F.B.I.M., F.H.K.I.P.

Reed, S.B., B.Sc., Ph.D. (Leeds), F.IGas.E., F.Inst.E., M.I.O.A., M.I.S.W.M., C.Eng.

Shaw, J.C., B.A. (Cantab.), Dip.T.P. (Regent Street Polytechnic), M.R.T.P.I., M.H.K.I.P.

Tam, P.Y., B.A. (H.K.), M.R.T.P.I., H.K.I.P.

Todd, J.R., C.V.O., B.Sc. (Durh.), J.P. Wiggham, E.B., M.A. (Oxon), J.P.

RESEARCH OFFICER:

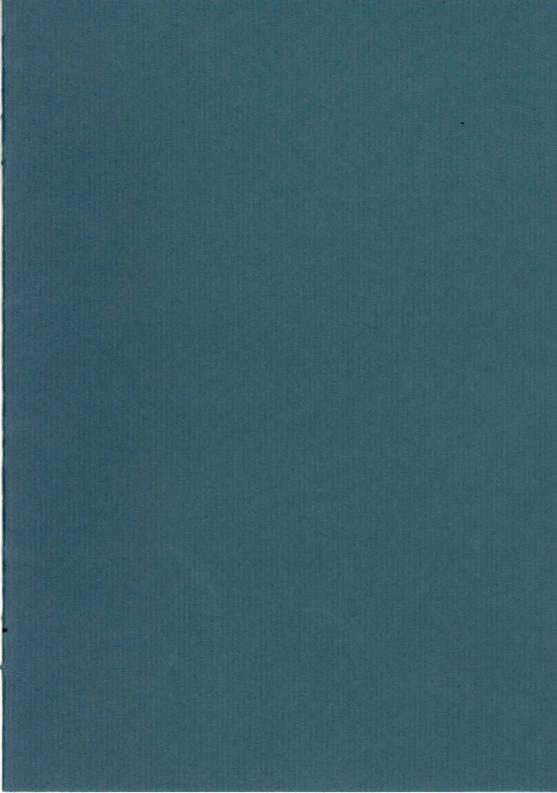
Choi, P.L.Y., B.A. (McGill), M.A. (Nott.), M.R.T.P.I.

EXECUTIVE OFFICER:

Keddie, P.A., B.A. (Trent)

FURTHER INFORMATION

Further information on the programmes may be obtained from the Director, Centre of Urban Studies and Urban Planning, University of Hong Kong, Pokfulam Road, Hong Kong (telephone: 5-8592721-7).



FORM NO. 75 (6-83) THE WORLD BANK/IFC

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Mr. Li Jiahong
Deputy Director
Construction Bureau
Zhejiang Province
Hangzhou
People's Republic of China

Dear Mr. Li Jiahong,

Re: Zhejiang Urban Services Sector Study

- 1. During the past two months, we have been busy preparing for the forthcoming mission to Zhejiang. In the process of "digesting" the information which you and your staff so generously provided the Bank's preparation mission last spring, and in the process of formulating our plans for the sector report, we have come across some bits of information which we would like to seek your assistance in clarifying. These questions are in addition to the information requests which we submitted to you earlier (in my letter of June 13), and to which we have not yet received any answers. Now that the sector mission has been officially confirmed, it would be most helpful if you could submit the information requested in this and the previous letter before our arrival in Zhejiang for the main mission. It would save a lot of time, and we could have more opportunity to digest the information submitted.
- 2. For this round, we would like to receive information on the size of the population with "temporary household registration" in each city in Zhejiang and for those towns that are located in the counties under each city's administration. Could we get the most recent available statistics (e.g. year end 1985)? During the mission, we would also like to have meetings with the Civil Administration Bureau or the Public Security Bureau representatives to discuss their methods of tracking temporary household registrants and how they control illegal urban migrants.
- In addition, we are attaching in Annex 1 information requests that will allow us to understand Zhejiang's macroeconomic, population, and employment projections for the seventh five-year plan period and for the year 2000. We would appreciate receiving Zhejiang's employment projections/targets for Zhejiang by rural and urban categories and by sectoral distribution, along with methodology used. We would also like to have and understand the basis for your population projections.
- 4. Finally, in our June 13 letter, we have sent you the mission composition and the mission's proposed itinerary. We would like to request that you reply at the earliest opportunity whether the proposed itinerary

is suitable and if not, what modifications need to be made. I hope that you will let us know as soon as possible the names of the small towns near the cities of Hangzhou, Shaoxing, and Ningbo, Wenzhou, and Quzhou that the mission proposes to visit. If possible, we would like you to provide background information on these towns, so that mission members would be able to enter immediately into detailed questions without too much time spent on "brief introductions". We would also like your comments on the logistics of transportation between Ningbo and Wenzhou, between Wenzhou and Quzhou, and between Quzhou and Hangzhou, and whether the province would be able to provide the four translators as requested in my June 13 letter for the various teams of the mission.

For your information, the Bank has recently concluded lending program discussions with the central government agencies, and as a result of those discussions, we are planning for two urban projects in the seventh five-year plan period (1986-90). While the location of these two projects are yet to be determined, we are hoping that one of them would be in Zhejiang, either an urban project encompassing several subsectors in one or two cities, or an urban project encompassing one or two subsectors in many cities. Following the sector mission, the Bank will discuss the scope of possible urban projects with the central ministries.

6. We hope to hear from you soon, both in reply to this and to our June 13 letter.

With very best regards.

Sincerely yours,

Inder K. Sud
Chief
Urban and Water Supply
Projects Department
East Asia and Pacific Regional Office

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Mr. Edwin Lim, Chief World Bank Resident Mission Beijing, People's Republic of China

List of Information Requests

We would appreciate receiving the following information for use in understanding the macroeconomic and demographic projections for Zhejiang Province:

1. The 1982 census 100 percent tabulation for Zhejiang Province in whatever detail is published, to include sex-age structure, births and deaths by age and sex, by categories of city, town, and rural population. Please state whether or not temporary residents are included in the figures. We would prefer that the figures are estimated according to definitions used in the 1982 census, in which temporary residents who have lived in an area for one year or more were counted as part of the population in the area. Data may be given in absolute numbers. Five-year age intervals are strongly preferred, but if this is not available, the age intervals must not be greater than ten years. Please provide us with the information according to the following format:

Age Group	Ci	ty	Tow	m	Rur	al
	Male	Female	Male	Female	Male	Female
0-4						
5-9						
10-14						
. •						
•						
•						
50-64						
65-69						

- 2. Details on migration. We would appreciate receiving information on permanent migration (in absolute numbers) to Zhejiang's urban areas by origin and destination for cities and towns for yearend 1984 and 1985, separately, using the following categories:
 - (a) from outside of Zhejiang to Zhejiang's towns

70-74

76+

(b) from outside of Zhejiang to Zhejiang's cities

- (c) from Zhejiang's rural areas to Zhejiang's towns
- (d) from Zhejiang's rural areas to Zhejiang's cities
- (e) from Zhejiang's towns to Zhejiang's cities
- (f) from Zhejiang's towns to outside of Zhejiang
- (g) from Zhejiang's towns to Zhejiang's rural areas
- (h) from Zhejiang's cities to outside of Zhejiang
- (i) from Zhejiang's cities to Zhejiang's rural areas

For 1985 information, we would like, in addition, to have the following information: who is migrating (by age bracket - e.g. 0-14, 15-29, 30-44, 45-64, 65+, by sex, with or without family, and broad categories of work, such as industry, agriculture, or services). Provincial headquarters of the public security bureau should have some of this information.

- 4. Please use the same format as item 3 above for "temporary" migration in Zhejiang.
- 5. Employment projections (or targets) in similar format as Annex 2C in the June 13, 1986 letter to Mr. Li Jiahong for cities (using 1985 boundaries) and towns, disaggregated into the 10 economic categories as per format in tables p. III-53 of the 1986 Zhejiang Economic Statistics Yearbook. Please give figures for the seventh-five year plan and for the year 2000.

NOTES ON MUNICIPAL FINANCE IN ZHEJIANG PROVINCE, CHINA FROM A SECTOR STUDY PREPARATION MISSION APRIL 1986

David M. de Ferranti '

PREFACE

These notes are based on a very brief introductory visit to Zhejiang province in April 1986. The mission had only six working days in Zhejiang, followed by a week in Beijing. Much of the time in Zhejiang was taken up by discussions concerning arrangements for the follow-up sector study mission planned for later in 1986. The translators provided had extremely limited English; little documentation was available; and hour after hour of lengthy formal speeches had been scheduled leaving little time for data collection and questioning. One cannot presume in such circumstances to have achieved any notable breakthroughs in understanding a complex subject in a complex country. The purpose of the observations here is thus simply to summarize what was learned, as an assist to the full sector study mission to follow. There undoubtedly will be many points that the follow-up work will correct or amend.

The notes are organized in sections as follows:

- The role of municipal governments in the overall administrative structure of Zhejiang province
- The organization of municipal governments

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•	Revenue	sources

- taxes
- user fees
- revenue from enterprises
- transfers from the provincial and central governments
- Expenditures
- ° Budgeting and financial management
- Problems and strategies
- ° Miscellaneous
- $^{\circ}$ Annex A: The administrative structure of Zhejiang Province

THE ROLE OF MUNICIPAL GOVERNMENTS IN THE OVERALL ADMINISTRATIVE STRUCTURE OF ZHEJIANG PROVINCE

Zhejiang is one of China's 29 provinces, located in the eastern, central part of the country near the sea coast and only ____ kms. from Shanghai. It has a population of 40 million, 4% of the national figure.

The mission focused mainly on two of Zhejiang's cities: Hangzhou, the provincial capital, and Shaoxing. There are a total of eleven places officially designated as cities in Zhejiang, and over 500 towns. Many of the towns have over 50,000 residents [check] and a few are rapidly approaching city status. The situation in towns and in the nine cities not visited was discussed only at a very general level.

As elsewhere in China, Zhejiang's administrative subdivisions, which include prefectures, "provincial level cities", counties, "county level cities", townships (formerly "communes"), towns, and villages (formerly "brigades"), are linked to one another in a well-defined hierarchical pyramid under the provincial government itself. Within cities, distinctions are made between the "urban district", the "built up area" within the urban district, and the "suburbs". Also within the jurisdiction of each city are a number of counties, largely rural, that surround the urban district. Further details on the administrative structure of the province and its cities are described in Annex A.

Each city and town has its own semi-autonomous government, supervised by the next higher level authority in the hierarchy. The functions of these municipal governments are considerably broader than in many other countries.

Besides the usual functions of providing basic services and infrastructure, municipal governments are responsible for overseeing the state-owned enterprises in their locality, other than those specifically designated as provincial or central government enterprises. They also regulate many aspects

of the non-state-owned enterprises within their boundaries, including both the collectives and the individually owned retail shops and street vendors; often they own and staff numerous collectives. In addition, municipal governments are in charge of controlling land use, land development, and transfers of land use rights from one occupant to another. All land is still owned by the state in China, and in cities the municipal governments serve as "the state" in controlling land. They also are the principal entity in housing construction, rehabilitation, and maintenance, although enterprises and private individuals also play important roles in expanding the housing supply. Finally, municipal governments serve as tax collector for the provincial and central governments, funneling tax revenues from the enterprises upward; concomitantly they channel grants and loans downward from above, directing investment funds to priority development projects.

The list of functions and the ways that municipal authorities carry them out have been undergoing rapid transition recently, spurred in part by the 1984 reform that introduced a tax system to replace previous requirements under which enterprises submitted their entire net revenue to the government. Although municipal authorities still are active in planning and monitoring local commercial and industrial development generally, they appear to be headed toward reduced involvement in the operations of enterprises individually. The chief areas of involvement currently are collecting taxes, selecting top officials of enterprises, responding to requests for special investment project funds, starting new collectives and overseeing ones they own, and reviewing the expansion plans of enterprises for effects on land use, pollution, employment, and utilization of municipal services (water, etc.).

[Check]

In talks with a variety of small, non-state-owned enterprises (repair shops, retail grocery store collectives, street stall vendors, and the like), the authors found that the perception by enterprise and collective operators of their relationship to the municipal government is not unlike that encountered in other countries; one hears a typical amount of non-specific grumbling about how high the taxes are that "they" impose on "us". Municipal government staff indicated that this view is characteristic of all but the largest enterprises, which are more closely linked with city officials.

ORGANIZATIONAL STRUCTURE OF MUNICIPAL GOVERNMENT

Municipal governments in Zhejiang consist of (i) central bureaus;

(ii) service enterprises, which provide urban services (water, bus transport, housing, etc.); (iii) the other state-owned enterprises assigned to the municipality, which produce ordinary goods and services; and (iv) some additional enterprises that, though technically "collectives" rather than state-owned, 1/ are in fact owned and supervised by the municipality.

In practice, when city officials talk about their government, they mean the central bureaus and service enterprises, or frequently just the central bureaus. An organization chart for the city of Hangzhou is attached [translate and redo chart from city staff].

Among the central bureaus, the Urban and Rural Construction

Commission plays a key oversight and coordinating role. The Financial and Tax

Bureau, also reporting directly to the mayor, keeps the budget and collects

taxes and other revenue.

The distinction between state-owned and not state-owned in this case was explained to the author as, first, state-owned enterprises would have controlled prices and, second, they would have guaranteed access to raw materials.

The collectives that are owned and supervised by the municipality have recently become much more numerous, according to one source. Some towns and cities reputedly are actively engaged in setting up and staffing new such collectives. They provide the funds and building, while the individuals recruited to run the operation just do the work. The author spoke with staff of several such collectives. One, a specialty equipment shop, had only two employees and had been in existence only six months.

The interest of the municipal authorities in this "local government entrepreneurship" is twofold. First, they see it as a source of more municipal revenue; because they "own" each operation, they can take a larger share of the net profit, if they like, than if the entity were independent and therefore under the tax system for conventional collectives. Second, it is a means to creating jobs needed for the expanding number of workers in the cities and towns.

There are many points about these municipally owned collectives that bear further looking into. One question is whether the net result is simply to proliferate many small, inherently inefficient enterprises.

REVENUE SOURCES

Zhejiang's municipal governments get their revenue from four types of sources: taxes, user fees, remittances by certain enterprises of their net profits, and transfers from the two higher levels of government, provincial and central.

Taxes

The specific taxes collected by the municipalities are listed and described in Table 1.

Some taxes are reserved exclusively for the municipality. In the case of others, a proportion is sent on to the provincial government, which in turn sends on a part to the central government. About two-thirds of the total tax revenue collected at the municipal level is passed up to the higher levels, reflecting the local officials' role as tax collector for provincial and central authorities. The only entities that municipal governments do not collect the taxes of, within their boundaries, are the state-owned enterprises assigned to the provincial or central government.

The revenue from all taxes collected locally is recorded in a single pooled account, without -- initially at least -- distinguishing between the shares due to each governmental level. Then the local share is determined and the balance is transmitted to the province.

This practice makes it necessary in the description here to first talk about the tax take overall and then the local portion.

The Tax Take Overall. The first four taxes listed in Table 1 form the backbone of China's current system of generating state revenue, replacing the pre-1984 arrangements. They account for about 90% of the total tax revenue collected by Hangzhou city, and about two-thirds of its revenue from all sources. For Shaoxing city, similar percentages were found.1/

There are still quite a few data gaps to be resolved on these figures, for both cities. See Table 3.

TAXES COLLECTED BY MUNICIPAL GOVERNMENTS IN SHEJIANG PROVINCE

S ex	Who Page ? 1/	What Retell
Production Tax	All enterprises classified as engaged in primary production, excluding agriculture.	Enterprise pays a percent of its gross value of entput. The percentage rate varies greatly by industry. For coal production, it is now about 5X; for eigenstes it is about 50K.
Value Added Tax	All enterprises classified as angaged in intermediate production.	Enterprise pays a percent of gross value added.
Operating Tax	All enterprises classified as engaged in production for final consumption, including conservial, transport, construction, and service activities. ————————————————————————————————————	Enterprise pays a percent of gross income. Butes wary, from as low as 2% to about 30%.
Industrial and Commercial Tex (ICT) 3/	All enterprises, except small non- state-owned shops and wendors.	Enterprise pays a percent of its profit, or net revenue. Bute is now 55%.
Urben Construction and Maintenance Tax (UCMT)	All enterprises.	Enterprise page a percent of the amount it page for the Production Tax, Value Added Tax, or Operating Tax. For officially designated cities, this rate is 7%. For officially designated towns, it is 5%. For other places, it is 1%. In essence, the UCMT is a surcharge on the basic tax that enterprises page on their gross revenue.
Surcharge on the ICT	All payers of the ICT.	Enterprise page 1% of the amount it page for the MCT.
Surcharge on the fees that users pay for urban services (unter, electricity, transport, telephone, etc.). 4/	The enterprises that provide the services subject to the surcharge. Indirectly, the users.	Enterprise pays a percent of its gross revenue from user fees. Bute is usually 8 to 10%; 10% is the maximum permitted by the central government.
Thex on Agriculture 5/	buseholds and c liectives engaged in mising crops or livestock.	Payee pays a small percent, surrently about 2%, of income.
Tax on Baployee Bonus es	All enterprises, in years that they pay bonuses to employees for good performance.	For bonuses up to the equivalent of four months of the employee's salary, no to is due. Above that amount, the enterprise pays a percent of the bonus in tax. The percentage rate increases with the amount of the bonus.
Miscellaneous other taxes	Enterprises, in various special circumstances.	There is a tax on salt in some places, a tax (fine) on late payment of taxes, and a "contracts procedure tax". Lass than 1% of the total revenue collected comes from these sources. The city of Hangshou, with its large tourist trade, collects a 10% tax on
		hotel charges.

^{1/} All taxes apply to both state-owned and non-state-owned enterprises, except as noted.

^{2/} In principle, every enterprise (excluding agriculture) page either the 'roduction Tax, Value Added Tax, or Operating Tax, but not the other two. The classification of industries as either primary, intermediate, or final is according to a standard planning taxonomy used in Onina.

^{3/} Associated with this profits tax is an "Adjustment Tax", due to expire next year. The Adjustment Tax was introduced to ease the transition from the old system, under which state—owned enterprises resitted all of their profits to the government, to the new tax-based system, of which the cornerstone is the ICT profits tax.

^{4/} Municipalities difer as to which services are included.

^{5/} Even in the "urban districts" of Zhejiang's cities, there is some agriculture.

The Urban Construction and Maintenance Tax (UCMT) is reserved for the municipality and earmarked expressly for development and upkeep on urban infrastructure and services, excluding social services like education and health. The revenue obtained by all municipalities in Zhejiang province in 1985 from the UCMT was Y1.31 billion, accounting for about a third of their total revenue net of amounts transmitted to higher levels. [Check: This figure is derived from the provincial staff's "brief introduction".]

The surcharges on the Industrial and Commercial Tax and on user fees contribute another Y36 million. Other taxes generate comparatively minor sums of revenue.

All terms and particulars of all taxes, including who pays and what the tax rates are, are determined by higher level authorities, leaving the municipalities little autonomy for selecting and fine-tuning tax policies and instruments.

The Municipality's Share of the Total Take. Besides the Urban

Construction and Maintenance Tax, municipal governments are entitled to keep

all of the revenue from the surcharges on the Industrial and Commercial Tax

and on user fees. In most cases, the surcharges, like the UCMT, are earmarked

for infrastructure and services.

In addition, the municipality is permitted to retain a designated percent of the revenue from all other taxes combined. According to one source, the percent limit is now 22% in some parts of Zhejiang. [Need more on this.]

Overall, the municipal share of the total take in Hangzhou and Shaoxing in 1985 was:

- ° 31% for Hangzhou as a whole, and 27% for its Urban District; and
- $^{\circ}$ 38% for Shaoxing as a whole, and 35% for its Urban District. $\frac{1}{}$

Many municipal authorities argue strongly that they desperately need increased revenues to meet their current and anticipated future requirements. They find the present tax policy arrangements, with everything of importance decided from above, to be confining. They therefore have begun to seek other ways to increase their revenues. One way that is sometimes cited is to promote local economic growth generally. Another is to start more municipally owned collectives, as described above. This latter practice appears to have been spreading rapidly in the last few years.

What thus seems to be happening is that the constraints imposed from above on local tax options are forcing localities into other initiatives, the full implications of which are not yet clear -- and need to be examined thoroughly.

These figures were estimated by the author from the data provided, and need to be checked carefully. The estimates are based on taking the municipality's total expenditure as an estimate of its retained revenue, and comparing that figure to the reported total revenue. This approach would need to be modified if the municipality has some retained revenue that it doesn't spend.

User Fees

Most municipal services have some kind of fee, but its level is very low relative to the full cost of the service supplied. The main user fees charged in Hangzhou city are listed and described in Table 2. Rents for housing units owned and managed by the municipalities recover only a small fraction of the total cost including depreciation and interest. One source stated that on average nationwide, rents would have to be increased by fifteen times their current level in order to cover the total cost. Understandably, therefore, government deliberations about adjusting housing rents upward assume that any such changes would need to be gradual and combined with wage level reforms.

In addition to the municipally owned and managed housing, many enterprises provide housing for employees and their dependents. Enterprises work out their own arrangements about rents, which typically are as low or lower than in municipal housing. At least in this case, though, the municipality does not have to provide continuing subsidies to cover the maintenance and eventual replacement cost.

There is not yet any explicit fee for land use in Zhejiang. Rents do not include a land-related factor. Experts in Beijing recognize that a land use charge is needed, and legislation to implement one is now before the State Council of the central government. The content of this legislation is being held in close secrecy at the moment. Various experts acknowledged, however, that certain proposals have been aired that would tie land use charges to the type of use (residential, heavy or light industrial, etc.), the location, and the size and quality of the improvements. Experimental application of land use charges is going on now in four cities officially and many others less

PEES CHARGED FOR MENICIPAL SERVICES IN HANGEDU CITY, ZHEJIANG PROVINCE

<u> </u>	Description B	tent of Cost Recovery from Users
How log pent $\underline{\mathcal{V}}$	Depends on quality and size of housing unit. "Typical" rate is preportedly about W0.20 per square meter per month. 2 For a "typical" unit of 8 square meters per person, a household at that rate would pay less than 4% of its income or rent [Oneck].	Wery low. In one project, 2/ fees apparently cover 20% of building maintenance costs, implying a much smaller fraction of total costs.
Land use charge 3/	Not yet implemented, and no rate set for next year.	None
Meter	W0.10 per ton (1,000 liters). All buildings are reportedly metered, but not individual housing units.	95-100% of the operating costs of the city's water supply enterprise are supposedly recovered from users in an average year.
Ome (for heating, ecolcing)	YO.25 per kilogram	More than two thirds, but less than 95% of the operating costs of the city's gas supply enterprise are supposedly recovered in an average year.
Electricity	W0.165 per MSFL. All buildings are metered.	Not available this visit. Have to go see the electricity enterprise, which is a central government entity.
Bus transport 5/	Depends on distance. Minimum fare is YO.05.	95-100% of the operating costs of the city's bus transport enterprise are supposedly recovered in an average year.
Realth care —	Patient pays TO.20 for initial visit and YO.10 for follow-up visit. Patient pays no extra charges for special services or impatient accommodation [Check] However, the enterprise at which the patient works is charged for a "substantial" fraction of the health care cost.	
Education 6/	Y7 per term for primary school. Y10 per term for middle school. Higher levels are at no charge.	Not evailable this visit. Have to go see the education bures 1.
Efficient discharge feem !	The larger enterprises pay according to the quantity of water-borne pollutants discharged. Above a nationally set standard, there is an additional surcharge.	y Wesy Low
Mis cellaneous connection and installation fees	Enterprises are sometimes charged fees for costs borne by the city on their account for construction of infrastructure (roads, parking areas, site surveys, water hook-ups). [Further details needed, not available this visit.]	

Por housing owned and managed by the municipality. Housing provided by enterprises is different, and subject to various other payment arrangements determined by the enterprises themselves.

^{2/} At one municipal housing block visited, there was an additional "cleaning fee" of Y0.10 per month. The average cost of maintaining the units was said to be Y1.50 per square meter per month, or five times the total amount Y0.20 plus 0.10) being collected from the occupants.

^{3/} There seems to be a great deal of confusion about when and if this recently proposed charge will ever come into effect, who will pay it, and whether it will be combined with housing rent. Legislation on land charges is now before the State Council of the central government.

^{4/} However, a form of land-related charge does exist that is not now labeled as such. When a municipality "sells" newly constructed housing to enterprise (which use them for their employees), the "price" charged is based on estimated construction cost, including a fee described to the author as "compensation to the municipality for the fact that the land on which the houses will sit will no longer be available in future for other purposes". No explanation was forthcoming about how this figure is determined, but it is evidently just a one-time fee. There is no corresponding charge for other land within the municipal limits.

^{5/} The city also has an enterprise that provides taxi service, with over 400 taxis [Check].

^{6/} Health and education services are provided by many different agencies, under the municipality, province, and central government. This dispersion of responsibility makes data collection on them difficult.

^{7/} One official said the city also gets revenue from selling nightsoil, but this was not confirmed.

formally. A number of smaller towns, impatient to get the revenue, have proceeded with charges of their own design. All proposals being considered would be levied on enterprises, not households.

Existing fees for water, gas (for heating and cooking), and bus transport were said to cover a substantial proportion of operating costs, but the precise interpretation of operating costs needs to be checked. Beijing researchers on urban issues said that options for raising fees on a wide range of municipal services are being contemplated. But as with housing, the subject gets enmeshed with wage policy.

In Hangzhou, there is a separate municipally owned service enterprise for <u>each</u> of the following services: water, gas, bus transport, taxi transport, garbage removal and road cleaning, sanitary waste water treatment, construction of municipal housing, construction of enterprise housing, construction of streets and bridges, and construction of non-residential buildings. None are fully self-sustaining financially, although water and bus transport supposedly cover 95-100% of their operating costs in an average year.

Municipal government accounts (kept by the Financial and Tax Bureau) treat as revenue only the portion of fee income that is remitted by the service enterprise to the central bureaus. Thus, in the revenue statistics reported here (in the text and in Table 3 especially), fees appear as a small fraction of the total revenue. The only fees expressly broken out as such in the statistics are for water effluent charges.

Revenue from Enterprises

This category includes remittances by the municipally owned collectives of their net profit. It may also include remittances of profits from other enterprises under the municipality's jurisdiction.

Table 3

MUNICIPAL COMMUNIT REVENUES IN THE CITIES IN EMPLIANC PROVINCE, 1985

(IND #1111cm)

	City of Hangshou Erban District Total Only		City of S Urban Total	Olty of Sheering Urban District Sotal Only	
Thomas on contract walter 2	369.0 <u>3</u> /	229.89 ¾	325.9	83.72 .	
Industrial and Commercial Thus (ICT)	976.56	647.18	116.29	19.86	
Urban Construction and Maintenance Tex (UCM)	74.64	62.06	12.24	5,36	
Surcharge on the	N.A.	2.24	1.17	0.19	
Surcharges on user 4/	N.A.	15.33	4.08	1.54	
Tax on Employee Bonness	11.59	9.96	2.37	1.0	
Tax on tourists (hotel charges)	7.24	7.24	0	0	
Other	NA. 5	KA. 5	26.99 6/	1.31	
Revenue from Baterprises 7/	420.16	360,43	139.0	67.44	
Transfers from provincial and central government	N.A.	48.7 4	N.A.	N.A.	
Nees for pollutant discharges	7.39	5.95	1.87	0.94	
(ther	5.38	3.76	1.09	0.33	

lote: M.A. - data not available this visit

and the second second second

^{1/} Figures include only revenues remitted to the municipal government's finance bureau. That is, they exclude revenues retained by enterprises, including the municipal enterprises that provide water, but transport, and other services.

^{2/} Production Tax, Value Added Tax, and Operating Tax.

Figure includes some minor other taxes which, due to data limitations could not be broken out separately.

^{4/} Figures are from the "urban construction and maintenance budget". Need to check whether any other part of the municipal ariget is getting revenue from these sources too, that may not have been included in figure here.

^{5/} See footnoe (3) for why data were unavailable.

^{6/} Hajor item here is revenue from tex on agriculture.

^{7/} The explanations given the author for this category were confused. The most plausible explanation was that this revenue is not profit from municipally owned enterprises which have not been put onto the nex tox-based system because the municipality wants to keep them under its own wing as money makers. Need to check.

The exact meaning of the figures in this category need to be checked because the explanations given were far from clear. For example, it is not obvious why some enterprises should be remitting revenues other than through the tax system.

The amounts of revenue obtained by the cities of Hangzhou and Shaoxing in 1985 from all sources are summarized in Table 3.

Transfers from the Provincial and Central Government

Municipal governments receive only modest transfers from higher level authorities in China, unlike many other countries where transfers account for large fractions of local expenditure. In the Urban District of Hangzhou in 1985, transfers earmarked for urban infrastructure and service improvements and maintenance constituted only 3.5% of the total municipal budget. The city receives other transfers for other purposes too. Although data on them were not available this time, the total transfer revenue to the city was reported to be small.

Transfers are for specific investments, presented as special project proposals by the city authorities to the provincial government, which in turn may ask for help from the central government's Ministry for Urban and Rural Construction and Environmental Protection. There do not appear to be any standard criteria for evaluating project proposals, or any procedure for assessing and comparing the costs and benefits of alternative projects. Each municipal entity has its own "wish list", ready to bring out for every visiting dignitary. Some projects are purely functional — for instance, construction of new water treatment plants. Others are of a completely different sort — for example, restoration of historical sites in the West Lake area of Hangzhou.

Transfers can be either loans or grants. In principle, if the purpose of the transfer is to support a "productive sector" project, the transfer is supposed to be a loan. If it is for a "nonproductive sector", it is a grant. Further details need to be obtained during the follow-up mission, particularly on (i) the terms and conditions of loans, (ii) the frequency with which loans in fact are made in lieu of grants, and (iii) the extent and timeliness of repayment of loans.

EXPENDITURES

Expenditure data for municipalities in Zhejiang are recorded by broad functional categories as shown in Table 4. There was not time in this visit to delve into what is and is not included in each of these categories, or into the composition of the large "administrative cost" item. Expenditure data by object (wages, materials, etc.) were requested but never materialized. It appears that Hangzhou and Shaoxing officials do keep some data by object but do not regard that information as important enough to keep readily available in summary form.

The data that get used most, as in Table 4, lump together both recurrent and capital spending, with no differentiation between the two types. The mission's requests for separate recurrent and capital account data met with bewildered looks at first. Later, it seemed that such data does exist but no one looks at things much that way.

Allocation of funds by function is done by simple extrapolations of past levels, adjusted for new initiatives decided by consultations among the top city officials. New initiatives are chosen without formal analysis of alternatives.

Table 4

MUNICIPAL GOVERNMENT EXPENDITURE: HANGZHOU CITY IN ZHEJIANG PROVINCE, 1985
(RMB mf.111cms)

	Total City	Urban District Only
Administrative Cost	294.68	117.71
Urban Construction and Maintenance 1/	N. A.	130.05 <u>2</u> /
Roads and bridges	N.A.	4.15
Drainage	N.A.	4.05
Trans port	N.A.	1.90
Gas	N.A.	0.48
Environmental Protection	N.A.	7.69
Hous ing	N.A.	5.88
Parks and Gardens	N.A.	10.38
East Middle River Treatment	N.A.	45.66
Transfer to Central Government		
for Energy Costs	N. A.	2.72
Other	N.A.	9.79
Agriculture, Forestry, Fishing	46.21	7.92
Irrigation	12.34	1.50
Capital Construction	68.56	66-61
Technology Improvement	58.29	36.69
Environmental Protection	7-17	6.03
Other	21.19	14.75

Note: N.A. = data not available this visit.

^{1/} Data for all items under this heading are from the budget for the Urban Construction and Maintenance Bureau. All other items in table are from the budget for the municipal government as a whole.

^{2/} There is a discrepancy, never satisfactorily explained, between this figure and the corresponding total (117.71) from the budget for the municipal government as a whole.

A major allocation issue exists within housing construction.

Municipal governments build some housing of their own and other housing that they sell to enterprises (translated as "commercial housing"). Choices to do one rather than the other have far-reaching implications, not the least of which is that municipally maintained housing entails large, continuing subsidies. Evidently the standard approach has been to build municipal housing entirely, unless either (i) some enterprises that are expanding succeed in convincing city officials to redevelop a tract for commercial housing or (ii) the municipality has run out of funds that year and can only afford to do commercial housing. [In the city of Shaoxing, it was reported that over 50% of all housing units were "private". It is unlikely that this many units are actually individually owned. The meaning of "private" needs to be discussed further with City officials.]

Decisions on the mix of municipal housing and commercial housing deserve more careful consideration by city leaders. The advantages of commercial housing, as a way of lightening the subsidy burden on municipal government, warrant more attention. Against these advantages must be weighed the need to assure that those families not associated with the better off enterprises do not get inequitably treated.

BUDGETING AND FINANCIAL MANAGEMENT

The two cities visited have a budget process similar to that in many other countries. All of the constituent parts of each municipal government (the central bureaus and service enterprises) submit budget requests to the Financial and Tax Bureau (FTB) each year. The final budget, once approved by

the mayor, is then monitored through the year by the FTB, which also reconciles the year-end accounts. Final records of actual expenditures are available a few months after the yearly closing.

When a particular bureau or service enterprise runs up a deficit, it can receive a supplement. This does happen from time to time, apparently without a tangible penalty to the recipient. When the author asked if the lack of some sort of hand slap would lessen incentives to improve efficiency, the answer was "No problem; all managers want to be as efficient as possible". Some probing on this point is clearly needed.

FTB also handles the details of tax collection. All entities subject to tax are expected to make the necessary payments regularly without prodding. However, once a year, staff from the Shaoxing FTB go around to every enterprise, collective, and individually owned shop to check up. Those in arrears are required to pay up on the spot and also are assessed a fine for lateness.

PROBLEMS AND STRATEGIES

Municipal and provincial officials are acutely aware that the populations of cities and towns in Zhejiang will continue to grow significantly in the next decade and beyond. For Hangzhou (whole city), the natural rate of increase (births minus deaths) was reported to be about two percent; inmigration, both legal and illegal, and continued expansion of the "floating population" (people who work in the city but have their residence registered elsewhere) raises the total growth rate above two percent. For some towns in Zhejiang, the growth rate is probably much higher than in Hangzhou. Local officials recognize all this. They also see China's long-

standing controls on migration are becoming increasingly irrelevant now as enforcement is relaxed and the importance of the grain ration diminishes as a result of the rise in per capita incomes.

These authorities perceive too that the existing infrastructure of most cities and towns in Zhejiang, particularly in housing, streets, water supply, and wastewater treatment, is extremely inadequate even for the present needs, and will be unable to cope with the additional demands generated by future growth. In the view of some, a large backlog of unmet requirements for infrastructure improvements has built up over years of relative neglect of urban services. Massive investments will therefore be needed over the next several years both to compensate for past insufficiencies and to accommodate future expansion.

The financial requirements for this adjustment period are expected to be very substantial. For Hangzhou as a whole, municipal authorities have estimated a need for Y200 million. They anticipate that only about half of that amount will be available from existing sources. This conclusion is based on their assumption that local revenues will provide Y75 million, and transfers (from the central and provincial governments and from other sources within the municipal government [check]) will supply another Y25 million.

Neither the provincial nor the municipal officials appear to have developed well articulated strategies for dealing with this problem of a funding gap.

MISCELLANEOUS

A New Tax. On the author's last day in China, the China Daily newspaper announced that a new tax has been approved by the State Council, the proceeds of which are intended to aid education. The tax will be a one

percent surtax on the product, value added, and operating taxes (the first three items in Table 1), and thus will be paid by all enterprises and collectives.

Borrowing. Municipal governments do not engage now in floating bonds or other forms of borrowing for urban infrastructure and services projects. (Transfers that the central government makes in the form of loans, discussed above, are the closest thing to general municipal borrowing that is done now. But these arrangements are still far removed from open market borrowing.) However, enterprises and collectives, including those owned and managed by municipalities, are able to borrow — for example, from the state banks. The extent to which they actually do borrow, in the case of Zhejiang, is not clear.

"Selling" of Houses. Housing units typically remain within a single family indefinitely, passed on to younger generations. Although the municipality (in the case of municipally owned housing) or the enterprise (in the case of enterprise owned housing) technically can assign the unit to someone else, this rarely happens. From time to time, though, the occupants of a unit do give it up for one reason or another. In that event, the household can find another household to take over the unit and accept a fee from that household. The level of the fee can be negotiated between the two parties; there is no control on the amount. The housing authority normally agrees to the takeover. This practice was described informally in a large meeting, and needs to be verified. Its extent and implications also need to be explored.

Magnitude of Housing Investment Nationwide. Investment in housing has increased dramatically in recent years, both in absolute terms and as a percent of the total capital construction budget. It was 5.5% of the capital

construction budget in 1979, and is now 19%. The current figure is higher than in the USSR, which is at 14%. Part of the reason for the presently high rate is to compensate for the underinvestment in the past.

On average nationwide, the maintenance cost for housing is Y2.6 per square meter. But the rent charged is only Y2.1. Rent payments now constitute only 2-3% of personal income for an average household.

ANNEX A

THE ADMINISTRATIVE STRUCTURE OF ZHEJIANG PROVINCE

Zhejiang is subdivided into three prefectures and eight areas designated as "cities at the provincial level". These eleven jurisdictions, administratively independent of one another and non-overlapping, form the highest tier of the province's governmental structure.

The prefectures are subdivided into counties, the counties into townships (formerly called "communes"), and the townships into villages (formerly "brigades"). Each county has at least one center big enough to be designated as a "county town". Three of the province's county towns had, by 1985, attained the status of "cities at the county level".

These three county level cities, plus the eight provincial level cities, form the eleven cities that the provincial statistics refer to when describing urban development. Steps are being taken now to upgrade two other towns to cities, but the description here covers only the eleven.

The jurisdiction of the eight provincial level cities are considerably larger than the urbanized portion at their core. Each of these "cities" consists administratively of an "urban district" and a number of surrounding counties (which are clearly affiliated with their city and are not part of any prefecture). The urban district consists of a "built up area" and "suburbs". Within the urban district, there are further subdivisions, the

largest of which are translated as "districts" (unfortunately). Below these districts are "stations" in the organizational arrangements used by municipal housing bureaus. A station typically covers a single housing block.

There are a total of 66 counties, 508 county towns, and 2,729 townships in Zhejiang, as of 1985.

The provincial city of Hangzhou has, besides its urban district, seven counties. Shaoxing has five counties.

Cities, prefectures, counties, county towns, and townships all have their own governments, with staff organized into departments roughly in the same way as the higher level authority they are answerable to. At the top of this hierarchical pyramid is the provincial government itself, which in turn is answerable to the central government. Within each city, the urban district, built up area, suburbs, districts, and stations are administered by one combined municipal government.

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HOUSING FINANCE DEVELOPMENT IN CHINA An Overview of Issues and Prospects

Eric Carison



Published by
International Union of Building Societies
and Savings Associations

INTRODUCTORY NOTE

In pursuit of its mission to promote interchange on housing finance development throughout the world, the International Union has opened a special window to the People's Republic of China. The response has been very positive, and considerable interchange has already taken place. China's population of 1.046 billion is one-fourth of the world's total. The government is engaged in a determined effort to quadruple the Gross National Product by the year 2000 which would bring it in the range of \$US 800 to \$1000 per capita. Housing has an important role in these efforts for modernization and growth in all sectors. In 1985, more than 12.6 million dwelling units were constructed (3 million urban and 9.6 million rural), but key issues remain to be resolved if this sector is to contribute more effectively to China's development

The urban housing programs in China require large capital investments and growing subsidies which burden the State's budget. Only in the past several years has homeownership been permitted, beginning with a limited program in several cities. In contrast, in the rural areas, homeownership is the predominant tenure form, and there has been a huge surge of peasant investment in housing, drawn from their increased earnings and savings as a result of the rural reforms.

Knowing that there could be no greater expression of the role of the International Union and its objectives than helping to bring private homeownership and a thrift and home financing system to China, in 1984 I authorized IUBSSA's Special Advisor Eric Carlson to visit China for first contacts with the newly-organized Ministry of Urban and Rural Construction and Environmental Protection (MURCEP). MURCEP subsequently requested IUBSSA for a return visit, for lectures and seminars on housing policy and finance in Beijing and Shanghai to a wide range of Chinese authorities concerned with housing and urban development. In June 1986, President Osterbrauck also visited China on official invitation, and was hospitably received for his lectures in Beijing, Shanghai and Xiam. He met officials of key financial institutions, and encouraged their membership and participation in IUBSSA activities. They are keenly interested in systems for savings and homeownership.

IUBSSA has provided a grant for a joint housing research project and book on housing in China, being carried by the China Academy of Urban Planning and Design in Beijing and the Institute of Public Administration of New York. This present document by Eric Carlson is a preview of some of the major topics and issues being further developed in this project.

We will observe with great interest developments initiated by the Chinese government as a result of the assistance provided by the International Union. Hopefully, some time a few years hence, we will see the active functioning of a program of savings for homeownership and systems for home financing which will bring the people of this vast country to the realization of dreams that people over the world have had for centuries to own their own home.

We are proud of the work that Eric Carlson has been doing in China and that a man of his background and experience has been associated with the International Union.

We are particularly pleased that President Dr. Willi-Dieter Osterbrauck was able to visit China during the last year of his presidency and add his unique type of salesmanship for homeownership to this important effort.

NORMAN STRUNK Secretary-General International Union of Building Societies and Savings Associations

August 1986

NOTE ON ERIC CARLSON

Eric Carlson has been Special Advisor to the International Union of Building Societies and Savings Associations (IUBSSA) since his retirement, from the United Nations Secretariat in April 1982. In the UN, he was Deputy Director of the Habitat and Human Settlements Foundation in Nairobi, Kenya for eight years, and formerly Chief of Housing at UN headquarters in New York for 10 years.

Currently, he holds several positions mainly concerned with housing and finance development. He is Special Advisor to the Caribbean Association of Building Societies and Housing Finance Institutions in Kingston: Chairman of the United Nations NGO Committee on Housing and the International Year for Shelter in New York; Secretary and Trustee, Cooperative Housing Foundation and Vice Chairman CHF International, Inc., Washington, D.C.; Trustee, Community Cooperative Development Foundation, Bridgeport, Conn.; President, International Foundation for Earth Construction, Washington, D.C.; Member, Executive Council, World Society of Ekistics, Athens; Representative, Habitat International Council to United Nations, The Hague; Member, Board of Directors, International Rural Housing Assn., Caracas; Member, International Committee, National Association Housing Officials.

He is a Senior Associate of the Institute of Public Administration, NYC, and currently serves as Director, Joint Housing Research Project, People's Republic of China, with China Academy of Urban Planning and Design. He is also advisor to Housing Policy Project, National Economic and Social Council, Prime Minister's Office, Dublin, Ireland.

He was a co-founder of the African Union of Building Societies and Housing Finance Institutions (Nairobi) in 1983. He has lived and worked in several countries in Latin America and the Caribbean, including Brazil, Costa Rica, Colombia, Venezuela and Barbados. He is a former director of the Inter-American Housing Center (CINVA) in Bogota, Colombia.

He is an active consultant in the field of international housing finance, and is President of Eric Carlson Associates, located at 25 Giletta Court, Closter, N.J. 07624 (Tel. 201-768-7707). His office in New York City is at the Institute of Public Administration, 55 W. 44th Street, New York, N.Y. 10036. (Tel. 212-730-5480).

AUTHOR'S NOTE

This introductory report on housing finance development in China is dedicated to Norman Strunk.

His interest and support were the key ingredients in helping to open dialogue with Chinese professionals and officials concerned with development of the housing sector.

That the International Union is serving as an important bridge for extending knowledge of housing finance development throughout the world is a tribute to his understanding of the needs involved and his dedication to continuing service in this field.

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HOUSING FINANCE DEVELOPMENT IN CHINA

An Overview of Issues and Prospects*

by

Eric Carlson

Special Advisor IUBSSA

Background

Housing finance policy has become the subject of special scrutiny and inquiry in China, a developing socialist country presently engaged in a vast process of growth and transformation. Having successfully met and exceeded the major targets in its Sixth Five-Year Plan, China is ontarget toward its goal of quadrupling the Gross National Product by the year 2000. The per capita income for its population of over 1.2 billion people will then range from US\$ 800 to US\$ 1,000. Though seemingly modest, this awesome effort means providing for 150 million more people than the total number at end 1985 of 1,046.39 billion.

In spite of the success of the one child per family campaign, and a population growth rate of only 1.12% in 1985, new housing pressures will arise from a surge of newly married couples over the next decade, an increasing rate of urbanization, movement of peasants away from their traditional agricultural pursuits, deterioration of existing housing stock, much of which is of poor quality and standard, and severe overcrowding. Investment in housing is now about 7 to 8% of Gross National Product, and 12.6 million dwelling units were constructed in 1985, but the lack of housing is still perceived as a major problem, and particularly so in the urban areas. It is considered that major reforms are essential in matters of housing policy, finance and management if investment efficiencies are to be achieved and if there is to be substantial improvement in the housing stock.

Is Commercialization Possible?

The Seventh Five-Year Plan, ratified in April, 1986, takes account of the present situation, and contains a directive which states:

"We should commercialize housing in the cities and towns and speed up the growth of residential construction industry, making it a pillar of the national economy. ..."

^{*} The views expressed in this report are those of the author.

But how is the "commercialization of housing" to be achieved in a developing socialist country of such dimensions as China, where low-rent, highly subsidized policies for housing have prevailed for more than 30 years? An active private sector in this field does not exist. Should housing be considered as a public service to which all are entitled? Is it a commodity to be acquired, bought and sold in the market-place? Or is it a unique blend of various economic and social categories and considerations?

Other questions can be raised: What are the relationships between housing policies and broader development strategies? Should equity and equality be major goals of China's housing policy? What role should land pricing or rent and cost of money (interest) play in a socialist economy? To what extent can a privatizing or commercialization of housing serve as encouragement or stimulus for the mobilization of personal savings, particularly for some form of home ownership? Will this help to relieve the pressures on the State for more investment in housing? Should the provision of housing be tied to the work place?

This report will not provide categoric replies to the questions posed, but it will highlight some of the available information regarding the key issues. It will also point to directions for further research and action and resolution of major problems. The International Year of Shelter for the Homeless (1987), declared by the United Nations General Assembly, suggests that governments make a special effort in keeping with the objectives of this year to review and revise their housing policies so as to achieve improved housing and shelter for all by the end of the century. This offers an opportunity for China to promote the "urban reforms" required for the housing sector, including the "commercialization of housing."

The period of the Sixth Five-Year Plan, from 1981 to 1985, was one of considerable progress in the development of China's economy, and the average annual growth of Gross National Product was over 10%. In 1985 the Gross Social Product, representing the total output value of agriculture, industry, the building trade, transport, telecommunications, and commerce, rose by 16.2% over 1984, to total 1,624.2 billion yuan. However, the country's inflation rate also reached 8.8% and especially affected people of low income. This contributed to a determined slowdown of capital expenditure and limiting of credit and financing, in order to avoid overheating the economy, especially

FOOTNOTE: In the text which follows, it should be noted that the value of the unit of Chinese currency, the Yuan, in July 1986 was 3.7 Yuan to US \$1. Its former value in 1986 was 3.2 Yuan US \$1; in 1985 it was 2.8 Yuan to US \$1.

where supply and materials shortages were evident.

The country's more than 200 million urban residents had an average per capita income of 752 yuan, a 23.8% increase over prior years. The average urban wage rose by 17.2%, but because of the 8.8% inflation rate, low paid workers found it difficult to make ends meet. The country's 800 million rural inhabitants had a per capita annual net income of 397 yuan, 42 yuan more than in 1984. Individual bank savings in 1985 increased by 33.6%, to reach 162.3 billion yuan.

In 1985, 130 million square meters of new urban housing was constructed representing a total housing investment in cities and towns approximating 25 billion yuan. In the rural areas 770 million square meters of housing was built, for an estimated 9.6 million rural households, and the investment in new housing is expected to have greatly exceeded the 1984 total of 30 billion yuan. For the urban housing, the State and enterprises paid almost six billion yuan more in subsidies, representing estimated depreciation, maintenance, repairs, management and interest (based on the cost of construction) less rent paid.

The overall housing improvement goal for China's population by the end of the century is for every family to have its own complete dwelling unit. The objective is to achieve overall average living space for each person of some eight square meters. This represents a considerable upgrading from the present situation of prevalent overcrowding. In 1982 the estimated average living space was 4.4 square meters per person, with wide differences noted between cities and regions. It has been rising by small increments since that time, and the objective of eight square meters is now viewed as achievable.

In terms of dwelling units to be constructed, this would mean some 200 million over the last two decades of this century. About one-fourth is to be built in urban areas, totalling an area of 2.5 billion square meters. The other three-fourths will be built in the countryside, with a total area of about 12 billion square meters. This scale of building is unprecedented in world history. However, there are also serious problems to be overcome. The Seventh Five-Year Plan adopted in 1985 assumes an average construction of urban housing of 150 million square meters per year. At 200 yuan per square meter, this investment then amounts to 30 billion yuan per year, with another 10 billion required for subsidies. The State's capital investment in housing, together with the continuing and growing subsidization, is a large one.

For the 15 years remaining to the year 2000, the state may well expend, under present policies, together with funds from local governments and funds pooled by state-

owned enterprises and institutions, several hundred billion yuan. Yet its net economic return on the investment will be negative. The prime reason is that the present system of rental payments does not cover costs, much less generate capital for the construction of new housing. Although some two-thirds of the urban inhabitants have benefitted from the low rent housing policies, at least one-third more are in need of new housing allocation, and there are questions of housing inequality and other matters to be resolved. These will be discussed later in this report.

Housing in Rural Areas

To provide a different perspective on the "commercialization of housing" in China, we should first focus on what has been happening in the rural areas which contain some 80% of the people. The rural reforms, and extension of the responsibility system, from 1979-80 have stimulated exceptionally rapid growth of agricultural production, and of rural incomes and food consumption, based on rapidly rising yields. During the next several decades, agriculture will remain one of the largest and most important sectors of China's economy. Even in the year 2000 food will account for about half of household consumption, and about half the labor force will be engaged in agricultural activities. It should be noted that considerable agricultural activity in China is carried on within the boundaries of cities, which often have the characteristics of self-contained regions. It is evident that the economic linkages between agriculture and other sectors will become increasingly close. It is in this context that we look at some aspects of the rural housing scene.

First we can note that "commercialization" of housing prevails in the rural areas. People can own their own homes, although not the underlying land which is retained in ownership by the collective. The individual dwellings become real property and can be handed down to descendants. Peasants have a long tradition of building houses for their children, especially before marriage. A wide variety of methods is used to build this housing, ranging from self help and community assistance to arrangements with individual contractors. The growth of income for the peasants in many rural areas has brought with it a wave of investment by rural people for housing construction and improvement of existing dwellings. In many situations, the peasant house serves also as part of a workplace or production center, so such investment has additional importance. The fact that people can own their own homes in the rural areas is undoubtedly a tremendous incentive for their construction and improvement. It has also served to open up large markets for building materials, products, accessories and technical services for planning, design and construction.

Last year, rural bank deposits amounted to 72 bil-

lion yuan, 18.1 billion more than in 1984. Rural people are expected to invest up to 200 billion yuan in new housing between 1986 and 1990. Rural people are now spending an average of 16% of their annual income on housing improvements, compared to 5% in 1980. When peasant families become richer, surveys show that their percentage of expenditure on housing rises sharply, and may even approach onethird of incomes.

Much new rural housing construction tends to be of high standard. In 1985, 60% of the new housing was of brick and tile, and 15% was in two or three story houses. Since 1979, an estimated 50 million rural households have moved into new homes, out of the total of 180 million rural households. This represents a remarkable increase and improvement of the country's housing stock.

One example of "commercialization" of rural housing is the establishment in 1984 of the China Rural House Building Materials Company and the China Rural House Corporation for supplying complete sets of building materials. The first sells building materials and houses in cooperation with more than 1,000 companies and industrial enterprises across the country. It has provided 90,000 farm households with houses covering a floor space of 7.5 square meters. The second Corporation has established 35 companies and 200 subcompanies all over the country. In 1985, it built more than one million square meters of houses, produced 1.4 million cubic meters of cement, structural members, and sold six million square meters of complete sets of building materials.

That the pace of rural housing construction and improvement will continue for some time is indicated by the estimates that annually some 15% of the rural households are in need of building new homes or renovating old ones, while only 5% of the households are able to improve their dwelling conditions because of shortages of building materials and equipment, especially in such items as steel, cement and glass.

There is no doubt that the rural reforms and the rise of the responsibility system for agrarian production have resulted in a substantial growth of income for the peasants in many rural areas. The fact that they are choosing to invest so much of this in housing of good standard and high quality, often superior to typical urban dwelling units, bodes well for the basic stability of the country side. At the same time, new productive forces are being created for promoting rural specialization, commercialization and modernization.

Although the changing agricultural scene may result in estimated surplus manpower in rural areas of up to 100 million or more by 2000, some of this will be absorbed by jobs in small industries or services, or in self-employment in other than agricultural production. But there is also

another type of movement, of a growing number of peasants from their farms to nearby towns and townships and marketing centers. Peasants who relocate in this way generally bring with them their own capital and food and are prepared to engage in new productive endeavors. Such moves tend to alleviate the great pressures on the cities to receive rural migrants, and is helping to create a more rational urbanization pattern. One example is that at the end of 1983 there were 2,600 towns of administrative status, but this number had sharply increased to 6,200 by the end of 1984, more than 3,600 in one year's time.

The importance of rural housing improvement and construction in some provinces can be illustrated by what has been taking place in Zhejiang Province since 1979. Farmers have completed new housing with a total floor space of 250 million square meters, and each rural resident is said now to have a floor space of 20 square meters, up 32% from 1978. Average yearly earnings have substantially increased, though are still low by Western standards. Local governments and collectives help with funds and supplies of building materials. Thirty percent of Zhejiang's 34 million rural inhabitants now have piped water, following the completion of 15,000 waterworks since 1979. Electricity is available in 88% of the 141,000 villages and 95% of rural townships have roads. Rural development plans have been drafted for 95% of the 1,500 towns and 97% of all villages.

The above provides the scenario for an extension of the owner-built and owner-occupied housing prevalent in the rural areas and the country villages of China to similar patterns for these towns and townships. The highly subsidized and controlled low-rent policies of the cities could then be avoided. It would be necessary to have new emphasis on the importance of planned development, the rationalizing of infrastructure, and the provision of other services and amenities, including commercial, industrial and cultural facilities. Fortunately, much is being achieved along these lines, and reportedly there are now construction plans for 85% of the country's five million villages, and 84% of the 54,000 rural towns. More than 500,000 newly-trained rural planners and surveyors have worked on such planning with the help of urban experts.

The general outlines for commercialization of housing in the rural areas, villages and townships are therefore in place, for accommodating perhaps 800 to 900 million of China's predominantly rural population by the year 2000. Much is being achieved and the future looks bright. But more help will be required to help increase the production and distribution of building materials through local enterprises and private initiatives. Standardization of building components should be encouraged, as well as quality control. Rural housing centers, training institutes or "wings" should

help provide training, technical assistance and development of local materials and resources wherever possible.

Special incentives should be established to encourage savings for housing in the rural context, through banks, rural housing development corporations or credit cooperatives. Such efforts will help to reduce the volume of credit required for home purchase or improvement, and help lessen inflationary impacts. By promoting capital investment for the nation's housing stock through such mobilization of personal savings, there would be a "soaking up" of excessive expenditure on unnecessary consumer products.

Several cities are already taking steps to help modernize the rural towns within their boundaries. Beijing, for example, has 253 rural towns, and 13 of these have been selected as pilot towns in this modernization process, to be implemented by the Beijing Rural Construction Development Company. For this first New Town, to be located in Zhangxizhuang Township, some 25 kilometers East of Beijing, 2,500 two to three story apartments are planned, together with extensive community facilities. Families residing in the area will be offered payments for their old houses which can be applied to the estimated cost of 10,000 yuan for the new dwellings. Annual per capita income in the area is currently 7,275 yuan. This particular project should be the object of careful study and evaluation of the construction and financing methods that are employed; their true costs, and realistic appraisal of the cost-benefits of the project as well as the investment recovery planning that should be an intrinsic part of this effort.

Urban Housing

At the end of 1985, statistics showed that some 211.87 million people inhabited the country's 333 cities, not including those living in suburban counties. If people working in agriculture within cities are excluded, however, the country's urban population then totals 118.26 million. This may seem small in relation to the total population, but in recent years urbanization is proceeding at a somewhat faster pace, and estimates indicate that there will be an increase of 110.1 million in the urban population by the year 2000. It is possible, however, that the urban growth process may be an accelerating one in light of the overall reforms which are being implemented in both urban and rural sectors. China already has 20 cities with more than one million populations. It seems likely that China's urban population could reach more than 250 million by the end of the century, which taken alone would rank it as one of the three or four largest countries in the world. The Table on the following page shows China's urban population at end 1985.

China	's urban	populat	ion		
(based on 1985 figures)					
region	cities	families (million)	tetal population		
National total	324	53.51	211.87		
Baljing	1	1.68	5.86		
Tianjia	1	1.52	5.38		
Hebei	12	1.97	7.35		
Shanxi	10	1.51	6.38		
Inner Mongella	16	1.30	5.35		
Lisening	17	4.57	16.82		
JANER	12	1.86	7.27		
Hellengtang	16	2.72	10.62		
Shanghai	1	1.97	6.98		
Jiangsu	13	2.84	9.66		
Zhejiang	11	2.02	6.93		
Anhui	15	1.64	6.47		
Fujian	10	1.02	4.30		
Jiangxi	12	1.28	5.75		
Shandong	19	4.66	18.48		
Henan	18	2.12	8.82		
Hubei	14	2.82	11.64		
Hunan	20	2.10	8.39		
Guangdong	17	2.84	11.90		
Guangxi	11	1.17	5.35		
Sichuan	19	3.83	15.18		
Guizhou	6	1.06	4.88		
Yunnan	11	1.17	5.39		
Tibet	i	0.01	0.11		
Sheanxi	8	1.31	5.40		
Gansu	12	1.14	5.24		
Olnghai	2	0.15	0.66		
Ninexia	i	0.15	1.13		
Xinjiang	15	0.98	4.18		

Statistics released by Ministry of Public Security, as published in China Daily, June 1986.

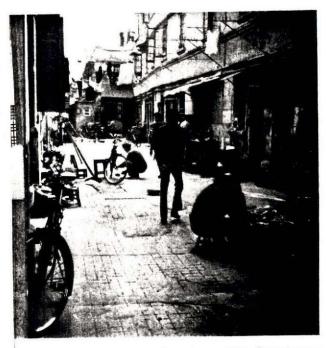
China's official policy has been expressed as seeking to balance urban and rural development. China is adhering to a policy of controlling the growth of big cities, moderately developing medium-sized cities, and actively promoting small cities. In general, without permission, people are restricted in their movement of location of residence, and it is difficult to obtain legal occupancy in the cities, the more so when the provision or assignment of housing is usually tied to the work unit or place of employment.

There is increasing evidence of slippage, or "slipthrough," however, and a recent estimate places at 3.21 million the number of temporary residents in China's 10 largest cities. Some of this is the result of bringing to the cities contract labor from the provinces for construction projects. A good part of the migrant population is not officially sanctioned, and there is clearly a problem of registering non-permanent urban residents. In Shanghai alone, the temporary residents were estimated at 1.1 million by the end of 1985, 2.5 times the number of 1983.

This is one reason among several why housing remains in such short supply in spite of the very considerable



Mixture of land uses and overcrowding in a typical urban landscape of China today.



Typical courtyard view in terrace housing. Note busy scene.

investments for housing construction in the urban areas. Other symptoms are reported in the press. For example, the sale and rental prices of private houses in Beijing are now sometimes ten times legal levels. Because young newly-married couples find it virtually impossible to secure housing through their work units, several cities have constructed special buildings to house such couples, providing them with minimum space and facilities, but strictly limiting the time they may remain in these accommodations. Many cities now periodically sponsor housing exchange fairs for helping in the sale or exchange of different types of apartments through photos, designs, models, and written notices and descriptions. Reports indicate that these events are thronged with people seeking more adequate or convenient lodging, and that some do succeed in these efforts, though at a cost. Clearly, the real estate industry has an interesting potential for development in China.

There have been five housing exchange fairs in Beijing, and the movement has now spread to 33 cities under the guidance of a National Urban Housing Exchange Centre. Reportedly some 200,000 swaps have been negotiated. There is a computerized system based on registration cards, and formalities are provided for transferring the right of use of properties.

What are the origins of China's present urban housing situation? This article is not designed as an historical review, but suffice it to say that the urban housing sector was seriously neglected, as were the cities generally, during the 10-year cultural revolution, ending in 1976. During 1977-78, the Chinese Premier, Deng Xiaoping, called for China to embark vigorously on the Four Modernizations, of agriculture, industry, national defense, and science and technology. In 1978, the Central Committee of the Chinese Communist Party set forth a series of principles and policy decisions for guiding the development of the economy. The first national housing conference was also held in that year.

Efforts were focussed on how to speed up housing production and how to improve the living conditions of urban residents. It was necessary to mobilize the initiative of the central and local authorities, as well as that of state enterprises and individuals. Home building was to be given special importance as a demonstration of the objectives of socialist production and "the people's government" concern for the people, and to achieve the "dialectic relationship between production and livelihood, and between accumulation and consumption." Since that time, building more homes for the people has been one of the major items in China's economic readjustment, and the proportion of capital investment devoted to housing has steadily increased. In recent years, it has been as high as 25%.

With the reform of the financial system, local

governments and state enterprises have been granted considerable economic authority resulting in the expansion of their financial resources and increase of funds for investment. As stated by one observer, Chinese cities are not simply large concentrations of people and businesses who pay local taxes and expect certain urban services in return. In China, where the allocation of labor and capital is the prerogative of the state, a city's economy is directly managed by its municipal government. The city runs factories and helps to operate suburban communes. An objective has been to transform cities from consumers to producers, and to encourage relative self-sufficiency in food, coupled with a dynamic industrial productivity that will eventually raise living standards of city and hinterland alike. Through a variety of mechanisms, the local governments and the state enterprises have endeavoured to meet their responsibilities for housing construction and maintenance and to assist the work units in providing housing accommodation.

Basic Questions

Despite the vast increase in production of urban housing units, several questions have arisen. For example, are these government policies adequate and appropriate in solving the urban housing problem? Can expanded government capital investment eliminate the housing shortage? Will the government's approval of the private sale of housing help solve the housing shortage? Will the current policies advance the concepts of equity for the urban housing sector? These questions and others underlie the following review of how urban housing investment and construction actually happens in China, using Shanghai and Beijing as reference points.

There are many pressures on the planners, in both urban and rural areas alike, as the enormous forces for change and privatization in China are engaged for the encouragement of initiative and production throughout its economic and social system. Agriculture has top priority in both urban and rural areas, and prime urban land for intensive agriculture is carefully allocated and protected. Urban planning is making good progress in China, and 189 cities had completed their general plans by 1983. The State Council has approved the general plans for 18 cities with population of over one million. The general plan of Beijing was approved in July 1983. A National Urban Planning Act is in preparation. Special attention to city development is also provided through the Environmental Protection Law of 1979.

In China, the land in urban areas belongs to the state, whereas in rural areas it is collectively owned. The government has promulgated regulations on land requisition for the capital construction of the state. These lay down the principles or urban land administration, the planning of land use, the procedures of land requisition, and the pro-

prietorship of land. The institution or enterprise which builds has only the right to use the land. No public body or individual is allowed to seize, purchase, sell, lease or transfer land.

The capital for urban housing development comes from several sources in China, the most important being the state's investment in capital construction. The funds for residential buildings can be divided into several categories: funds included in the national budget (which have not been substantially increased), funds from local governments, and funds pooled by state-owned enterprises and institutions. In addition there are funds raised by the collectively-owned enterprises, and portions from the funds intended for the renewal of equipment and installations in state-owned enterprises and private funds. In a recent year, the funds raised by state-owned and collectively-owned enterprises and institutions amounted to 71% of total housing investment.

In principle, all enterprises are expected to be responsible for providing housing for their workers and staff. The central and local governments are expected to allocate funds for residential building in connection with investment in new enterprises, such as factories or mines. Only recently, has encouragement been given to the sale of housing, especially new housing. The government may allot land to individuals for house-building, and certain public assistance may also be made available for construction. However, the typical pattern is that the government or enterprise may build apartment houses and then sell the units to workers or staff members. This is on a subsidized basis, with the prospective owner paying one-third, and the balance provided by the government and the enterprise.

Almost one-third of urban inhabitants are on waiting lists for new homes or for an improvement of their present buildings. For the publicly-owned residential buildings, there is an allotment system which takes account of the size of the housing stock, the number of applications and the degree of each case. Generally, a family of one to three members is allotted a one-room unit of about 30 to 40 square meters; a family of two to four can have a two-room unit of about 50 square meters, and a family of more than four can have a three-room unit, of 60 to 70 square meters. After the allotments are made, the families are given certificates for tenancy which ensure them the right to use the dwellings, and they pay rent according to the standards set by the local governments.

In provinces and autonomous regions, there are Urban Development Bureaus responsible for housing. In cities, there are Capital Construction Commissions and Real Property Management Bureaus which deal with housing. In some cities, Unified Housing Development offices are set up to strengthen the leadership in housing development activities.



Beihuan Villa in Changzhou, Jiangsu Province.



Zho Jia Zhang project has 76 buildings on 36.5 acres. View shows anoth housing project grouping in background.

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Besides functioning as a governmental organization, the Real Property Management Bureau of a city is directly engaged in the management of a part of the housing stock. Under the Real Property Management Bureau there are several specialized companies: the Housing Maintenance Company, the Housing Construction Company, the Real Property Company, the Building Materials and Equipments Company.

At present, public housing under the direct administration of the real property management establishments of different levels accounts for only 20% of the total housing stock; the rest being administered by different organizations to which it belongs. Enterprises and institutions which have their own housing are obliged to accept the direction of the Municipal Real Property Management Bureaus and must follow the policies and laws of the related governmental bodies at state, provincial or municipal levels.

The housing in cities and towns is mostly of the apartment type. In big cities, the apartment buildings are generally of five to six stories. But in larger cities, such as Beijing, Shanghai, Guangzhou, Shenyang and Tianjing, there is increasing frequency of 10 to 20 story buildings to economize on land use.

Housing in Shanghai

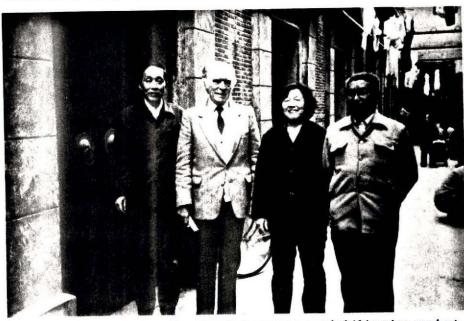
Shanghai has developed a multi-faceted approach to its housing situation, which will be briefly described. Shanghai now has over 12 million people in its overall metropolitan conglomeration. A vast amount of housing construction has taken place under the direction of the Shanghai Municipal Government, but equally vast are the dimensions of the housing and environmental problems which still remain. Shanghai is one of the three major cities (Beijing, Tianjin and Shanghai) with special classification, under the direct control of the central government. It has a total area of 6,186 square kilometers, of which 230 belong to the city proper (recently broadened by 109 square kilometers). In the city proper, there are more than 103 million square meters of all types of housing construction areas, with some 52 million square meters of dwelling unit floor space.

Much of the existing housing stock is old, and badly in need of renovation and repair. Overcrowding is extensive, living space standards are low. These average 4.72 meters per person in the two-story, old style terrace houses which account for 18 million square meters, 38% of the urban housing, and accommodate 52% of the total number of city residents.

During 1979 to 1983, new residential construction exceeded 15 million square meters, and the average living space increased from 3.9 square meters when the People's Republic was founded to 4.9 square meters per person in



Carlson with authorities of Jai-Ding County in Tao-Yuang, one of 12 new towns in Shanghai region. Second from left is Xing Tong-he, innovative architect of Shanghai Municipal Institute of Civil Architectural Design



Carlson with team members for Shanghai prototype rehabilitation project for terrace buildings in which much of population lives.



Typical old-style terrace housing in Shanghai.



Raising the roof and adding one story, plus interior improvements, produces increased accommodation at better standards with more sunny and usable space, at Lane 303, Peng-Lai Road, Shanghai, built in 1923.

1983. Still the average floor space for each family in the new construction is only about 42 square meters, which means at most two rooms per family. During the Sixth Five-Year Plan, some 330,000 people were provided new accommodation in the 120,000 apartments that were built. In the Seventh Five-Year Plan, beginning in 1986 annual housing construction is to be increased from four million to five million square meters.

How has this volume of housing construction been organized? The Shanghai Municipal Bureau of Housing Administration is the instrument for supervising real estate under the municipal government. Under the Municipal Bureau there are four companies -- for house management, house repair and construction, building materials and house equipment manufacture. The SMBHA has over 60,000 staff members and workers.

The city proper is divided into 12 districts. In each one there is a branch company of housing management, house repair and construction and architectural materials. The business of every district company is under the guidance of the city company. Under the district housing management company, there are many housing management offices in the neighborhoods. In the whole city there are 114 such offices, which are the basic units responsible for rental, management and maintenance, each in charge on the average for 500,000 square meters of public housing. There is a rent-lease contract between the housing management unit and the resident. The resident pays rent every month and the house management unit takes care of all aspects of house maintenance, including major repairs and restoration where necessary. Currently, attention is being given to the reform of this management system so that it will operate on a more realistic economic basis.

Up to 1983, the municipal government has dismantled more than two million square meters of slums in Shanghai to make way for large scale new construction. Some 30 large housing estates have been built in Shanghai since 1950, most of them composed of look alike blocks of flats in monotonous and stereotyped settings. More recently, high rise buildings of up to 20 stories are forming part of the large urban reconstruction projects in Shanghai, and permitting a more varied mixture of high rise and low rise construction in the development of new neighborhoods. An innovative design example is the Hutai Residential Quarter in Northwest Shanghai, which has broken the stereotypes by establishing a scheme of neighborhoods, of 600 to 700 households, with each neighborhood characterized by distinctive architecture and color.

One of Shanghai's major approaches to its tight housing scene is the development of satellite towns. Some 12 of these have been created on farm land purchased for

urban use with the approval of the agricultural commission, at distances of 30 to 50 kilometers from the central city. These 12 districts are planned for 131,000 apartment units with a floor area of 6.5 million square meters. By the end of 1983, over 2.2 million square meters, or some 45,300 apartments, had been finished, with the rest in construction.

The satellite towns are planned to provide for industry and employment, and substantial growth is proceeding. In the science and technology city Tao-Yuang in Jai Ding County, some 35 kilometers out of Shanghai, 70,000 people were in residence in 1985, out of the total of 150,000 scheduled for the project within the next three years. Design innovations were also taking place. Within severe cost and space limitations, a young architect had produced a project designed to provide a better quality of life for the people within the project, including more attractive, livable and varied buildings, of four to 12 stories. A historic old town adjacent to the new site was also being preserved, to add to a sense of cultural heritage.

In addition to construction of new buildings, Shanghai has also embarked on projects for urban rehabilitation. In the South District, a team of dedicated architects has engaged in experimental and demonstration work involving traditional terrace houses of two stories in which much of Shanghai's population lives. Many of these houses are still in relatively good condition, but their facilities are inadequate and outmoded. The effort is to demonstrate how these can be economically remodeled. This involves the strengthening and reinforcing of the original construction, raising the roof and adding another story, rearraning interior space, and providing each family with a private kitchen and toilet, with flush closet. The expenditure for such reconstruction amounts to about 50% of the cost of new construction, while the whole process helps retain the sense of community and stability of the neighborhood.

Aspects of Housing in Beijing

A visit to Beijing (Peking), capital of the People's Republic of China, is no mean experience. The nation's political, economic, cultural and communications center has a total area, including outskirts, of 16,900 square kilometers, and a population of 9.23 million, of which 5.86 million are urban. Perhaps the most striking first impressions are the carefully planted trees lining all major thoroughfares, and the vast number of bicycles which still provide basic transportation for millions in Chinese cities. Buses are everywhere, and usually overloaded, but private cars are still comparatively few in number.

In Beijing, there is an on-going construction boom for which no end is in sight during this decade. Housing

projects are everywhere, most of them in 5 to 10 story buildings. The new Seventh National Plan calls for even more investment in housing, to total about 40 billion yuan over the five-year period. Moreover, by 1990, all urban residents are to be supplied with cooking gas. There will be telephones for 500,000 households, and the daily water supply system will greatly increase in capacity. Over the five years also, nine greenbelts are to be added to the city, another 30 public parks, and seven new garbage disposal areas.

There will be an upper limit of 10.2 million for the permanent urban population of Beijing. In Beijing, there are five major construction companies, and over the past two years they have contracted 26,000 workers from poor rural areas to work on building projects. These workers are not considered to be permanent residents, and will return to their places of recruitment when their contracts terminate.

The process for obtaining approvals for construction is slow and difficult and uncertain. Because there are few alternative channels for proceeding through the bureaucracies concerned, there tend to be further blockages and problems. There also seems to be an in-built pattern of discrimination against the smaller or less important work units who seek housing for their members, and who do not carry the "clout" necessary for adequate consideration or speedy approvals. There is, of course, the increasingly serious problem of those who are self-unemployed, or who may not have attachment to specific work units.

The Municipal Bureau of Urban Planning is a key player in this process, but is subject to being over-ruled, especially in situations which involve the state authorities. The Bureau is responsible for the construction approvals which permit the work unit in need of housing to contract for a project design through a Design Institute. Such institutes are public bodies. In the case of the Beijing Design Institute, there may be a long wait before appropriate plans can be produced, of up to a year or more. In some cases in the past, old standardized plans have been used with few changes because of the system of payment or bonuses for these plans, which are tied to the amount of square meters produced within a period of time.

First, the work unit must apply to the Ministry to which it is attached. The Ministry then reports to the State Council, which approves the amount of construction required in square meters. All work units are in competition for units of larger space and facilities, and usually receive reduced space allocations. The work unit receives a note from the Ministry giving its final allocation of space. The Bureau checks the Ministry's approval, and ascertains whether the work unit has access to land, and what type of building

is proposed. If the Bureau finds a proposed site acceptable, after checking on infrastructure requirements and other aspects it will issue a construction permit. One copy of this then goes to the construction company, which can then order the building materials required, steel, cement, etc. from the state enterprises. There are now possibilities of securing such materials from other sources, but usually at higher or market prices.

, In many cases, the work unit does not have its own land. In such cases the Beijing Construction Commission may arrange for allocation to the unit of dwellings in a larger complex, together with others. Therefore, before construction, there will probably have been provision for the sale or financing of dwelling units among a number of different work units, state enterprises or collectives. More recently, in Beijing perhaps 7 to 10% of new dwelling units are allocated for sale to individual workers. The units sold are usually the most deficient ones, as the intention is to obtain the most money for the least desirable apartments. In cases of sale, the buyer often finds it convenient to borrow the amount required, one-third of cost, from family or relatives. Reportedly, there are long waiting lists for these home buying opportunities.

The obligations on collective enterprises to provide housing are difficult for them to meet, as many have severe financial constraints and need their resources for maximum investment in plant and facilities. Alternative channels for investment and production of housing and infrastructure seem to be required, and this should be the subject of further study.

The government's main instrumentality for studying and dealing with the housing sector is the Ministry of Urban and Rural Construction and Environmental Protection (MURCEP), which was established in 1982. MURCEP has broad powers, and its scope of work includes the formulation of policies, laws, decrees and regulations concerning urban housing development and administration; the working out of long-term programs and annual plans and inspection of their implementation; to promote the interchange of advanced experience and techniques, including through relationships with professionals and institutions in other countries; and to organize training courses for cadres responsible for the development and administration of housing in different regions and localities. MURCEP's officers have been in the forefront of analyzing information and the results of experience regarding housing and urban development in China, and in developing reform proposals. But MURCEP's work has just begun and it will need support and reinforcement.

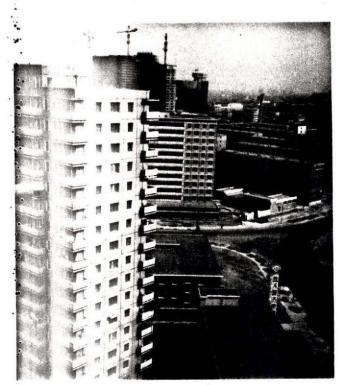
Many of the problems are of long standing and are politically sensitive and difficult to resolve. A prime



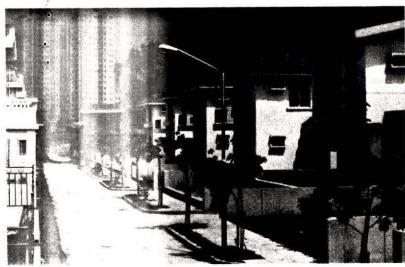
Beijing housing project, Zho Jia Zhang, built between 1979 and 1984 under direction of Housing Bureau of Beijing and Housing Development Corporation. Project has 76 buildings on 36.5 hectares, containing over 6,800 dwelling units.



Carlson with representatives of MURCEP and Housing Bureau of Beijing on top of high rise building in new Zho Jia Zhang project.



Excellent construction quality is shown in one of ten 16-story buildings in Beijing project. There are six 12-story buildings with the majority in six-story buildings.



Two-storied houses built for sale in Shenzhen special economic zone.

example was the early decision by the new Chinese government in the 1950s to implant and to maintain a policy of very low rentals for the existing housing stock, as well as for new housing. Apart from helping to establish legitimacy for the newly-formed government, the reasoning was that housing in a socialist state should be considered as basically a public service. Since then, rents have been lowered over the years, and are still maintained at very low levels. Yok-shiu F. Lee has described a typical present-day situation regarding rentals drawn from the city of Wuhan, where in the early 1950s the rent for an average family amounted to about 14% of the household's income.

Subsequently, the percent of household income devoted to rent decreased to 8% in 1957, and to 5% in 1970. In 1974, when the government began to subsidize one-third of a household's rent, the rent was reduced to what was virtually only a nominal fee. A 1980 survey of the Wuhan City Realty Company reported that an average household paid only 2.3% of its monthly income for its housing.

Officials of the Wuhan City Realty Company have complained that the underpricing of urban housing units has led to two serious consequences: poor housing conditions and inadequate new housing.

For the urban housing sector to recover fully its investment, the sale value of a residential housing unit should include (1) construction cost; (2) land development costs; (3) interest; and (4) taxes. If the housing units are rented, then monthly payments should include (1) depreciation; (2) maintenance fees and repair costs; and (3) real estate taxes. A recent survey in Wuhan of yearly maintenance and repair costs for urban housing showed that this amounted to 2.10 yuan per square meter. But the annual rent was only 1.09 per square meter, leaving a considerable shortfall for this item alone, not to mention the unpaid depreciation costs and real estate taxes. Because rental income is too low, necessary repairs are deferred to the point where deterioration occurs more rapidly. Indeed, this had occurred with the housing stock in Wuhan, close to one-third of which was in a state of dilapidation, and about one-tenth was classified as "dangerous" and "poor."

In another broader study by MURCEP of a large number of urban housing projects, the average monthly rent was 0.13 yuan per square meter of usable floor space. If proper provision for maintenance, administration and depreciation were included, the figure would be 0.63 yuan per square meter. If interest and taxes were included, the figure would be one yuan, and if payment for land use, insurance and profit were included, the monthly rent would then be two yuan per square meter.

From any economic point of view, the need to reform

the present low rent policy is apparent. However, raising rents is difficult political decision for any government, and even a gradualistic approach will require considerable study and balancing of the factors involved in the present situation of the Chinese economy. Mr. Lin Zhiqun, Director of the Bureau of Urban Housing of MURCEP, has pointed to the anomaly that although housing is by far the most expensive of durable consumer goods in most countries, in China, under the present irrational system, housing has become an odd piece of merchandise with an unbelievably low exchange value. To illustrate his point, he uses the example of the cost of a house versus that of a big color TV. In China, a typical dwelling of 50 square meters would be costed at 150 yuan per square meter, or 7,500 yuan, which would be about five times the cost of the TV. There would be much higher ratios in Hong Kong, or even New York, where a typical small dwelling unit or apartment might cost \$100,000 compared to the cost of a TV at US\$ 500, or about two hundred to one. This illustrates the contention that housing is not properly valued under the existing system in China.

Inequalities in Urban Housing

Greater equality in housing was an early objective of the government in the 1950s, and private ownership of houses was gradually but not totally eliminated, thus facilitating the state's ability to redistribute the existing stock. But as China's economy has developed, so have new inequalities developed in the allocation of resources for housing and in the distribution of rental subsidies.

There are three major types of housing ownership in China's cities: (1) housing under the city bureau of realty management; (2) housing under the management of various production units, including (a) state-owned enterprises, and (b) collectively-owned enterprises; and (3) private housing. The bulk of the state's housing investment goes to type (2a) housing, which is under the management of state-owned enterprises. In 1982, per capita housing investment (197 yuan) in state-owned enterprises was almost five times more than such investment (34 yuan) in collectively-owned enterprises. Moreover, whereas the state contributed 83% of the housing investment in state-owned enterprises, the collectively-owned enterprises must reapportion part of their welfare funds or profits into constructing housing for their workers. Urban residents who work for the city or collectively-owned enterprises therefore receive substantially less support for housing from the state government than do their counterparts who work in state-owned enterprises, who, moreover, are already privileged in terms of income, welfare facilities and job security.

Another form of housing inequality results from the way that rent subsidies are distributed in China. Workers

who live in housing types (1) and (2) receive monthly rental subsidies from the government. This subsidy is not distributed according to financial need, but rather is given out by the state on a per-square-meter basis, regardless of the size of a household's living area. The subsidy will tend to vary from city to city. For example, in Wuhan, it is one-third of the rent payments; in Jilin it is one-fourth of the rent payments. In Beijing, a family of four living in a 20 square meter apartment would receive a housing subsidy of 91.2 yuan per year, while another family of the same size living in a 40 square meter apartment would receive 182.4 yuan per year. Not only does the second family live in a more spacious apartment, it is also enjoying a larger government subsidy precisely because it is occupying a more roomy apartment.

Urban Housing Reconsidered

The current debate and discussions regarding China' housing policy argue that residential buildings should be considered as commercial commodities in China's socialist economy. To correct the housing shortages, anomalies, and inequalities, the urban housing sector should be commercialized, rents should be gradually readjusted upward from their present low levels, and the sale of housing to individuals should be officially permitted, to foster a more widespread tenure status of home ownership for urban residents. In this process, the urban housing sector could become financially more healthy and self-sustaining and less of a burden on the state's investment resources.

The sale of urban housing received official blessing in early 1980 when the State Council announced that urban residential units should gradually be commercialized. Between early 1980 and mid-1982 discussion on this subject flourished, and certain limited experiments were authorized. In 1982, a demonstration project for housing commercialization was initiated in four cities: Changzhou, Zhengzhou, Siping and Sashi. Under this program, a small number of new residential units are sold to individuals; the majority, however, are still being kept for distribution through the usual bureaucratic channels. From mid-1982 to end 1983, a total number of 1,746 residential units were sold to individuals in the four cities. These were sold at prices lower than their costs.

Typically, an individual pays one-third of the construction cost of a residential unit, with the government and the buyer's work unit each paying an equal share of the outstanding balance. Thus, only one-third of the initial investment is being recovered through this subsidized sale program, for reinvestment in more housing.

In October 1984, this scheme was offically extended to more than 80 cities. In 1985, 5% of Shanghai's new hous-

ing stock and 20% of Beijing's were set aside for subsidized sale to individuals. But while the government has proceeded carefully on a limited basis to permit the sale of housing, it has not yet attempted to adjust the rents or restructure the rental subsidy program. So the problems persist and grow more serious.

The sale of a limited number of new housing units benefits; a few households and really hurts none. But a rent increase or a restructuring of the rental subsidy program could mean a total rearrangement of the economic system, and raises fears that the beneficiaries of the old system will be hurt. Stable rents, like stable food and commodity prices are considered essential to preserving the overall economic well-being of the population. Still the state does need some return on its substantial and growing investment for urban housing because there are always pressures on it to relinquish such investment without return in favor of providing for more productive investment in such sectors as industry, agriculture or energy.

As the present rent subsidy system is clearly not rational nor advantageous for the development of China's economy, various proposals have been made for the introduction of major reforms. One line of approach proposes that older state-owned housing should be sold to existing tenants at a discount, on favorable terms comparable to their present rents, thus permitting them to assume home ownership status and for the state then to eliminate its rental subsidy. Another proposal suggests that the existing rental system could be reformed by establishment of a two tier system of hidden and open subsidies. Rents would be raised to a closer approximation of the real value of the housing space utilized. There would be a compensating subsidy for all urban dwellers on an open basis, but those occupying larger units would not receive additional subsidy for such larger units. There could be differentials depending on the income level of residents as well as the quality standard of the housing, to be treated separately and categorized for rental charges. But this would all perpetuate and expand a complicated bureaucratic apparatus which would still exert state control over management of the housing stock without adequate bottom-line return.

As for the subsidized housing sale program, it is argued that such a strategy cannot be maintained for any period of time because it still requires a large government input of resources. Moreover, many enterprises are reluctant for various reasons to contribute their share for house purchase for their employees. Others are financially constrained, and have more productive uses for their available funds. Recent studies show another layer of constraint to the home selling process in cities such as Xining, Changszhou and Siping. This is the fact that average per capita monthly

income of the home purchasers is quite low, in the range of 40 to 60 yuan. In Siping, for example, 93.3% of the total number of new home buyers had monthly incomes of less than 45 yuan in 1984. This means that they require a large loan or credit in relation to their total income or must find the resources for their one-third payments in other ways.

Proposals for commercialization of housing must take into account several factors which differentiate urbanization patterns in China from that in many other countries There tends to be a checkerboard pattern of land use, with industries, housing and farming still found side by side, not just on city fringes but in the city core. As land is unpriced, factories or enterprises do not pay land rent, and there results a pronounced misallocation of the use of land. A surprising amount of surplus land is now held by factories and government agencies.

Proper land pricing should result in a significant reallocation of land to residents. As stated in the World Bank's report on China, Long-Term Development Issues and Options, "For social as well as economic reasons enterprises and planners should be made to feel the dramatically varying economic usefulness (or opportunity cost) of different sites -- higher in coastal cities than in more remot regions, higher in large than in small cities, higher near the center than in the outskirts (in a city the size of Shanghai, experience in other countries suggests that a central site is worth approximately 150 times as much as one in the suburbs). A differentiated urban land tax reflecting these variations could be introduced." There woul be significant start-up costs in the setting up of such a land tax system, but the process would result in more rational allocation of land, less wastage, and the creation of new municipal revenues for advancing investment in infrastructure, parks, environmental protection, etc.

Much of the construction of housing in China has be drab and unimaginative, with space standards minimal, and little allocation of outside space for community facilities and amenities. Coupled with serious overcrowding, with several generations, or two families, often occupying one small unit, such housing is not well maintained, and rents do not cover operating costs. Raising the rents would be helpful, but converting the units to condominiums and providing residents with a sense of home ownership and incentito maintain and improve their units would help even more. It will be evident that much of the housing stock will not meet the needs of the people, especially when incomes will rising and expectations for an improved quality of life will be growing.

By the end of the century, even more of this exist housing stock will be a target for replacement, for building

and facilities and surroundings of higher standard and use-fulness, and with more imaginative design concepts. Although perhaps 50% of current housing construction in Beijing is in the high-rise mode, it is clear that there is an important economic and social role for low-rise, high density developments in the urban areas. These would encourage more social interaction and offer greater opportunities for community participation in project management and improvement. The Beijing traditional courtyard housing is often referred to in this context.

The current efforts in Shanghai and other cities for urban rehabilitation of existing terrace housing, forming a large part of the housing stock, are also evidences of the potentials for new forms of investment to help maintain the social fabric of urban areas in the housing improvement efforts. The building of new towns in the metropolitan areas, as in Shanghai, which has 12 such projects, also offers unusual opportunities to demonstrate innovations in urban design, architecture, management and financing. In some cases, such projects are linked with the preservation of existing towns and villages, an important heritage of China's culture and civilization.

Today more and more cities in China are building projects that represent considerable improvements in concept, urban design and architecture. In some cases, such projects are integrated developments of high-rise and low-rise structures, offering a range of community facilities and amenities. Some of these are part of broader efforts to improve the urban environment, and are related to the existing urban land-scape and its social and economic character.

With a target of 200 million dwelling units by the year 2000, there should be ample scope for innovative approaches to urban housing, design initiatives, new organizational forms, and the opening up of alternative channels for housing construction, finance, investment and management. Competitive marketing concepts might well be encouraged and established. One such possibility could be a system of open housing cooperatives with appropriate technical service organizations in each large city. These could be vehicles for accepting new applicants for housing, initiating savings deposit systems for such housing, developing new projects, and organizing the residents for management responsibility and participation. Such a system of housing cooperatives could work in tandem with the municipal bodies responsible for housing, with the appropriate modus operandi to be developed in each city.

Savings Mobilization for Housing

The World Bank Report, China: Long-Term Development Issues and Options, points out that the percentage of gross

domestic savings from households in China (29% in 1981), is considerably smaller than in neighboring countries such as Japan (54%); South Korea (38%) and India (65%). The Bank's report states:

"In the future, the greater part of China's investment in urban housing could be financed by personal saving (partly through housing cooperatives), with far less provision of workers' housing by enterprises. The government might provide housing directly only to the minority of people unable to pay, but could assist others by selling off more existing urban housing, as well as by 'sites and services' projects -- planning and providing basic utilities for new individually constructed housing -- coupled with technical assistance and limited subsidies or tax concessions to housing cooperatives. (These could partially replace the large existing housing subsidies, which would need to be reduced or eliminated to provide an incentive for tenants to become owners.) Experience elsewhere suggests that such a system would be a powerful stimulus to household saving, as well as to better construction standards and maintenance."

The Bank's report also urges the establishment of alternative channels of investment flows, particularly horizontal flows, to increasingly supplement the largely vertical investment flows in the traditional socialist system. This means the establishment of a variety of new financial institutions, which could mobilize investment funds from individuals, collectives, state enterprises and local governments, by accepting deposits and by issuing financial instruments such as bonds (either by themselves or on behalf of the users of capital). They would have to offer an interest rate or other return that reflected the scarcity of investment funds in the economy.

According to the Bank's report, funds raised by these institutions would be made available to potential investors, particularly enterprises of all kinds. The funds could be provided as loans, with fixed rates of interest and payment periods, but at least some financial institutions should be able to provide ownership capital. In such cases, the financial institution would be an investor itself, much as local governments, bureaus, state enterprises and collectives now participate in joint investment projects. As the World Bank report states, "These institutions would in effect create a socialist market for investment funds."

China began to diversify its financial system in 1979 and there are now many different forms of financial institutions -- banks, credit cooperatives, investment trusts, insurance and pension funds, and so on. In rural areas, some of the economic institutions of the former communes and brigades, which still exist following the reorganization of

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local government administration, could be transformed into financial entities. Such township banks or investment companies could mobilize investment resources from collective enterprises to establish new enterprises, helping existing enterprises to expand and modernize, and to support agricultural development.

The degree of state intervention in the management of financial institutions and in their allocation of funds would obviously require careful study and definition. Clearly, the government has to intervene in financial markets in order to regulate the overall supply of money and credit. But the broad case for the establishment of a system of specialized institutions for housing finance in China can readily be made. They would be an important factor in the mobilization of household savings, and they could help provide financing for new housing to be undertaken by organized entities such as housing cooperatives. This would provide housing on an open basis to the broad spectrum of population which is not now being adequately served.

The new housing finance entities could provide bridging finance for new construction, but a main function would be to provide a means for financing ownership of the existing housing stock in China, including the development of a mortgage system to enable the free sale and purchase of housing. The build-up of householder's equity and capital through home ownership, as well as the fact that such a system would help provide a protective hedge against inflation, would be two important underlying concepts.

Institutional Scene for Housing Finance

It is generally agreed that commercialization of housing in China can only take place if there are adequate provisions for credit and long-term financing capabilities to extend housing loans or mortgages to potential home buyers. Considerable progress has been made in overall financial reforms in China in recent years, and it is in this context that we briefly examine the present situation and potentials for development of an effective institutional system for housing finance.

The People's Bank of China exercises overall supervision over the banking system in China, and serves as the central bank for the government. It was only on January 1, 1984, however, that the People's Bank transferred its business of industrial and commercial credit and savings deposits to the newly-created China Industrial and Commercial Bank (CICB). The other main specialized banks are the Agricultural Bank, the People's Construction Bank of China and the Bank of China. The People's Bank sets the loan quotas for these specialized banks, which can raise money in various independent ways.

New banking control regulations were adopted by the State Council on January 7, 1986, which spell out how the banking system is to operate. In general, there is to be close cooperation and a more clear-cut division of labox between the People's Bank and the specialized banks and other financial institutions. But there is also to be considerably more flexibility with respect to banking operations generally. Foreign banks are also permitted to establish and operate under prescribed conditions.

State-owned enterprises can raise money by issuing stocks and bonds. With permission of the People's Bank, stocks offering dividends and voting rights may be sold by enterprises to other businesses and individuals. The specialized banks may issue savings bonds to the public to finance loans to enterprises. All can issue bonds and offer house-buying savings accounts. The CIBC and the Agricultural Bank can open savings accounts in foreign currency In general, it is expected that the specialized banks should develop into financially independent entities responsible for their own operations.

Five cities have been selected for a program of implementation of banking reforms over the next five years -- Changzhou, Chongquing, Guangzhou, Shenyan and Wuhan. The bank branches in the five cities may lend and borrow from each other and perform a variety of financial transactions. It is expected that they will offer check and money order services, as well as personal and travelers checks. Trust and investment companies for commercial credit, leasing, insurance and consultancy services are also being established. Although there has been a considerable growth of savings deposits, the main message from the People's Bank of China, through its President, Madame Chen Mu Hua, is that banks must still try to boost their savings deposits, that more savings banks should be opened, and more computers should be used.

China's national banks can now also lend for fixed assets. This has been the main function of the People's Construction Bank of China (PCBC). But, in 1985, excessive lending and credit for capital projects, some of which were not of priority, led to shortages of building materials and an overheating of the economy. Instructions therefore went down to tighten fixed asset investment in state-owned industries. Some projects were stopped or suspended in the effort to reduce inflationary effects. The currency was also devalued, from its level of 2.8 Yuan to US \$1, to 3.2 Yuan to US \$1. In July 1986 it became 3.2 Yuan to US \$1.

The PCBC has been an active player in the housing finance field. To date, in 1986, it has loaned 3.9 billion yuan for private housing projects and various enterprise urban development projects. About 56 million square meters or one million flats, have been built with loans from the

bank, of which 48.5 million square meters have been sold. The Bank attracts savings from individuals and enterprises for lending for home ownership. In 1986, it was announced that the Bank had one billion yuan available for land development and private housing.

The CICB has an extensive branch and office network, some 14,000 savings offices, about 400,000 employees and over 200 million individual savings accounts. By the end of 1985, it had savings deposits totalling 89.5 billion yuan, or about US\$ 28 billion. The target for 1986 is to increase savings deposits by 25 billion yuan. A fastgrowing category of the Bank's lending activity is that of loans for durable consumer goods and housing. The Bank grants such loans linked to urban savings deposits. It grants loans for housing, including building, buying and improvement. Loans typically are from five to eight years and carry an interest rate which is established from time to time. In 1983, it was 6.82%. Loans to individuals for new houses are made on the basis of linkage with savings deposits, which should amount to from 30 to 50% of such loans. The Bank has given some construction loans for private development and made loans to companies or enterprises for housing construction.

Although the CICB is attracting a considerable volume of savings, a recent study by the Bank showed that the full potential is not being achieved. A survey of 11.618 million self-employed in nine major Chinese cities reported that only 6% had opened deposit accounts in the bank or in local credit cooperatives. Among the reasons given were fear of sudden economic changes; a reluctance to disclose their economic means; inadequate services of the Bank; and interest rates on deposits were not keeping up with inflation.

As for rural savings, these are growing at a fast rate, and at the end of 1985 the balance of personal deposits totalled some 56.5 billion yuan. About 80% of rural households belong to the credit cooperatives which were established in the 1950s, and are under the supervision of the Agricultural Bank of China. To what extent the rural credit cooperatives make funds available for home improvement loans is not known.

In April 1986, the Postal Savings System inaugurated nation wide a system to attract savings deposits, in agreement between the Ministry of Posts and Telecommunications and the People's Bank of China. There are 50,000 service centers throughout the country, and the system will offer interest rates comparable to those of the banks. In Japan, a predominant source of housing finance is the Postal Savings system, for utilization by the Government Housing Loan Corporation. Whether this type of situation will develop in China remains to be determined.

The extent of savings and building development through housing cooperatives in China is not known. In 1986, it was reported that a housing cooperative, the first of its kind in Shanghai, was organized by the Shanghai Toy Company. The funds for the cooperative come mainly from three sources: the company's housing funds, shares bought by employees, and credit with low interest provided by the banks. The houses are owned by the cooperative, but the members have priority in renting the houses and can leave them to family members, although not permitted to sell them freely.

Housing Finance Development

Although the existing specialized banks are offering some funding for housing finance purposes, it is probable that more could be done to create a financing system to permit longer range planning and programming of integrated housing projects. In addition to the rental reforms home ownership and management improvement, certain proposal have been advanced for discussion for the establishment of a major new undertaking for housing finance and development This could have some of the characteristics of a specialize bank, such as a new China Housing and Mortgage Bank. One proposal is for the establishment of an Urban Housing Development Foundation which would draw its capital from a percentage of the payrolls of all administrative, institutional and enterprise units. It would encourage various forms of home ownership, and there would be coexistence wit the typical public rental housing, welfare housing, housing cooperatives, as well as self-onwed and occupied housing.

Singapore is looked upon as another model, where provident funds for pensions and social security have provided resources for lending for housing and acquisition of housing. This fund is currently based on a percentage of payrolls, 25% from the employer and 25% from the employee, credited to individual accounts. This has similarity to the unemployment and social security fund established in Brazil in the 1960s, where 8% of payrolls is credited to individual accounts, and whose resources have provided for the investment program of the Housing Bank of Brazil. It seems likel that in China some new instrument of this kind will be required, and will rapidly find its proper role.

The importance of a nationwide social security and pension system in China is increasingly being recognized. Already there are an estimated 100 million people of retire ment age (60 for males, 55 for females), but only 12 million had actually retired by the end of 1985. The circumstances vary between cities and enterprises. In Shanghai, for example, all sino-foreign joint ventures are now required to contribute 30% of salaries to the Shanghai Branch of the People's Insurance Company of China, for the pension fund. In state-run units in other places, the percentage of staff

payroll contributions for pension purposes may range from 12.5 to 25%. These funds are usually passed on to the local governments for administration, to reach the retired individual.

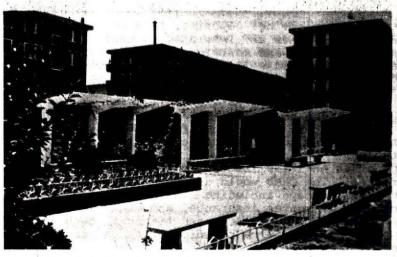
In view of the nature and the long-term character of pension funds, housing in many countries offers a major and appropriate investment opportunity for the resources in such funds. This can be on a direct basis, for funding of individual projects, or for investment in the secondary markets of mortgage securities and bonds, to free up more resources for direct and primary investment by others engaged in housing and building projects.

As China develops the basis for a nationwide system of social security and pension funding, it seems logical to propose that investment for housing finance be one of the leading permitted investment objectives of such funding. This will add to the resources for building the nation's capital stock, help in its modernization, and create employment on a sustainable basis, as well as providing for many other economic, social and environmental benefits.

The housing sector will continue to have a most important role in the development and transformation of China's economy, as indicated in the construction targets established in the Seventh National Plan (1986-1990). The estimate of 200 million dwelling units to be built in this decade and the next represents a formidable challenge. Because of the size and complexity of the problems to be dealt with, the need for responsible mobilization of resources, and the need for control, supervision and evaluation of the investments required, consideration should be given to the establishment of a new central financing entity to deal with this sector. This could be a new specialized bank, comparable to those already established, and with similar capacities for conducting a wide range of operations. Such an entity, which might properly be named the China Housing and Mortgage Bank (CHMB), would draw upon the experience and research of MURCEP in developing its investment programs. It would report to the People's Bank of China, as with the other specialized banks, and be subject to its supervision and directives.

The CHMB would tailor its operations to the specific needs of China in a socialist capital market, where state-owned financial institutions play a leading role; where the main providers of funds are farmers, workers, enterprises and institutions; and where there is control of foreign exchange. However, elements of experience from similar institutions in neighboring countries will undoubtedly prove useful.

In some cases, the CHMB would compete with other banks for business in the attraction of savings, interest rates and home financing. It would obtain funding for its



A residential district in Tianjin, Hebei Province.



On top of new 20-story high rise in Shanghai with respresentatives of Shanghai Municipal Bureau of Housing Administration. On Carlson's right is Wu Zheng-Tong, Vice-Director, Shanghai Housing Management Science and Technology Research Institute.

investments from savings deposits, from central sources such as pension funds and insurance companies, and by the issuance of housing and mortgage bonds and other debentures. Initial capital could well come from government and could include the assignment of state-owned housing stock.

The CHMB should be the vehicle to promote and foster a specialized housing finance system. It would, in effect, be the supervisory center for such a system, whose members might include cooperative building societies, savings institutions, housing finance development corporations, and perhaps other entities associated with provincial or local authorities. The CHMB would develop special services and instruments, perhaps including discount facilities, deposit and mortgage guarantee insurance, and other financial products. It would promote advanced financial technology and serve as a central source of information and technical assistance in this field.

China's Building Industry

China's building sector has made great progress, and is in process of reform and modernization. During the 33 years from 1952 to 1984, the construction and installation work completed amounted to 800 billion yuan. About 300,000 industrial projects and 590,000 projects for cultural and welfare purposes were built, with a completed total floor area of some 2.3 billion square meters. More than 200 cities and about 1,000 county towns were reconstructed and expanded. Housing conditions were improved for 320 million people.

At present, there are 12,360,000 workers and staff members engaged in 11,400 building enterprises and institutions, of which 5,500,000 are working in 3,000 state-operated enterprises; 2,100,000 in collectively-owned enterprises in 7,000 cities and towns; 300,000 in 1,400 survey, design and research institutions, and 4,000,000 in rural construction teams.

However, there have also been problems. The ratio of the earnings of the building industry to GNP was less than 5% in China, whereas it is considerably higher in other countries. The profit rate of the building industry was only 2.5%, whereas in other developing countries it may be 20% on the average. The building sector also lacked the independent management essential to its development. Building products were not considered as commodities, which resulted in unrealistic pricing of materials from their real value. For years, the building sector has been plagued by other problems such as a long construction cycle, a high rate of consumption, huge waste, and technological stagnation.

Some of these problems are now dealt with as the result of major reforms of the management system which

took place in 1983. In 1984 construction works increased by 20.7%. Mean completion of floor area per capita increased 7.6%, and labor productivity per capita by 17.3%. The key r forms responsible for these increases were the establishment of a system of investment responsibility and a system of public bidding. Highlights of the reforms include the following

- (1) The concept of investment agreements which specify the responsibility of the organization for which a project is to be built. The state then allocates the total sum specified in the investment responsibility agreement to the construction bank, which in turn provides the funds as required according to the progress of the project.
- (2) For all projects where repayment is possible, financial appropriations should be replaced by bank loans in accordance with the principle of compensation for the use of funds.
 - (3) Working out policies that encourage a shorter construction period. Funds saved by early completion go to the organization which has contracted for the project after repaying all additional loans for overdue construction.
 - (4) Under state guidance, the development organization selects the best design institute and construction company through public bidding. Any qualified design and construction organization may enter into bidding no matter what region or department it is from.
 - (5) The development organization may choose from various forms of contracting. For example, for housing development, contracts may be signed for a housing estate or for a specific block of buildings. Contracts may also be signed to fix the amount of wages for every 100 yuan worth of finished work.
 - (6) The system of ordering and supplying materials and equipment is also reformed, with the pricing regulated by the market.
 - (7) The recruitment system is changed to give greater emphasis to labor contracts to increase the number of temporary and seasonal workers. Peasant building teams are allowed to take part in public bidding for contracting projects in cities.
 - (8) Design institutes, instead of being solely state-operated, should serve more as consulting firms offering professional services, with emphasis on modernizing codes, norms and

quotas, and bringing the initiative and creativity of designers into full play.

An example of the benefits of the new bidding and contracting system is the experience of the city of Dalian, which has actively solicited bidding on contracts from units of municipal districts outside its province, as well as from the 90 construction units in the city proper and its subordinate districts. The results of this active bidding process have lowered construction costs by an average of 8.8%.

Construction periods were shortened for 381 projects which implemented the bidding and contracting system, averaging 23% less than the nominal period designated by the state. There were also substantial improvements in construction quality. All projects were prepared well in advance, before bidding. The settling of accounts was also much simplified, as the successful bid price for a contract is the final payment for its completion.

Construction payments are now made in installments, in accordance with procedures adopted by the People's Construction Bank of China. Fifty percent is paid on signing of contract, a further 35% on completion of basic or general construction works, and the remaining 15% on final completion and acceptance of the project.

With the construction boom and involvement in more complex projects, the technological capacity of the building industry has increased considerably. In association with foreign investors, new technologies and materials have also been introduced, such as sheet glass production, aereated concrete and cutting techniques, gypsum board, precast concrete panels, straw board and chap board. Factories have been established for the manufacture of earth moving equipment, emulsion and alkyd resin materials, plywood, household furniture and elevators. While in the past foreign contracting firms have often been called upon for complex and difficult projects, Chinese firms are now to be given first priority, and this will certainly be the case for new high rise buildings. Shenzhen has one of 53 stories, and there are three such tall ones in Shanghai and two in Beijing. By the year 2000, it is expected that there will be 20 million square meters more of tall buildings in 40 cities in China. The urban future will be looking up.

At the same time, it will be important to concentrate on more mundane matters, such as improving the performance of the housing construction industry. As pointed out by Vincent J. Abramo in a recent report, this will involve: standardized construction designs; training of workers according to standardized teaching materials appropriate and effective for both construction designs and building materials, and better quality building materials, sturdy

hand tools and equipment, well-motivated work force, and more efficient management of the job site. The process could begin with the 150 billion pieces of clay brick which China produces annually, almost everywhere. Fortunately, the continued use of this traditional all clay brick is recommended as still being the best building material for housing in China.

The Special Economic Zones (SEZs)

The Special Economic Zones are dramatic symbols of a new open-door policy for foreign investment in China, and were conceived within the new economic policy announced in December 1978. The goal was to promote socialist modernization, and special status was thus granted to Guangdong and Fujian, the two coastal provinces, to experiment with an alternative form of economic development other than socialism. The main idea was to use capitalist enterprise and foreign capital, subject to municipal planning and approval. Four SEZs, that is, Shenzhen, Zuhai and Shantou in the province of Guandong and Xiamen in Fujian were then established. These zones were to serve as bridges or windows for introducing foreign capital, technology, knowledge and management know-how.

The SEZs have attracted large amounts of investment, infrastructure construction, industrial plant and production facilities, and urban population. The achievements are rather startling and remarkable, especially in the case of Shenzhen, the largest of the zones, 327.5 square kilometers in area, stretching 49 miles along the border of Hong Kong's New Territories, incorporating fully one-third of the newly designated Shenzhen municipality. Though the achievements of each SEZ vary considerably, one from the other, all four represent unusual places for research and evaluation, of the translation of plans into realizations within an unusually short time period.

In a celebratory tour of the SEZs in early 1984, Deng Xiaoping and the Party leadership proclaimed the five year experiment a success, and called upon the nation "to learn from Shenzhen." He authorized both the expansion in size of the smaller existing zones and the opening of 14 additional coastal cities as preferred sites for foreign investment. There has been no lack of boldness in these approaches, and, as is to be expected, there remains a good deal of political and intellectual controversy about their economic and social benefits. However, the Seventh Five-Year plan reinforces their position and expected development and suggests that the SEZs will be expected to lead in technological importation, to aim towards production for exports and to create more foreign exchange earnings for the nation.

This article does not provide the appropriate op-

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portunity or space to review developments of the SEZs and some of the 14 coastal cities. But we can touch upon a few highlights, to be expanded in some future opportunity. According to an official report, by early 1985 a total of US \$2 billion of investment had been pledged to the zones through some 4,700 economic cooperation agreements, an amount constituting over 40% of the total pledged foreign direct investment in China. This figure must be compared to the total infrastructural costs of close to six billion yuan up to that time. Actual investment over the past five years for the four economic zones totalled an estimated US \$840 million.

The most successful of the SEZs has been Shenzhen, which accounted for 67.5% of total actual investment through 1984 and over 75% of the total number of economic cooperation agreements. At the end of 1985, the permanent population of the Shenzhen SEZ was 191,400 plus another 140,000 temporary residents, many of them construction workers. The zone's population is expected to reach 450,000 by 1990 at which point industrial output is to top 4.78 billion yuan. A majority of the labor force is expected to come from areas outside of the SEZ, and a significant percentage is recruited from other provinces, and assigned employment under special contractual arrangements through the labor bureaus. The construction of Shenzhen has involved massive infrastructure costs. Actual capital construction expenditures virtually doubled each year, from 1979 through year-end 1984 totalling 3.64 billion yuan over the six-year period. The revised plan covering 1985 to 1990 projected capital construction expenditures of 7.5 billion yuan.

In terms of area constructed in square meters through 1984 for Shenzhen, the total was 6,013,022, of which the residential dwelling area accounted for more than half, or 3,044,917 square meters. All of this development is meant to form part of a comprehensive, integrated zone, whose prime focus is on industrial development, preferably technology-intensive in character, but simultaneously promoting agriculture, tourism and trade. Of the 98 square kilometers available for urban development, 15 square kilometers were designated for industrial use. The zone was divided into 18 districts to be developed serially on a self-financing basis. The average per year projected growth rate for the SEZ to the year 2000 was 31%. Industrial output would top 12 billion yuan by the end of the century, at which time the zone's population was expected to reach 800,000. It would then include some 1,500 new zone enterprises, creating over 200,000 jobs.

Shenzhen is not financed by state budgetary allocations, and was supposed to be a model of the utilization of foreign capital in investment. In actuality, during the entire period from 1979 to mid-1984 foreign investment has never constituted more than 30 to 33% of the total cap-

ital construction investment. The other major sources of funding have included bank loans; local collective investments; Guangdong provincial government investment; and investment by Chinese enterprises and state departments from outside Shenzhen.

Estimates indicate that in the early years at leas 25% of the investment in Shenzhen was for real estate. However, no comprehensive data on this subject have been published by the city government or by the central or province authorities. Whether there has been inadequate planning as provision for housing and community facilities both for the permanent and temporary work force is not clear. The Shenshen SEZ Real Estate Company was formed by the city government in early 1980. In its first four years, it realized a substantial amount of capital construction using foreign capital from Hong Kong. After 1982, it began to invest in projects relying solely on its own financing, from the proits retained.

By mid-1984, Shenzhen had sold almost equal amounts of commodity housing units to local and foreign buyers. L cal buyers include employees who purchase units from their own enterprises and state departments at a discount and by installments; and also local state departments and enterprises, as well as their counterparts from outside Shenzhen. In Shenzhen, most of the local workers' housing is built by the Housing Company, a division of the Shenzhen SEZ Construction Company. The units are distributed direct ly to the local population and different state departments -- the former by rent, the latter by sales. The department then allocate the housing units to their employees according to the number of persons per household and status. Workers are also allowed to buy houses through mortgage which, of course, favors those workers who receive higher wages and can afford it.

The foreign firms that establish in the SEZs are not directly required to provide housing, health care, retirement or other welfare services which are normally provided by Chinese units (state-owned or collectively-owned) enterprises) for their employees. Consequently, the state specifically the Shenzhen municipality, has to provide the services. The funds for such purposes are an integral part of the labor contract negotiated between the SEZ Developmen Corporation and the foreign investors. The 1981 provision al regulations specify that of the total compensation pack per worker, 5% is to be paid to the labor bureau as fee; 7 is paid to the workers, and 25% is retained by the labor bureau for mandatory labor insurance and "various state sul sidies." These arrangements may vary from zone to zone. the Zuhai SEZ one project provides for a distribution of 4! to the individual workers and 50% retained by the enterpris to provide for the welfare service, housing and health car for the worker. The most usual practice is that the enter

prise hands over the welfare reserve funds and relies on the municipal government (or the state) to provide these services and facilities.

Thus one of the changes due to the establishment of the SEZs is that the municipal government's responsibilities to provide for housing and welfare services have increased. This is hardly in line with the expectations of those promoting commercialization of housing, especially as the SEZs were to demonstrate private sector investment in all sectors.

Appropriate judgments on the concepts and the realities of the SEZs will require more information. All four SEZs have considerably increased in urban population. At end 1985, Shantou had 489,000; Xiamen, 344,000; Shenzhen, 190,000, and Zhuhai, 90,000.

Government Housing Finance Policies

In the present decade, many governments have made basic changes in their housing finance policies. There is a prevailing view that shelter should be viewed as a basic need and an indispensable part of the infrastructure of a productive society. But increasingly, in both market and socialist economies, there is realization that direct construction by governments is not necessarily the best way for meeting the housing needs of the population. In many cases, public budgets are inadequate for the large capital investments and continuing subsidies consumed by direct construction of housing by state agencies. This is particularly true in many developing countries where there is growing recognition that rather than building houses directly, governments instead should adopt a supporting and facilitating role in the provision of shelter. They should seek to extend a wide range of viable shelter solutions through non-governmental, informal and private sectors.

In the industrialized countries, a predominant source of funds for housing comes from household savings, and in many cases these domestic savings are mobilized through specialized housing finance systems and institutions. In the United Kingdom, for example, the building societies dominate both the short-term personal savings market and the housing finance market, accounting for 51% of the liquid assets of personal savings in 1985, and for 79% of house purchase loans in that year. In some countries. there is an increasing range of housing finance instruments going beyond the traditional mortgage, and with the growth of secondary mortgage markets this is enabling long-term finance to be provided more readily through pension and provident funds, insurance institutions and others. Direct government investment for housing tends to be more restricted in most countries, and typically tends to be focussed more

on subsidies for the homeless and needy families, and on major problems such as urban renewal, and the rehabilitation of central city areas.

In the socialist countries major changes are also taking place, to a greater or lesser degree, but with the effect of diminishing direct government investment and construction of housing to other modalities, particularly through the encouragement of cooperative housing programs, and increasingly through the promotion of home ownership, including the establishment of specialized savings systems for this propose.

The recent developments in the socialist countries of Eastern Europe illustrate the changes and trends in this respect, and a few examples will be briefly overviewed. Bu for a rather startling and possibly adaptable example of ne housing policy in another developing socialist country, Cub new housing legislation of 1984, basically converting all existing housing into home ownership tenure, offers a model for thoughtful consideration, and its main elements will be briefly described.

In the Eastern European socialist countries, there are a number of common characteristics underlying their how ing policies, goals and implementation. One is the maintenance of low rents for the state housing constructed. Typically, there is no amortization for these projects, and there may also be a subsidy for repairs, maintenance and other factors, to help maintain the low rents. Changes are now taking place, however, in several countries. In both Hungary and Poland rent reforms began in 1983, and rents were raised in a multi-step fashion. In Czechoslovakia in 1981 housing built by enterprises, about one-fifth of the total, was replaced by an expansion of cooperative housing construction. In general, in recent years housing of the type realized through the population's own resources has been increasing in importance. Besides state housing, more and more families in these countries have been able to satisfy their own housing demand through their own incomes aided by substantial state subsidies. Thus the state and the population participate jointly in the financing of hous ing investments.

In several countries, increasing efforts are being made to promote savings for housing. In Hungary, for example, there is a Youth Deposit System. People under 35 may undertake to save a definite sum each month regularly for five years. If they meet their obligations, they receive premium in addition to the interest rate and an amount of credit equal to their savings. The Housing Saving Deposit introduced several years ago, is available to all, providing an organized form of saving for housing together with a preferential loan. In the socialist countries, the financing of housing (and purchase) is now for the most part ar-

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ranged by national savings banks. Their functions are becoming increasingly diverse.

In a number of socialist countries, the trend towards expansion of the owner-occupied housing sector, as well as cooperative housing construction is evident. The share of state investment for housing is still highest in the U.S.S.R., where in the early 1980s it was 70%, with individuals accounting for 20%, and cooperatives and kolkhoz, 10%. But recently, cooperative housing is expanding as the result of new state directives.

In Czechoslovakia, the share of state housing construction decreased from 36% in 1981 to about 20% in 1983, while cooperatives increased from 35% to almost 50%, and the share of individual housing construction stabilized at about 30%.

In Poland, the share of rental dwellings built from 1981 to 1983 declined to 13% in comparison with 15.1%. The share of individual construction increased from 26 to 28%, and cooperative construction was maintained at about 55%.

In Hungary, the share of newly-built dwellings decreased to 18%, while the share of completed family houses rose to 44.9%, and the share of owner-occupied dwellings increased to 37.1%.

In Bulgaria, in the period 1981 to 1983, compared with the period 1976 to 1980, the share of rental dwelling construction decreased from 52.2% to 45.3%, while the share of completed family housing and of other owner occupied dwellings increased from 47.8% to 54.7%.

For the most part, the financing of individual housing is carried out through long-term credits at low interest rates. But in individual countries loans at higher interest rates and repayable over a shorter time period play an ever-increasing role, and in some countries significant incentives are provided for early repayment.

Special attention is being given to improved and efficient management for the housing stock, and to systems for repair and reconstruction of housing. In Hungary, for example, tenants can modernize their dwellings themselves, and a substantial part of their costs can be repaid by the state estate agencies or compensated by reduced rents on their dwellings. The state bank has also been able to give favorable loans for additional insulation of dwellings and houses against heat loss and for the use of energy saving ways of heating.

Cuba Promotes Home Ownership

As China is a developing socialist country, there

are other aspects of the housing policies and programs in the socialist countries of Eastern Europe which merit further study and consideration. But the case of Cuba, another developing socialist country, may have more relevance. As reported by Jill Hamberg, a sweeping new housing law was enacted by the National Assembly in December 1984, following abundant open debate and discussion. This legislation was adopted during a period in which government housing output had nearly doubled, during the first half of the 1980s, reaching a level of over eight dwelling units per 1,000 population, comparing favorably with levels in Western Europe in recent decades. This spurt in production also stimulated lively debate about future policy directions in other areas, such as site planning, building scale and design, urban renewal, rehabilitation, conservation and resident participation.

The new housing law creates a standard tenure form for the whole country (home ownership) and converts leaseholders in government-owned housing into homeowners. It fosters and regulates self-built housing construction by individuals and cooperatives. It permits limited short-term private rentals and provides more flexibility for a private rental market. It updates existing legislation regulating housing management, maintenance and repair, evictions and the buying and selling of land and housing. It encourages greater resident responsibility for maintenance and repairs The law applies to all housing, not just that in urban area Although the law will help channel available resources in a more effective manner, it cannot, of course, resolve the shortages of construction materials, tools and equipment, etc. Some of its main provisions are briefly summarized, a below:

(1) Conversion to home ownership. Cuba's 460,000 rent-paying families, representing one-fifth of households, will become home owners and amortize the price of their dwellings with their regular monthly rents. The total purchase price is calculated by taking a household's rent as o October 1984 and multiplying it over a 20-year period. Pay ments from past years are credited toward the total, but a minimum number of years must still be paid, ranging from five to 13 years, depending on the time of construction. A family can choose to pay more rapidly, or, if household income falls, the amortization period may be extended.

As an alternative, households can opt to have the total price set based on the type of construction, usable floor area, location, extra yard space and depreciation. This is called the "legal price" to differentiate it from prices on the unregulated free market or those derived from income-based rents. Another third of Cuban households, man including most residents of self-built housing and rural ne towns, will acquire title to their homes without paying any amortization. Thus, almost all households will acquire the

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same tenure status -- home ownership -- and will therefore have the same rights and responsibilities.

- government-built housing will be sold to high priority families, who will pay off the legal price of their dwellings with low interest loans over a period of 20 years in high-rise structures, and 15 years in all others. Prices for government-assigned existing housing will reflect depreciation. Families will receive credit for payments on their prior residence or its legal price. Most state-built new housing will be distributed by local public agencies rather than by workplaces.
- (3) Sales, exchanges, and inheritance. The new law permits free market sales of land and housing, and of the right to build on the roofs of single and multi-family housing. When households exchange dwellings, they will normally take their mortgage debt with them, but the new law permits the parties to exchange their debts, or for one party to assume the debt on both dwellings. The law allows inheritance of a home left vacant after its owner's death.
- (4) Self-built housing. The new law provides for active public involvement in fostering various forms of self-built construction, including building by individuals and by cooperatives established on a temporary basis for the purpose of building multi-family housing. Once completed, apartments are owned as condominiums. Trade unions and other organizations are encouraged to promote such cooperatives among their members. Land, or the right to build on roofs, can be purchased from private parties, as can permanent surface rights on state-owned land. First priority for state aid will go to cooperatives formed by trade unions planning to build near workplaces, then to other cooperatives, and finally to individual builders who fulfill certain criteria. Low-interest loans are available to cover a wide range of building costs.
- (5) Management. Low-rise multi-family housing will be self-managed by councils composed of all residents. Occupants will assume responsibility for paying a maintenance fee. High rise structures will still be managed by local government agencies, but only a portion of the maintenance costs will be subsidized.

Most new housing in Cuba will still be allocated by social criteria, such as need of maintaining a stable labor force rather than being sold to the highest bidder. But differential land prices and interest are also consistent with Cuba's current stage of transition to socialism. In Marxist theory, neither is a form of value, but both have prices. Under socialism, interest (the price of money) and land prices are used to promote efficient use of resources under conditions of scarcity. Official prices on urban land re-

flect differential land rent based on such things as distance from downtown, accessibility and infrastructure.

The two aspects of the new law that most resemble capitalism -- free market resales and short-term renting -- do involve private unearned income, but are viewed as transitional free market measures which have their own raison d'ètre within the framework of Cuban experience and the position of the economy at the present time.

Whether this type of rationale or dialectical interpretation of Marxist socialism, as applied to the housin sector in today's world, will carry much weight among the policy makers in the People's Republic of China remains to be seen. But the challenge is there for debate and discussion on this subject, leading to more definitive policy formation and new legislation for housing policy and finance

Conclusion

This brief report has endeavored to provide an overview of some of the main happenings and issues regarding housing finance development in China today. More in-depth analysis is needed, and other issues could well be added. It seems clear that major urban reforms are currently being studied which will have considerable impact on these issues for example, as reported in the China Daily, one senior government official has pointed to the following prospects:

- Utilities and other essential facilities will be operated like businesses rather than as welfare agencies providing free or cheap services.
- (2) Services now provided by units for their members or employees will be socialized (privatized) -- that is, provided by outside agencies on a commercial basis.
- (3) The use of land in urban areas will be commercialized, rather than allocated by governments.
- (4) Housing will be commercialized. Rents will be much higher, being based on actual costs.

In this context, it seems essential that new national housing legislation be adopted, through which polic for housing and urban development will be made explicit. Such legislation could develop the concept and modus operandi for a new system of promoting savings for housing and housing finance generally. It could establish the institutional structure in which such a system would operate. The financing agency, by whatever name, would have close link-

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ages with MURCEP and the specialized banks which function under the supervision of the People's Bank of China.

China has the oldest and largest system of cities of any society in the world. It has had extensive experience with urban administration, a diversity of regional development, and exceptional integration of city and hinterland. The world has much to learn from this experience. But now China is embarked on an expressway toward modernization and economic growth. It must provide itself with new strategies and new instruments for dealing with the financing, planning and management of human settlements so that the Chinese people will have good housing in decent urban environments appropriate for their present and future needs.



A residential building in Foshan, Guangdong Province.

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Utility building in right foreground provides centralized heating for Beijing housing project. All 6,800 dwelling units have piped gas.

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HOUSING FINANCE DEVELOPMENT IN CHINA An Overview of Issues and Prospects

Eric Carison



Published by International Union of Building Societies and Savings Associations Chicago, Illinois

INTRODUCTORY NOTE

In pursuit of its mission to promote interchange on housing finance development throughout the world, the International Union has opened a special window to the People's Republic of China. The response has been very positive, and considerable interchange has already taken place. China's population of 1.046 billion is one-fourth of the world's total. The government is engaged in a determined effort to quadruple the Gross National Product by the year 2000 which would bring it in the range of \$US 800 to \$1000 per capita. Housing has an important role in these efforts for modernization and growth in all sectors. In 1985, more than 12.6 million dwelling units were constructed (3 million urban and 9.6 million rural), but key issues cemain to be resolved if this sector is to contribute more effectively to China's development

The urban housing programs in China require large capital investments and growing subsidies which burden the State's budget. Only in the past several years has homeownership been permitted, beginning with a limited program in several cities. In contrast, in the rural areas, homeownership is the predominant tenure form, and there has been a huge surge of peasant investment in housing, drawn from their increased earnings and savings as a result of the rural reforms.

Knowing that there could be no greater expression of the role of the International Union and its objectives than helping to bring private homeownership and a thrift and home financing system to China, in 1984 I authorized IUBSSA's Special Advisor Eric Carlson to visit China for first contacts with the newly-organized Ministry of Urban and Rural Construction and Environmental Protection (MURCEP). MURCEP subsequently requested IUBSSA for a return visit, for lectures and seminars on housing policy and finance in Beijing and Shanghai to a wide range of Chinese authorities concerned with housing and urban development. In June 1986, President Osterbrauck also visited China on official invitation, and was hospitably received for his lectures in Beijing, Shanghai and Xiam. He met officials of key financial institutions, and encouraged their membership and participation in IUBSSA activities. They are keenly interested in systems for savings and homeownership.

IUBSSA has provided a grant for a joint housing research project and book on housing in China, being carried by the China Academy of Urban Planning and Design in Beijing and the Institute of Public Administration of New York. This present document by Eric Carlson is a preview of some of the major topics and issues being further developed in this project.

We will observe with great interest developments initiated by the Chinese government as a result of the assistance provided by the International Union. Hopefully, some time a few years hence, we will see the active functioning of a program of savings for homeownership and systems for home financing which will bring the people of this vast country to the realization of dreams that people over the world have had for centuries to own their own home.

We are proud of the work that Eric Carlson has been doing in China and that a man of his background and experience has been associated with the International Union.

We are particularly pleased that President Dr. Willi-Dieter Osterbrauck was able to visit China during the last year of his presidency and add his unique type of salesmanship for homeownership to this important effort.

> NORMAN STRUNK Secretary-General International Union of Building Societies and Savings Associations

August 1986

NOTE ON ERIC CARLSON

Eric Carlson has been Special Advisor to the International Union of Building Societies and Savings Associations (IUBSSA) since his retirement from the United Nations Secretariat in April 1982. In the UN, he was Deputy Director of the Habitat and Human Settlements Foundation in Nairobi, Kenya tor eight years, and formerly Chief of Housing at UN headquarters in New York for 10 years.

Currently, he holds several positions mainly concerned with housing and finance development. He is Special Advisor to the Caribbean Association of Building Societies and Housing Finance Institutions in Kingston; Chairman of the United Nations NGO Committee on Housing and the International Year for Shelter in New York; Secretary and Trustee, Cooperative Housing Foundation and Vice Chairman CHF International, Inc., Washington, D.C.; Trustee, Community Cooperative Development Foundation, Bridgeport, Conn.; President, International Foundation for Earth Construction, Washington, D.C.; Member, Executive Council, World Society of Ekistics, Athens; Representative, Habitat International Council to United Nations, The Hague: Member, Board of Directors, International Rural Housing Assn., Caracas; Member, International Committee, National Association Housing Officials.

He is a Senior Associate of the Institute of Public Administration, NYC, and currently serves as Director, Joint Housing Research Project, People's Republic of China, with China Academy of Urban Planning and Design. He is also advisor to Housing Policy Project, National Economic and Social Council, Prime Minister's Office, Dublin, Ireland.

He was a co-founder of the African Union of Building Societies and Housing Finance Institutions (Nairobi) in 1983. He has lived and worked in several countries in Latin America and the Caribbean, including Brazil, Costa Rica, Colombia, Venezuela and Barbados. He is a former director of the Inter-American Housing Center (CINVA) in Bogota, Colombia.

He is an active consultant in the field of international housing finance, and is President of Eric Carlson Associates, located at 25 Giletta Court, Closter, N.J. 07624 (Tel. 201-768-7707). His office in New York City is at the Institute of Public Administration, 55 W. 44th Street, New York, N.Y. 10036. (Tel. 212-730-5480).

AUTHOR'S NOTE

This introductory report on housing finance development in China is dedicated to Norman Strunk.

His interest and support were the key ingredients in helping to open dialogue with Chinese professionals and officials concerned with development of the housing sector.

That the International Union is serving as an important bridge for extending knowledge of housing finance development throughout the world is a tribute to his understanding of the needs involved and his dedication to continuing service in this field.

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HOUSING FINANCE DEVELOPMENT IN CHINA

An Overview of Issues and Prospects*

by

Eric Carlson Special Adviso

Special Advisor IUBSSA

Background

Housing finance policy has become the subject of special scrutiny and inquiry in China, a developing soctalist country presently engaged in a vast process of growth and transformation. Having successfully met and exceeded the major targets in its Sixth Five-Year Plan, China is ontarget toward its goal of quadrupling the Gross National Product by the year 2000. The per capita income for its population of over 1.2 billion people will then range from US\$ 800 to US\$ 1,000. Though seemingly modest, this awesome effort means providing for 150 million more people than the total number at end 1985 of 1,046.39 billion.

In spite of the success of the one child per family campaign, and a population growth rate of only 1.12% in 1985, new housing pressures will arise from a surge of newly married couples over the next decade, an increasing rate of urbanization, movement of peasants away from their traditional agricultural pursuits, deterioration of existing housing stock, much of which is of poor quality and standard, and severe overcrowding. Investment in housing is now about 7 to 8% of Gross National Product, and 12.6 million dwelling units were constructed in 1985, but the lack of housing is still perceived as a major problem, and particularly so in the urban areas. It is considered that major reforms are essential in matters of housing policy, finance and management if investment efficiencies are to be achieved and if there is to be substantial improvement in the housing stock.

Is Commercialization Possible?

The Seventh Five-Year Plan, ratified in April, 1986, takes account of the present situation, and contains a directive which states:

"We should commercialize housing in the cities and towns and speed up the growth of residential construction industry, making it a pillar of the national economy. ..."

^{*} The views expressed in this report are those of the author.

But how is the "commercialization of housing" to be achieved in a developing socialist country of such dimensions as China, where low-rent, highly subsidized policies for housing have prevailed for more than 30 years? An active private sector in this field does not exist. Should housing be considered as a public service to which all are entitled? Is it a commodity to be acquired, bought and sold in the market-place? Or is it a unique blend of various economic and social categories and considerations?

Other questions can be raised: What are the relationships between housing policies and broader development strategies? Should equity and equality be major goals of China's housing policy? What role should land pricing or rent and cost of money (interest) play in a socialist economy? To what extent can a privatizing or commercialization of housing serve as encouragement or stimulus for the mobilization of personal savings, particularly for some form of home ownership? Will this help to relieve the pressures on the State for more investment in housing? Should the provision of housing be tied to the work place?

This report will not provide categoric replies to the questions posed, but it will highlight some of the available information regarding the key issues. It will also point to directions for further research and action and resolution of major problems. The International Year of Shelter for the Homeless (1987), declared by the United Nations General Assembly, suggests that governments make a special effort in keeping with the objectives of this year to review and revise their housing policies so as to achieve improved housing and shelter for all by the end of the century. This offers an opportunity for China to promote the "urban reforms" required for the housing sector, including the "commercialization of housing."

The period of the Sixth Five-Year Plan, from 1981 to 1985, was one of considerable progress in the development of China's economy, and the average annual growth of Gross National Product was over 10%. In 1985 the Gross Social Product, representing the total output value of agriculture, industry, the building trade, transport, telecommunications, and commerce, rose by 16.2% over 1984, to total 1,624.2 billion yuan. However, the country's inflation rate also reached 8.8% and especially affected people of low income. This contributed to a determined slowdown of capital expenditure and limiting of credit and financing, in order to avoid overheating the economy, especially

FOOTNOTE: In the text which follows, it should be noted that the value of the unit of Chinese currency, the Yuan, in July 1986 was 3.7 Yuan to US \$1. Its former value in 1986 was 3.2 Yuan US \$1; in 1985 it was 2.8 Yuan to US \$1.

where supply and materials shortages were evident.

The country's more than 200 million urban residents had an average per capita income of 752 yuan, a 23.8% increase over prior years. The average urban wage rose by 17.2%, but because of the 8.8% inflation rate, low paid workers found it difficult to make ends meet. The country's 800 million rural inhabitants had a per capita annual net income of 397 yuan, 42 yuan more than in 1984. Individual bank savings in 1985 increased by 33.6%, to reach 162.3 billion yuan.

In 1985, 130 million square meters of new urban housing was constructed representing a total housing investment in cities and towns approximating 25 billion yuan. In the rural areas 770 million square meters of housing was built, for an estimated 9.6 million rural households, and the investment in new housing is expected to have greatly exceeded the 1984 total of 30 billion yuan. For the urban housing, the State and enterprises paid almost six billion yuan more in subsidies, representing estimated depreciation, maintenance, repairs, management and interest (based on the cost of construction) less rent paid.

The overall housing improvement goal for China's population by the end of the century is for every family to have its own complete dwelling unit. The objective is to achieve overall average living space for each person of some eight square meters. This represents a considerable upgrading from the present situation of prevalent overcrowding. In 1982 the estimated average living space was 4.4 square meters per person, with wide differences noted between cities and regions. It has been rising by small increments since that time, and the objective of eight square meters is now viewed as achievable.

In terms of dwelling units to be constructed, this would mean some 200 million over the last two decades of this century. About one-fourth is to be built in urban areas, totalling an area of 2.5 billion square meters. The other three-fourths will be built in the countryside, with a total area of about 12 billion square meters. This scale of building is unprecedented in world history. However, there are also serious problems to be overcome. The Seventh Five-Year Plan adopted in 1985 assumes an average construction of urban housing of 150 million square meters per year. At 200 yuan per square meter, this investment then amounts to 30 billion yuan per year, with another 10 billion required for subsidies. The State's capital investment in housing, together with the continuing and growing subsidization, is a large one.

For the 15 years remaining to the year 2000, the state may well expend, under present policies, together with funds from local governments and funds pooled by state-

owned enterprises and institutions, several hundred billion yuan. Yet its net economic return on the investment will be negative. The prime reason is that the present system of rental payments does not cover costs, much less generate capital for the construction of new housing. Although some two-thirds of the urban inhabitants have benefitted from the low rent housing policies, at least one-third more are in need of new housing allocation, and there are questions of housing inequality and other matters to be resolved. These will be discussed later in this report.

Housing in Rural Areas

To provide a different perspective on the "commercialization of housing" in China, we should first focus on what has been happening in the rural areas which contain some 80% of the people. The rural reforms, and extension of the responsibility system, from 1979-80 have stimulated exceptionally rapid growth of agricultural production, and of rural incomes and food consumption, based on rapidly rising yields. During the next several decades, agriculture will remain one of the largest and most important sectors of China's economy. Even in the year 2000 food will account for about half of household consumption, and about half the labor force will be engaged in agricultural activities. It should be noted that considerable agricultural activity in China is carried on within the boundaries of cities, which often have the characteristics of self-contained regions. It is evident that the economic linkages between agriculture and other sectors will become increasingly close. It is in this context that we look at some aspects of the rural housing scene.

First we can note that "commercialization" of housing prevails in the rural areas. People can own their own homes, although not the underlying land which is retained in ownership by the collective. The individual dwellings become real property and can be handed down to descendants. Peasants have a long tradition of building houses for their children, especially before marriage. A wide variety of methods is used to build this housing, ranging from self help and community assistance to arrangements with individual contractors. The growth of income for the peasants in many rural areas has brought with it a wave of investment by rural people for housing construction and improvement of existing dwellings. In many situations, the peasant house serves also as part of a workplace or production center, so such investment has additional importance. The fact that people can own their own homes in the rural areas is undoubtedly a tremendous incentive for their construction and improvement. It has also served to open up large markets for building materials, products, accessories and technical services for planning, design and construction.

Last year, rural bank deposits amounted to 72 bil-

lion yuan, 18.1 billion more than in 1984. Rural people are expected to invest up to 200 billion yuan in new housing between 1986 and 1990. Rural people are now spending an average of 16% of their annual income on housing improvements, compared to 5% in 1980. When peasant families become richer, surveys show that their percentage of expenditure on housing rises sharply, and may even approach onethird of incomes.

Much new rural housing construction tends to be of high standard. In 1985, 60% of the new housing was of brick and tile, and 15% was in two or three story houses. Since 1979, an estimated 50 million rural households have moved into new homes, out of the total of 180 million rural households. This represents a remarkable increase and improvement of the country's housing stock.

One example of "commercialization" of rural housing is the establishment in 1984 of the China Rural House Building Materials Company and the China Rural House Corporation for supplying complete sets of building materials. The first sells building materials and houses in cooperation with more than 1,000 companies and industrial enterprises across the country. It has provided 90,000 farm households with houses covering a floor space of 7.5 square meters. The second Corporation has established 35 companies and 200 subcompanies all over the country. In 1985, it built more than one million square meters of houses, produced 1.4 million cubic meters of cement, structural members, and sold six million square meters of complete sets of building materials.

That the pace of rural housing construction and improvement will continue for some time is indicated by the estimates that annually some 15% of the rural households are in need of building new homes or renovating old ones, while only 5% of the households are able to improve their dwelling conditions because of shortages of building materials and equipment, especially in such items as steel, cement and glass.

There is no doubt that the rural reforms and the rise of the responsibility system for agrarian production have resulted in a substantial growth of income for the peasants in many rural areas. The fact that they are choosing to invest so much of this in housing of good standard and high quality, often superior to typical urban dwelling units, bodes well for the basic stability of the countryside. At the same time, new productive forces are being created for promoting rural specialization, commercialization and modernization.

Although the changing agricultural scene may result in estimated surplus manpower in rural areas of up to 100 million or more by 2000, some of this will be absorbed by jobs in small industries or services, or in self-employment in other than agricultural production. But there is also

another type of movement, of a growing number of peasants from their farms to nearby towns and townships and marketing centers. Peasants who relocate in this way generally bring with them their own capital and food and are prepared to engage in new productive endeavors. Such moves tend to alleviate the great pressures on the cities to receive rural migrants, and is helping to create a more rational urbanization pattern. One example is that at the end of 1983 there were 2,600 towns of administrative status, but this number had sharply increased to 6,200 by the end of 1984, more than 3,600 in one year's time.

The importance of rural housing improvement and construction in some provinces can be illustrated by what has been taking place in Zhejiang Province since 1979. Farmers have completed new housing with a total floor space of 250 million square meters, and each rural resident is said now to have a floor space of 20 square meters, up 32% from 1978. Average yearly earnings have substantially increased, though are still low by Western standards. Local governments and collectives help with funds and supplies of building materials. Thirty percent of Zhejiang's 34 million rural inhabitants now have piped water, following the completion of 15,000 waterworks since 1979. Electricity is available in 88% of the 141,000 villages and 95% of rural townships have roads. Rural development plans have been drafted for 95% of the 1,500 towns and 97% of all villages.

The above provides the scenario for an extension of the owner-built and owner-occupied housing prevalent in the rural areas and the country villages of China to similar patterns for these towns and townships. The highly subsidized and controlled low-rent policies of the cities could then be avoided. It would be necessary to have new emphasis on the importance of planned development, the rationalizing of infrastructure, and the provision of other services and amenities, including commercial, industrial and cultural facilities. Fortunately, much is being achieved along these lines, and reportedly there are now construction plans for 85% of the country's five million villages, and 84% of the 54,000 rural towns. More than 500,000 newly-trained rural planners and surveyors have worked on such planning with the help of urban experts.

The general outlines for commercialization of housing in the rural areas, villages and townships are therefore in place, for accommodating perhaps 800 to 900 million of China's predominantly rural population by the year 2000. Much is being achieved and the future looks bright. But more help will be required to help increase the production and distribution of building materials through local enterprises and private initiatives. Standardization of building components should be encouraged, as well as quality control. Rural housing centers, training institutes or "wings" should

help provide training, technical assistance and development of local materials and resources wherever possible.

Special incentives should be established to encourage savings for housing in the rural context, through banks, rural housing development corporations or credit cooperatives. Such efforts will help to reduce the volume of credit required for home purchase or improvement, and help lessen inflationary impacts. By promoting capital investment for the nation's housing stock through such mobilization of personal savings, there would be a "soaking up" of excessive expenditure on unnecessary consumer products.

Several cities are already taking steps to help modernize the rural towns within their boundaries. Beiling, for example, has 253 rural towns, and 13 of these have been selected as pilot towns in this modernization process, to be implemented by the Beijing Rural Construction Development Company. For this first New Town, to be located in Zhangxizhuang Township, some 25 kilometers East of Beijing, 2,500 two to three story apartments are planned, together with extensive community facilities. Families residing in the area will be offered payments for their old houses which can be applied to the estimated cost of 10,000 yuan for the new dwellings. Annual per capita income in the area is currently 7,275 yuan. This particular project should be the object of careful study and evaluation of the construction and financing methods that are employed; their true costs, and realistic appraisal of the cost-benefits of the project as well as the investment recovery planning that should be an intrinsic part of this effort.

Urban Housing

At the end of 1985, statistics showed that some 211.87 million people inhabited the country's 333 cities, not including those living in suburban counties. If people working in agriculture within cities are excluded, however, the country's urban population then totals 118.26 million. This may seem small in relation to the total population, but in recent years urbanization is proceeding at a somewhat faster pace, and estimates indicate that there will be an increase of 110.1 million in the urban population by the year 2000. It is possible, however, that the urban growth process may be an accelerating one in light of the overall reforms which are being implemented in both urban and rural sectors. China already has 20 cities with more than one million populations. It seems likely that China's urban population could reach more than 250 million by the end of the century, which taken alone would rank it as one of the three or four largest countries in the world. The Table on the following page shows China's urban population at end 1985.

China	's urban	populat	ion
	ed on 19		
region	cities	(million)	total population (million)
National total	324	53.51	211.87
Beijing	1	1.68	5.86
Tianjin	1	1.52	5.38
Hebel	12	1.97	7.35
Shanxi	10	1.51	6.38
Inner Mongelia	16	1.30	5.35
Lisening	17	4.57	15.82
JMR	12	1.86	7.27
Heltengteng	16	2.12	10.62
Shanghai	1	1.97	6.98
Jangsu .	13	2.84	9.66
Zhejiang	11	2.02	6 93
Anhul	15	1.64	5.47
Fujian	10	1.02	4 30
Ixonsil	12	1.28	5.75
Shandong	19	4 66	18.48
Henan	18	2.12	8.82
Hubel	14	2.82	11.64
Hunan	20	2.10	8.39
Gwangdong	17	2.84	11.90
Guangxi	11	1.17	5.35
Sichuan	19	3.83	15.18
Guizhou	6	1.06	4.88
Yunnan	11	1.17	5.39
Tibet	1	0.01	0.11
Shaanxi	8	1.31	5.40
Gansu	12	1.14	5.24
Oinghai	2	0.15	0.66
Ningxia	4	0.25	1.13
Xinjiang	15	0.98	4 18

Statistics released by Ministry of Public Security, as published in China Daily, June 1986.

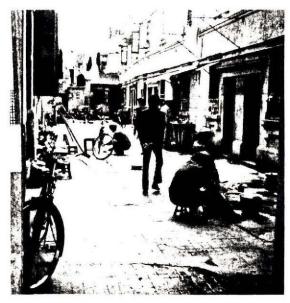
China's official policy has been expressed as seeking to balance urban and rural development. China is adhering to a policy of controlling the growth of big cities, moderately developing medium-sized cities, and actively promoting small cities. In general, without permission, people are restricted in their movement of location of residence, and it is difficult to obtain legal occupancy in the cities, the more so when the provision or assignment of housing is usually tied to the work unit or place of employment.

There is increasing evidence of slippage, or "slipthrough," however, and a recent estimate places at 3.21 million the number of temporary residents in China's 10 largest cities. Some of this is the result of bringing to the cities contract labor from the provinces for construction projects. A good part of the migrant population is not officially sanctioned, and there is clearly a problem of registering non-permanent urban residents. In Shanghai alone, the temporary residents were estimated at 1.1 million by the end of 1985, 2.5 times the number of 1983.

This is one reason among several why housing remains in such short supply in spite of the very considerable



Mixture of land uses and overcrowding in a typical urban landscape of China today.



Typical courtyard view in terrace housing. Note busy scene.

investments for housing construction in the urban areas. Other symptoms are reported in the press. For example, the sale and rental prices of private houses in Beijing are now sometimes ten times legal levels. Because young newly-married couples find it virtually impossible to secure housing through their work units, several cities have constructed special buildings to house such couples, providing them with minimum space and facilities, but strictly limiting the time they may remain in these accommodations. Many cities now periodically sponsor housing exchange fairs for helping in the sale or exchange of different types of apartments through photos, designs, models, and written notices and descriptions. Reports indicate that these events are thronged with people seeking more adequate or convenient lodging, and that some do succeed in these efforts, though at a cost. Clearly, the real estate industry has an interesting potential for development in China.

There have been five housing exchange fairs in Beijing, and the movement has now spread to 33 cities under the guidance of a National Urban Housing Exchange Centre. Reportedly some 200,000 swaps have been negotiated. There is a computerized system based on registration cards, and formalities are provided for transferring the right of use of properties.

What are the origins of China's present urban housing situation? This article is not designed as an historical review, but suffice it to say that the urban housing sector was seriously neglected, as were the cities generally, during the 10-year cultural revolution, ending in 1976. During 1977-78, the Chinese Premier, Deng Xiaoping, called for China to embark vigorously on the Four Modernizations, of agriculture, industry, national defense, and science and technology. In 1978, the Central Committee of the Chinese Communist Party set forth a series of principles and policy decisions for guiding the development of the economy. The first national housing conference was also held in that year.

Efforts were focussed on how to speed up housing production and how to improve the living conditions of urban residents. It was necessary to mobilize the initiative of the central and local authorities, as well as that of state enterprises and individuals. Home building was to be given special importance as a demonstration of the objectives of socialist production and "the people's government" concern for the people, and to achieve the "dialectic relationship between production and livelihood, and between accumulation and consumption." Since that time, building more homes for the people has been one of the major items in China's economic readjustment, and the proportion of capital investment devoted to housing has steadily increased. In recent years, it has been as high as 25%.

With the reform of the financial system, local

governments and state enterprises have been granted considerable economic authority resulting in the expansion of their financial resources and increase of funds for investment. As stated by one observer, Chinese cities are not simply large concentrations of people and businesses who pay local taxes and expect certain urban services in return. In China, where the allocation of labor and capital is the prerogative of the state, a city's economy is directly managed by its municipal government. The city runs factories and helps to operate suburban communes. An objective has been to transform cities from consumers to producers, and to encourage relative self-sufficiency in food, coupled with a dynamic industrial productivity that will eventually raise living standards of city and hinterland alike. Through a variety of mechanisms, the local governments and the state enterprises have endeavoured to meet their responsibilities for housing construction and maintenance and to assist the work units in providing housing accommodation.

Basic Questions

Despite the vast increase in production of urban housing units, several questions have arisen. For example, are these government policies adequate and appropriate in solving the urban housing problem? Can expanded government capital investment eliminate the housing shortage? Will the government's approval of the private sale of housing help solve the housing shortage? Will the current policies advance the concepts of equity for the urban housing sector? These questions and others underlie the following review of how urban housing investment and construction actually happens in China, using Shanghai and Beijing as reference points.

There are many pressures on the planners, in both urban and rural areas alike, as the enormous forces for change and privatization in China are engaged for the encouragement of initiative and production throughout its economic and social system. Agriculture has top priority in both urban and rural areas, and prime urban land for intensive agriculture is carefully allocated and protected. Urban planning is making good progress in China, and 189 cities had completed their general plans by 1983. The State Council has approved the general plans for 18 cities with population of over one million. The general plan of Beijing was approved in July 1983. A National Urban Planning Act is in preparation. Special attention to city development is also provided through the Environmental Protection Law of 1979.

In China, the land in urban areas belongs to the state, whereas in rural areas it is collectively owned. The government has promulgated regulations on land requisition for the capital construction of the state. These lay down the principles or urban land administration, the planning of land use, the procedures of land requisition, and the pro-

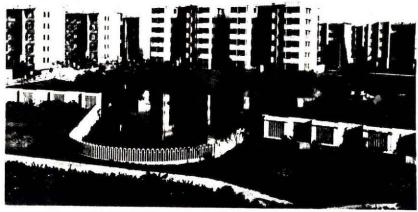
prietorship of land. The institution or enterprise which builds has only the right to use the land. No public body or individual is allowed to seize, purchase, sell, lease or transfer land.

The capital for urban housing development comes from several sources in China, the most important being the state's investment in capital construction. The funds for residential buildings can be divided into several categories: funds included in the national budget (which have not been substantially increased), funds from local governments, and funds pooled by state-owned enterprises and institutions. In addition there are funds raised by the collectively-owned enterprises, and portions from the funds intended for the renewal of equipment and installations in state-owned enterprises and private funds. In a recent year, the funds raised by state-owned and collectively-owned enterprises and institutions amounted to 71% of total housing investment.

In principle, all enterprises are expected to be responsible for providing housing for their workers and staff. The central and local governments are expected to allocate funds for residential building in connection with investment in new enterprises, such as factories or mines. Only recently, has encouragement been given to the sale of housing, especially new housing. The government may allot land to individuals for house-building, and certain public assistance may also be made available for construction. However, the typical pattern is that the government or enterprise may build apartment houses and then sell the units to workers or staff members. This is on a subsidized basis, with the prospective owner paying one-third, and the balance provided by the government and the enterprise.

Almost one-third of urban inhabitants are on waiting lists for new homes or for an improvement of their present buildings. For the publicly-owned residential buildings, there is an allotment system which takes account of the size of the housing stock, the number of applications and the degree of each case. Generally, a family of one to three members is allotted a one-room unit of about 30 to 40 square meters; a family of two to four can have a two-room unit of about 50 square meters, and a family of more than four can have a three-room unit, of 60 to 70 square meters. After the allotments are made, the families are given certificates for tenancy which ensure them the right to use the dwellings, and they pay rent according to the standards set by the local governments.

In provinces and autonomous regions, there are Urban Development Bureaus responsible for housing. In cities, there are Capital Construction Commissions and Real Property Management Bureaus which deal with housing. In some cities, Unified Housing Development offices are set up to strengthen the leadership in housing development activities.



Beihuan Villa in Changzhou, Jiangsu Province.



Zho Jia Zhang project has 76 buildings on 36.5 acres. View shows another housing project grouping in background.

Besides functioning as a governmental organization, the Real Property Management Bureau of a city is directly engaged in the management of a part of the housing stock. Under the Real Property Management Bureau there are several specialized companies: the Housing Maintenance Company, the Housing Construction Company, the Real Property Company, the Building Materials and Equipments Company.

At present, public housing under the direct administration of the real property management establishments of different levels accounts for only 20% of the total housing stock, the rest being administered by different organizations to which it belongs. Enterprises and institutions which have their own housing are obliged to accept the direction of the Municipal Real Property Management Bureaus and must follow the policies and laws of the related governmental bodies at state, provincial or municipal levels.

The housing in cities and towns is mostly of the apartment type. In big cities, the apartment buildings are generally of five to six stories. But in larger cities, such as Beijing, Shanghai, Guangzhou, Shenyang and Tianjing, there is increasing frequency of 10 to 20 story buildings to economize on land use.

Housing in Shanghai

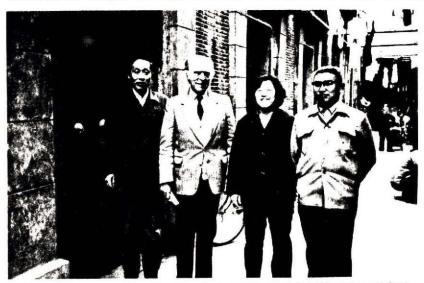
Shanghai has developed a multi-faceted approach to its housing situation, which will be briefly described. Shanghai now has over 12 million people in its overall metropolitan conglomeration. A vast amount of housing construction has taken place under the direction of the Shanghai Municipal Government, but equally vast are the dimensions of the housing and environmental problems which still remain. Shanghai is one of the three major cities (Beijing, Tianjin and Shanghai) with special classification, under the direct control of the central government. It has a total area of 6,186 square kilometers, of which 230 belong to the city proper (recently broadened by 109 square kilometers). In the city proper, there are more than 103 million square meters of all types of housing construction areas, with some

Much of the existing housing stock is old, and badly in need of renovation and repair. Overcrowding is extensive, living space standards are low. These average 4.72 meters per person in the two-story, old style terrace houses which account for 18 million square meters, 38% of the urban housing, and accommodate 52% of the total number of city residents.

During 1979 to 1983, new residential construction exceeded 15 million square meters, and the average living space increased from 3.9 square meters when the People's Republic was founded to 4.9 square meters per person in



Carlson with authorities of Jai-Ding County in Tao-Yuang, one of 12 new towns in Shanghai region. Second from left is Xing Tong-he, innovative architect of Shanghai Municipal Institute of Civil Architectural Design.



Carlson with team members for Shanghai prototype rehabilitation project for terrace buildings in which much of population lives.



Typical old-style terrace housing in Shanghai.



Raising the roof and adding one story, plus interior improvements, produces increased accommodation at better standards with more sunny and usable space, at Lane 303, Peng-Lai Road, Shanghai, built in 1923.

1983. Still the average floor space for each family in the new construction is only about 42 square meters, which means at most two rooms per family. During the Sixth Five-Year Plan, some 330,000 people were provided new accommodation in the 120,000 apartments that were built. In the Seventh Five-Year Plan, beginning in 1986 annual housing construction is to be increased from four million to five million square meters.

How has this volume of housing construction been organized? The Shanghai Municipal Bureau of Housing Administration is the instrument for supervising real estate under the municipal government. Under the Municipal Bureau there are four companies — for house management, house repair and construction, building materials and house equipment manufacture. The SMBHA has over 60,000 staff members and workers.

The city proper is divided into 12 districts. In each one there is a branch company of housing management, house repair and construction and architectural materials. The business of every district company is under the quidance of the city company. Under the district housing management company, there are many housing management offices in the neighborhoods. In the whole city there are 114 such offices, which are the basic units responsible for rental, management and maintenance, each in charge on the average for 500,000 square meters of public housing. There is a rent-lease contract between the housing management unit and the resident. The resident pays rent every month and the house management unit takes care of all aspects of house maintenance, including major repairs and restoration where necessary. Currently, attention is being given to the reform of this management system so that it will operate on a more realistic economic basis.

Up to 1983, the municipal government has dismantled more than two million square meters of slums in Shanghai to make way for large scale new construction. Some 30 large housing estates have been built in Shanghai since 1950, most of them composed of look alike blocks of flats in monotonous and stereotyped settings. More recently, high rise buildings of up to 20 stories are forming part of the large urban reconstruction projects in Shanghai, and permitting a more varied mixture of high rise and low rise construction in the development of new neighborhoods. An innovative design example is the Hutai Residential Quarter in Northwest Shanghai, which has broken the stereotypes by establishing a scheme of neighborhoods, of 600 to 700 households, with each neighborhood characterized by distinctive architecture and color.

One of Shanghai's major approaches to its tight housing scene is the development of satellite towns. Some 12 of these have been created on farm land purchased for urban use with the approval of the agricultural commission, at distances of 30 to 50 kilometers from the central city. These 12 districts are planned for 131,000 apartment units with a floor area of 6.5 million square meters. By the end of 1983, over 2.2 million square meters, or some 45,300 apartments, had been finished, with the rest in construction.

The satellite towns are planned to provide for industry and employment, and substantial growth is proceeding. In the science and technology city Tao-Yuang in Jai Ding County, some 35 kilometers out of Shanghai, 70,000 people were in residence in 1985, out of the total of 150,000 scheduled for the project within the next three years. Design innovations were also taking place. Within severe cost and space limitations, a young architect had produced a project designed to provide a better quality of life for the people within the project, including more attractive, livable and varied buildings, of four to 12 stories. A historic old town adjacent to the new site was also being preserved, to add to a sense of cultural heritage.

In addition to construction of new buildings, Shanghai has also embarked on projects for urban rehabilitation. In the South District, a team of dedicated architects has engaged in experimental and demonstration work involving traditional terrace houses of two stories in which much of Shanghai's population lives. Many of these houses are still in relatively good condition, but their facilities are inadequate and outmoded. The effort is to demonstrate how these can be economically remodeled. This involves the strengthening and reinforcing of the original construction, raising the roof and adding another story, rearraning interior space, and providing each family with a private kitchen and toilet, with flush closet. The expenditure for such reconstruction amounts to about 50% of the cost of new construction, while the whole process helps retain the sense of community and stability of the neighborhood.

Aspects of Housing in Beijing

A visit to Beijing (Peking), capital of the People's Republic of China, is no mean experience. The nation's political, economic, cultural and communications center has a total area, including outskirts, of 16,900 square kilometers, and a population of 9.23 million, of which 5.86 million are urban. Perhaps the most striking first impressions are the carefully planted trees lining all major thoroughfares, and the vast number of bicycles which still provide basic transportation for millions in Chinese cities. Buses are everywhere, and usually overloaded, but private cars are still comparatively few in number.

In Beijing, there is an on-going construction boom for which no end is in sight during this decade. Housing

projects are everywhere, most of them in 5 to 10 story buildings. The new Seventh National Plan calls for even more investment in housing, to total about 40 billion yuan over the five-year period. Moreover, by 1990, all urban residents are to be supplied with cooking gas. There will be telephones for 500,000 households, and the daily water supply system will greatly increase in capacity. Over the five years also, nine greenbelts are to be added to the city, another 30 public parks, and seven new garbage disposal areas.

There will be an upper limit of 10.2 million for the permanent urban population of Beijing. In Beijing, there are five major construction companies, and over the past two years they have contracted 26,000 workers from poor rural areas to work on building projects. These workers are not considered to be permanent residents, and will return to their places of recruitment when their contracts terminate.

The process for obtaining approvals for construction is slow and difficult and uncertain. Because there are few alternative channels for proceeding through the bureaucracies concerned, there tend to be further blockages and problems. There also seems to be an in-built pattern of discrimination against the smaller or less important work units who seek housing for their members, and who do not carry the "clout" necessary for adequate consideration or speedy approvals. There is, of course, the increasingly serious problem of those who are self-unemployed, or who may not have attachment to specific work units.

The Municipal Bureau of Urban Planning is a key player in this process, but is subject to being over-ruled, especially in situations which involve the state authorities. The Bureau is responsible for the construction approvals which permit the work unit in need of housing to contract for a project design through a Design Institute. Such institutes are public bodies. In the case of the Beijing Design Institute, there may be a long wait before appropriate plans can be produced, of up to a year or more. In some cases in the past, old standardized plans have been used with few changes because of the system of payment or bonuses for these plans, which are tied to the amount of square meters produced within a period of time.

First, the work unit must apply to the Ministry to which it is attached. The Ministry then reports to the State Council, which approves the amount of construction required in square meters. All work units are in competition for units of larger space and facilities, and usually receive reduced space allocations. The work unit receives a note from the Ministry giving its final allocation of space. The Bureau checks the Ministry's approval, and ascertains whether the work unit has access to land, and what type of building

is proposed. If the Bureau finds a proposed site acceptable, after checking on infrastructure requirements and other aspects it will issue a construction permit. One copy of this then goes to the construction company, which can then order the building materials required, steel, cement, etc. from the state enterprises. There are now possibilities of securing such materials from other sources, but usually at higher or market prices.

In many cases, the work unit does not have its own land. In such cases the Beijing Construction Commission may arrange for allocation to the unit of dwellings in a larger complex, together with others. Therefore, before construction, there will probably have been provision for the sale or financing of dwelling units among a number of different work units, state enterprises or collectives. More recently, in Beijing perhaps 7 to 10% of new dwelling units are allocated for sale to individual workers. The units sold are usually the most deficient ones, as the intention is to obtain the most money for the least desirable apartments. In cases of sale, the buyer often finds it convenient to borrow the amount required, one-third of cost, from family or relatives. Reportedly, there are long waiting lists for these home buying opportunities.

The obligations on collective enterprises to provide housing are difficult for them to meet, as many have severe financial constraints and need their resources for maximum investment in plant and facilities. Alternative channels for investment and production of housing and infrastructure seem to be required, and this should be the subject of further study.

The government's main instrumentality for studying and dealing with the housing sector is the Ministry of Urban and Rural Construction and Environmental Protection (MURCEP), which was established in 1982. MURCEP has broad powers, and its scope of work includes the formulation of policies, laws, decrees and regulations concerning urban housing development and administration; the working out of long-term programs and annual plans and inspection of their implementation; to promote the interchange of advanced experience and techniques, including through relationships with professionals and inscitutions in other countries; and to organize training courses for cadres responsible for the development and administration of housing in different regions and localities. MURCEP's officers have been in the forefront of analyzing information and the results of experience regarding housing and urban development in China, and in developing reform proposals. But MURCEP's work has just begun and it will need support and reinforcement.

Many of the problems are of long standing and are politically sensitive and difficult to resolve. A prime



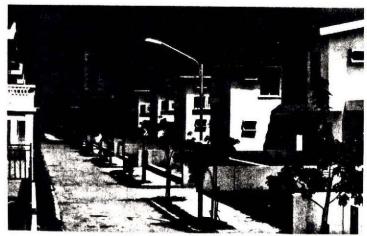
Beijing housing project, Zho Jia Zhang, built between 1979 and 1984 under direction of Housing Bureau of Beijing and Housing Development Corporation. Project has 76 buildings on 36.5 hectares, containing over 6,800 dwelling units.



Carlson with representatives of MURCEP and Housing Bureau of Beijing on top of high rise building in new Zho Jia Zhang project.



Excellent construction quality is shown in one of ten 16-story buildings in Beijing project. There are six 12-story buildings with the majority in six-story buildings.



Two-storied houses built for sale in Shenzhen special economic zone.

example was the early decision by the new Chinese government in the 1950s to implant and to maintain a policy of very low rentals for the existing housing stock, as well as for new housing. Apart from helping to establish legitimacy for the newly-formed government, the reasoning was that housing in a socialist state should be considered as basically a public service. Since then, rents have been lowered over the years, and are still maintained at very low levels. Yok-shiu F. Lee has described a typical present-day situation regarding rentals drawn from the city of Wuhan, where in the early 1950s the rent for an average family amounted to about 14% of the household's income.

Subsequently, the percent of household income devoted to rent decreased to 8% in 1957, and to 5% in 1970. In 1974, when the government began to subsidize one-third of a household's rent, the rent was reduced to what was virtually only a nominal fee. A 1980 survey of the Wuhan City Realty Company reported that an average household paid only 2.3% of its monthly income for its housing.

Officials of the Wuhan City Realty Company have complained that the underpricing of urban housing units has led to two serious consequences: poor housing conditions and inadequate new housing.

For the urban housing sector to recover fully its investment, the sale value of a residential housing unit should include (1) construction cost; (2) land development costs; (3) interest; and (4) taxes. If the housing units are rented, then monthly payments should include (1) depreciation; (2) maintenance fees and repair costs; and (3) real estate taxes. A recent survey in Wuhan of yearly maintenance and repair costs for urban housing showed that this amounted to 2.10 yuan per square meter. But the annual rent was only 1.09 per square meter, leaving a considerable shortfall for this item alone, not to mention the unpaid depreciation costs and real estate taxes. Because rental income is too low, necessary repairs are deferred to the point where deterioration occurs more rapidly. Indeed, this had occurred with the housing stock in Wuhan, close to one-third of which was in a state of dilapidation, and about one-tenth was classified as "dangerous" and "poor."

In another broader study by MURCEP of a large number of urban housing projects, the average monthly rent was 0.13 yuan per square meter of usable floor space. If proper provision for maintenance, administration and depreciation were included, the figure would be 0.63 yuan per square meter. If interest and taxes were included, the figure would be one yuan, and if payment for land use, insurance and profit were included, the monthly rent would then be two yuan per square meter.

From any economic point of view, the need to reform

the present low rent policy is apparent. However, raising rents is difficult political decision for any government, and even a gradualistic approach will require considerable study and balancing of the factors involved in the present situation of the Chinese economy. Mr. Lin Zhiqun, Director of the Bureau of Urban Housing of MURCEP, has pointed to the anomaly that although housing is by far the most expensive of durable consumer goods in most countries, in China, under the present irrational system, housing has become an odd piece of merchandise with an unbelievably low exchange value. To illustrate his point, he uses the example of the cost of a house versus that of a big color TV. In China, a typical dwelling of 50 square meters would be costed at 150 yuan per square meter, or 7,500 yuan, which would be about five times the cost of the TV. There would be much higher ratios in Hong Kong, or even New York, where a typical small dwelling unit or apartment might cost \$100,000 compared to the cost of a TV at US\$ 500, or about two hundred to one. This illustrates the contention that housing is not properly valued under the existing system in China.

Inequalities in Urban Housing

Greater equality in housing was an early objective of the government in the 1950s, and private ownership of houses was gradually but not totally eliminated, thus facilitating the state's ability to redistribute the existing stock. But as China's economy has developed, so have new inequalities developed in the allocation of resources for housing and in the distribution of rental subsidies.

There are three major types of housing ownership in China's cities: (1) housing under the city bureau of realty management; (2) housing under the management of various production units, including (a) state-owned enterprises, and (b) collectively-owned enterprises; and (3) private housing. The bulk of the state's housing investment goes to type (2a) housing, which is under the management of state-owned enterprises. In 1982, per capita housing investment (197 yuan) in state-owned enterprises was almost five times more than such investment (34 yuan) in collectively-owned enterprises. Moreover, whereas the state contributed 83% of the housing investment in state-owned enterprises, the collectively-owned enterprises must reapportion part of their welfare funds or profits into constructing housing for their workers. Urban residents who work for the city or collectively-owned enterprises therefore receive substantially less support for housing from the state government than do their counterparts who work in state-owned enterprises, who, moreover, are already privileged in terms of income, welfare facilities and job security.

Another form of housing inequality results from the way that rent subsidies are distributed in China. Workers

who live in housing types (1) and (2) receive monthly rental subsidies from the government. This subsidy is not distributed according to financial need, but rather is given out by the state on a per-square-meter basis, regardless of the size of a household's living area. The subsidy will tend to vary from city to city. For example, in Wuhan, it is one-third of the rent payments; in Jilin it is one-fourth of the rent payments. In Beijing, a family of four living in a 20 square meter apartment would receive a housing subsidy of 91.2 yuan per year, while another family of the same size living in a 40 square meter apartment would receive 182.4 yuan per year. Not only does the second family live in a more spacious apartment, it is also enjoying a larger government subsidy precisely because it is occupying a more roomy apartment.

Urban Housing Reconsidered

The current debate and discussions regarding China's housing policy argue that residential buildings should be considered as commercial commodities in China's socialist economy. To correct the housing shortages, anomalies, and inequalities, the urban housing sector should be commercialized, rents should be gradually readjusted upward from their present low levels, and the sale of housing to individuals should be officially permitted, to foster a more widespread tenure status of home ownership for urban residents. In this process, the urban housing sector could become financially more healthy and self-sustaining and less of a burden on the state's investment resources.

The sale of urban housing received official blessing in early 1980 when the State Council announced that urban residential units should gradually be commercialized. Between early 1980 and mid-1982 discussion on this subject flourished, and certain limited experiments were authorized. In 1982, a demonstration project for housing commercialization was initiated in four cities: Changzhou, Zhengzhou, Siping and Sashi. Under this program, a small number of new residential units are sold to individuals; the majority, however, are still being kept for distribution through the usual bureaucratic channels. From mid-1982 to end 1983, a total number of 1,746 residential units were sold to individuals in the four cities. These were sold at prices lower than their costs.

Typically, an individual pays one-third of the construction cost of a residential unit, with the government and the buyer's work unit each paying an equal share of the outstanding balance. Thus, only one-third of the initial investment is being recovered through this subsidized sale program, for reinvestment in more housing.

In October 1984, this scheme was offically extended to more than 80 cities. In 1985, 5% of Shanghai's new hous-

ing stock and 20% of Beijing's were set aside for subsidized sale to individuals. But while the government has proceeded carefully on a limited basis to permit the sale of housing, it has not yet attempted to adjust the rents or restructure the rental subsidy program. So the problems persist and grow more serious.

The sale of a limited number of new housing units benefits a few households and really hurts none. But a rent increase or a restructuring of the rental subsidy program could mean a total rearrangement of the economic system, and raises fears that the beneficiaries of the old system will be hurt. Stable rents, like stable food and commodity prices are considered essential to preserving the overall economic well-being of the population. Still the state does need some return on its substantial and growing investment for urban housing because there are always pressures on it to relinquish such investment without return in favor of providing for more productive investment in such sectors as industry, agriculture or energy.

As the present rent subsidy system is clearly not rational nor advantageous for the development of China's economy, various proposals have been made for the introduction of major reforms. One line of approach proposes that older state-owned housing should be sold to existing tenants at a discount, on favorable terms comparable to their present rents, thus permitting them to assume home ownership status and for the state then to eliminate its rental subsidy. Another proposal suggests that the existing rental system could be reformed by establishment of a two tier system of hidden and open subsidies. Rents would be raised to a closer approximation of the real value of the housing space utilized. There would be a compensating subsidy for all urban dwellers on an open basis, but those occupying larger units would not receive additional subsidy for such larger units. There could be differentials depending on the income level of residents as well as the quality standard of the housing, to be treated separately and categorized for rental charges. But this would all perpetuate and expand a complicated bureaucratic apparatus which would still exert state control over management of the housing stock without adequate bottom-line return.

As for the subsidized housing sale program, it is argued that such a strategy cannot be maintained for any period of time because it still requires a large government input of resources. Moreover, many enterprises are reluctant for various reasons to contribute their share for house purchase for their employees. Others are financially constrained, and have more productive uses for their available funds. Recent studies show another layer of constraint to the home selling process in cities such as Xining, Changszhou and Siping. This is the fact that average per capita monthly

income of the home purchasers is quite low, in the range of 40 to 60 yuan. In Siping, for example, 93.3% of the total number of new home buyers had monthly incomes of less than 45 yuan in 1984. This means that they require a large loan or credit in relation to their total income or must find the resources for their one-third payments in other ways.

Proposals for commercialization of housing must take into account several factors which differentiate urbanization patterns in China from that in many other countries. There tends to be a checkerboard pattern of land use, with industries, housing and farming still found side by side, not just on city fringes but in the city core. As land is unpriced, factories or enterprises do not pay land rent, and there results a pronounced misallocation of the use of land. A surprising amount of surplus land is now held by factories and government agencies.

Proper land pricing should result in a significant reallocation of land to residents. As stated in the World Bank's report on China, Long-Term Development Issues and Options, "For social as well as economic reasons enterprises and planners should be made to feel the dramatically varying economic usefulness (or opportunity cost) of different sites -- higher in coastal cities than in more remote regions, higher in large than in small cities, higher near the center than in the outskirts (in a city the size of Shanghai, experience in other countries suggests that a central site is worth approximately 150 times as much as one in the suburbs). A differentiated urban land tax reflecting these variations could be introduced." There would be significant start-up costs in the setting up of such a land tax system, but the process would result in more rational allocation of land, less wastage, and the creation of new municipal revenues for advancing investment in infrastructure, parks, environmental protection, etc.

Much of the construction of housing in China has been drab and unimaginative, with space standards minimal, and little allocation of outside space for community facilities and amenities. Coupled with serious overcrowding, with several generations, or two families, often occupying one small unit, such housing is not well maintained, and rents do not cover operating costs. Raising the rents would be helpful, but converting the units to condominiums and providing residents with a sense of home ownership and incentive to maintain and improve their units would help even more. It will be evident that much of the housing stock will not meet the needs of the people, especially when incomes will be rising and expectations for an improved quality of life will be growing.

By the end of the century, even more of this existing housing stock will be a target for replacement, for buildings

and facilities and surroundings of higher standard and usefulness, and with more imaginative design concepts. Although perhaps 50% of current housing construction in Beijing is in the high-rise mode, it is clear that there is an important economic and social role for low-rise, high density developments in the urban areas. These would encourage more social interaction and offer greater opportunities for community participation in project management and improvement. The Beijing traditional courtyard housing is often referred to in this context.

The current efforts in Shanghai and other cities for urban rehabilitation of existing terrace housing, forming a large part of the housing stock, are also evidences of the potentials for new forms of investment to help maintain the social fabric of urban areas in the housing improvement efforts. The building of new towns in the metropolitan areas, as in Shanghai, which has 12 such projects, also offers unusual opportunities to demonstrate innovations in urban design, architecture, management and financing. In some cases, such projects are linked with the preservation of existing towns and villages, an important heritage of China's culture and civilization.

Today more and more cities in China are building projects that represent considerable improvements in concept, urban design and architecture. In some cases, such projects are integrated developments of high-rise and low-rise structures, offering a range of community facilities and amenities. Some of these are part of broader efforts to improve the urban environment, and are related to the existing urban landscape and its social and economic character.

With a target of 200 million dwelling units by the year 2000, there should be ample scope for innovative approaches to urban housing, design initiatives, new organizational forms, and the opening up of alternative channels for housing construction, finance, investment and management. Competitive marketing concepts might well be encouraged and established. One such possibility could be a system of open housing cooperatives with appropriate technical service organizations in each large city. These could be vehicles for accepting new applicants for housing, initiating savings deposit systems for such housing, developing new projects, and organizing the residents for management responsibility and participation. Such a system of housing cooperatives could work in tandem with the municipal bodies responsible for housing, with the appropriate modus operandi to be developed in each city.

Savings Mobilization for Housing

The World Bank Report, China: Long-Term Development Issues and Options, points out that the percentage of gross

domestic savings from households in China (29% in 1981), is considerably smaller than in neighboring countries such as Japan (54%); South Korea (38%) and India (65%). The Bank's report states:

"In the future, the greater part of China's investment in urban housing could be financed by personal saving (partly through housing cooperatives), with far less provision of workers' housing by enterprises. The government might provide housing directly only to the minority of people unable to pay, but could assist others by selling off more existing urban housing, as well as by 'sites and services' projects -- planning and providing basic utilities for new individually constructed housing -- coupled with technical assistance and limited subsidies or tax concessions to housing cooperatives. (These could partially replace the large existing housing subsidies, which would need to be reduced or eliminated to provide an incentive for tenants to become owners.) Experience elsewhere suggests that such a system would be a powerful stimulus to household saving, as well as to better construction standards and maintenance."

The Bank's report also urges the establishment of alternative channels of investment flows, particularly horizontal flows, to increasingly supplement the largely vertical investment flows in the traditional socialist system. This means the establishment of a variety of new financial institutions, which could mobilize investment funds from individuals, collectives, state enterprises and local governments, by accepting deposits and by issuing financial instruments such as bonds (either by themselves or on behalf of the users of capital). They would have to offer an interest rate or other return that reflected the scarcity of investment funds in the economy.

According to the Bank's report, funds raised by these institutions would be made available to potential investors, particularly enterprises of all kinds. The funds could be provided as loans, with fixed rates of interest and payment periods, but at least some financial institutions should be able to provide ownership capital. In such cases, the financial institution would be an investor itself, much as local governments, bureaus, state enterprises and collectives now participate in joint investment projects. As the World Bank report states, "These institutions would in effect create a socialist market for investment funds."

China began to diversify its financial system in 1979 and there are now many different forms of financial institutions -- banks, credit cooperatives, investment trusts, insurance and pension funds, and so on. In rural areas, some of the economic institutions of the former communes and brigades, which still exist following the reorganization of

local government administration, could be transformed into financial entities. Such township banks or investment companies could mobilize investment resources from collective enterprises to establish new enterprises, helping existing enterprises to expand and modernize, and to support agricultural development.

The degree of state intervention in the management of financial institutions and in their allocation of funds would obviously require careful study and definition. Clearly, the government has to intervene in financial markets in order to regulate the overall supply of money and credit. But the broad case for the establishment of a system of specialized institutions for housing finance in China can readily be made. They would be an important factor in the mobilization of household savings, and they could help provide financing for new housing to be undertaken by organized entities such as housing cooperatives. This would provide housing on an open basis to the broad spectrum of population which is not now being adequately served.

The new housing finance entities could provide bridging finance for new construction, but a main function would be to provide a means for financing ownership of the existing housing stock in China, including the development of a mortgage system to enable the free sale and purchase of housing. The build-up of householder's equity and capital through home ownership, as well as the fact that such a system would help provide a protective hedge against inflation, would be two important underlying concepts.

Institutional Scene for Housing Finance

It is generally agreed that commercialization of housing in China can only take place if there are adequate provisions for credit and long-term financing capabilities to extend housing loans or mortgages to potential home buyers. Considerable progress has been made in overall financial reforms in China in recent years, and it is in this context that we briefly examine the present situation and potentials for development of an effective institutional system for housing finance.

The People's Bank of China exercises overall supervision over the banking system in China, and serves as the central bank for the government. It was only on January 1, 1984, however, that the People's Bank transferred its business of industrial and commercial credit and savings deposits to the newly-created China Industrial and Commercial Bank (CICB). The other main specialized banks are the Agricultural Bank, the People's Construction Bank of China and the Bank of China. The People's Bank sets the loan quotas for these specialized banks, which can raise money in various independent ways.

New banking control regulations were adopted by the State Council on January 7, 1986, which spell out how the banking system is to operate. In general, there is to be close cooperation and a more clear-cut division of labor between the People's Bank and the specialized banks and other financial institutions. But there is also to be considerably more flexibility with respect to banking operations generally. Foreign banks are also permitted to establish and operate under prescribed conditions.

State-owned enterprises can raise money by issuing stocks and bonds. With permission of the People's Bank, stocks offering dividends and voting rights may be sold by enterprises to other businesses and individuals. The specialized banks may issue savings bonds to the public to finance loans to enterprises. All can issue bonds and offer house-buying savings accounts. The CIBC and the Agricultural Bank can open savings accounts in foreign currency. In general, it is expected that the specialized banks should develop into financially independent entities responsible for their own operations.

Five cities have been selected for a program of implementation of banking reforms over the next five years — Changzhou, Chongquing, Guangzhou, Shenyan and Wuhan. The bank branches in the five cities may lend and borrow from each other and perform a variety of financial transactions. It is expected that they will offer check and money order services, as well as personal and travelers checks. Trust and investment companies for commercial credit, leasing, insurance and consultancy services are also being established. Although there has been a considerable growth of savings deposits, the main message from the People's Bank of China, through its President, Madame Chen Mu Hua, is that banks must still try to boost their savings deposits, that more savings banks should be opened, and more computers should be used.

China's national banks can now also lend for fixed assets. This has been the main function of the People's Construction Bank of China (PCBC). But, in 1985, excessive lending and credit for capital projects, some of which were not of priority, led to shortages of building materials and an overheating of the economy. Instructions therefore went down to tighten fixed asset investment in state-owned industries. Some projects were stopped or suspended in the effort to reduce inflationary effects. The currency was also devalued, from its level of 2.8 Yuan to US \$1, to 3.2 Yuan to US \$1. In July 1986 it became 3.2 Yuan to US \$1.

The PCBC has been an active player in the housing finance field. To date, in 1986, it has loaned 3.9 billion yuan for private housing projects and various enterprise urban development projects. About 56 million square meters, or one million flats, have been built with loans from the

bank, of which 48.5 million square meters have been sold. The Bank attracts savings from individuals and enterprises for lending for home ownership. In 1986, it was announced that the Bank had one billion yuan available for land development and private housing.

The CICB has an extensive branch and office network, some 14,000 savings offices, about 400,000 employees and over 200 million individual savings accounts. By the end of 1985, it had savings deposits totalling 89.5 billion yuan, or about US\$ 28 billion. The target for 1986 is to increase savings deposits by 25 billion yuan. A fastgrowing category of the Bank's lending activity is that of loans for durable consumer goods and housing. The Bank grants such loans linked to urban savings deposits. It grants loans for housing, including building, buying and improvement. Loans typically are from five to eight years and carry an interest rate which is established from time to time. In 1983, it was 6.82%. Loans to individuals for new houses are made on the basis of linkage with savings deposits, which should amount to from 30 to 50% of such loans. The Bank has given some construction loans for private development and made loans to companies or enterprises for housing construction.

Although the CICB is attracting a considerable volume of savings, a recent study by the Bank showed that the full potential is not being achieved. A survey of 11.618 million self-employed in nine major Chinese cities reported that only 6% had opened deposit accounts in the bank or in local credit cooperatives. Among the reasons given were fear of sudden economic changes; a reluctance to disclose their economic means; inadequate services of the Bank; and interest rates on deposits were not keeping up with inflation.

As for rural savings, these are growing at a fast rate, and at the end of 1985 the balance of personal deposits totalled some 56.5 billion yuan. About 80% of rural households belong to the credit cooperatives which were established in the 1950s, and are under the supervision of the Agricultural Bank of China. To what extent the rural credit cooperatives make funds available for home improvement loans is not known.

In April 1986, the Postal Savings System inaugurated nation wide a system to attract savings deposits, in agreement between the Ministry of Posts and Telecommunications and the People's Bank of China. There are 50,000 service centers throughout the country, and the system will offer interest rates comparable to those of the banks. In Japan, a predominant source of housing finance is the Postal Savings system, for utilization by the Government Housing Loan Corporation. Whether this type of situation will develop in China remains to be determined.

The extent of savings and building development through housing cooperatives in China is not known. In 1986, it was reported that a housing cooperative, the first of its kind in Shanghai, was organized by the Shanghai Toy Company. The funds for the cooperative come mainly from three sources: the company's housing funds, shares bought by employees, and credit with low interest provided by the banks. The houses are owned by the cooperative, but the members have priority in renting the houses and can leave them to family members, although not permitted to sell them freely.

Housing Finance Development

Although the existing specialized banks are pffering some funding for housing finance purposes, it is probable that more could be done to create a financing system to permit longer range planning and programming of integrated housing projects. In addition to the rental reforms, home ownership and management improvement, certain proposals have been advanced for discussion for the establishment of a major new undertaking for housing finance and development. This could have some of the characteristics of a specialized bank, such as a new China Housing and Mortgage Bank. One proposal is for the establishment of an Urban Housing Development Foundation which would draw its capital from a percentage of the payrolls of all administrative, institutional and enterprise units. It would encourage various forms of home ownership, and there would be coexistence with the typical public rental housing, welfare housing, housing cooperatives, as well as self-onwed and occupied housing.

Singapore is looked upon as another model, where provident funds for pensions and social security have provided resources for lending for housing and acquisition of housing. This fund is currently based on a percentage of payrolls, 25% from the employer and 25% from the employee, credited to individual accounts. This has similarity to the unemployment and social security fund established in Brazil in the 1960s, where 8% of payrolls is credited to individual accounts, and whose resources have provided for the investment program of the Housing Bank of Brazil. It seems likely that in China some new instrument of this kind will be required, and will rapidly find its proper role.

The importance of a nationwide social security and pension system in China is increasingly being recognized. Already there are an estimated 100 million people of retirement age (60 for males, 55 for females), but only 12 million had actually retired by the end of 1985. The circumstances vary between cities and enterprises. In Shanghai, for example, all sino-foreign joint ventures are now required to contribute 30% of salaries to the Shanghai Branch of the People's Insurance Company of China, for the pension fund. In state-run units in other places, the percentage of staff

payroll contributions for pension purposes may range from 12.5 to 25%. These funds are usually passed on to the local governments for administration, to reach the retired individual.

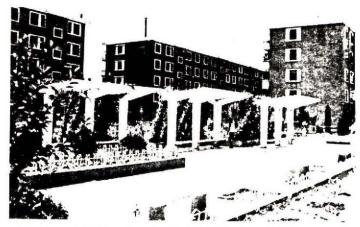
In view of the nature and the long-term character of pension funds, housing in many countries offers a major and appropriate investment opportunity for the resources in such funds. This can be on a direct basis, for funding of individual projects, or for investment in the secondary markets of mortgage securities and bonds, to free up more resources for direct and primary investment by others engaged in housing and building projects.

As China develops the basis for a nationwide system of social security and pension funding, it seems logical to propose that investment for housing finance be one of the leading permitted investment objectives of such funding. This will add to the resources for building the nation's capital stock, help in its modernization, and create employment on a sustainable basis, as well as providing for many other economic, social and environmental benefits.

The housing sector will continue to have a most important role in the development and transformation of China's economy, as indicated in the construction targets established in the Seventh National Plan (1986-1990). The estimate of 200 million dwelling units to be built in this decade and the next represents a formidable challenge. Because of the size and complexity of the problems to be dealt with, the need for responsible mobilization of resources, and the need for control, supervision and evaluation of the investments required, consideration should be given to the establishment of a new central financing entity to deal with this sector. This could be a new specialized bank, comparable to those already established, and with similar capacities for conducting a wide range of operations. Such an entity, which might properly be named the China Housing and Mortgage Bank (CHMB), would draw upon the experience and research of MURCEP in developing its investment programs. It would report to the People's Bank of China, as with the other specialized banks, and be subject to its supervision and directives.

The CHMB would tailor its operations to the specific needs of China in a socialist capital market, where state-owned financial institutions play a leading role; where the main providers of funds are farmers, workers, enterprises and institutions; and where there is control of foreign exchange. However, elements of experience from similar institutions in neighboring countries will undoubtedly prove useful.

In some cases, the CHMB would compete with other banks for business in the attraction of savings, interest rates and home financing. It would obtain funding for its



A residential district in Tianjin, Hebei Province.



On top of new 20-story high rise in Shanghai with respresentatives of Shanghai Municipal Bureau of Housing Administration. On Carlson's right is Wu Zheng-Tong, Vice-Director, Shanghai Housing Management Science and Technology Research Institute.

investments from savings deposits, from central sources such as pension funds and insurance companies, and by the issuance of housing and mortgage bonds and other debentures. Initial capital could well come from government and could include the assignment of state-owned housing stock.

The CHMB should be the vehicle to promote and foster a specialized housing finance system. It would, in effect, be the supervisory center for such a system, whose members might include cooperative building societies, savings institutions, housing finance development corporations, and perhaps other entities associated with provincial or local authorities. The CHMB would develop special services and instruments, perhaps including discount facilities, deposit and mortgage guarantee insurance, and other financial products. It would promote advanced financial technology and serve as a central source of information and technical assistance in this field.

China's Building Industry

China's building sector has made great progress, and is in process of reform and modernization. During the 33 years from 1952 to 1984, the construction and installation work completed amounted to 800 billion yuan. About 300,000 industrial projects and 590,000 projects for cultural and welfare purposes were built, with a completed total floor area of some 2.3 billion square meters. More than 200 cities and about 1,000 county towns were reconstructed and expanded. Housing conditions were improved for 320 million people.

At present, there are 12,360,000 workers and staff members engaged in 11,400 building enterprises and institutions, of which 5,500,000 are working in 3,000 state-operated enterprises; 2,100,000 in collectively-owned enterprises in 7,000 cities and towns; 300,000 in 1,400 survey, design and research institutions, and 4,000,000 in rural construction teams.

However, there have also been problems. The ratio of the earnings of the building industry to GNP was less than 5% in China, whereas it is considerably higher in other countries. The profit rate of the building industry was only 2.5%, whereas in other developing countries it may be 20% on the average. The building sector also lacked the independent management essential to its development. Building products were not considered as commodities, which resulted in unrealistic pricing of materials from their real value. For years, the building sector has been plagued by other problems such as a long construction cycle, a high rate of consumption, huge waste, and technological stagnation.

Some of these problems are now dealt with as the result of major reforms of the management system which

took place in 1983. In 1984 construction works increased by 20.7%. Mean completion of floor area per capita increased 7.6%, and labor productivity per capita by 17.3%. The key reforms responsible for these increases were the establishment of a system of investment responsibility and a system of public bidding. Highlights of the reforms include the following:

- (1) The concept of investment agreements which specify the responsibility of the organization for which a project is to be built. The state then allocates the total sum specified in the investment responsibility agreement to the construction bank, which in turn provides the funds as required according to the progress of the project.
- (2) For all projects where repayment is possible, financial appropriations should be replaced by bank loans in accordance with the principle of compensation for the use of funds.
- (3) Working out policies that encourage a shorter construction period. Funds saved by early completion go to the organization which has contracted for the project after repaying all additional loans for overdue construction.
- (4) Under state guidance, the development organization selects the best design institute and construction company through public bidding. Any qualified design and construction organization may enter into bidding no matter what region or department it is from.
- (5) The development organization may choose from various forms of contracting. For example, for housing development, contracts may be signed for a housing estate or for a specific block of buildings. Contracts may also be signed to fix the amount of wages for every 100 yuan worth of finished work.
- (6) The system of ordering and supplying materials and equipment is also reformed, with the pricing regulated by the market.
- (7) The recruitment system is changed to give greater emphasis to labor contracts to increase the number of temporary and seasonal workers. Peasant building teams are allowed to take part in public bidding for contracting projects in cities.
- (8) Design institutes, instead of being solely state-operated, should serve more as consulting firms offering professional services, with emphasis on modernizing codes, norms and

quotas, and bringing the initiative and creativity of designers into full play.

An example of the benefits of the new bidding and contracting system is the experience of the city of Dalian, which has actively solicited bidding on contracts from units of municipal districts outside its province, as well as from the 90 construction units in the city proper and its subordinate districts. The results of this active bidding process have lowered construction costs by an average of 8.8%.

Construction periods were shortened for 381 projects which implemented the bidding and contracting system, averaging 23% less than the nominal period designated by the state. There were also substantial improvements in construction quality. All projects were prepared well in advance, before bidding. The settling of accounts was also much simplified, as the successful bid price for a contract is the final payment for its completion.

Construction payments are now made in installments, in accordance with procedures adopted by the People's Construction Bank of China. Fifty percent is paid on signing of contract, a further 35% on completion of basic or general construction works, and the remaining 15% on final completion and acceptance of the project.

With the construction boom and involvement in more complex projects, the technological capacity of the building industry has increased considerably. In association with foreign investors, new technologies and materials have also been introduced, such as sheet glass production, aereated concrete and cutting techniques, gypsum board, precast concrete panels, straw board and chap board. Factories have been established for the manufacture of earth moving equipment, emulsion and alkyd resin materials, plywood, household furniture and elevators. While in the past foreign contracting firms have often been called upon for complex and difficult projects, Chinese firms are now to be given first priority, and this will certainly be the case for new high rise buildings. Shenzhen has one of 53 stories, and there are three such tall ones in Shanghai and two in Beijing. By the year 2000, it is expected that there will be 20 million squard meters more of tall buildings in 40 cities in China. The urban future will be looking up.

At the same time, it will be important to concentrate on more mundane matters, such as improving the performance of the housing construction industry. As pointed out by Vincent J. Abramo in a recent report, this will involve: standardized construction designs; training of workers according to standardized teaching materials appropriate and effective for both construction designs and building materials, and better quality building materials, sturdy

hand tools and equipment, well-motivated work force, and more efficient management of the job site. The process could begin with the 150 billion pieces of clay brick which China produces annually, almost everywhere. Fortunately, the continued use of this traditional all clay brick is recommended as still being the best building material for housing in China.

The Special Economic Zones (SEZs)

The Special Economic Zones are dramatic symbols of a new open-door policy for foreign investment in China, and were conceived within the new economic policy announced in December 1978. The goal was to promote socialist modernization, and special status was thus granted to Guangdo g and Fujian, the two coastal provinces, to experiment with an alternative form of economic development other than socialism. The main idea was to use capitalist enterprise and foreign capital, subject to municipal planning and approval. Four SEZs, that is, Shenzhen, Zuhai and Shantou in the province of Guandong and Xiamen in Fujian were then established. These zones were to serve as bridges or windows for introducing foreign capital, technology, knowledge, and management know-how.

The SEZs have attracted large amounts of investment, infrastructure construction, industrial plant and production facilities, and urban population. The achievements are rather startling and remarkable, especially in the case of Shenzhen, the largest of the zones, 327.5 square kilometers in area, stretching 49 miles along the border of Hong Kong's New Territories, incorporating fully one-third of the newly designated Shenzhen municipality. Though the achievements of each SEZ vary considerably, one from the other, all four represent unusual places for research and evaluation, of the translation of plans into realizations within an unusually short time period.

In a celebratory tour of the SEZs in early 1984, Deng Xiaoping and the Party leadership proclaimed the five year experiment a success, and called upon the nation "to learn from Shenzhen." He authorized both the expansion in size of the smaller existing zones and the opening of 14 additional coastal cities as preferred sites for foreign investment. There has been no lack of boldness in these approaches, and, as is to be expected, there remains a good deal of political and intellectual controversy about their economic and social benefits. However, the Seventh Five-Year plan reinforces their position and expected development, and suggests that the SEZs will be expected to lead in technological importation, to aim towards production for exports and to create more foreign exchange earnings for the nation.

This article does not provide the appropriate op-

portunity or space to review developments of the SEZs and some of the 14 coastal cities. But we can touch upon a few highlights, to be expanded in some future opportunity. According to an official report, by early 1985 a total of US \$2 billion of investment had been pledged to the zones through some 4,700 economic cooperation agreements, an amount constituting over 40% of the total pledged foreign direct investment in China. This figure must be compared to the total infrastructural costs of close to six billion yuan up to that time. Actual investment over the past five years for the four economic zones totalled an estimated US \$840 million.

The most successful of the SEZs has been Shenzhen, which accounted for 67.5% of total actual investment through 1984 and over 75% of the total number of economic cooperation agreements. At the end of 1985, the permanent population of the Shenzhen SEZ was 191,400 plus another 140,000 temporary residents, many of them construction workers. The zone's population is expected to reach 450,000 by 1990 at which point industrial output is to top 4.78 billion yuan. A majority of the labor force is expected to come from areas outside of the SEZ, and a significant percentage is recruited from other provinces, and assigned employment under special contractual arrangements through the labor bureaus. The construction of Shenzhen has involved massive infrastructure costs. Actual capital construction expenditures virtually doubled each year, from 1979 through year-end 1984 totalling 3.64 billion yuan over the six-year period. The revised plan covering 1985 to 1990 projected capital construction expenditures of 7.5 billion yuan.

In terms of area constructed in square meters through 1984 for Shenzhen, the total was 6,013,022, of which the residential dwelling area accounted for more than half, or 3,044,917 square meters. All of this development is meant to form part of a comprehensive, integrated zone, whose prime focus is on industrial development, preferably technology-intensive in character, but simultaneously promoting agriculture, tourism and trade. Of the 98 square kilometers available for urban development, 15 square kilometers were designated for industrial use. The zone was divided into 18 districts to be developed serially on a self-financing basis. The average per year projected growth rate for the SEZ to the year 2000 was 31%. Industrial output would top 12 billion yuan by the end of the century, at which time the zone's population was expected to reach 800,000. It would then include some 1,500 new zone enterprises, creating over 200,000 jobs.

Shenzhen is not financed by state budgetary allocations, and was supposed to be a model of the utilization of foreign capital in investment. In actuality, during the entire period from 1979 to mid-1984 foreign investment has never constituted more than 30 to 33% of the total cap-

ital construction investment. The other major sources of funding have included bank loans; local collective investments; Guangdong provincial government investment; and investment by Chinese enterprises and state departments from outside Shenzhen.

Estimates indicate that in the early years at least 25% of the investment in Shenzhen was for real estate. However, no comprehensive data on this subject have been published by the city government or by the central or provincial authorities. Whether there has been inadequate planning and provision for housing and community facilities both for the permanent and temporary work force is not clear. The Shenzhen SEZ Real Estate Company was formed by the city government in early 1980. In its first four years, it realized a substantial amount of capital construction using foreign capital from Hong Kong. After 1982, it began to invest in projects relying solely on its own financing, from the profits retained.

By mid-1984, Shenzhen had sold almost equal amounts of commodity housing units to local and foreign buyers. Local buyers include employees who purchase units from their own enterprises and state departments at a discount and by installments; and also local state departments and enterprises, as well as their counterparts from outside Shenzhen. In Shenzhen, most of the local workers' housing is built by the Housing Company, a division of the Shenzhen SEZ Construction Company. The units are distributed directly to the local population and different state departments -- the former by rent, the latter by sales. The departments then allocate the housing units to their employees according to the number of persons per household and status. Workers are also allowed to buy houses through mortgage which, of course, favors those workers who receive higher wages and can afford it.

The foreign firms that establish in the SEZs are not directly required to provide housing, health care, retirement or other welfare services which are normally provided by Chinese units (state-owned or collectively-owned enterprises) for their employees. Consequently, the state, specifically the Shenzhen municipality, has to provide these services. The funds for such purposes are an integral part of the labor contract negotiated between the SEZ Development Corporation and the foreign investors. The 1981 provisional regulations specify that of the total compensation package per worker, 5% is to be paid to the labor bureau as fee; 70% is paid to the workers, and 25% is retained by the labor bureau for mandatory labor insurance and "various state subsidies." These arrangements may vary from zone to zone. In the Zuhai SEZ one project provides for a distribution of 45% to the individual workers and 50% retained by the enterprise to provide for the welfare service, housing and health care for the worker. The most usual practice is that the enterprise hands over the welfare reserve funds and relies on the municipal government (or the state) to provide these services and facilities.

Thus one of the changes due to the establishment of the SEZs is that the municipal government's responsibilities to provide for housing and welfare services have increased. This is hardly in line with the expectations of those promoting commercialization of housing, especially as the SEZs were to demonstrate private sector investment in all sectors.

Appropriate judgments on the concepts and the realities of the SEZs will require more information. All four SEZs have considerably increased in urban population. At end 1985, Shantou had 489,000; Xiamen, 344,000; Shenzhen, 190,000, and Zhuhai, 90,000.

Government Housing Finance Policies

In the present decade, many governments have made basic changes in their housing finance policies. There is a prevailing view that shelter should be viewed as a basic need and an indispensable part of the infrastructure of a productive society. But increasingly, in both market and socialist economies, there is realization that direct construction by governments is not necessarily the best way for meeting the housing needs of the population. In many cases, public budgets are inadequate for the large capital investments and continuing subsidies consumed by direct construction of housing by state agencies. This is particularly true in many developing countries where there is growing recognition that rather than building houses directly, governments instead should adopt a supporting and facilitating role in the provision of shelter. They should seek to extend a wide range of viable shelter solutions through non-governmental, informal and private sectors.

In the industrialized countries, a predominant source of funds for housing comes from household savings, and in many cases these domestic savings are mobilized through specialized housing finance systems and institutions. In the United Kingdom, for example, the building societies dominate both the short-term personal savings market and the housing finance market, accounting for 51% of the liquid assets of personal savings in 1985, and for 79% of house purchase loans in that year. In some countries, there is an increasing range of housing finance instruments going beyond the traditional mortgage, and with the growth of secondary mortgage markets this is enabling long-term finance to be provided more readily through pension and provident funds, insurance institutions and others. Direct government investment for housing tends to be more restricted in most countries, and typically tends to be focussed more

on subsidies for the homeless and needy families, and on major problems such as urban renewal, and the rehabilitation of central city areas.

In the socialist countries major changes are also taking place, to a greater or lesser degree, but with the effect of diminishing direct government investment and construction of housing to other modalities, particularly through the encouragement of cooperative housing programs, and increasingly through the promotion of home ownership, including the establishment of specialized savings systems for this purpose.

The recent developments in the socialist countries of Eastern Europe illustrate the changes and trends in this respect, and a few examples will be briefly overviewed. But for a rather startling and possibly adaptable example of new housing policy in another developing socialist country, Cuba's new housing legislation of 1984, basically converting all existing housing into home ownership tenure, offers a model for thoughtful consideration, and its main elements will be briefly described.

In the Eastern European socialist countries, there are a number of common characteristics underlying their housing policies, goals and implementation. One is the maintenance of low rents for the state housing constructed. Typically, there is no amortization for these projects, and there may also be a subsidy for repairs, maintenance and other factors, to help maintain the low rents. Changes are now taking place, however, in several countries. In both Hungary and Poland rent reforms began in 1983, and rents were raised in a multi-step fashion. In Czechoslovakia in 1981 housing built by enterprises, about one-fifth of the total, was replaced by an expansion of cooperative housing construction. In general, in recent years housing of the type realized through the population's own resources has been increasing in importance. Besides state housing, more and more families in these countries have been able to satisfy their own housing demand through their own incomes aided by substantial state subsidies. Thus the state and the population participate jointly in the financing of housing investments.

In several countries, increasing efforts are being made to promote savings for housing. In Hungary, for example, there is a Youth Deposit System. People under 35 may undertake to save a definite sum each month regularly for five years. If they meet their obligations, they receive a premium in addition to the interest rate and an amount of credit equal to their savings. The Housing Saving Deposit, introduced several years ago, is available to all, providing an organized form of saving for housing together with a preferential loan. In the socialist countries, the financing of housing (and purchase) is now for the most part ar-

ranged by national savings banks. Their functions are becoming increasingly diverse.

In a number of socialist countries, the trend towards expansion of the owner-occupied housing sector, as well as cooperative housing construction is evident. The share of state investment for housing is still highest in the U.S.S.R., where in the early 1980s it was 70%, with individuals accounting for 20%, and cooperatives and kolkhoz, 10%. But recently, cooperative housing is expanding as the result of new state directives.

In Czechoslovakia, the share of state housing construction decreased from 36% in 1981 to about 20% in 1983, while cooperatives increased from 35% to almost 50%, and the share of individual housing construction stabilized at about 30%.

In Poland, the share of rental dwellings built from 1981 to 1983 declined to 13% in comparison with 15.1%. The share of individual construction increased from 26 to 28%, and cooperative construction was maintained at about 55%.

In Hungary, the share of newly-built dwellings decreased to 18%, while the share of completed family houses rose to 44.9%, and the share of owner-occupied dwellings increased to 37.1%.

In Bulgaria, in the period 1981 to 1983, compared with the period 1976 to 1980, the share of rental dwelling construction decreased from 52.2% to 45.3%, while the share of completed family housing and of other owner occupied dwellings increased from 47.8% to 54.7%.

For the most part, the financing of individual housing is carried out through long-term credits at low interest rates. But in individual countries loans at higher interest rates and repayable over a shorter time period play an ever-increasing role, and in some countries significant incentives are provided for early repayment.

Special attention is being given to improved and efficient management for the housing stock, and to systems for repair and recorstruction of housing. In Hungary, for example, tenants can modernize their dwellings themselves, and a substantial part of their costs can be repaid by the state estate agencies or compensated by reduced rents on their dwellings. The state bank has also been able to give favorable loans for additional insulation of dwellings and houses against heat loss and for the use of energy saving ways of heating.

Cuba Promotes Home Ownership

As China is a developing socialist country, there

are other aspects of the housing policies and programs in the socialist countries of Eastern Europe which merit further study and consideration. But the case of Cuba, another developing socialist country, may have more relevance. As reported by Jill Hamberg, a sweeping new housing law was enacted by the National Assembly in December 1984, following abundant open debate and discussion. This legislation was adopted during a period in which government housing output had nearly doubled, during the first half of the 1980s, reaching a level of over eight dwelling units per 1,000 population, comparing favorably with levels in Western Europe in recent decades. This spurt in production also stimulated lively debate about future policy directions in other areas, such as site planning, building scale and design, urban renewal, rehabilitation, conservation and resident participation.

The new housing law creates a standard tenure form for the whole country (home ownership) and converts leaseholders in government-owned housing into homeowners. It fosters and regulates self-built housing construction by individuals and cooperatives. It permits limited short-term private rentals and provides more flexibility for a private rental market. It updates existing legislation regulating housing management, maintenance and repair, evictions and the buying and selling of land and housing. It encourages greater resident responsibility for maintenance and repairs. The law applies to all housing, not just that in urban areas. Although the law will help channel available resources in a more effective manner, it cannot, of course, resolve the shortages of construction materials, tools and equipment, etc. Some of its main provisions are briefly summarized, as below:

(1) Conversion to home ownership. Cuba's 460,000 rent-paying families, representing one-fifth of households, will become home owners and amortize the price of their dwellings with their regular monthly rents. The total purchase price is calculated by taking a household's rent as of October 1984 and multiplying it over a 20-year period. Payments from past years are credited toward the total, but a minimum number of years must still be paid, ranging from five to 13 years, depending on the time of construction. A family can choose to pay more rapidly, or, if household income falls, the amortization period may be extended.

As an alternative, households can opt to have the total price set based on the type of construction, usable floor area, location, extra yard space and depreciation. This is called the "legal price" to differentiate it from prices on the unregulated free market or those derived from income-based rents. Another third of Cuban households, many including most residents of self-built housing and rural new towns, will acquire title to their homes without paying any amortization. Thus, almost all households will acquire the

same tenure status -- home ownership -- and will therefore have the same rights and responsibilities.

- (2) Housing distributed by the government. New government-built housing will be sold to high priority families, who will pay off the legal price of their dwellings with low interest loans over a period of 20 years in high-rise structures, and 15 years in all others. Prices for government-assigned existing housing will reflect depreciation. Families will receive credit for payments on their prior residence or its legal price. Most state-built new housing will be distributed by local public agencies rather than by workplaces.
- (3) Sales, exchanges, and inheritance. The new law permits free market sales of land and housing, and of the right to build on the roofs of single and multi-family housing. When households exchange dwellings, they will normally take their mortgage debt with them, but the new law permits the parties to exchange their debts, or for one party to assume the debt on both dwellings. The law allows inheritance of a home left vacant after its owner's death.
- (4) Self-built housing. The new law provides for active public involvement in fostering various forms of self-built construction, including building by individuals and by cooperatives established on a temporary basis for the purpose of building multi-family housing. Once completed, apartments are owned as condominiums. Trade unions and other organizations are encouraged to promote such cooperatives among their members. Land, or the right to build on roofs, can be purchased from private parties, as can permanent surface rights on state-owned land. First priority for state aid will go to cooperatives formed by trade unions planning to build near workplaces, then to other cooperatives, and finally to individual builders who fulfill certain criteria. Low-interest loans are available to cover a wide range of building costs.
- will be self-managed by councils composed of all residents. Occupants will assume responsibility for paying a maintenance fee. High rise structures will still be managed by local government agencies, but only a portion of the maintenance costs will be subsidized.

Most new housing in Cuba will still be allocated by social criteria, such as need of maintaining a stable labor force rather than being sold to the highest bidder. But differential land prices and interest are also consistent with Cuba's current stage of transition to socialism. In Marxist theory, neither is a form of value, but both have prices. Under socialism, interest (the price of money) and land prices are used to promote efficient use of resources under conditions of scarcity. Official prices on urban land re-

flect differential land rent based on such things as distance from downtown, accessibility and infrastructure.

The two aspects of the new law that most resemble capitalism -- free market resales and short-term renting -- do involve private unearned income, but are viewed as transitional free market measures which have their own raison d'être within the framework of Cuban experience and the position of the economy at the present time.

Whether this type of rationale or dialectical interpretation of Marxist socialism, as applied to the housing sector in today's world, will carry much weight among the policy makers in the People's Republic of China remains to be seen. But the challenge is there for debate and discussion on this subject, leading to more definitive policy formation and new legislation for housing policy and finance.

Conclusion

This brief report has endeavored to provide an overview of some of the main happenings and issues regarding housing finance development in China today. More in-depth analysis is needed, and other issues could well be added. It seems clear that major urban reforms are currently being studied which will have considerable impact on these issues. For example, as reported in the China Daily, one senior government official has pointed to the following prospects:

- Utilities and other essential facilities will be operated like businesses rather than as welfare agencies providing free or cheap services.
- (2) Services now provided by units for their members or employees will be socialized (privatized) -- that is, provided by outside agencies on a commercial basis.
- (3) The use of land in urban areas will be commercialized, rather than allocated by governments.
- (4) Housing will be commercialized. Rents will be much higher, being based on actual costs.

In this context, it seems essential that new national housing legislation be adopted, through which policy for housing and urban development will be made explicit. Such legislation could develop the concept and modus operandi for a new system of promoting savings for housing and housing finance generally. It could establish the institutional structure in which such a system would operate. The financing agency, by whatever name, would have close link-

ages with MURCEP and the specialized banks which function under the supervision of the People's Bank of China.

China has the oldest and largest system of cities of any society in the world. It has had extensive experience with urban administration, a diversity of regional development, and exceptional integration of city and hinterland. The world has much to learn from this experience. But now China is embarked on an expressway toward modernization and economic growth. It must provide itself with new strategies and new instruments for dealing with the financing, planning and management of human settlements so that the Chinese people will have good housing in decent urban environments appropriate for their present and future needs.



A residential building in Foshan, Guangdong Province.

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Utility building in right foreground provides centralized heating for Beijing housing project. All 6,800 dwelling units have piped gas.

CHINA
ZHEJIANG: URBAN SERVICES SECTOR SURVEY

Staffing Requirements /a (in staff weeks)

	Dept.	Con- firmed	FY86 pre- paration <u>/b</u>	Main mission Sept. 1986	White Cover Dec. 1987	Yellow Cover Jan. 1987	Green Cover April 1987	Grey cover June 1987	Total FY87	Total FY86/87
Cukok	AEPUW	Yes	4.0	4.0	5.0	2.0	2.0	1.0	14.0	18.0
Hamer	AEPUW	Yes	4.0	4.0	3.0	1.0	1.0	1.0	10.0	14.0
Huang	AEPUW	Yes	1.0			-	-	-	=	1.0
Bertaud	CON	Yes	2.0	4.0	4.0	_	-	_	8.0	10.0
Bahl /c	WUD	Yes	-	4.0	4.0	1.0	_	_	9.0	9.0
Oddie	CON	Yes	-	4.0	3.0	_	-	_	7.0	7.0
Kneebone	CON	Yes	-	4.0	3.0	-	-	-	7.0	7.0
Zhang /d	CON	Yes	4.0	4.0	4.0	-	-	-	8.0	12.0
Sae-Hau	AEACH	Yes	_	4.0	3.0	=	-	-	7.0	7.0
			15.0	32.0	29.0	4.0	3.0	2.0	70.0	85.0

Summary:

Preparation	FY86	15.0	
Main Mission plus			
report preparation	FY87	85.0	

[/]a In addition, Mr. de Ferranti, who joined the preparation mission, and Mr. Bruestle will join the main mission. Mr. Huang will also visit Zhejiang enroute to some other work in China.

AEPUW

August 8, 1986

[/]b Mission in April/May 1986, comprised Messrs. Cu Kok, Hamer, de Ferranti and Bertaud.

[/]c Mr. de Ferranti handled preparatory work for Mr. Bahl, and will be joining the mission in Zheijiang and in the discussions in Beijing on account of increasing WUD involvement in China.

[/]d Zhang Jun has been hired as researcher and will be working in the Division in part for the Zheijiang Sector work.

U.S.-CHINA EXCHANGE PROGRAM

Project: Urban Housing Finance and Construction

Dates: 15-27 September 1986

Itinerary: Beijing, Nanjing, Wuxi, Suzhou, and Shanghai

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OFFICE MEMORANDUM

DATE August 11, 1986

TO Distribution (See below)

FROM Daud Ahmad, Acting Chief, AEPUW

EXTENSION 61931

SUBJECT China: Zhejiang Province Urban Services Sector Survey Initiating Memorandum

> Attached please find the initiating memorandum on the proposed urban services sector survey. There will be a review meeting chared by Mr. Yenal in Room I8-054 on Tuesday, August 19, 1986 at 10:00 a.m.

Distribution: Messrs. Yenal (AENVP); Karcher, Turnham, Zincir (AEPDR); Linn (AEADR); Costa (2) (WUD); Levy, Byrd, Sae-Hau (AEACH); Lim, Veniard, Pearce, Khanna (RMC); Hamer Huang, Fernandez, Zhang (AEPUW); Bertaud (CON);

de Ferranti (WUD), Bahl Ms. Ogawa, Wallich (AEACH)

Regional Information Center

Attachment

CHINA

ZHEJIANG URBAN SERVICES SECTOR SURVEY

INITIATING MEMORANDUM

A. Background

- With an urban population of about 330 million, at the end of 1984, China's urbanization level was estimated at about 32% $\frac{1}{2}$, up from 18% in 1978 and 20% as late as the Census year of 1982. China's urbanization level is now close to the average of about 35% for countries at a similar stage of development. Some of the increase in urbanization level has been due to definitional changes. In the past, China's definition of what constituted urban places understated its urbanization level. In 1984, the definition of what constituted a town changed, and many more centers were designated as urban. Many urban areas also expanded their boundaries. As a result, China's urban population increased by about 90 million that year. But even before the definitional changes, China's urban population had been growing at the rate of about 7% p.a., a rate comparable to roughly 8% p.a. during the period of 1949-58 prior to the Great Leap Forward experiment. From available evidence, it appears that in China, as in other countries, there has been a direct relationship between economic growth rates and rates of growth in urbanization.
- 2. Rapid urbanization is expected to continue. The widespread adoption of the production responsibility system in rural areas is expected to generate surplus agricultural labor as peasants consolidate farms and become more efficient. Rural industrialization has also developed rapidly but enterprises in small and medium-sized cities are expected to compete for many of the

Refers to population living in districts under the administration of 1/ cities and towns. Statistical Year of China 1985 (Hong Kong and Beijing: Economic Information and Agency and China Statistical Information and Consultancy Service Center), December 1985, p. 185. One encounters the usual problems of definition of what areas are considered "urban." Since 1963, areas in China which had a population of 3,000 with 70% of the population classified as nonagricultural or areas which had population of 2,500 with 85% classified as nonagricultural, were considered "towns," and hence urban. Such a definition understated China's urban population in the past. There was, however, a change in criteria in 1984. Towns have been redefined as including areas inhabited by no more than 20,000 residents, of whom 2,000 or more are nonagricultural population living in the site of the township government, or areas inhabited by at least 20,000 residents of whom 10% or more are nonagricultural population living in the site of the township government. If the pre-1984 definitions had been used, China's urban population would probably be in the range of 250-270 million, implying an urbanization rate of about 25-26%.

industrial activities currently undertaken in the rural areas. Large cities will also have to play an important role in developing specialized services, high technology sectors and highly productive industries. This will increase urban employment opportunities for rural-urban migrants. The development of a market economy will weaken or render ineffective the administrative controls on migration which China has imposed on its population to prevent massive migration to the cities. There appears to be an emerging consensus, based on latest available information about urbanization trends and patterns, that China will reach an urbanization level of 50% by the year 2000. Only a moderate growth rate of 4% p.a. (lower than recent experience) is required to reach such a level, starting from the 1984 base. And the likelihood is that the growth will occur in cities and towns of all sizes.

- Rationale for Urban Sector Work. The anticipated rapid rate of urbanization raises a number of key issues that need serious consideration: (a) spatial aspects of urbanization and the issue of city size; (b) massive investment requirements to meet current unmet demands and increases in demand for urban infrastructure and services due to rapid urbanization; (c) financing mechanisms and intergovernmental relationships to cope with financing the investment requirements; (d) urban planning implications of rapid urbanization, especially in land use and housing provision; and (e) institutional issues related to urban management. How these issues are resolved will affect the efficiency with which cities are managed in China, and affect China's prospects for future growth and development. These issues were identified in the chapter on spatial aspects of development in the most recent Bank basic economic report, "China: Long-Term Development Issues and Options," and in two background papers for the economic report, "The Asian Experience in Rural Nonagricultural Development and its Relevance for China" and "International Experience in Urbanization and its Relevance for China".
- The Government is currently implementing reforms in the cities in the context of overall system reform, and there is considerable discussion among Chinese policymakers and scholars regarding the future course of China's long-term urban development strategy. The Bank proposed in September 1985, with subsequent State Council approval, to conduct urban sector work in China to help in further clarifying some of the issues raised by rapid urbanization. Because of China's large size and the Bank's limited resources, it was considered impractical to conduct urban sector work for the whole country. Instead, the Bank decided to concentrate on a representative province in anticipation that the results of the study would shed light on urbanization issues on a national level. The province selected was Zhejiang.
- Choice of Zhejiang as Province for Study. Agricultural reforms and economic liberalization have been highly successful in Zhejiang, and it has been experiencing very high growth rates in agricultural and industrial output in recent years (21.6% p.a. since 1981). Many of the factors mentioned in para. 2 have contributed to rapid urbanization in Zhejiang. There, workers who assume responsibility for their own food requirements have been allowed to migrate into towns and small cities. Zhejiang's permanent urban population in 1985 totalled 15.3 million, out of a population of 40.3 million. Its urban population grew 55% from 9.9 million in 1981 and the number of towns has grown rapidly from 255 in 1983 to 508 in 1985. Zhejiang is thus likely to face many

of the issues of rapid urbanization mentioned in para. 3. As China's fiscal system is a unitary one, the intergovernmental relationships in Zheijiang are likely to hold true in other provinces as well. Finally, Zhejiang was chosen because it was one of the five project provinces included in the First Rural Water Supply Project, and Bank staff were already acquainted with the area.

6. In Zhejiang, the Bank has selected, with advice from the Provincial Government, a large city (Hangzhou) and a medium-sized, expanding city (Shaoxing), and selected small towns in the city regions of these cities, for intensive study. To check whether there are significant differences among these cities and other coastal and interior cities in Zhejiang, the Bank's sector mission will also visit the cities of Ningbo, Wenzhou, and Quzhou, and the small towns in their respective city regions.

B. Objectives

The objectives of the proposed sector work are two-fold: Firstly, the sector work would help both the Bank and the Government understand better the key issues involved in rapid urbanization and their implications: spatial aspects of urban development, urban finance, urban land and housing, and specific selected priority urban infrastructure and services (water supply, sewerage, urban transport) and the institutional arrangements for their management. Secondly, the proposed sector work would help the Bank update its information regarding the sector as a basis for formulating a longer term lending strategy in the sector.

C. Topics to be Covered

- 8. The main topics to be covered would correspond to the main issues likely to arise in the process of rapid urbanization:
 - (a) Study the Urbanization Trends and Patterns in Zhejiang. As mentioned in para. 5, Zhejiang's 1985 urban population level equalled 38% of total population, exceeding the national level of 32%. Its urban growth rate has also been very high.

Though China and Zhejiang have focused much attention recently on the possibilities of town-led economic development, Zhejiang's nine cities are critical to the economic modernization drive. They account for half of the gross value of industrial output and absorbed three-fifths of the province's investments in capital construction. In addition, Ningbo and Wenzhou are among the fourteen coastal cities which have received authorization to enter into direct economic relationships with foreign parties and are expected to be "incubators" of businesses oriented toward international trade. By offical standards, seven cities (including Hangzhou, Huzhou, Jinhua, Quzhou, Ningbo, and Wenzhou) are "large" or "extralarge", i.e. exceeding a threshold of 500,000 inhabitants. An eighth city (Shaoxing) is "medium-sized" (200,000-500,000), while a final center (Jiaojiang) is small.

Issues. The following have emerged as areas of concern regarding spatial aspects of urban development. The central government has committed itself to several goals which appear to work at cross-purposes with one another. If past performance is any guide (especially during the decade 1949-1958), the government's goal to quadruple national output between 1980 and 2000 will require rapid urban growth of cities and towns of all sizes. Yet the central authorities appear determined to adhere to a policy, first endorsed in 1958 and then restated in 1980, of "strictly controlling" the population of large cities, "rationally increasing" the size of medium-sized cities, and "vigorously promoting" small cities and towns. As actually implemented, the policy appears even more restrictive. Urban population growth through migration is, in fact, to be confined largely to rural townships and urban towns.

This control policy, however, is being undermined by another major central initiative, namely, one of relying much more heavily on market mechanisms to guide economic development. Such a strategy is weakening the administrative controls on migration into cities (through the household registration system), which were enforced in the past by denying all but the favored few access to jobs, food rations, and housing in the cities. The reforms in the rural and urban economy have dramatically increased the supply of "commodity" food sold outside state-owned stores. In addition, most urban employment today is being created outside the state-owned sector. Finally, rental of living quarters in private homes and in hostels has introduced new options for would-be migrants.

The government has responded to these conflicting forces in two ways. It has allowed cities to accept migrants with "temporary" residence cards which entitle the bearer to none of the privileges traditionally associated with permanent residence in cities (including food rations and housing). Today some 10-15% of the de facto population in the cities is made up of "temporary" residents. In addition, the state has sanctioned an unknown number of illegal migrants, even though the existing system of neighborhood surveillance could, in theory, identify and expel them.

For a number of reasons, retention of an urban development strategy based primarily on city size controls appears inappropriate. First, the strategy to promote highly dispersed urbanization would require massive investments in intercity road construction and telecommunications. If these could not be undertaken, then the strategy would only result in extensive suburbanization just outside city limits, with the concomitant shift in very high value land from agriculture. Second, the success of such an unprecedented town-based approach assumes that local infrastructure can be improved rapidly, and at a much lower cost than if the modernization drive were city-oriented. This assumption will be closely investigated during the mission. Finally, the strategy assumes that town-based enterprises can easily complement city industrial and service functions, so that the division of labor

allows city enterprises to increase output rapidly without increasing employment. We plan to consult on this with those colleagues in the Bank who have studied Chinese industrial development. Based on international experience, however, such a dispersal strategy is unlikely to succeed and cities will need to add substantially to their labor force. Since natural population growth in cities is now well below 1% per annum, substantial migration is inevitable to maintain growth objectives.

The sector study will: (a) analyze the past urbanization patterns and trends in China, and in Zhejiang in particular, focussing on the recent past and examining the effects on recent economic liberalization; (b) project probable urbanization levels for Zhejiang, by making different assumptions regarding migration, employment, and demographics; (c) examine the feasibility of continuing the Government's official and actual urbanization policies (based on concern with city size) in the face of growth objectives that rely more on market than on administrative means; and (d) demonstrate that a better way of approaching the problem of rapid urbanization would be to plan and manage urban growth through alternative policies described in (b), (c), and (d) below.

(b) Municipal Finance and Intergovernmental Fiscal Relationships. In Zhejiang, as in other parts of China, each city and town has its own semi-autonomous government, supervised by the next higher level authority in the hierarchy. The functions of these municipal governments are considerably broader than in many other countries. Besides the usual functions of providing basic services and infrastructure, municipal governments are responsible for overseeing the state-owned enterprises in their locality, other than those specifically designated as provincial or central government enterprises. They also regulate many aspects of the non-state-owned enterprises within their boundaries, including both the collectives and the individually owned retail shops and street vendors; often they own and staff numerous collectives. In addition, municipal governments are in charge of controlling land use, land development, and transfers of land use rights from one occupant to another. All land is still owned by the state in China, and in cities, the municipal governments serve as "the state" in controlling land. They also are the principal entity in housing construction, rehabilitation, and maintenance. Finally, municipal governments serve as tax collector for the provincial and central governments, funneling tax revenues from the enterprises upward; concomitantly they channel grants and loans downward from above, directing investment funds to priority development projects.

The list of functions and the ways that municipal authorities carry them out have been undergoing rapid transition recently, spurred in part by the recent reform that introduced a tax system to replace previous requirements under which enterprises submitted their entire net revenue to the government. Although municipal authorities still are active in planning and monitoring local

commercial and industrial development generally, they appear to be headed toward reduced involvement in the operations of enterprises individually as China begins to implement the policy of separating enterprises from administrative authorities.

Zhejiang's municipal governments get their revenue from four types of sources: taxes, user fees, remittances by certain enterprises of their net profits, and transfers from the two higher levels of government, provincial and central. Some taxes are reserved exclusively for the municipality. In the case of others, a proportion is sent on to the provincial government, which in turn sends on a part to the central government. About two-thirds of the total tax revenue collected at the municipal level is passed up to the higher levels, reflecting the local officials' role as tax collector for provincial and central authorities. The only entities that municipal governments do not collect the taxes from are the state-owned enterprises assigned to the provincial or central government.

Every enterprise must pay a gross output tax and, with minor exceptions, a profits tax. These taxes account for about two-thirds of local revenue from all sources. The remainder of local revenue is largely provided for by an urban construction and maintenance tax, which is reserved for the municipality and earmarked expressly for development and upkeep of urban infrastructure and services.

There is no explicit land use or property tax in Zhejiang's cities and towns, though discussion is taking place about introducing non-residential land use charges tied to use, location, and the size and quality of any improvements.

Most municipal services have an associated user fee, but the levels collected are low relative to that required for operations and maintenance, let alone full cost recovery. This problem is made worse by the fact that these governments own and manage a substantial share of the housing stock, for which they receive only token rents.

There are two other sets of resources potentially available to urban areas. Localities often seek to increase their revenues by creating municipally-owned collectives. Net profits from these enterprises thus becomes available to local governments for disposition as they see fit. It is unclear whether, as a byproduct of this process, there is a proliferation of inefficient enterprises. In addition, municipalities receive modest transfers from provincial and central governments for the financing of special projects. These transfers can be either loans (for "productive sector" projects) or grants (for all other projects).

Issues. The following issues have been identified in the area of municipal finance. All terms and particulars of all taxes, including who pays and what the rates are, are determined by higher level authorities, leaving the municipalities with little autonomy for selecting and fine-tuning tax polices and instruments. Many municipal authorities argue strongly that they desperately need increased revenues to meet their current and anticipated future requirements. The mission will seek to explore several alternative ways of dealing with this resource constraint. One method would be to introduce property taxes or land use fees. International experience provides many examples of property tax levels equal to roughly 1% of local property values. This type of taxation provides the most important source of local revenue for many cities, worldwide. Property taxes are also desirable because they can help finance property value-enhancing expenditures.

At present, user charges appear to cover only small portions of operating and maintenance expenses of various public services. A case can be made that these services are like other commodities, and can be sold at closer to full market value. In the case of housing, there is a serious question of whether the government should be in the business of owning and maintaining residential properties. Unlike other public services, the housing bundle is viewed by the workforce as a significant form of supplementary compensation. There is a movement toward selling "commodity housing", albeit, with still very large subsidies. Resolution of this issue will only be possible when the whole issue of wage reform is reviewed by the central government.

The formation of municipal for-profit enterprises to derive additional revenues raises serious questions, as noted above, and would not seem to be a recommended option for revenue enhancement.

The sector study will: (a) analyze the present system of municipal finance and intergovernmental relationships in Zhejiang, and attempt to clarify these relationships; (b) describe and analyze the sources of revenues, their magnitudes, and the appropriateness of each source; (c) analyze past and current expenditures for urban infrastructure and services, focussing on issues meet both unmet and projected demands for urban infrastructure and services, drawing out the impliations of rapid urbanization on urban explore alternative means of resource mobilization and examine the feasibility of such means in the Chinese context.

(c) The current status of selected key urban infrastructure and services and institutions for their management will be reviewed. The provincial and city governments of Zhejiang have identified water supply, sewerage, and urban transport as the priority areas in Hangzhou, and land development as an additional priority area in Shaoxing due to need for rapid expansion planned for the latter city. As mentioned in (b) above, the provision of infrastructure

and services is considered woefully inadequate by the cities concerned to meet even their present requirements, much less to address future requirements engendered by rapid urbanization. This has generally resulted from a past lack of investments in urban infrastructure in cities. For example, in Hangzhou, although there are four water plants, these work at full capacity and the quality of treatment has been relaxed in order to supply adequate water to both domestic and industrial users in the city. Many of the rivers and streams are polluted because of inadequate sewerage treatment and direct discharge of domestic and industrial effluents into the city water ways. Although there has been some work done in installing interceptors and primary treatment plants in Hangzhou, authorities both there and in Shaoxing consider water pollution one of their most serious problems. In both cities, public urban transportation is primarily by buses and trolley; they share the streets with large numbers of bicyles. In both cities, there are complaints that the road capacity is insufficient, that during rush hours travel times by public transportation have increased unacceptably, and that there are an unacceptably high number of traffic accidents. As mentioned earlier, urban services have been provided at highly subsidized rates. As a result these low user charges have had adverse effects on the maintenance and operations of urban infrastructure, and on new investments.

The issues to be pursued and questions to be asked during the mission for each of the key urban services, water supply, sewerage, and urban transport are: What is the current status in each of these services and how adequate are they in addressing the present needs of the current urban population? What are the key problems in each of these services? How are they currently planned, constructed, and managed? What, and how adequate, are the institutions responsible for managing them? How good is the level of coordination among the different agencies? What kind of autonomy do local agencies have in determining the types and quantity of investment in priority infrastructure investments? Given projected urbanization levels, what are the broad ballpark investment requirements? What are the likely changes needed in the institutions to be responsive to the projected needs?

The study would: (a) describe and analyze the status of each of the key urban infrastructure (water supply, sewerage, and urban transport) and the level of services and assess their adequacy in serving current needs; (b) review the policies and institutions related to the provision of these key urban services, including funding for capital investments and operations and management, tariff policies, organization and management, key legislation, and regulations; (c) estimate order of magnitude of investments (based on per capita capital and operating costs) to satisfy the demands of rapid urbanization; (d) analyze on a preliminary basis project proposals prepared by the Government to ascertain their feasibility and outline requirements for further project preparation, including information required by the Bank; and (e) provide recommendations for short and medium term to improve the coordination among different agencies and their effectiveness in the provision of key urban services and the management of urban growth.

(d) Urban Land and Housing. The growth of the cities and their changing economic base (towards light manufacturing and service industries) have major implications for land and housing. Additional land needs to be brought into urban use to cope with the increasing need for housing, industry, and services. Existing land use patterns need to change to respond to the needs of different types of economic activity. Currently, land use planning in China largely emphasize physical planning. Since land is not assigned any value in planning, except for a one-time transfer fee when agricultural land is assigned to urban uses, land uses are often inefficient and unresponsive to the rapidly changing economic situation.

Most cities in China also face acute shortages of housing. The majority of housing is provided by the cities or enterprises with very little cost recovery. Housing construction is based on arbitrary physical standards (minimum floor space per person) with little consideration for affordability or the trade-off between floor space and location. These issues will become increasingly important as efforts are made to treat housing as a "commodity".

A large part of the existing stock in many cities is old and lacks basic infrastructure services. The Government's efforts at urban renewal have been largely concentrated on tearing down old houses, without regard to possibilities of renovation, and often with little concern about how the resulting changes in densities would increase the burden on supporting infrastructure (water supply, sanitation and urban transport), and operations and maintenance.

The study will: (a) examine and discuss the present practices in land use planning and point out, through specific illustrations, the resulting inefficiencies; (b) project tentatively the need for urban land in the future and see how it can be accommodated both through more efficient use of existing land and through the development of new areas; (c) discuss how land pricing would affect land use planning. For housing, the study will: (a) analyze the existing approach and quantify its implications in terms of costs, affordability and overall resource requirements to meet the Government's targets (8 sq m per person by the year 2000); and (b) using specific examples, develop a strategy which emphasizes a combination of more affordable standards, preservation and upgrading of existing stock, and better cost recovery. The implications of the current Chinese thinking on liberalizing housing ownership will be brought into the discussion. The analysis will also show the trade-offs between location, housing standards, and infrastructure costs.

(e) Strategy for Urban Development. Based on the findings of the above sections, a strategy for urban development based on greater use of market forces (which would be consistent with the overall spirit and direction of ongoing urban reforms) will be recommended, with suggested solutions to the key issues identified in each of the topics above.

The mission will suggest that cities be viewed as high productivity centers, and to realize that substantial urban growth at all city size levels be accepted as inevitable. Once this is done, there is much that can be done to manage the process. World Bank experience in other countries suggests that great potential exists for combining increased local resource mobilization with appropriate planning tools, which stress careful attention to affordability standards and to more coordinated infrastructure provision. For that reason, a substantial portion of the section report will be devoted to those issues.

D. Program

The sector work proposed will be carried out jointly by World Bank staff and Chinese officials, both at the central and provincial levels. Bank staff will be working closely with the Ministry of Urban and Rural Construction and Environmental Protection (chief counterpart agency), the Zhejiang Province Construction Bureau (provincial counterpart agency, and the State Planning Commission (counterpart agency). The Zhejiang Provincial Government considers this sector work very important and has created a Leading Group to coordinate the sector work on the part of the Chinese Government. The Leading Group is headed by First Vice Governor of Zhejiang, Shen Zulun, and the concerned bureaus and departments are members of this Leading Group: Economic and Planning Commission, Finance Bureau, Construction Bureau, and the Statistical Bureau. Other principal agencies expected to be involved include the System Reform Commission, and the Development Research Center at the central government level, and the Zhejiang Province Patriotic Health Campaign Committee. A preparatory mission visited Zhejiang visited Zhejiang and Beijing in April/May 1986 and discussed agreed with the Chinese the scope and objectives of the sector work, and the Zhejiang government has set up counterpart teams and have been involved in data collection. The Government has also confirmed the sector mission, which would be working in China end August to the end of September. The mission will include Cu Kok, Hamer (AEPUW), Bahl, Bertaud, Oddie, Kneebone (consultants respectively for municipal finance, urban planning and housing, water and waste water, urban transport). Messrs. Zhang (researcher) and Sae-Hau (AEACH) will provide research assistance and Chinese language capability to the mission. In addition, Mr. Arthur Bruestle (UNDP RAS/81) will also join the mission for about 10 ays in order to provide guidance to the engineering consultants and to ensure coordination between thlis study and the study in Liaoning done under his guidance. Due to anticipated heavy involvement of WUD in China program, Mr. de Ferranti will also visit China during the wrap-up meetings of the mission with Zhejiang provincial authorities and in Beijing.

The task assignments would be as follows: Mr. Cu Kok will be mission leader and will coordinate the work of the following four teams: Messrs. Hamer and Sae-Hau will be responsible for examining urbanization patterns and the factors affecting urbanization, including macroeconomic and demographic projections for the Province. Messrs. de Ferranti, Bahl, and Zhang will be responsible for issues related to municipal finance and intergovernmental relationships among the local, provincial, and central governments. Mr. Bertaud will be responsible for examining issues related to urban land and housing. Messrs. Oddie and Kneebone will be responsible for issues related with water and waste water and urban transport, respectively. Mr. Zhang will also assist the mission through his work with translation, data management and analysis, and projections. Mr. Sae-Hau will be responsible for macroeconomic and demographic projections. International comparisons would be made whenever such comparisons are relevant and useful in demonstrating to the Chinese how various strategies have worked in other developed and developing countries. The main mission would visit the central ministries in Beijing and provincial authorities in Hangzhou. It would do detailed work in Hangzhou and Shaoxing, and visit towns in the vicinity of these two cities. The mission would also visit the cities of Ningbo, Wenzhou, and possibly Quzhou, and a town in the vicinity of each of these cities. During the wrap-up with the provincial authorities, the Bank would ask central government representatives to be present in Hangzhou. The mission will also brief relevant central ministries at the end of the field work. Bank staff will be responsible for drafting the report in English, and a draft report will be sent to the counterparts for comments. The final version will take these comments into account. A suggested outline of the report is attached as Annex 1. The number of staff weeks is shown in detail in Annex 2. It is expected that about 70 staffweeks would be needed in FY87.

E. Timetable

11. The following timetable is proposed:

Main mission
White cover
Yellow cover
Green cover
Discussion with Government
Grey report

August 31-September 27, 1986 December 15, 1986 January 15, 1987 April 15, 1987 May 15, 1987 June 1987

PROPOSED OUTLINE FOR THE SECTOR REPORT

I. Introduction and Background

Rationale for doing urban services sector work in China Objectives of the study Choice of Zhejiang as province to study Choice of cities Choice of specific urban infrastructure and services

II. Urbanization: Past and Future

Urbanization trends: China in general, Zhejiang in particular

China's official urbanization policy: concerned with city size, use of administrative means to control population movements

Actual investments and employment, heavy subsidies in the provision of urban services, lack of market signals for appropriate location of industries and households

Economic liberalization and recent urbanization patterns

Rapid urbanization inevitable; costs of an urban development policy policy based on city size and implications on growth; costs of dispersed urbanization vs development of cities.

Suggestions for alternative urban policies based on greater reliance on market mechanisms to avoid "blind" urbanization

III. Municipal Finance

Present system of municipal finance and intergovernmental fiscal relationships in Zhejiang, role of municipal governments

Sources of revenues of municipalities, magnitudes and appropriateness of source

Past and current expenditures for urban infrastructure and services

Issues related to municipal finance cost recovery resource constraints local government autonomy

Investment requirements for urban infrastructure and services, to meet current unmet demands and projected demand

Implications of rapid urbanization on urban finances, both from revenue and expenditure points of view

Exploration of alternative means of revenue mobilization

IV. Present State of Urban Infrastructure and Services and Their Provision Institutional Arrangements

Present status of water supply, sewerage and urban transport.

Institutions and Management Effectiveness Efficiency

Issues

Adequacy of services Cost recovery Planning and standards and investment and operational costs

Suggestions for improvement of provision and management of urban infrastructure and services.

V. Urban Land and Housing

Current status of urban planning as related to land development and housing

land development and land use planning in response of rapid urbanization new housing provision housing renewal implications/linkages of urban land use and housing on transport, water, sanitation, and urban finance

Issues

degree of autonomy (vertical relationships)
degree of horizontal coordination
relating standards to costs and affordability
multi-year planning and appraisal criteria

Suggestions for improvements in planning

VI. The Road Ahead

Conclusion and recommendations
urban development policy
urban finance
urban infrastructure and service
urban planning
Bank's potential role

ANNEXES

- 1. Zhejiang: Macroeconomic and Demongraphic Projections
- 2. Urban Water Supply and Sewerage in Zhejiang
- 3. Urban Transport in Zhejiang.

Statistical Annexes

- 1. Urbanization in China and Zhejiang
- 2. Municipal Finances in Zhejiang
- 3. Urban Infrastructure and Services in Zhejiang
 - Water supply
 - Sewerage
 - Transport
 - Housing

CHINA

ZHEJIANG: URBAN SERVICES SECTOR SURVEY

Staffing Requirements /a (in staff weeks)

	Dept.	Con- firmed	FY86 pre- paration <u>/b</u>	Main mission Sept. 1986	White Cover Dec. 1987	Yellow Cover Jan. 1987	Green Cover April 1987	Grey cover June 1987	Total FY87	Tota1 FY86/87
Cukok	AEPUW	Yes	4.0	4.0	5.0	2.0	2.0	1.0	14.0	18.0
Hamer	AEPUW	Yes	4.0	4.0	3.0	1.0	1.0	1.0	10.0	14.0
Huang	AEPUW	Yes	1.0	_	-	920 NT 1922) H <u>ata</u> ir	-	_	_	1.0
Rertaud	CON	Yes	2.0	4.0	4.0	_	_	-	8.0	10.0
Bahl /c	WUD	Yes	-	4.0	4.0	1.0	_	_	9.0	9.0
Oddie	CON	Yes	-	4.0	3.0	_	-	_	7.0	7.0
Kneebone	CON	Yes	-	4.0	3.0	-	_	_	7.0	7.0
Zhang /d	CON	Yes	4.0	4.0	4.0	-	_	-	8.0	12.0
Sae-Hau	AEACH	Yes	-	4.0	3.0	-	_	-	7.0	7.0
			15.0	32.0	29.0	4.0	3.0	2.0	70.0	85.0

Summary:

Preparation	FY86	15.0	
Main Mission plus			
report preparation	FY87	85.0	

- /a In addition, Mr. de Ferranti, who joined the preparation mission, and Mr. Bruestle will join the main mission. Mr. Huang will also visit Zhejiang enroute to some other work in China.
- /b Mission in April/May 1986, comprised Messrs. Cu Kok, Hamer, de Ferranti and Bertaud.
- /c Mr. de Ferranti handled preparatory work for Mr. Bahl, and will be joining the mission in Zheijiang and in the discussions in Beijing on account of increasing WUD involvement in China.
- /d Zhang Jun has been hired as researcher and will be working in the Division in part for the Zheijiang Sector work.

AEPUW

August 8, 1986

THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

DEFICE MEMORANDUM

DATE: October 24, 1986

TO: Mr. David de Ferranti, Chief, WUDOD

Mr. Benjamin Cu Kok, AEPUW

Roy Bahl, Consultant, WUDOD

EXTN: 61428

SUBJECT: China Urban Sector Mission - Back to Office Report

In connection with the urban sector mission, I arrived in China September 3 and departed September 24. The visited and held meetings in Beijing, Hangzhou, Shaoxing, Ningbo, Wenzhou and several smaller places in Zhejiang Province.

I understood my assignment to be one of gaining a full understanding of how the local finance system works, evaluating the system by identifying current and emerging problems, and considering reform options. The attached in a rough summary of my first views, but I still have a good bit of reading, analysis and data work to get through.

A Back-to-Office Report for the mission as a whole has already been circulated, to which I contributed input on my area of responsibility -- municipal finance. In the attachment I present a somewhat more extended summary, prepared while I was still in China.

cc: Messrs. Köpp, PPDDR

Loh, Costa, Jones, Armstrong-Wright, Renaud, Satin, Ms. Jackson, WUDDR, Arlosoroff, Potashnik, Rietveld, Ms. Saunders, Kaji, Merghoub, Sud, Bertaud, Hamer

Al-Jabri (LEG)

RBahl:ss

DESCRIPTION: HOW THE LOCAL FINANCING SYSTEM WORKS

GOVERNMENT STRUCTURE

It might be useful to think of local governments in the province as divided into an urban system and a rural system. The center of the urban system is the city or municipality. Each city we visited was divided into a "built-up area", a suburban area, and something akin to a greater metropolitan area. The first two of these comprise the city government for budgetary purposes and it is referred to as the "city proper." The third includes the surrounding counties which are labeled as "belonging" to the city. In fact these counties are financially independent from the city. Counties are divided administratively into townships, and many contain towns--usually small urban places -- which may have some financial independence from counties. The reporting hierarchy is this: Towns report to counties who in turn report to the province. Urban counties also report their budgets to the city, but do not need budget approval from the city. Cities report directly to the province. County towns, which are in transition between county and provincial city status, are on the same level as counties and report directly to the Province.

Within the city proper, the structure of government is quite fragmented. The dominant local unit is the municipal government, but many of the major urban service functions are carried out by public service companies—the water company, bus company, and gas company are typically the largest. These are municipally owned and may receive financial subsidies from the municipality, but they appear to have considerable autonomy in their management. Cities have other companies that provide services, such as construction, but these appear to be smaller and less independent in terms of their management and finances. Finally, there are municipally owned business enterprises (SOEs) which are quite independent of the city administration on day—to—day matters, the principal relationship being the taxes paid and to the city and the subsidies received.

An interesting decentralizing feature in the system is the sub-urban unit, an operating government within the city. For example, Hangzhou has 5 such units. They carry a full range of operating functions including capital maintenance responsibilities (though they do not carry out major capital construction projects), can operate collectives, collect taxes, and have an independent budget. In Hangzhou and Shaoxing their expenditures were equivalent to more than 10% of the city budget and in Wenzhou they collect revenues of amount about equivalent to 25% of municipal government revenue collections.

LOCAL AUTONOMY AND BUDGETS

There is apparently no local government autonomy on the financing side. All tax rates and bases, and user charge rates are set at a higher government (usually central) level. With a few exceptions, the tax systems are identical from one city to the next. Grants are given on an ad hoc basis, borrowing is rare and there is little use of self-financing (beneficiary financing) schemes.

The cities claim they must only seek approval of their budget from the municipal People's Congress and "report" the result to the Province. But since revenues are strictly circumscribed and budget deficits are prohibited ("never happen", we were told), it looks as though the Provincial expenditure "targets" set for municipalities rule the day. Municipalities do have some discretion in the distribution of these expenditures among functions, but remember that all are governed by Central wage policies, the number of municipal employees is not controllable by the local government, etc. Even some service levels appear to be mandated by higher level governments. This seems to leave local governments little more than the choices as to which capital construction projects will be carried out and what maintenance will be done. In short, municipal governments have little financial autonomy. The same is apparently true for the public utility enterprises, since their total expenditures are constrained to equal the sum of user charges and transfers from the municipality (and both are outside the control of the utility).

The budget structure does not appear to be exactly uniform across all cities in the Province though Central Government officials indicated that the regulations require uniformity. This makes it very difficult to identify and compare the total amount of spending for capital construction and maintenance. Most capital expenditures appear to be included: under (a) "enterprise construction", (b) "urban construction and maintenance", (c) "technological improvement", and (d) the capital expenditure account of the public utilities. Another comparability problem is that transfers to public utilities and enterprises are part of each year's budget but are not always shown explicitly.

The local government budget does not appear to be an effective part of the local economic planning process. One notable shortcoming is the absence of a comprehensive statement of the total amount of local spending and revenues. The municipalities do not prepare consolidated budgets including all expenditures of the public enterprises, etc. I have been trying to build consolidated financial statements from the data they provided, but so far have had little success. Moreover, there is no multi-year capital budget that includes a financing plan.

EXPENDITURE STRUCTURE

We requested data that allow us to estimate the growth and structure of municipal expenditures. The authorities provided some information but not enough to allow a good estimate of expenditure growth and structure. We are now processing what we have been given.

^{1/} I use the word "appear" because I was never able to actually see a budget.

TAXATION

Urban local governments receive revenues from three major sources: Profits tax, Sales tax, and user charges. The profit and sales taxes are described here in general terms. Two features of the system are very important: First, all taxes are assessed and collected by local government; second, municipalities share in the tax on municipal enterprises, but profits tax on Provincial or Central enterprises accrues directly to the Province or Central Government, respectively. Neither the Province nor the Central Government is involved in the administration of the domestic tax system. 2 Revenues are collected locally and "shared-up".

Profit Tax All municipal enterprises, as well as collectives and private businesses, pay a municipal tax on profits. In terms of what is retained, this is the major municipal government revenue source. Large companies pay a 55% rate while smaller companies and collectives pay according to a graduated rate that rises from 10 to 55 percent. Private businesses pay according to a graduated rate schedule that increases from 5 to 60 percent, with the possibility of a further surcharge. Joint ventures are taxed at 30 percent, and sometimes less, but the rates are centrally determined. There is also a preferential rate of 15 percent applied to Public Utilities and to services (e.g., Barbers, Caterers, most retailers, etc.). The Central Government tells us that the preferential rate for public utilities has been established at the option of the Province, and is not a centrally authorized special exemption.

In addition to the standard profit tax, a kind of excess profits tax--called the "adjustment tax"--is also levied. Those who benefit "excessively" from high fixed prices or from past heavy capital investments by government are the target of this tax. The tax rate is set for every firm by a formula that holds the rate of after tax profits at its approximate 1983 level.

Revenues from the Profits tax and the Adjustment Tax (and a few smaller levies) are shared between the Province and the Municipality. Roughly, the city receives an amount equivalent to what it received under the remittance system in 1983 plus 70 percent of the increase over the 1983 amount. The Province gets the remainder.

Although the above are the profit taxes that principally effect municipal revenues, they are by no means the only taxes on profits. The central government levies a 15 percent tax on retained earnings, the Province taxes capital construction from retained earnings at 10 percent, and "excessive" wage bonuses paid from retained earnings are taxed according to a graduated schedule.

^{2/} The single major exception is customs duties and other taxes on imports which are administered by the Central Government.

Sales Tax. All enterprises pay one of three sales taxes. The first is a gross receipts (turnover) tax levied on a wide range of commodities at a great number of rates (ranging from 3 to 70 percent). The second is a value added tax on selected sectors of the economy, at rates from 6 to 25 percent. The third is a gross sales tax on services, with rates between 3-5 percent. Most firms pay only one of these, though it is possible to be liable for more than one.

In fact, municipal governments receive little revenue from the sales tax. Between 90 and 95 percent of the increase in collections over the previous year goes to the Province, as does a base amount equivalent to the previous year's collections.

A tax equivalent to 7 percent of total sales tax liability accrues entirely to the municipality. This is known as the "Urban Maintenance and Construction Tax" and it is earmarked for urban maintenance and construction purposes.

PROVINCIAL-CENTRAL TAX SHARING

Nearly all of the Province's revenues are received from shares of the profits, sales, and agricultural taxes, including 100 percent of the taxes due from Provincial enterprises. These revenues, however, must be shared with the Central Government. This is done as follows:

(a) The total expenditure of the Province and all local governments in the province may not exceed 55 percent of the total revenue collected in the province; (b) The remaining 45 percent is turned over to the Center. The 55/45 sharing arrangement varies by Province and is determined by a Central Government formula. Because Zhejiang is a relatively high income Province, the share that it must pay to the Center is above the national average.

PROBLEMS

It is hard to make a good assessment of municipal finance problems. We had no open discussion of fiscal problems at the Provincial or municipal level, adequate (requested) financial data were not submitted, and others have not studied and written on the issues in any great detil. However, based on what we learned about the operation of the system and what we gained from discussions in Beijing, the following might be a reasonable set of candidates for further discussion and study.

REVENUE ADEQUACY

Of course, inadequate revenues to upgrade public services to desired levels is not an uncommon problem—there is never enough revenue. But we cannot assess the expenditure needs of Zhejiang Province based on the data we have available. We can only say that it is a relatively high income Province hence we might expect a higher level of expenditures than in most other Provinces. Moreover, if the

level of economic activity within the Province is unevenly distributed, we might expect municipalities to spend differing amounts. Estimates from the Ministry of Urban and Rural Construction and Environmental Protection (MURCEP) bear out these hypothesis. Per capita urban construction expenditure are:

National Average: ¥42
Hangzhou: ¥70
Shaoxing: ¥55
Ningbo: ¥60
Wenzhou ¥25
Quzhou: ¥38

The MURCEP also estimated that the financing gap for planned urban construction expenditures in Zhejiang Province over the next 5 years is 0.6 billion yuan (70% of the amount for which financing could be verified).

These data make the case for some level of unmet needs in local areas. If this can be traced to a problem of inadequate resources accruing to the municipalities, then two issues of revenue adequacy might be pursued. The first is whether the vertical balance in the intergovernmental fiscal system is correct, i.e., have municipal governments been given too much expenditure responsibility or too small a share of revenues by comparison with Central and Provincial Governments?

The second issue is whether local government revenue growth has been "adequate". Urbanization places pressures on public expenditure growth and capital investments require maintenance expenditures, hence it is important than municipal revenues grow to keep pace with these demands.

Of course there are problems with defining an "adequate" growth, but one might begin by determining whether there has been any real per capita revenue growth and/or whether the revenue-income elasticity exceeds unity. Data that would allow such an analysis have been requested but were only partially supplied. If these data are supplied and if they show the growth in revenues to be lagging the growth in the local economy, we would be led to explaining the lag in terms of the problems with the tax structure or the tax administration.

LOCAL FISCAL AUTONOMY

The Chinese system presently gives local governments no authority to either levy taxes independently, change user charge rates, borrow or undertake self-financing schemes. If a local government wants to call on local area resources to finance a project with local area benefits, there is no mechanism. This means that a willingness to pay more tax may go untapped, local government initiative to develop new projects might be thwarted, and that the Central and Provincial governments have only the stick (never the carrot) to stimulate local government to increase development spending. The lack of autonomy also

has implications for local government efficiency. If local officials do not make taxing decisions and if they have little control over their expenditure budgets, then they cannot be held fully accountable if the level of public services does not meet the expectations of local residents.

TAX ADMINISTRATION

The Provincial Government officials were reluctant to discuss tax administration, and totally unwilling to admit to any problem. The mission was not able to get a first hand observation of how the system actually works. The nature of the tax system and administrative structure which they described to us, however, suggests potential problems with obtaining accurate and timely payment. Consider the following:

- 1. It is a very complicated system, hence it must be difficult to administer.
- 2. No taxpayer ID number is used and the procedures described for maintaining the tax roll seem more judgemental than systematic.
- 3. The system is (apparently) entirely self-assessed, by officials of enterprises and collectives who are unaccustomed to the idea of profits taxation.
- 4. An increasing number of firms are now collectives and private businesses, and many are small. This suggests inadequate books of account to properly record profit, value added or gross sales.
- 5. Administration of the present system requires inspectors trained in the tax law and in accounting.
- 6. The tax rates are high enough to make the rewards to evasion appealling, either in terms of personal gain or retention of more money to finance plant expansion.
- 7. Is it in the interest of a municipality to push full payment of tax by a municipal enterprise, when the proceeds of the tax will be shared by the Province/Center? In fact, the MOF in Beijing reported that some Provinces who had to turn a high share of taxes over to the Central Government were "holding back".

The Provincial and municipal government representatives thought our thinking on this subject to be wrong on virtually every count. First, there is no evasion. "99 percent of those liable for tax pay the correct amount, on time." There are no statistics on evasion because there is no evasion. They give the following reasons:

- 1. The sense of duty makes people pay.
- 2. There is little potential for personal gain.
- 3. The administration is too good.
- 4. The enterprise books of account are very good and enterprise accountants have a strong sense of duty to the state.
- 5. The penalties are too great.
- 6. The assessment and collection staff is experienced, well trained and quite adequate in size.

We pursued this topic in Beijing in the Ministry of Finance and in the Chinese Academy of Social Sciences, and were given the conclusion that tax administration was indeed a nationwide problem. view was that the tax rolls were not well organized, the staff was inadequate in number and poorly trained, books of account were not suitably kept, and taxpayers did not yet fully understand the idea of a profits tax. The result is that there is a revenue loss due to administrative problems. The Ministry was unwilling to estimate the size of the loss or to speculate on the extent to which their comments applied to Zhejiang Province. They did say that they thought the revenue loss might be "not significant" because the tax administration system was most sound for SOEs where the bulk of revenues are collected. This, of course, raises the issue that little may be collected from collectives and private firms precisely because the administration is weak. This issue probably needs further study -- it is very difficult to speculate accurately about the amount of taxes that is not paid. One could use audit reports and perhaps some sample survey data to make an estimate.

INCENTIVES AND ALLOCATIVE EFFECTS

The tax structure and the tax sharing systems would seem to provide some disincentives to mobilizing more resources for capital construction purposes. A full analysis of the economic effects of the profits tax is well beyond the scope of this work, but since the tax structure may somewhat compromise the overall mobilization of local resources, a brief comment would seem in order. Then, quite apart from problems with the profit tax structure, there are incentives and disincentives inherent in the sharing formulae that divide revenues among the Central, provincial, and municipal governments.

The profits tax looks quite cumbersome for one that was so recently designed and introduced. Moreover, it is difficult to see what macroeconomic goals lie beneath the structure of this tax. The tax on profits and retained earnings has several elements:

- A basic 55 percent rate (or a graduated rate schedule for smaller firms).
- An adjustment (excess profits) rate of 0-30 percent.
- 3. A 15 percent central government tax on retained earnings.
- 4. A 10 percent tax on any capital construction from retained earnings.
- 5. A graduated rate of tax applied to "excess" wage bonuses paid from retained earnings.

The structure of this tax would not appear consistent with the government's goals of encouraging efficiency in operations and expansion in output. A substantial share of any increased profit due to efficiency in operations will be taxed away. It also seems clear that the tax is meant to dampen the mobilization of resources for capital investment by enterprises.

What the tax would appear to be good at is redirecting resources away from the "productive" (business) sector and toward the "nonproductive" (government) sector. However, this may not give the municipal government the incentive to improve collections that one might have expected. It is important to remember that a portion of the resources from items 1, 2, and 5 and all of revenues from 3 and 4 are channeled away from the municipal level. Likewise, the municipality may have little incentive to vigorously pursue the collection of sales taxes: They may retain only 5 to 10 percent of the increment over last years collections plus 7 percent of total collections for the urban maintenance and construction tax.

POLICY OPTIONS

It isn't exactly clear what the government is trying to accomplish with it's system of local public financing. Among the possibilities suggested by various aspects of the present local government finance system are:

- 1. To increase the overall level of resource mobilization for general government purposes.
- 2. To increase the flow of resources to urban construction and maintenance expenditure.
- 3. To create a more decentralized local financing system.

If these are in fact the objectives, we might consider the policy options open, and under discussion, in China.

NEW LOCAL TAXES

The authorization of new local taxes is one reform possibility that would fit the objectives outlined above: It could raise more revenue, it could be earmarked for capital purposes and if imposed at local option it could lead to a more decentralized local fiscal system.

But what kind of new local tax? The Central Government is considering the imposition of a land use tax. The proper structure of the tax is now under debate: few details and no background studies were made available to us. We can piece together the following possibilities. The base of the tax rate will be the size of the property (probably only the land) and the rate will vary by location. Hence it will be a form of land value taxation. It has not been decided whether local governments will be given some freedom in choosing their own rate, though this is being considered. Various government officials saw the advantages of the land use tax to include the raising of significant revenue, the earmarking of a new tax for capital construction, and the encouragement of a more efficient use of urban land.

In fact, there are many important issues to consider in evaluating the pros and cons of a land use tax: How high a revenue yield would be necessary to justify the substantial cost of administering this tax? Are land maps in a reasonable enough state to allow preparation of a tax roll? How should residential property be treated? What external effects, e.g., on housing location, public service requirements, and public transportation, are implied?

SURCHARGES AND NEW SHARING ARRANGEMENTS

As an alternative to designing a new local tax, municipalities could be given the option of taxing the present system at a prescribed higher (local) rate. For example an additional x percent on the sales tax or profits tax base could be imposed at the discretion of the local government. This approach has obvious advantages of administrative ease (vs the creation of a new tax) and it does create some local government autonomy. On the other hand, governments with stronger economic bases will be given an extra advantage over poorer local governments (They can collect more revenue at the same rate).

Another way to mobilize more resources for municipalities is simply to change the sharing formulae, i.e., allow the local governments to retain a greater percentage of collections. These formulae are fixed at the Provincial (not Central) level and presumably could be changed by the Province. At least one of the cities we visited had a different sharing arrangement with the Province. What we do not know here is how much room the Province has to make special arrangements, since total local government expenditure in the Province may not exceed 55 percent (in case of Zhejiang) of total revenues raised.

A third possibility, and one that we hear is under consideration, is to reassign taxes to either the Provincial, municipal of Central government level, e.g., the entire amount of tax A would accrue to the municipality, etc. This approach also raises questions. Would local governments be able to choose the tax rate or would all policy discretion continue to rest at the Central Government level? Who would assess and collect the tax and what incentive would there be, for example, for a municipal government to vigorously collect a tax in whose proceeds it would not share.

BORROWING

Local governments in China make relatively little use of borrowing to finance capital projects. I found no revolving fund or specialized local government loans authority. There is some potential for such an approach, however. There may be a quite adequate repayment potential for certain long-lived municipal projects. Repayment might be made directly from project beneficiaries, e.g., public enterprises who would benefit from the development of a gas company or a road. We found some evidence of self-financing of this type but it was being carried out in an ad hoc manner and it was not commonly looked to as a method of financing capital projects.

ADMINISTRATION

Provincial and local officials see no significant problem with tax administration. If they are wrong, however, they are missing the opportunity to mobilize a substantial amount of resources. There are indications that they are wrong (see above), though we should be clear that it is intuition, and not evidence, that causes us to think that tax administration might be a problem. Simply put, China's tax structure has very recently been modernized (a profits tax and a value-added tax in the last couple of years) but its tax administration may not have kept pace. Moreover, if there is an administrative problem, it may get worse. The growing number of small individual firms, and collectives—which may be the hard-to-tax sectors in China—suggests an increased opportunity and incentive for evasion.

Without a survey of administrative problems, it is difficult to even suggest the elements of a reform program. Among the possible needs are the introduction of taxpayer identification numbers and a master file, audit training, simplification of the tax structure itself, improved collections and assessment, and computerization. Even more important underlying questions are whether the tax administration system should be more centralized and whether the administrative problems are as much related to the structure of the tax system as to its operation.

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U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT WASHINGTON, D.C. 20410-7000

OFFICE OF THE ASSISTANT SECRETARY FOR COMMUNITY PLANNING AND DEVELOPMENT



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(202) 755-8009 5504

WASHINGTON, D.C. 20410

September 9, 1986

MEMORANDUM FOR: Jack R. Stokvis, General Deputy Assistant Secretary,

Community Planning and Development

FROM: Andrew F. Euston, Selior Urban Design Program Officer, CPD

SUBJECT: Foreign Information Exchange(s) on Urban Development Decision-

Making

The following is the briefing paper you have requested to prepare for exchanges with the Chinese. Its focus is the field of participatory planning and design as practiced here in the United States with special emphasis upon urban design assistance teams.

I. DISCUSSION

Considered below are preparations which are called for from a foreign host nation in helping HUD to stage some form of presentation on or actual demonstration of our society's widespread and highly effective use of participatory planning and design. Logic would suggest that a reciprocal and somewhat related presentation be invited of the other country — whether for visitors or for export as the case may be. In any case, certain commitments from the host nation would be required to allow the presenters to tailor their demonstration in appropriate measure to their audience. Such commitments are essential. They need to be established enough in advance so as to establish whether or not the projected demonstration is to be presented:

- (a) as applied to a specific host nation situation (via use of an urban design assistance team),
- (b) as a form of role-play exercise or
- (c) as a pre-rehearsed simulation.

Concerning the three types of exercises cited above, once the type to pursue has been established preparations can be mobilized. All three require detailed pre-arrangements by the presenting nation by fully experienced specialists selected for the purpose. The most critical aspect becomes control of factors required of the cooperating host nation. Recognizing this basic need for cooperation, therefore, a brief treatment is provided

in item II. HOST NATION PREPARATIONS. In item III. PREPARING FOR URBAN DESIGN ASSISTANCE TEAMS more detail is offered specific to alternative (a) which involves the application of methods in the host country. For background please see the overview entitled PARTICIPATORY DECISION-MAKING WITHIN U. S. DEPARTMENT OF URBAN DEVELOPMENT (ATTACHMENT A). Topics for preliminary exploration with the Chinese are noted in ATTACHMENT B, INITIAL QUESTIONS FOR STAGING AD HOC INFORMATION EXCHANGE(S).

Anticipated now is the need for conversations abroad for inviting an exchange of a kind listed above and focused upon participatory planning and design. Also assumed would be the need to field in advance a select working group to gather information overseas at an agreed upon target location and to set the stage for the information exchange. This would be especially true for approach "a" above. Following this, one (or more) exercises would take place, conducted under HUD auspices by a team of American specialists and, if appropriate to the option selected, their host nation counterparts.

A basic consideration for such ad hoc exchanges becomes the rationale for presenting our methods abroad in addition to inviting foreigners to come see such things first hand. More people, and possibly more influential people, can be reached by demonstrations given abroad. Also, transfer of methods through a local application in the host country becomes a possibility. In taking any such demonstrations abroad, detailed local commitments to assist with staging, logistics, communications, culture and reception become involved. Aspects of these matters are therefore reviewed below as essential background for any related discussions with the Chinese (or others) about such exchanges.

II. HOST NATION PREPARATIONS

From the <u>DISCUSSION</u> the three alternative exchange exercises are discussed below in terms of what the host nation might be asked to bring to the occasion:

(a) The Demonstration as Applied to a Specific Host Nation Situation - to apply participatory planning and design as it is practised in the United States one would require a real location with actual client/user/citizen spokespeople - genuine stakeholders in the projected outcome. The outcome of such an exercise could conceivably be hypothetical in itself, but the place and people should embody a real place. Most likely such an effort would be led by a visiting urban design assistance team.

In addition the involvement in the exercise of people that control actual decisions at block, neighborhood, district, city, regional and national levels would be desireable. Again this can be compromised without gutting the intended informational intent. What should be provided is the sanctioning of the exercise in itself at such levels. This point is especially true, if the outcome may be taken seriously as a possible option for future local action.

Finally a whole range of informational resources would be needed - maps, statistics, photographs, organizational charts, budgetary data, regulatory background, plans, etc. These depend on the specific target. If that subject is modest, then details are simplified. If the subject is large, then gathering and management of the information required becomes more elaborate.

- (b) The Demonstration as a Form of Role-Play this mode could be done by visitors as a "dramatic performance" of a sort, requiring only an audience and interpreters, or it could be interactive with the host nation. If the latter, the focus of the exercise will dictate which roles are likely, who can fill these roles (citizen, professional, official, etc.) and what sorts of information base is called for. Role-play can be performed with minimal information detail; it can be entirely hypothetical and it can be very effective no matter who plays which role in the physical development process. Role-play, however, does not imply production of a specific end result other than the learning of new outlooks about customary problems.
- (c) The Demonstration as a Pre-rehearsed Simulation this asks little of the hosts. They need only to be an audience. There should, of course, be help from the hosts in selecting a meaningful case for the visitors to demonstrate. Two options exist here either to demonstrate something that happened at home or to hypothesize about what could take place in the host nation. Either mode could be instructive.

III. PREPARING FOR URBAN DESIGN ASSISTANCE TEAMS

Urban design assistance teams, as further described in ATTACHMENT A, (and cited in I-a and II-a above), are varied in purpose and composition. Some emphasize design, some planning and others both of these. Invariably these are multidisciplinary teams tailored to each situation in terms of their size, scope, range of disciplines and the direct involvement of others assigned to represent citizens, merchants, managers and officials. Often each team member is selected for qualifications which may represent several factors at once. Ideally these teams stay below twelve in number as the core working group.

HUD is informally advised at this time by Weiming Lu, AICP regarding its possible HUD-proposed demonstration in mainland China. Lu is well qualified for such a role. As Executive Director of Saint Paul's Lowertown Redevelopment Corporation he has had numerous substantive contacts with mayors, top planning officials and others in China. In this country Lu has taken part in a range of local and national advisory team exercises. Recently he also did this for Singapore. He points out the following:

- o for advisory team demonstrations about forty percent of the effort is in preparation.
- o our Chinese colleagues in urban development are eager to explore new modes of cooperation with the United States.

- building mutual trust through a preliminary visit and other appropriate measures is important, if an advisory team mode is decided upon by both nations.
- o such an effort needs to be creative. It should not be typical of prior exercises here or abroad, but tailored to actual circumstances

One source for description of such teams is given in the American Institute of Architect's The R/UDAT Handbook, a copy of which accompanies this memorandum. It is intimidating in its detail. By no stretch of the imagination would an American-run R/UDAT or Regional/Urban Design Assistance Team be applicable as such on an ad hoc basis abroad. A recent effort to transpose this approach directly to Great Britain presented ample complexity even without the language barrier. The document itself, however, offers an authoritative source of attitudes, facts, logistical and information requirements and other background that might apply to any of the types of exchanges under discussion. If our nation were to offer these ideas where they may become adopted in other nations, The R/UDAT Handbook is a possible starting place for all parties.

Attachments

PARTICIPATORY DECISION-MAKING WITHIN U. S. URBAN DEVELOPMENT

Origins in the 1960's: Historically public participation became central to urban development during the 1960's. People were encouraged to take part in decisions that were both administrative and political. Urban highway planning, development of neighborhoods and other physical aspects of communities became the focus of new methods of communications to help ordinary citizens become more involved in development activities that affected their lives. Included in the response were Federal and local government legal and financial provisions for this active involvement of both citizens and citizen groups within the processes by which urban development decisions were being made.

Among the many positive results of that era were these kinds of outcomes:

- o people, the news media, leaders became articulate about their community's development particularly in urban core areas.
- o new careers opened up for professional and para-professional competencies needed in cities so as to improve the sensitivity of development decisions.
- o nationally and locally new institutions, non-profits, quasi-public agencies and other groups evolved to share power with the prevailing public and profit sectors of urban development.
- o dynamic and creative working arrangements grew between the public, profit and non-profit sectors that greatly benefitted our American cities. Many of these arrangements still maintain, having adapted to shifts in the times, the economy, need, etc.
- o urban design and environmental planning became an integral part of the development process used by local government, resulting in a rebirth of inner city investment as livability increased among other benefits.

Forms Participatory Decision-making Has Taken: The ways American cities have to assure public input and acceptance for local physical development are numerous. These range from publically financed neighborhood development corporations to simple newsletters and posters that explain specific proposals. Modes adopted for participatory planning and design in active use include:

o urban design assistance teams - these teams are quite varied in purpose and structure. Examples include community design charrettes - compressed urban planning and design exercises with citizens and interdisciplinary specialists, officials and often the potential development investors. These efforts are often used to reach wide public consensus on complex public and private

Attachment A (Continued)

investment decisions or to set things in motion towards such decisions; the "R/UDAT" or Regional/Urban Design Assistance Team fielded since 1967 in over 100 cities by the American Institute of Architects; "squatter teams" used by some design firms to occupy a client's current facility or project site for a week or more so as to learn how the client's business actually operates, etc.; "educational design charrettes" used by the Federal government to aid a local government and community in shaping together proposed new public school and community facilities in an intense series of design exercises involving parents, students and teachers alike; "Main Street Projects" - offered through the National Trust for Historic Preservation to towns and now through twenty states as a process for preserving older commercial architecture in small towns through engaging building owners, merchants and citizens in economic revitalization activities that promote conservation.

- o urban development non-profit corporations staffs created by city governments to carry out programs for specific sectors of town for industrial development, for commercial marketing purposes, etc. staffs usually directed by citizen appointees, committees and such.
- o independent public advisory councils citizens appointed and supported by local governments to oversee public decisions in various topical areas such as historic preservation, urban design review and guidance, the arts, downtown public space management, neighborhood development, tourism, etc.
- community assistance services activities performed usually without charge by city staff, outside consultant professionals or volunteers. The activities might offer free-of-charge or nominal-fee services for the design of store-front facades, to lay out streetscape improvements, to work up preliminary solutions for building reuse or to plan longer range improvements for whole areas of cities.
- o <u>community design centers</u> offices, usually store-fronts in lowincome neighborhoods, where volunteer design professionals, student apprentices and citizen advisory groups combine their efforts to shape and implement physical improvements.

INITIAL QUESTIONS FOR STAGING AD HOC INFORMATION EXCHANGE(S)

Framed as questions for Chinese officials concerned with urban development decision-making:

- 1. Is there interest in receiving U. S. specialists to demonstrate in some way our use of participatory planning and design?
- 2. Might there be sufficient interest in our approach to this topic to merit an applied urban design assistance team demonstration in China?
- 3. Can a specific cite (city) be proposed to the U. S. for further cooperative development of a team demonstration?
- 4. During a several day visit could the U. S. advance group expect to have the active collegial cooperation of the city's leaders and administrators?
- 5. If the U. S. sent an advance group to pave the way for one of our design teams; (a) would it be able to meet with officials and colleagues so as to decide upon a specific demonstration subject its geographic area, the nature of changes now being considered, the nature of the purposes and populations to be served and other such information? (b) would it be actively assisted in assembling maps, plans, and related data?
- 6. If there are to be local costs in performing an exercise (of several days), can the U. S. expect these to be assumed locally or by other levels of the host nation's government?
- 7. Is it fair to assume that a demonstration subject can be found for which local people are seeking some kind of appropriate urban development ideas for possible future action and for which an outside source of ideas would be very welcome?
- 8. Would it be more appropriate to employ a hypothetical case for future development while still using an actual site and indigenous population?
- 9. Alternative to the above questions, would it be preferrable instead to limit potential information exchanges on participatory planning and design to a form of demonstration (by the U. S. visitors) that does not place the demands upon local people, translators and others which a locally applied design team exercise would impose?
- 10. Is a more limited demonstration of interest (a) instead of or (b) in addition to the locally applied approach?

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THE WORLD BANK INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

DATE: November 25, 1986

TO: Mr. David de Ferranti, Chief, WUDOD

FROM: Roy Bahl

EXTN: 61528

SUBJECT: Research on Urban Development in China.

The purpose of this note is to start the ball rolling on the China study by giving you my first thoughts on substance, approach, research assistance, and timing. I have a rough proposal, a few questions and some decisions for you to make or delegate.

Project Objectives: Alternatives

The Aide-Memoire gives us a wide berth for the China work. My inclination would be to focus on the municipal finance, land use, and infrastructure issues, with an emphasis on the financing. The goal is "to develop improved information on and understanding of illustrative examples of innovative new approaches being tried in China on issues relating to urban land use and development, housing, and municipal finance." Moreover, there are already a few issues that we have identified for study and "improved understanding":

- o The system of local finance outside the one province we have studied.
- ° The land use fee that is now being considered.

These interests fall short of a scope for a research project. We might consider two possibilities. First, we could propose a straightforward study of municipal finance in China. Our concern would be the equity, efficiency and administrative dimensions in a socialist setting and we could deliver an interesting piece of research that would meet the goal stated above.

As an alternative, we could pursue an understanding of how the distribution of urban economic activity (firm location, commutation patterns, etc.) has been shaped by the municipal tax-expenditure system. The "system" studied would include taxes, user charges, infrastructure spending, subsidies for housing, transport, utilities, etc. We could then turn to the question of how the current fiscal reforms in general, and the land use fee in particular, are likely to change things.

The first is the more feasible proposal, and it is something we can deliver on with the limited time and resources available to us. The second is very interesting but requires a depth of understanding of how the system works and an empirical analysis for which we do not have time. We will do what we can with the issue of the allocative effects of local taxes and charges (particularly the land use tax) but I recommend that the focus of the work be on local and provincial finances.

Scope and Objectives

The primary objectives of this research are (a) to gain an understanding of China's system of financing and delivering urban services and infrastructure, (b) to study and analyze the allocative, distributive, and administrative consequences of the system, and (c) to consider the impact of changes in Central Government fiscal policies on the effectiveness of the Provincial-local system as well as the implications for governmental decentralization.

The research approach is to be comparative case studies. The cases will include five municipalities and the Provincial government in Zhejiang (where we are completing some work on this subject) and other cities and Provinces agreed upon with the Government. Each case study should include a municipality, its public utility companies and its Province. Shanghai and Yantai would be acceptable for the first case study sites. Diversity in size, prosperity, region and economic structure are important considerations in choosing the other sites. The first visit will largely be fact-finding. In each case, we will try and develop a complete qualitative and empirical description of the local finance system. We would propose to organize this description around the following:

- Local government structure
- budgeting structure and local management
- ° tax structure and administration, user charges
- expenditure policy and expenditure patterns
- ° infrastructure financing

In addition, we would like to carry out a detailed analysis of the land use fee as experimented with in Shanghai (and elsewhere).

This descriptive analysis should be continued at the Provincial level with a detailed study of Provincial-local relations and Central-Provincial relations. In the early stages of this work, our focus will be on how the institutions work, what have been the perceived successes and shortcomings, and what reform options are being considered.

The focus in later visits will turn more to analytic questions, which could include -

- ° An evaluation of the land use tax
- An analysis of the impact of the intergovernmental fiscal system on local and provincial expenditure decisions and revenue raising effort
- An estimation of the responsiveness of the yield of the revenue system to inflation and real economic growth
- An analysis of the impacts of the present system of user charges
- Impacts of the tax/charge system and infrastructure placement on the location of housing and jobs in the urban area

Study Approach

The first visit will be more fact-finding and descriptive. It should lead to a set of papers on how the system works in each place visited (Zhejiang, Shanghai, etc.). Each report would cover the Provincial government and the case study municipality with its overlapping jurisdiction. Some data would be gathered, or "begun," during this visit if we can fully identify our more analytic research topics.

The second visit will move more to analytics, discussion of our first round results, and extension of the study to two or three more cases. This will lead to a single paper that will be more of a comparative analysis. A final visit will be necessary to tie up loose ends and discuss results in the field. The end result should be a book on Provincial and local finances in China.

The work might be helped a great deal by the right timing of the CASS visitors to the World Bank. They could be much help in reviewing the manuscripts before the second trip.

A rough timetable might be the following:

February

March - May

Report preparation and review in China

2 CASS visitors in Washington to assist in review

June

July-September

Fall

Field visit to Zhejiang, Shanghai, Yantai

Report preparation and review in China

Third trip, final discussions

The Zhejiang Issue

The Zhejiang study is very important to us in that it lets us "get it right" before we do the new case studies. However, we need the leverage of Projects to set this up. I propose the following:

- We need 3-4 days in Hangzhou with officials from the Province and the five cities. Data requests have already been sent. Cukok needs to arrange.
- 2. This should be the first stop in February.
- 3. CASS needs to DK
- 4. My report needs to be sent to China for review?

Research Assistants

Jun Zhang is all set, and a thesis on the land use fee seems acceptable to Karen Polenske. Jun understands that his first responsibility is to me and the project, but the land use fee fits nicely.

I met with Yong Lim* in Cambridge. She seems able and is offering fields in urban economics and international trade. She is at the thesis stage, will work with John Kain, has been to China, and would like to be involved in this. She is going to Singapore over Christmas, could join the February trip, and could work in the user charge area. She needs a call from you (I promised her). Lets discuss.

*1626 Massachusetts Avenue Cambridge, Mass. 02138 (617) 354-4014

Next Steps

We should talk, today if your schedule permits. We should organize a response to CASS and and should describe our research approach and requirements. We should prod Cukok on Zhejiang. We should decide about Ms. Lim and contact her ASAP, before she goes to Singapore. If our decision on her is positive, we should talk with John Kain right away about the thesis.

I will be away Monday and Tuesday of next week.

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

Date: November 3, 1986

To: Mr. Ping-Cheung Loh, Director, WUD

From: David de Ferranti, Chief, Operations Policy and Research Division, WUD

Ext.: 61465

Subject: Comments on Yellow Cover Draft of

"China: Finance and Investment Report"

- 1. Attached are my division's comments on the draft paper "China: Finance and Investment Report," a product of economic sector work by the China Programs Division, done independently of the recent urban sector work in China.
- Roy has chosen his words with diplomacy. In fact, he and I feel that some of the questions his memo raises are serious problems. We plan to meet with the report's authors.
- 3. The cover sheet on the copy of the paper sent to me says I am the lead advisor. I assume this will be changed soon under the new arrangements for lead advisor assignments.

cc: Messrs. Costa, Cook, Jones, Dillinger (WUD)

Idoisons

DdeFerranti/nah

P-1867

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OFFICE MEMORANDUM

DATE: October 30, 1986

TO: Mr. David de Ferranti, Chief, WUDOD

FROM: Roy Bahl, Consultant, WUDOD

EXTN: 61428

SUBJECT: China: Finance and Investment

- 1. My time was limited on this review, so I read only Chapters VI and VII in Part Two: Government Revenues and Intergovernmental Fiscal Relations. This is good work done by very good economists and I learned from this material. Both the Bank and the Chinese will benefit from this work. Still, we can raise a few questions in a spirit of trying to make some good policy research even better.
- 2. We (WUDOD) do not know China like these authors do, but we have invested some time on local government finance in Zhejiang Province. Some of our impressions based on that work might be useful to these authors, though we do understand that the Finance and Investment study is nationwide in scope. (Also, we must confess to being somewhat uneasy with the data and information given us in Zhejiang). We also have a few comments about general matters of tax policy.
- The most important point to make, we think, is that there are not two but three levels of Government in China: Central, Provincial and Local. Each has a different set of responsibilities, acts with some degree of independence, and in its own sphere each can "make policy." The Central Government makes all tax policy and decides on the revenue split between Center and Subnational Governments (55 percent of what is collected in the Province in the case of Zhejiang). The Provincial government can decide on the division of all retained revenues among all local governments in the Province. It apparently has complete discretion in deciding on these allocations. Local governments (municipalities and counties) assess and collect all taxes, with what appears to be a minimum level of supervision. Depending on how they choose to implement the tax system -- a very important point which this report recognizes -- local governments also "make policy." The moral of the story is that China's governmental system may well be unitary but we must recognize the three tiers of government. The concept of local government used in this study (Central and Local) might be amended (See e.g., 6.03, 7.03).
- 4. There are other reasons why, analytically, we should separate Provincial from local governments to get the story right.

- (a) There are two distinctly different Revenue Sharing systems: The Central Provincial system described here and a complicated Provincial-Local system. The latter is very important to fully understanding horizontal and vertical equity in the system.
- (b) The collection and evasion incentives to collect more or less tax lies with the local governments, and they may react to a change in the tax sharing ratio imposed by the Province. The Provincial Government cannot directly improve tax administration but it can give tax preferences and change the local governments tax share. An understanding of all of this is essential to proposing any use of tax effort "levers" as is discussed in the paper.
- 5. We are preparing an Annex on local finance in Zhejiang that will tell what we learned there, but a few points might be raised concerning the Finance and Investment Study. These are little points, but the authors may find them worth considering.
 - (a) There is continued reference to tax collection being "mostly county" (6.62, 6.72, 7.03). At least in Zhejiang it is mostly municipal.

- 4

- (b) The study refers to a retained local revenue share of 10 to 11 percent. In Zhejiang, the Province retains 55 percent of all that is collected. Municipalities in Zhejiang retain about one-third of what they collect and turn the remainder over to the Province (though one municipality retained 50 percent). (Reference 7.14, 7.25)
- (c) The tax sharing formula gives municipalities much more incentive to collect profit tax than sales tax.
- (d) The UCMT is not so major a source of revenue for local government (6.46).
- 6. The horizontal equity discussion (7.53) centers on interprovincial disparities, and does a good job. Intra-provincial disparities may be as great, and Provinces apparently design their own equalization program. These take the form of altering the share of taxes which a local government may retain, or distributions through a grants program. Transfering money to or from the Province, then, is only half the story.
- 7. The discussion on the need for local government borrowing (p. 237-238) is right on. In most low income countries, China included I think, the problem is the absence of a mechanism -- some kind of institution -- that specializes in loans to local authorities. Why does China not have such a government bank, and would it not be a reasonable proposition? Also, it might be worth emphasizing the need for developing programs of self-financing through benefit charges, to support loans.

- 8. The discussion on the buoyancy of the tax system is very interesting (6.54). I would make a few observations on the presentation. First, on the norm of a unitary elasticity of the tax system. Is it possible to support this by, say, estimating the past expenditure elasticity or projected elasticity in The Plan. Second on the determinants of buoyancy. An improved tax administration could lift the response. The growth in smaller firms taxable income could exceed GDP (hence increasing the elasticity) but these firms could be in lower rate brackets, not reached by the administrative system, or preferentially treated (hence dampening the elasticity).
- 9. I am not exactly sure where the authors are on indirect taxes. Are they profits taxes or are they shifted to consumers (6.42, 6.76, 6.84)? Also, I would not go along with the retail sales tax proposal, on administration grounds. I cannot imagine that the Chinese are even close to being able to pull that off.
- 10. Tax administration seems to be a major problem in China, though we do not get much empirical evidence of this. Still, the tax structure is complicated, the taxes are new, the records and accounts may not be good, the staff may be unqualified, and there are strong built-in incentives for local governments and their enterprises to underpay. But is the best solution a centralization of the tax administration as is proposed here? Maybe, but there are great virtues in decentralized administration -- note that the coverage of most central sales, excise and income taxes is very thin in LDCs. How about a joint effort, with procedures, monitoring, and training a central government function?
- If have some questions about the recommendations for a clear demarcation of functions as between local and central taxes (7.44, 7.45). First, two tax administrations seem wasteful and unnecessary. Second, why not advise against proliferation of "little taxes" and push the very good suggestion of local option piggybacks on the sales and profits taxes. Also, tax sharing can be a powerful lever to improve local administrative efficiency. To create a separate tax system for local and central government would create a substantial transition cost, possibly weaken administration, and promote centralization of government. The big problems with local government finance in most low income countries is their limited access to the "good" tax bases and their poor administration of what taxes they do have. In China, these problems might be avoided if some proper intergovernmental partnership is developed. Lets not give up this possibility too quickly.
- 12. None of these comments are meant to be damning of this excellent work. We are early in the process of our own analysis of Chinese public finance and wanted to take this opportunity to share some preliminary views with you.

ZCZC WUOP0112 JWS0980 WUDOD REF : TCP FCA

JWS0980 ZJT030 IN 14/01:54 OUT 14/05:28 20070V 20070 CPPH CN86315

DEAR MR. DE FERRANTI,

WE'VE RECEIVED THE LETTERS AND PROPOSALS REFERRED TO THE COL-LABORATIVE STUDIES ON CHINA'S URBAN DEVELOPMENT ISSUES, WHICH WILL BE CONDUCTED JOINTLY BY THE INSTITUTE OF FINANCE AND TRA-DE ECONOMICS, CHINESE ACADEMY OF SOCIAL SCIENCES (CASS) AND THE WORLD BANK. WE ARE VERY INTERESTED IN THE PROJECT. NOW I'M PLEASED TO SAY THAT WE AGREE WITH ALL YOUR PROPOSALS IN GENERAL, BUT FRANKLY SPEAKING, WE'D LIKE TO MAKE THE FOLLOWING AMENDMENTS OR MAKE SOME POINTS CLEARER:

1. FOR THE CASS SIDE, THE INSTITUTE OF FINANCE AND TRADE ECONOMICS WILL DIRECTLY CARRY OUT THE COLLABORATIVE STUDIES WITH THE WORLD BANK, AND THE AGREEMENT WILL BE SIGNED IN THE NAME OF THE INSTITUTE OF FINANCE AND TRADE ECONOMICS. MR.ZHANG ZHUO-YUAN, DIRECTOR OF THE INSTITUTE (RESEARCH FELLOW) WILL BE THE CHIEF IN CHARGE OF THIS PROJECT FOR THE CHINESE TEAM, AND MR. YANG CHONGGUANG (ASSOCIATE FELLOW), DIRECTOR OF THE DEPARTMENT OF URBAN ECONOMICS IN THIS INSTITUTE AND THE SECRETARY GENERAL OF THE CHINESE SOCIETY OF URBAN ECONOMICS WILL BE THE EXECUTIVE.

- 2. IN THE COURSE OF THE PROJECT, THREE PERSONS FROM THE INSTITUTE OF FINANCE AND TRADE ECONOMICS ARE TO MAKE SOME STUDY TOURS TO TWO TYPICAL COUNTRIES (4 WEEKS) IN JUNE 1987 IN ORDER TO MAKE COMPARATIVE STUDIES. ALL EXPENSES FOR THE STUDY TOURS WILL BE BORNE BY THE WORLD BANK.
- 3. STATED IN THE 6TH ITEM IN THE AIDE-MEMOIRE, THE CASS TEAM LEADERS ARE TO VISIT THE WORLD BANK FOR 5 WEEKS. HERE WE'D LIKE TO MAKE IT CLEAR THAT THE NUMBER OF THE VISITORS WILL BE 5-6.
- 4. PLEASE ADD MR. LIU ZENGLU AFTER YANG CHONGGUANG AND LIU WEI-XIN IN THE LAST PARAGRAPH OF THE AIDE-MEMOIRE.

WE INTEND TO TAKE SHANGHAI AND YANTAI AS OUR FIRST CASE STUDY
SITES, AND THEN FUSHUN AND BENGFU FOR FURTHER STUDIES.

WE SUGGEST THAT THE FIRST CHINA VISIT BY THE WORLD BANK SIDE
BE IN THE FIRST TWO OR THREE WEEKS OF FEBRUARY, 1987, I.E. ONE
OR TWO WEEKS AFTER THE TRADITIONAL CHINESE SPRING FESTIVAL.

PLEASE INFORM US THE PERSONS WHO ARE COMING TO CHINA THREE MONTHS
IN ADVANCE, SO THAT WE SHALL HAVE ENOUGH TIME TO GO THROUGH
THE NECESSARY FORMALITIES. HEREAFTER, ANY ARRANGEMENTS RELATED
TO THE VISITS BY THE WORLD BANK PEOPLE TH CHINA'S CITIES FOR
STUDY AND THAT BY THE CHINESE SCHOLARS TO SOME OTHER COUNTRIES
FOR THE SAME PURPOSE FOR THE PROJECT, SHOULD BE INFORMED TO
THE OPPOSITE SIDE AT LEAST THREE MONTHS AHEAD.

I'M LOOKING FORWARD TO YOUR KIND REFLY.

WITH BEST WISHES,

SINCERELY YOURS

LIU WEIXIN 20070 CPPH CN 20070 CPPH CNKKKKK

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WORLDBANK MSS

11/20

9 Roy Jave

WORLD BANK / INTERNATIONAL FINANCE CORPORATION David. A copy of the letter from the CASS I received today. The contents are the same as the cable you showed to

Jun

中国社会科学院财贸经济研究所

INSTITUTE OF FINANCE AND TRADE ECONOMICS CHINESE ACADEMY OF SOCIAI SCIENCES 2 Yuetan Beixiaojie St., Beijing, China

Mr David de Ferranti Operation Policy & Research Division Water Supply & Urban Development Dept. The World Bank

Nov. 12, 1986

Dear Mr. De Ferranti,

We've received the letters and proposals referred to the collaborative studies on China's urban development issues ,which will be conducted jointly by the Institute of Finance and Trade Economics, Chinese Academy of Social Sciences (CASS) and the World Bank. We are very interested in the project. Now I'm pleased to say that we agree with all your proposals in general, but frankly speaking, we'd like to make the following amendments or make some points clearer:

- 1. For the CASS side, the Institute of Finance & Trade Economics will directly carry out the collaborative studies with the World Bank, and the agreement will be signed in the name of the Institute of Finance & Trade Economics. Mr. Zhang Zhuoyuan, Director of the Institute (Research Fellow) will be the chief in charge of this project for the Chinese team, and Mr. Yang Chongguang (Associate Fellow), Director of the Department of Urban Economics in this institute and the Secretary General of the Chinese Society of Urban Economics will be the executive.
- 2. In the course of the project, three persons from the Institute of Finance & Trade Economics are to make some study tours to two typical countries (4 weeks) in June 1987 in order to

中国社会科学院财贸经济研究所

INSTITUTE OF FINANCE AND TRADE ECONOMICS
CHINESE ACADEMY OF SOCIAI SCIENCES
2 Yuetan Beixiaojie St., Beijing, China

make comparative studies. All expenses for the study tours will be borne by the World Bank.

- 3. Stated in the 6th Item in the Aide-Memoire, the CASS team leaders are to visit the World Bank for 5 weeks. Here we'd like to make it clear that the number of the visitors will be 5 6.
- 4. Please add Mr. Liu Zenglu after Yang Chongguang and Liu Weixin in the last paragraph of the Aide-Memoire.

We intend to take Shanghai and Yantai as our first case study sites, and then Fushun and Bengfu for further studies.

We suggest that the first China visit by the World Bank side be in the first twe or three weeks of February, 1987, i.e. one or two weeks after the traditional Chinese Spring Festival. Please inform us the persons who are coming to China three months in advance, so that we shall have enough time to go through the necessary formalities. Hereafter, any arrangements related to the visits by the World Bank people to China's cities for study and that by the Chinese scholars to some other countries for the same purpose for the project, should be informed to the opposite side at least three months ahead.

I'm looking forward to your kind reply.
With best wishes,

Sincerely yours

Liu 'Weixin)

Director, Dept. of Scientific Research & Management Institute of Finance & Trade Economics, CASS

中国社会科学院财贸经济研究所

INSTITUTE OF FINANCE AND TRADE ECONOMICS
CHINESE ACADEMY OF SOCIAI SCIENCES
2 Yuetan Beixiaojie St., Beijing, China

P.S: Our telex number is CASS 20070 CPPH CN .

c.c Mr Jun Zhang, Consultant, Water Supply & Urban Development
Division, East Asia & Pacific Project Dept.,
the World Bank

Mr. Zhang Zhuoyuan, Director of the Institute of Finance & Trade Economics, CASS

Mr. Yang Chongguang, Secretory General of the Chinese Society of Urban Economics Department director, Institute of Finance & Trade Economics, CASS

Mr. Liu Guoguang, Vice President, CASS Foreign Affairs Bureau, CASS

中国社会科学院财贸物资经济研究所

大卫。德扬兰迪先生, 处长世界银行 给水与城市发展局 政策研究处 尊敬的德扬兰迪先生:

我们已经收到关于中国社会科学院财贸历和世界银行合作研究 中国城市发展问题的建议和信件。我们对开展这种合作研究很感兴趣,并高兴地告诉您,我们基本同意建议中提到的各项内容。

同时,我们坦率地告诉您,以下几点需作出修改或进一步明确。

- (1)中国社会科学院方由财贸经济研究所直接与世界银行合作研究,并以财贸所名义签订协议。该所所长张卓元研究员为该合作项目中方总负责人;城市经济研究室主任。全国城市经济学会秘书长杨重光副研究员为该项目执行负责人。
- (2)在研究过程中由财贸所方3人于明年六月份对两个有代表性的国家进行短期(4个星期)考察,以便作比较研究,费用由世界银行提供。
- (8)在备忘录的第六条中规定中国社会科学院方面的项目领导人 访问世界银行 5 周,建议将出访人数明确为 5 — 6 人。

中国社会科学院财贸物资经济研究所

(4)在备忘录最后一段,除杨重光、刘维新外,加上刘增录先生。 我们拟先选择上海、烟台两市作为实例研究城市,然后再在抚 顺、蚌埠两市进行。

世界银行方面第一次访问中国,我们建议在1987年2月上中旬,即中国传统春节后一、二个星期,请将来中国的有关人员在三个月前告诉我们,以便办理手续。以后凡涉及世界银行方面派人到中国有关城市调查,和中国学者出国考察等事宜,均应提前三个月以上通知对方,以便有所准备。我们希望尽快得到您的答复。我们的电传号为 CASS 20070 CPPH CN 向您致意

中国社会科学院财贸物资经济研究所 科研组织处 一九八六年十一月十二日

此件抄送

张孝先生。世界银行、东亚与太十年项目前。城市与给水处 顾问

中国社会科学院财贸物资经济研究所

张卓元 研究员 中国社会科学院财贸经济研究所 所长 杨重光 副研究员 中国城市经济学会 秘书长 中国社会科学院 财贸经济所 · 城市经济研究室 主任

另。抄报: 刘国光副院长 院外事局

The World Bank

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street, N.W. (202) 477-1234
Washington, D.C. 20433 Cable Address: INTBAFRAD
U.S.A. October 30 Cable Address: INDEVAS

Mr. Liu Weixin, Chief
Department of Scientific Research
& Management
Institute of Finance & Trade Economics
Chinese Academy of Social Sciences
2 Yuetan Beixiao Jie St.
Beijing
People's Republic of China

Dear Mr. Liu:

I am writing on behalf of Mr. de Ferranti to remind you that the Aide-Memoir of our Xiyuan meetings and your first letter to the World Bank to indicate the participation of your side in the collaborative studies were sent to you on October 9. Our proposals concerning the details on case study sites, research focuses, methodologies, and others are under preparation and will be ready for you soon. But before we can proceed our work further, we need you to send us the letter to confirm that your side will be able to participate in the joint research. It will also be very helpful if you can inform us the progress you have made since our Xiyuan meetings.

Please let us know your telex number and/or cable address. When your letter is ready to go, please send it to:

Mr. David de Ferranti, Chief Operation Policy and Research Division Water Supply and Urban Development Department The World Bank 1818 H St., NW Washington, DC 20433 U.S.A.

Sincerely,

Jun Zhang, Consultant Water Supply & Urban Development Division

East Asia & Pacific Project Department

The World Bank

cc: Mr. David de Ferranti, Chief, Operation Policy and Research Division, Water Supply and Urban Development Department, the World Bank

Mr. Yang Chongguang, Director, Research Department of Urban Economics, Institute of Finance and Trade Economics, the Chinese Academy of Social Sciences

1818 H Street, N.W.

(202) 477-1234 Washington, D.C. 20433 Cable Address: INTBAFFAD Cable Address, INDEVAS

一九八六年十月三十日

刘维新先生, 处长 中国社会科学院 财贸物资经济研究所 位恐距隔梯 尊敬的刘先生。

您好,根据曹操兰迪的意思,我写此信告诉您们我们已于本月九日给您们寄去 了西苑会谈的备忘录和第一封写给世界银行的信,表明体方将参加此项合作研究。 我方关于一些研究细节的意见,加选作实例研究的城市,研究重点,研究方法等, 都在准备中。我们将尽快把这些意見告诉你方。但在我们能够讲一步展开了作之前。 您们必须写信向我们证实体方能够参加此项合作研究。另外,如果您们能通报我们 自西苑会谈你方工作的进展,对我们的工作将会很有帮助。

请告诉我们您的电传或电报地址。当您们完成了信的准备工作后,请将信寄往:

Mr. David de Ferranti. Chief Operation Policy and Research Division Water Supply and Urban Development Department The World Bank 1818 H St., NW Washington, DC 20433 U.S.A.

慶致 崇嘉的 數意。

您真挚的。 张军. 護河 给水与城市发展处 东亚与太平洋项目局 世界銀行

炒根: 桶里光先生,主任,中国社会科学院,财贸物资经济研究所,城市经济研究室

Mr. de Ferranti, Chief, Operation Policy and Research Division, Water Supply and Urban Development Department, the World Bank

OFFICE MEMORANDUM

DATE December 17, 1986

TO Mr. David de Ferranti, Chief, WUDOD

FROM Roy Bahl, Consultant, WUDOD PB

EXTENSION 61528

SUBJECT Local Finances in China

This is a draft on local government finances in Zhejiang, based on my three week trip in September. We still have a number of data requests outstanding and so there are big data holes. Moreover, I'm sure there are some parts of the study I do not yet have right. Any comments, suggestions, marginal notes, etc. would be most welcome.

Attachment

cc: Messrs. J. Linn, Y.K. Wen, W. Byrd, B. Cu Kok D. Jones, Ms. C. Wallich.

RBahl:ss

SINGLE SUBJECT

NARROW RULED

Chira

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BARNES & NOBLE

land mapping Each municipality has one. Bit not detailed with for board and planning. Theying is the fastest May 8 People from MIRCEP Usban Planning Bureau and 2000 rounty towns county capitaly 7500 designated toward Circledes most of the designated towns) wealth of farmers, Farmers some to Towns, invest in an enterprise, the enterprise pays takes, the town government were the tax reachine to upgaste infrastructure.

Voling of have the land but not the countryvide "is An long run, base to develop industry in eities, not easitypeople in. although official policy is to put now investments into small purtice is to put ling the investments into the selice heig cities. On finerce go on Research fastitute in MURCEP for the past, good was investing beauty in backward areas, Now That has charged. We feel we bad an effect in bringing about this policy shift." Their research: They down to study the difference in productivity, comparing

Le grade is basedon:
- location
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178.60 Los Notes for Roy have a B office essurge moeting with Usban Economics Houp of CASS. Yang Zong the Guang Liu Wei Xin Liu Zheng Lu CASS Finance, Trade and Economics 2 Beijing Yuetan Xiao Jie Tel 895324

Untanization Problems in ustringation Yes, me run correspond disedly with them. Orber Dovelopment Strategies they have done. 5000 to Lusban firsane, acoromics 100t mas Usban seon. All their firsting is internal. But have done none violen had gelanger, 330 cities 14 open cities on wast all different kinds They have done comparative & internety. But would like to know more should international appointer Research they do Sala is from statistics books . thous a la source, Conly in Chinage) that bas a lot of data on the 300 when . They go to what for · and what send date to them, topics depends begoon the need.

On the location policy · Yes, it would be more to let cities get begger. (Was aware of international · But in thisa we have special sincerstances. I Billian people. Hove to find was to tope with all the people moving off agriculture.

Also, Swing potate owned interprises pay tapes to municipal you. So a lot of new enterprises of their own to generate Scholars one raying - there should be a local tage (tages reserved for the localities) aboung of the national Under the Mot there is a Sirarce Rosearch Artibile Prof. Flas Li Hai who are working on there -questions of what to do about local finance.

Now talking in principle stout raising was charged. E. g. for what extent to raise the feer for water, electricity, buses, etc. For water in Reiging for All town is now:
- 0.12 /em for first 3 boureholds (not just buildings)
are metered Now tax on potrol is being talked about. Also considering giving the cities were autorony. To solve their Options being considered: land we fees Howing fees Port fees

(2) For those working for the original project Rut for oppositions, enterprise Under discussion now is idea that eities should be able to raise sevence from land. They believe main problem in fironce. Cities have the tachrical rapolity. (What) they need in the money. Now is a move to pertucture usban secremis to Societop testing sector more.

Experiments are going on now in many eities. 13, 13, 13 ja in many ofperiments But also many variations. Then the waxe of municipalities selling bouring to onlerging same up. (Which we seew in Horgeton) P. Ho that way for reform? A: Well, its owner for wealthier enterprises, but not for poorer ones. Basically have two reptous now for allocating housing. D For people working directly for state, good allocator. to get sent up to full west including interest, profit, he sent : 15 to 20 times This tough, without adjusting general wage this is the way to go. What to So shout land, Conserves orong waterches is that any reform must be gradual. 2010-3000 of wione

The a result bousing is properly. 3) the more the stock of houring inespects, the greater the furter water maintenance works Their reporch leady to conclusion that howing about be commercially. They propose that bouring should be traded. And price should reflect the cost. Their ideas base received attention And now some appearments. Do One method leaving tried in to To paterprise or collative puts in a subsidy. Derwore sente Now hery low: In Starglin Y0,20/m²] On we the whole wanty; Per m², mainterare fees nost But sent overages only M Y2./ So sail stortfall. Paper by Mr. Bro & rote problems ONo secuperation of invastment, So That entails a lot of investment. By good such yr. 3 Expendituse on howing but no relation to incomes of the 3 This bas led to inequitable allocation of housing.

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Every town has a planning group. Big plans must be approved by sounty. Or soon higher. In land issues

Some individually started collectives are borrowing from banks Too, But very few. Number is iveraring Differences bestween state-owned collections Draw moterial supply state owned enterprises son get materials, quaranteed 3 pures of state-owned controlled But not those of town owned collections 3) Tax, Some defferment. If town sets up the collective it will The profits take all of the net profit. The the sollactive bas to pay tax to higher level good, But net profit Towns one doing a lot of this to get more sevenue They even bossow from Banks if necessary.

Formation of collectives (D Individually started ways. 3 With priarce from local good. In individual can join a con entry fee, For sprole, 12000. for the second way, local governments go out and outwely try to belo collectives form. This is to absorb the expanding population.

have the last support, problems. Workshops of foctories - are collectively owner Services Alops & retail - mainly individually The Ample the Coop reportal segment the mose the and to So in small towns, there would be a long make of individually owned, relative to number of foctories of workstops

The swall towns are the sexervoirs where people from the alot of howsebold have one worker in the Town and another in the tes farm. 3 types of towns major - towns with a major projects (con industry). They have morey from Rosement state They are Loveloping I fast. · county real towns. They benefit from support of sounty other towns They

English The State of the State May 6 2:00 Sierce & Technico Offico China Clarkany of Unbar Planning of Design Ocadany has 9 institutes - Urban Planning & Esoronius Institute - Master Planning 7 Delailed Henring - Unton Transport - Unton Planing And. - arch olegy is - control rise of large seites desto middle size towns - actively develop the Amall

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Housing 2 parts & muni Water 1 10. Elec. Seworg Streets & Highways worst. I main beg the Muni Eng. Mr. Warg Frieder & H.Z.

Mr. Bei Director of Busque
Mr. Bei Director of Busque Dago. Busin of Elles Prov. How. 255

good. Then Doets other lexince takes for vehicles Just linding takes (from

private houses)

Fax on pilling aminals imped -- is pinished. discontinued this year.

All takes some to the Tax Bureau of City. Then UCAT stays in city P, VA, O Tax if enterprise is under muni good. stays city Alghe . different if under prov, stayo for mirrorly areas, Tifferent . provinces anergements apairel for such five year plan the rates are set

- production development - welfore of morbaro . howing, schools, ste. - rousands to workers If saward is orace Than equilated smount, then you must pay the Seward tax: four months salary is the sternland, Op to that no Tax. Obove that, the perent of the top increases This to prevent spessively

55% Tet is on profit collectives agriculture boes not pay maxim 55%. Juengone else does adjustment tay

Sconstruction pays less than 55% [e,g., petrolour mas pay then 55 go] in total agriculture tax very low penent OCMT 7% when 5% wunty towns 1% maller

Production tax To of total severue 5 - ~50% val signsette Value asked tay Operating tax
of of Business is none ~ 2 -~ 30 % State-owned enterprises (on only collectives) Unified Collectives

commercial transport Production top construct @ industrial anterprises industrial and industrial (2) commerce (2) transport 3 Value odded / 5 construct mostly machinery Primary Ox mining) tax one or the @ Perocessing
other, not both of D42 3 service 3 Genting, transp, 1000 48378,9 8528 56906,9

houses are privately stopp have to pay, 10% of wood fourse One time, SX was not a city wath weently. So distrib have much money. So wouldn't hild Lousing. So left it to private, Becare city 1983 Some Numerous vor som \$30,000/yr.

Hanggbon Muni Water Corpany a state owned enterprise, under U.R.C. Commission of muni good. 0, M, C Sources from user charges a february 1. To 10. 11. thinked Jane to promote

Environmental Testestion Amportand in 5x because many small lakes, severs there. Saily ewerage: 81,000 toro is drained off into the water courses. 17,000 731/DB Havy aid rain negeon

Main Problems Of the new Dies (2) treatment of the water courses [for pollution] 3) improvement of road network of old district (4) usban rubbish

16.05 km²? 14.85 km² hinldup ladd; Willadd: km² 19 m2/person Republishmenth -> they Need to the roods Honoring: Would like to add

(13) An past Typan they have built da lot more howing then in past 30 years. over houry 6,37 m² bus misself 711 m² from I 90% of rosts are applied newly established water plant 20,000 toro / day 45 km 2 of news distr lines 86% more than 300 small roads base been renovated

to solablish - now water plant in over - straining systems in over area 100 Km² anoval housing 2 bouring projects now finished, 2 underway. Master Han since 1982, sewerage treatment pool 2.5 kms. 3 poumping stations

Orban District 9.58 km² area. astivated 200,000 in 2000 San is - to be mainly A some specific irdustrias sabrild the major road They are starting a project to improve sewerage, to improve water quality of sity words Some industries have been moved to help injures

10 of 12 mill Major rouses length 56 fem? ora 350 K m 2 water supopoly works 58,000 toro /day 85% wage rate public trasfic wehicles 7 lines 7000 familias face correctors to ligo red, gag greencoversole 6.8%

9 TX lots of water - - umalo. 30 water lower of preserved row 229 bridger "1" fixed assets \$ 21.051 mill. turrover of cap. cord.

\$\frac{12.372. mill}{1984} Turrover of technology invest, \$8,679 mill respective investment \$13.64 mill norproof. 7.7.66% 188.45%

- Make 95% of townships Dist. - Atodree new telephore aboves - Iduation - double the turrower of foreign trade - develop the 3rd ind, - base over 2 mill tourists incress actual consumption 5% arrivally finarcial revenue 4 <0,2 hill 3/3 goes to Prental god 1/3 for inty

Goals GUAIO \$ 126 lefore 1990 7/170 for industry 14% for ag. NI 4 GNP: 19% De guidagle entout Dhave output compare with lites that have 710 mill ontport 3 develop ag. seon, 3) improve traffic, port, Teleconnun.

480008 Al med centers beds service renters ~ 900 individuals in trade 15,000? ave more per employed person \$1,140 for farmers : 4690 Esperditure is for food
16% for clother of sorgunes goods Tolo others

Beigles 510,000 Alex Fans 310,000 polyester 6,500 tors taptiles 71 mill meters wire 29,000 tors Townships 599 anterprises 34,000 garto Traffic in whan district; aboared Undan District
25,68 mil 3,500 telephores 145 long disti lines 2 institutes of brigher leaving 5 secondary 105 mid & prim 34,000 students

Usban District 7 570 mill ¥2300 PCI Industry tinfoil for furerals leptite 656 anterprises \$ 1.45 lul Industry 78% light 22% heavy

silk trees dysing 60 mill, mills cement 410,000 tors length of highways 1,452 km 87% of townships the sugleys Osban District 101 all km² area tital 250,000 rong, 170,000 GUAZO \$1.48 bill 20% of SX ora

GNP? ¥ 3,4 hill 1,5 Timos 1981. NI 73,54 till 1.5 times 1981 PCI \$ 900 Judes 30 150 53 Zml 17 3rd rice, fish, silk "breeding water surface" 14,000 tors of aquatie 1.80 mil tors

05/1 Shiroting Thurs. silk processing 1983 SX become city St includes 5 courtes 1985 3.95 million people 0,6% ag. 3.32 million rong. 0.63 million area of sity 7901 km2 intervaled 2.77 million men. 70% is hello 20% is field GVAO 7 100 139,490 Shiarfing Rwal town 43,500 85/84 B GK Anyo they have found Tax of their own on the gaterpsipas

[included tales on i inthe tojes wines 30-50% housing Land use Tax for much moon can pay their own dignition localities Uplan Construction and Mainterorse Back Tax. of the operating tax, value differ tax paid by goterpsison sollectives Abopt For cities 7% For small towns 5%

Land use that heing discussed now: - who (central, local, who) will pay get the tax. Will be baredon a louto 7 so much like a property top. In tourist to when sentral good, allows ity to apoply a tax to Dra surfage on wal

6 a proubre: when either have to appared to made the added worth for water please an industry is one grouple is expanding the industry is requied to per contribute to the wet, This worked is worked out differently in different Sewerage changes Approved in D- if you ar D- if you go above stardard you pay, a special fee. 2 - ever for any discharge,

- many when are seeking ways to saise more worke and what they're looking at is how to charge for things Thay boven charge for before, Like sewerage. Upulatike to go from hilden to explicit outsisty and There is an experiment going on. Land Use Tax

Of all the toses collected hyb/Z. The pest must be sent up to province, other, For big projects, Then the garnadal central gov. will provide support. - If project is a productive be a loan Books as loan - If not productive, then agrand.

Within MURCEP Planing & Financial Busan Corporations Water Buses Har Hartingoil Have users pay for sebuilding of plants, Mow with priess going up for inputs, policy is to ran-industrial, where there are loover, the city good concer them. all rapital costs are coming from musi goots.

Housing appearments 1/3 by individ . 1/3 by state 1/3 by enterprise Well discuss more on this in Seijing. MURCEP 1 How with free Planny Housing Cities 500,000+ + upitales atternos social estimates 20 ys. soview 4 approve forsing waster Par State Courail

4/30 Evening people D water suppoly. sewage transportation bousing per person has increased 0.8 % per your. Volicy am w housing Shift more of burden good. to private persons of enterprises, collectives Doing Huber, Jilin, Karan, Chazon Province

Honsing project from 2m to 8 me now paying no for /m2/mo. will pay & 20 fen/m²/mo. ave, mainterance 1.50/m²/wo Maning fee 10 fen/hh water 10 fen / 1000 l alec 16.50 fer / XNH all meteral

- housing standards - construction cost per - cost of infra -- word of ford -# of Swelling units Serrolished sach you. - typology of howing - mainteronce lostes

- # of the household connections how much this pay per month & - # of hhr on stardgojoes how much they pay - # of hhs are cornected to sewer, with a flush toilet they pay? Ally pay? - electricity: how much does a bh pay per month

So they are overworking the available blants roctes pressure in ligus. De Consumption of water will set So planing to bull a new water plant The wehre somes mostly To Most of operating + maintaining costs some from water weers (metered) But the investments musty comes from muni

(11) Environ 1/100. Buseau Munic admin Company is responsible for the pipes of treatment NO pr enter - has revenue from foctories - hut not much - most of its support nomes from the musi good. Water Supply plants Now there are 4.
Total Georgity: 385,000 Hors But Consumption by sity is 610,000 long / Juy

Some of the word would good, but most would be from prov. & musi There is a set procedure, as for all projects La future, would like There is some kind of peralty now for high discharges poposood Despital construction starge bone of Devenier Coperating)

bosen of Devenier Coperating)

place

for ayear

(9) lowest discharge of river 8 300 cm / see River can happle the untreated stuff, they No sewage now in (2) build other interreptora too, to starnel water directly to the siver. Total investment required: \$175 mil This Plan has gone to prov. who have sent it on to the central gov.

discharge of unal is 5 m / sec. quality is bod, pollution of grand words is hindrance to water supply treatment plant people, Touristo complair fish die munic environ production dept bas spend 2 years planning. Deliver sewage though pipes disetty to the siver, not through und

(7) In general, any kind of real suportal developauthority of the state enterprises to do themselves. Must get approval from Grand Caral - 35,000 tons per day of industrial waste of sewerage go into the grand roral seriously polluted 37 mg/l BOD standard is 5 mg/l

Highway projects

Municipal Hayer Project

Bureau

Tomany Mysdan Put. Transport Company Constru Muri Tourist Compony Topi Company Traffix Moroge Office Rasauch Bureaux Desegning stracts is part of environmental for purchasing a new how, muni gov. prowder

3 - packing lots - nearlyist "sousts seduce miting of different speed wehicles - build light sail transport system Come plan have (peopen) Algin hulding in - build now facilities strengther scientific studies, modern troffic control for printation to pose him, of the proof of The forth

duto to traffic management by 1990, hope to complete by 2000, even more progress during 7th 5-year period, - going to widen 30 20 100 lo. 1,03 mm 30 kms m² increase - build higher speed sing road - build specialized soods for pedestriens or liegalists only improve bridges Fadd bridges

also, stortage of transit roads (intercity) Oper one lendage vehicles come in Market lity all mited with put. trong luses shortage of trans facilities signal control is all manual, so worssoods & not coordinated with one another. Magdigle 12 of ing one to it of July Wifege

Amall 493 km wood on 3.913 mill m2 rood area in city district pm 2.95 Emill m2 This is lower than target in the state plan. Hos Tourists is irresposing ave arrival increase in tourists 15,8 To foreign 12.2% donostie Public transport system # of wehiles is Awall 552 lines 109 towns town

4/30 Washerday 0 Well cover: O traffic 1 treatment of pollution in grains 3) water supply Troffic - sligting roads are all very - to widen, will know to , foull down houses - because short of bunda, then he described some specific reads be thought needed sup, sast-west of 19,387 moter webicle 124.4% at and 0 1985 730,000 licydes 178% Aire 1884

6 projects 760 milk

how to Mise more reverse! Describations "in stellings withdrawal of housing subsidies To raise the City Continue of Main Tax, Swe to got State Coural approval. transport prefits 23 out of 100 (not)

Proincial Gor. Profectures tomstyps KIT

HZ gov. 10 mil. inty const of printin tasks 75 mil 100 mill 200 mil.

@ Disposal of refuse, sold water 3 Rebuilding of old city Water treated 600 litera / pers/day Sewerage: liging length now. Apparate systems
- sanitary treatment plant being constructed now, until now no sewerage

We need \$ 200 mil for construction But only about 1/2 is available 3) difficult to control pap. 11.5%/year for small HZ Small HZ Long HZ 66,000 Births 33,000 Doutho 33,000 Not. Aver 7,600 0,682%

from 1986-2000 ind. 4 ag. output must Vsoblema Dustan structure does not suit need of people Pop. 1.24 mill morage page 71 mil 2x 1949 719,000 vehiles 773,000 birysler such HH has 2 bingeles traffic congestion Deshort of funds to build the city

ionals building & fixing "facilities 30 enterprises under prov. or municip gorto sun finish 35,500 staff

per \$\frac{7}{280}\$ mill production

your \$\frac{1}{35}\$,500 with Sas quall H. E. Traffic linking siver with grand traval with evertal port Kailways aviation

7.1 kg sage / pess/igg In May 1983, State Couril
approved master plan Mainfall 1452,6 mm/yr. 250 Days frostfree 3 levels in 6th 5-year plan I mil m² of housinglyear 5 mill phouse total of housing Small H.Z. nobusby.

CA100 ~ ¥1100 inflation 3,1% in 1984 17,5% in 1985 TV 101 sets / 10,000 people sadro 49/100 wash, 37/100 refr 39/100 SHHA. elable 133/100 leighter 212/100) pork of 23 kg/person/ys.

- health situation has been singilored . Buth ste 12/1000 . met growth rate 17.7. 1.5 million staffs total \$1.3 bil wage bill under 680,000 workers

district of 879 mill wage bill 7 879 mill wage bill income of 9696all/per gotto 121,8% Aires 1854 E. Alleria

41 secondary specialized 14,200 students. 60 middle schools 57,000 students 266 prinary schools 81,000 students sussen schools kingleyardens 18 uneros of theater 3 Cibrarios Halth 787 health establishments 11,100 hosp. beds 6.36 heds/1000 people \$,000 staff

Commercial Service, Food Has been sendoping very quickly 11,109 years centers 1985 11,000 + service centers up from 3000 + in 1978 767 kotels, quast houses-94,000 bedo. n3000 for foreign quets Vast of Telecommunications Tel million telephone Telasaron & radio prograss linked with 23 bourtes Files, 54 countres Cultural of Educational 18 institutions of higher lawring with 35,000 students 35 research institutes of museums

Big Hon Z. above + 7 counties 16,050 km² 5.431 mill pop. og. 3,69 is no 3 of total Assests water surface sultivable band wich not resources 1984 GVAO \$3.287 bill this is twice the 1980 frigue 598 million

1980 \$ 6.1 prillion 1985 \$ 12.8 billion. inverse of 13 %/ys. Agriculture 3,697 total pop. 5:430 million 3 admin lovel ustren digthicts includes scepic area of take. 1.7. Loop. 1.240 mill

GVO of Third ind.
= 27% of GNP

= 27% of GNP

Sity

Acts of townists lets of townsto 1660 mill of foreign explorer earned from this. Jardinstry
mainly light GITO
GITO siller, testiler, food, down to 12-lo of wholey outpout of silks domical products industries donastie electronic producte output is going up food

Horghon 0 4/29 Director of Ch & Rush Constantion Comm. Disetor of H Municipal Planning Comm France & Tax Ba. Section Chief of Harring Comm. \$ 6.9 hillion invegtment in 1984 pour \$ 100 lulla in 1985 GIO = 12.8 billion overage inwages of 10,7% Total firenesse recenue 7/3 of provinces
6VAO \$3,2 billion 16,5%

for private transform land exaction fee differential pricing Weter 10 fen per ton of water more than 90% from The west meters-all households big week subsiding bouseholde no private sellers of water

= Open discussion" Master plans private land transfer

yes, settle price

inproverests between buyes

yes sur do, bove

arother family,

with good, approval bestowing for private individual, for enterprises of

for soch purction: - which source, Deer much from sal se - To record from deficity what byggers interago transfers

.

18 mabar 45 total pop. whan grows at After 1918 secremen reforms, has led to farmers influstras of other morform ento 30% of single people are no longer long form Projection for 2000
Of 23-30% Ofr
provision 43-50% industry
Valor force 20-30% service aport of labor to rest & problem: to stops be more of this labor, need to Lovelogo mor = second + thank inhustrias " - services

(34) The 9 4 7 items above in only be used for today maintenance of own anterprise D - bowing 5) - water Orlanization: population of the three years"

1960-1962 trend in below the wooning

construction (33) (8) musicajos Asusvego itazo sonnsetion charge gasot to some son your build 7/13 millen (9) user whorest \$300000 \$3 million the for now works (10) other bolger for Moster road occupation \$ \$22 mill

Showestment in state

lendget

from central ->
mity grants

AD million fours available mything good. from plow -> 767 million Dustan utility own

funds.

profits

profits

clepseciation

major mainter. 723 mill in 1985

3 for new construct 1/2 for waintepare : un be word for water, also for bousing Devenue from unban insome from uses sont isn't sanitary isn't ¥ 42 million in 1985 garnow sevence from selling the night soil

Province 2 surcharge on the user charges the (ity) 10 (All on electricity)

**To some cities, also Central Revenue from this: Hord. #30 million last 200+ 55% 3) additional surebary onth storproson fito industrial of pormercial sollections the sollections the sollections of the properties I to sollection the properties of the properties. These three are controlled by the municipality

objective: nowy formity
gets ato own yourt in 7th spean 5 your build 2 m m 2 per you. denuled a Course foulties gotespiral Tax Examena who said , value added And town 200 cleo pays things

28) gas for city sociales raise to 40%. improve soverage treatment misense jos 5890 of built up ava. That from where! hild more townst areas appoard bouring state will bild then well to people Fairable prices for the already in existence for soore people develop sontact

Targets for \$7th 5-year plan: beering construction must been pose with scoronice growth. [other platitudes] - poster supply uponty 100,000 Tong water seasons rate about invage to Allen 90%. pub. transport: to mucase ly 550 vehiles duing plan period. ain for 5,5 vehiller per 10,000

26 usban housing
11 cities and of 1985 Mored lighte built area

state of states: 12. Bmillion m²

jity until 1 enterprise 11.27 mellion m (owned by state, nortrolled by enterprise) Private: 6,91 million m2 6.33 person housing area main problem: not grough or good grough houser, 14,000 need house lig about of 1985 0.553 million m2

Theer areas (gardens, etc) > 2.1 m² per person & Sypace museures 185 bx. 51 partes 4 good self-suppoly rate of seedlings 323 sanitary wehicles claning work 17.1 mill tons / year 1.71 destroyed 884 public tollato 15 milioh tollato

about 125 km2. Sanitation waste treatment plant: HZ & 5 X have 75 bemos flood control diker Problem: lack of complete drainage. built up area mostly wonderned sewers many factories do not have waste traducit - - 40 go disetty into the never & lake

6.22 km/km² 23)
4.8% Shully area
is in roods problen is: not grough main soods. Or sools is not good. 23 m² of rood per person. Drawage of flood control 927 pmg of sewers in the 11 when by end of 1985

public busses at and 8 1985, all 1033 put wetile sperating length (155 km. 6.6 m pass typs rehiles wonted supporty
weak minterine ly end of 1985, The 11 Roads & lindage 1,1 ? first 8 second , 143 bruse private 14,8% 4/4,3.

2) peak demand successo the peak 300,000 toro: lack pollution of water. oil refining plant in Non begun to use (from 1974) liquid ges foil"

photo this? 31 gas storage tuntor 120,000 wers 111,000 families 1909 435,000 people was structure of fuel products pop by 1985 use

20 2.48 mill people are now remorted. 18X the 1949 good person to 157 lit/day 99 x the 1949 probe in usbom water supply Abortoge 2 400 tors per posi less than whole lack of perpose of ind. neuge rate = 25,6% weakness in obility of water supply peak use

I so on for the (19) other whis Outline of Usban, Munic. Ustan water supply independent.

1985 19 water works
in 11 cities total daily supposity: @1.09 million from 53 x The 1949 40685 1,685 kms 21 x the 1949 volume Aupoplied 306 motors/year 188 x the 1949

There is a master plan for construction in all the cities. Hergofon arm is to lived Dinto un imperenter first unter. Miggles build it nots imp.
indust, & trade
eity. Wengghon imp trade eity. Shaofing textile ind. senter 4 clas. ind. "

.

in next ten ugois (17) HAVan Situation ad and of 1983 11 cities all states in the inter-E. Frmill pop. in the inter-3.06 mill me morag. 634/km2 then went the the cities: Now 13 what

(16) to promote inbanigation & reduce gap between to limit poop. to. growth late to improve environment to establish social welfare 4 insurance system In order to do all this, plan is: during 7th 5-year plan sationalize integrate warage scorom

Strategie Tango , to promote social productivity, scoromy 7 > idea of economic battle Ain in to quadruple before next 15 years PCI - such your of suise living sturdards include consumption 7% reach middle income country standard.

Next 80 years: program Priniples. contine to open to outside world experiely to receive foreign trade · quality syprosments in Acierce & technology · increase intransation · _ convert divorcer to · utilize labor and other satoures, , solve the problems shortings of Joursty.

lack of steel, oil, heavy materials Deak of infrastructure forcilities transport is very congested rail, road, etc. Check of unbangation 14.8% 3 lack of Technical empablishing modern industries are only 2% of total moderating. Dlack of woordination not sorplete yet for entire system.

3 tourists 3) Ination is good reas Starghai - middle put of wort 6) usban soforms mill increse supromie landop-ment. Constrainto Deak of infrastructure Dlack of cultivable land selective to pap. (B) limited energy resources 190% roliane or

Sample sung whom #840/gr. +1890 irusens sural 548/yr. + 13,3% increase Constraints on Economic growth Ochvantoger labor force

Sensity is

23,63 x rest of country

se 5,68 million labor force @ barbor transport good porta 3 potential (Midegues) Doubliopie climate

second alass of tech schools 119 schools 43,000 students highelle 3,235 1.7746 million Achool 36,514 38,5 mil gterlate adult ed. 39,900 adult students 8008 + hospitals 113,000 halth teek. 80,000 horp bests. 1,1 doc / 1000 people sports, gyers, swimming pools

5000 unerros 126 lit & at drys. 93 wiltered 16 put lit 21 museums 8 radio 77 radio station penjosper 5 te 670 newspapost. 35 universities ~ 10,000 tearpers \$\$ 53,000 students

telesommunications 22 To inceres Trude × 1.618 fullion volume 13,4% investe since polyge 1787 + 36% Arra invastment: \$17,25 million +6,1% 85 joint venturas 270,000 tourists +28% incrase of faith was it is

1,968 billion (7)8 utilization rate 77,7% Europoit Sassets, Op. 7.8% 1 Vosby Tele. Railway 1339 fem Road 25,600 Sea 13 set montes Olis 2,568 billion Escipto + 10,4% inverse In on freight _ Passenger miles

growth in 1985 from 755, 1 Million. 39.5% invelore since spelading rural enterprises 33% innere Investments 8.933 William 37.7% invare since 1984 invest for state enterprises
3.951 hillo 444,8% increase of this: 44,8% presente +55,190 increase

(3) Sadustry 95,000 enterprises. 26000 light industry 19,000 having entery. State Confros 3,791 state-owned 41,184 sollectives 70 Joint ventures) 14 large size ent. 44,000 small 3.737 million

Daing 6th 5 year plum 1981-85 GVAIO per sopo income social product 29.190 growth GVATO, 72,3 Kullian

31,3% irruguso

pin one year

hom 10 i to! from capitalineme + 23.4% increase 1985 in 1985, org. output 444.4 billion +39,400 isuase Ulministrative 8 provincial cities 3 prefectives 66 counties 3 county level rities 508 county towns 2729 townships

In 1980-85 GVATO per capita irrore

2

-> An 1985 8 programmed reties 3 preferences Madellistes (3 cities at wanty leads 66 terres nounties 2729 - smell town townships Topulation: 40.3 mil Told 32,8 mil. agree 81.1908 total pg all Han (99,5%) 33 mirosity nationality 0,490 subant town: 15.341 mil. rorag, 5,998 mil.

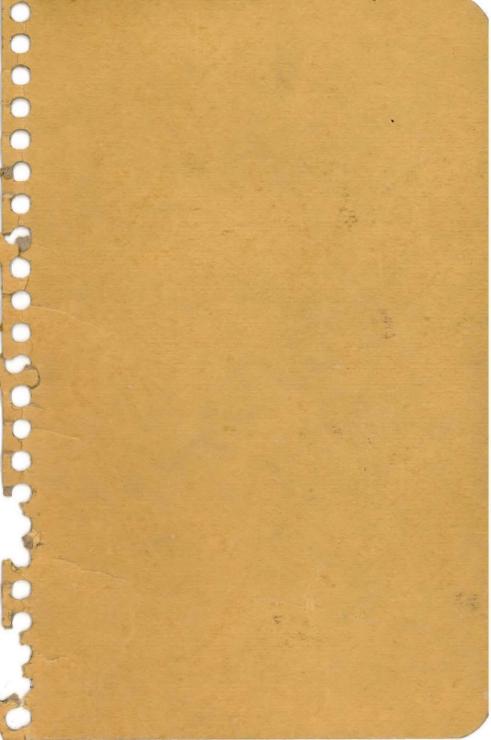
4/28 Monday a.m. (Mr. La Dip of Manighal Const. Burase land wea: sout 1% of whole 23.2% arable land 6.4% sives & lake ~70% mountains ~17% sultivated sainfall [1900 mm/Ms.] lots of hybrocletic power. from wal to bow much from each Howing Const Deo. Co. water frem from gorin 10000 10000 wary little 95-100% electricity gas lower 295-100% little Acweroge garlogé removal transport highways 100% & mount conscerications health adie extrem [frels atimulation of commerce findentry police and wenter culture pergetion, environmental anauto other 55% turn 15 90

ministration oublic buildings (maintenance)
operation and construction
personnel system for fature growth for preventing to dispotent central Gov. Provincial Ear. Municipal Gov

support to converse industry · facilities and services for not expension of enter-· promotion; information efelorge · tax inention and placement. solice and courts · protection of property people against since to · adjudication of contact disputer logi219N/1 culture, recreation, environment museums, libraries, theaters, cinemas, stadiums, exprasiums exhibition and meeting halls · saldoor spoces: partes, plagas, morements support to artists parforming a fine arts; and athletes 4 rebolars

communications. · telephone . · wate, telex, etc. broodean · sadio, television soles, restal, · postal services liering for health . hospitals privary were Iducation · primary - recordery vocational · real · oil and gas for heating . petrol for vehicles . land · land use planning, going, · land information : fixed and legal whater; utility majoping

· existing housing units (who · sonstruction (of new units; and improvements to spiriting · provision of wedit (for acquiring units; and for construction) · drinking quality estily scetneity sewerage slorm drainage removal of treatment gasloge removal streets and highways. transport bus . prime pas · biegele - take / rick-- rail Aclas frentes



Roy Bahl DRAFT N-849 December, 1986

MUNICIPAL FINANCE IN ZHEJIANG PROVINCE

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APPENDIX

Municipal Government Structure

MUNICIPAL FINANCE IN ZHEJIANG PROVINCE

I. INTRODUCTION

- 1. This report is about municipal finances in Zhejiang Province. The ultimate objective of this research is to help an understanding of how the present system works, where it succeeds and fails, and how it may change or need to be adjusted as the Chinese economy changes. In the next section, the local and provincial financing system is described using data and information supplied by the provincial government and by the five municipalities visited. We turn then to an analysis of the problems with financing urban government services in this province and to a discussion and evaluation of alternative reform possibilities.
- 2. Three important underlying considerations will help a proper understanding of this report. First, even though China's fiscal system is unitary rather than federal (the constitution does not explicitly define the responsibilities and powers of local government), there are three distinct levels of government which play important and different roles in financing and delivering services. It is misleading and a mistake to view the provincial government and the local governments (municipalities, counties, public utility companies) as "the local government sector". Second, the structure and workings of China's fiscal system may vary from province to province, and it would be a mistake to infer too broadly from this study of Zhejiang's local governments. Third, the local finance system and indeed the whole tax system

^{1/} Throughout this paper we will distinguish between local government and the subnational government sector.

in China is still in a state of transition, and this "newness" may explain some of the problems observed.

There are caveats to consider. This work is based on one, short visit and local officials have not yet had an opportunity to review this manuscript. There almost certainly are mistakes in our understanding of how the system works. A second shortcoming is that only five municipalities were directly studied—counties, towns and public utilities were not subjected to the same level of analysis. There is much more to the story of local finance in China than is told here. Finally, there are many gaps in the information gathered here and the analysis presented below suffers accordingly.

II. THE SYSTEM OF LOCAL FINANCE

A. The Structure of Urban Governance

4. Urban government in China consists of a core municipal government and a surrounding set of counties that "belong" to that municipality. In fact, these urban counties are financially and operationally independent from the city government. 2/ The remaining counties are part of the rural local government system and have no direct relationships with the municipalities.

The tie between municipalities and counties has to do with regulatory and planning functions. The municipality sets the regional economic planning targets and allocates activity between the city and county. There are also some fiscal controls, e.g., urban county personnel appointments approved by the city government. The city of Hangzhou consolidated the urban county accounts and brought them under the city budget for two years, but eventually returned to a separate budgetary system.

All counties are divided and subdivided into administrative districts, but also may contain towns which are central places of urban areas of 20,000 or more and which may have an independent budget. Most towns are financially subordinate to counties which are financially subordinate to the provincial government. Municipalities report directly to the provincial government. In Zhejiang, there are seven municipalities, 68 counties, 3 county-level cities, and 508 towns.

- is focused, there is considerable decentralization in the responsibility for delivering government services. Municipalities, counties, public utilities and public service enterprises all have separate accounts and some measure of fiscal autonomy. To better understand and think about the divisions of responsibility and financing, one might think of the municipal government as having three sectors. The first, the general municipal government services sector, includes the delivery and financing of goods and services that have general benefits and cannot be easily "priced". These more public goods—such as education, health, cultural activities and general administration—are more amenable to financing by taxation than by user charges or prices. These services and their financing are included in the general budget of the municipal government.
- The second sector is the public service companies. These municipally owned enterprises produce services which can be priced, but which are public in that substantial external benefits may be produced for the community at large. The most important of these are the public utilities, chiefly water supply, gas (LPG) and public transportation. Though municipally owned and regulated, the public utility companies have independent budgets and

separate management. They are financed by a combination of user charges and transfers from the general municipal budget and they pay taxes to the municipal government. Most municipalities have set up a number of other public service companies, often to provide construction services (e.g., construction companies, engineering services, the sale of building materials). These companies support the capital expenditure activities of the municipal government, but they may also sell their services to other municipal or county areas on a contract basis. A substantial amount of their financing is through transfers from the general municipal budget. The municipal organization chart for Hangzhou in Appendix A shows the range of functions for these public service companies.

7. The third sector is municipally owned business enterprises. 3/ These companies produce products that can be priced and can make a profit or a loss. They have independent budgets and management but are linked to the general municipal budget in two ways. They pay sales and income taxes to the city if they earn a profit and they pay sales taxes and may receive a subsidy if they incur a loss. In addition, the city may transfer certain amounts from its budget (in grant or loan form) to stimulate technical improvements in the productive process of enterprises. The situation of enterprises relative to local governments changed after the 1983 mandates that governmental subsidies would be provided to cover only planned losses and that enterprises should finance their capital improvements via borrowing rather with subsidies.

We use the term "municipally owned" to refer to state enterprises that are controlled and to some extent regulated by the municipal government, and to draw a distinction with those that are under the control of the central or provincial government.

- 8. In summary, municipal budget expenditures consist of expenditures for general municipal services 4/ and transfers to public utility and business enterprises. Revenues consist of shares of the sales and profits taxes on all municipally owned enterprises, collectives, and private businesses; the urban construction and maintenance tax; and a number of smaller local tax levies. Three other significant tax/expenditure activities within the urban area are outside the local government budget: (a) The Central and provincial governments directly operate the electricity and telephone utilities; (b) All customs duties and advanced sales taxes on imports as well as all taxes on banks, railways, aviation and some large industrial complexes (such as steel and petrochemicals) are assessed and collected by the Central Government; (c) There are extrabudgetary revenues and expenditures of the local governments, i.e., amounts that do not show up in the municipal or public utility budgets.
- 9. Another important dimension to the decentralization of urban governance in China is that municipalities may contain one or more suburban districts—subcity governments which have independent budgets, defined expenditure responsibility and specified revenue sources. These district governments do not carry out large capital construction projects but do have a wide range of maintenance and general service activities. They may own and operate enterprises and share in the taxes collected from these enterprises, and in some cities they are given authority to collect all taxes from private businesses. The districts, subordinate to the municipality, can have a noticeable fiscal importance, as is described in Table 1.

^{4/} Including some prices subsidies.

Table 1: SUBURBAN DISTRICTS IN FIVE MUNICIPALITIES, 1985

Municipality	Number of districts	Fiscal importance (percent of municipal budget expenditures)
Hangzhou	6	13
Ningbo	5	20
Wenzhou	2	. 20
Quzhou	1	/a
Shaoxing	6	Ta

/a The districts in Quzhou and Shaoxing do not have an independent budget.

Source: Data provided by provincial and municipal government officials.

10. In some ways, the Chinese fiscal system is also decentralized.

Municipal and county governments do most of the tax assessment and collection: it is estimated that local governments collect about two thirds of all taxes. Expenditure responsibility is less decentralized in that provincial and local governments make about 53% of total expenditures. (In Zhejiang Province, 55% of all revenues collected is kept for local and provincial government spending). Few countries in the world could claim so great a degree of expenditure or revenue decentralization and none could claim this degree of decentralization in tax administration. The comparable ratios for the US--which is a decentralized fiscal system by world standards-- are 43% of taxes collected by state and local governments and 42% of expenditures made by state and local governments.

B. Local Autonomy

- 11. By comparison with most countries in the world, local governments in China have little independence in matters of structuring their tax system or deciding on the level and composition of expenditures. All tax rates and bases are set centrally and there are no truly local taxes at either the municipal or provincial level. Provincial and local taxes in China are central government taxes whose revenues are allocated wholly or partially to provinces, municipalities and counties.
- 12. This does not mean that subnational governments have no impact on the level of taxing and spending in urban areas. In fact, provincial governments have been given responsibility to design and implement the system of intergovernmental relations between province and local government, and local governments have been given the responsibility for tax administration. Both levels use the powers given them and have an important effect on public finance policy in Zhejiang.
- 13. Provincial governments have discretionary control over the fiscal system in that they can alter the tax sharing arrangement for each municipality within the province, give grants to local governments in any way they choose, and are responsible for approving the budgets and financial plans of municipal and county governments. This means that they can to a substantial degree control the spatial distribution of expenditures within the province. Moreover, because they can set the tax sharing rates for each municipal government, they may also effect the rate of tax collection by the municipalities. Municipal governments have little autonomy on the revenue side when it comes to fixing tax rates or taxing new bases; nor can they borrow or set up self-financing schemes. The municipal government Price Commission can.

approve rate changes for the public utilities, without provincial or central approval, but these rates rarely change in Zhejiang. Most important, however, is the fact that local governments control tax collection and assessment with what appears to be a minimum of supervision. This ability to effect the implementation of the tax system is a very powerful policy instrument in the hands of local government. There is some indication that they use it.

- 14. With this division of powers one can see how all three levels of government play a part in determining tax policy. Suppose one were interested in the determinants of the level of tax effort (the extent to which the city uses its taxable capacity) in Hangzhou city. A major influence would be the tax bases and rates as defined by the Central Government. Another important factor is the degree to which the city implements this system through its tax administration efforts, and finally, the province has a say by setting a tax sharing arrangement with the city that may stimulate more or less administrative effort.
- 15. Autonomy on the expenditure side of the budget is in several respects limited. Consider the process by which of the level of spending by the province and the local governments is determined. This process has two steps. First, the provincial government is subject to a centrally specified tax sharing ratio. 5/ In Zhejiang for example, the provincial government and all local governments combined may spend 55% of the total amount of taxes collected in the Province. The remainder is to be turned over to the Central Government.

^{5/} This is described in more detail below, in the section on tax sharing.

- 16. The second step in the process is that the provincial government gives each municipal and county government a "target" level of revenues to be raised. This target amount, after local sharing with the provincial government, will define the level of budgetary expenditures. For local governments whose entitlements of shared taxes exceed the target level—as we are told is the case for all larger municipalities in Zhejiang—the process ends. If a municipal or county government cannot meet the revenue target, then either a Provincial subsidy is provided or the local government is ordered to increase its revenue mobilization or reduce its expenditures. Increased revenue mobilization, the mission was told, can be done in one of three ways: (a) the efficiency of tax collections can be improved; (b) new municipal collectives can be formed; and (c) the production quotas for state—owned enterprises (SOEs) can be increased.
- 17. Once a municipal government satisfies the provincial government that it has met the target level of revenues, its budgetary choices are still quite limited. All of the following conditions are imposed on these choices:
 - (a) There cannot be a deficit.
 - (b) Capital maintenance expenditures take priority over all else.
 - (c) Employment levels and compensation rates are fixed by the Central and provincial governments.
 - (d) Certain expenditure levels are mandated, e.g., in one city we were told that education expenditures were required to increase by 10% over the level of the previous year.

(e) All revenues from the urban construction and maintenance tax must be spent for capital construction and maintenance.

C. Budgeting

18. Local governments prepare annual budgets and year-end financial statements.6/ Apparently, these documents are designed less for fiscal planning purposes than to provide an accounting of amounts raised and amounts spent. As a planning document, the budget would need to include the full range of local fiscal activity within the urban area. This would require consolidation of the general municipal budget, the public utility budgets, and the extrabudgetary accounts. However, no municipality we met with had constructed a consolidated budget showing total revenues and expenditures of all local governments in the urban area. Moreover, and as we demonstrate below, such consolidation would be difficult. Most troublesome is that the transfers between the municipal government and the SOEs and public utilities are not easily followed. If an SOE plans for a deficit, then a transfer to cover the deficit is shown as an expenditure in the general municipal budget. If the deficit is not planned, profits-tax revenues in the budget may be reduced by the amount of the transfer. 7 Transfers from the general municipal budget to public utilities are likewise difficult to identify. Apparently, some expenditures made on behalf of the public utilities are shown as direct expenditure items in the urban construction and maintenance account

^{6/} We did not examine a budget document.

Or in one municipality, the transfer is shown separately as a negative revenue.

of the general municipal budget. We were unable to match these amounts with receipts shown in the public utility accounts.

- 19. While consolidation of the municipal and public service company budgets into an aggregate net revenue and net expenditure figure is not done, the municipal, county, and suburban district budgets are consolidated. These data were supplied and are reported below.
- 20. Capital expenditures are not easily separated out in the local government financial accounts. 8/ Public utilities do report a "capital expenditure" item in the accounts, but it was often blank in the data supplied to the mission. There are three capital items in the expenditure budget of the municipality: "capital construction," "technical transformation and modernization" investments in SOEs, and "urban construction and maintenance." Most of the latter are admittedly maintenance expenditures. In addition, there are some capital expenditures made from extrabudgetary revenues, i.e., revenues raised outside the municipal budget or profits retained by the enterprises. No municipality we met with had constructed a consolidated statement of total capital expenditures.
- 21. Finally, the revenue side as reported in the municipal accounts could not be easily manipulated for analytic purposes. Most cities found it quite easy to supply information on total tax collected (presharing) but it was not as easy to supply data on tax revenues after sharing.
- 22. What these problems with budget format mean is that local and provincial officials in Zhejiang do not use the budget as a tool for local area financial planning. They do not regularly calculate the total amount of

^{8/} Capital expenditures refer to outlays for the purchase or construction of long-lived assets.

spending and net revenues for all local governments and they do not prepare a multiyear forecast of total local spending and revenues. More important, there is no capital budget. All municipalities we held discussions with had a capital construction plan, but not a single one had matched their construction priorities with a financing program.

23. To better understand the pattern of expenditures in urban areas in Zhejiang, we must somehow combine the budgets of all overlapping local governments, e.g., municipalities public utilities and some public service companies. 9/

D. The Level and Growth of Expenditures

It would be inappropriate to measure local government expenditure level and growth purely in terms of municipal government fiscal activity. This would leave out a sizeable fraction of total spending in the local area. We will focus instead on measuring both the amount spent for general government and the amount spent by the public utilities and some public service companies. We will not consider the expenditures of government businesses—SOEs and collectives—but will consider transfers between these businesses and the municipal budget. The intent here is to measure the total amount of spending, hence we include both current and capital expenditures.

The US Census periodically compiles a statement of the finances of all overlapping local governments in metropolitan areas. These statistics are used by the federal and state governments as information necessary to design grant allocations, and for research to identify comparative fiscal condition. Some cities regularly construct their own budget consolidations, but others do not.

- 25. The scheme we propose for measuring the size of the local public sector in these five municipalities may be roughly summarized by the following:
 - (a) Municipal Government Expenditures, 10/ plus
 - (b) Public Utility Expenditures, less
 - (c) Transfers to/from Public Utilities, plus
 - (d) Extrabudgetary Expenditures, equals
 - (e) Total local government expenditures in the city, plus
 - (f) County Government Expenditures, equals
 - (g) Total local government expenditures in the metropolitan area.

Even if we could get all the data necessary to complete this analysis through row (g) (we could not), it would still give an imperfect measure of the local public sector because (a) it excludes the expenditures of the Provincial government in the urban area (hence understating total spending by all subnational governments); (b) it includes expenditures made from accumulated cash balances (hence overstating the size of local government for any one particular year); and (c) it excludes the expenditures of public service companies such as municipal construction companies. Even so, it may be a reasonable

^{10/} Includes all current and capital expenditures, net of transfers, and also includes net transfers to SOEs.

approximation of total local government spending, especially if cash balances are small and if the service companies' revenues are largely provided through municipal government transfers.

26. The results of using this approach to measure the size of the local public sector for five municipalities in Zhejiang are shown in Table 2. Note that this calculation is incomplete, because complete data were not provided by the five municipalities. In no case could we get an accurate measure of transfers from the municipal budget to the public utility budget, and we approximated extrabudgetary expenditures as the differences between total urban construction revenues and revenues from the urban maintenance and construction tax. 11/2 Because of these data problems we cannot even guess as to whether we have overestimated or underestimated the amount of local government expenditures. The inability to net out transfers suggests an upward bias. On the other hand, only partial data for public utilities were reported, hence there also is a source of downward bias.

^{11/} UCMT is subtracted because it is already included in the municipal budget. Neither Ningbo nor Quzhou reported enough data to allow this approximation.

Table 2: LOCAL GOVERNMENT EXPENDITURES /a

	Hangzhou	Shao	xing	Ning	bo	Wenzhou	Quzhou
	1985	1984	1985	1984	1985	1985	1985
Total expenditures (Y 1	10.000)	*	en valle en la				
Municipal government	37,183.0	3,930.3	5,356.1	12,148.0	17,449.0	8,220.0	3,413.0
Public utilities	1,180.2	125.0	194.1	917.2	1,166.4	1,076.0	91.2
Less: net transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extrabudgetary	10,238.0	913.3	554.2	0.0	0.0	1,580.0	0.0
Subtotal (city proper)	48,601.2	4,968.6	6,104.4	13,065.2	18,615.4	10,876.0	3,504.2
County government	5,899.0	16,232.9	16,222.8			23,987.0	
Total (city region)	54,500.2	21,201.5	22,327.2			34,863.0	
		150					
Per capita expenditures (in yuan)	3		91				
City proper	389.8	203.5	244.2	212.2	182.3	205.0	169.0
County area	14.1	44.0	43.9			41.6	
City region	100.4	53.9	56.5			55.4	

[/]a Detail on the inclusions in each category is given in Appendix B.

Source: Computed from data provided by provincial and municipal government officials.

27. Data problems and incompleteness notwithstanding, the statistical results reported in Table 2 are suggestive of a number of interesting conclusions. First, the municipal government dominates the spending within the city proper (e.g., 76% of the total amount spent in Wenzhou). Second, extrabudgetary funds vary from an extremely important source of financing (21% of total city proper expenditures in Hangzhou and 15% in Wenzhou) to a less significant source (below 10% in Shaoxing). Third, per capita spending by local governments inside the city proper is many times greater than that by local governments in the county areas. For example, per capita local government expenditures in Shaoxing city proper are Y 244 vs. Y 44 in the outlying urban counties. The disparity is even greater in the Hangzhou area. Finally, we may note that there is considerable variation in per capita spending across these

five cities, from about Y 390 in the Hangzhou city proper area to less than Y 250 in Shaoxing and Wenzhou. $\frac{12}{}$

What has been the growth in expenditures by these local governments 28. in the 1980s? Unfortunately, few of the municipalities provided a consistent time series of data. We have been able to put together a very limited analysis of average annual growth rates in expenditures for the five munici-. palities, but for different combinations of years and not always for the same class of expenditures. These results show a pattern of expenditure growth that exceeds the increase in the price level by a good margin (Table 3). Where data are available, we can reach this conclusion for both the municipality and the county areas. Since the annual population growth rate in these municipalities has been in the range of one to 2.5% per year, we might conclude that real per capita local government expenditures has increased rather significantly in some of these municipalities. $\frac{13}{}$ This does not necessarily mean that the growth in local government expenditures has been adequate. For example, it is often argued that public expenditures should grow in proportion to personal income. The only income data available to us show that per capita urban incomes in the province increased by 36% between 1984 and 1985. It is doubtful, therefore, that the growth in expenditures kept pace with the growth in income in these municipalities in this year.

Because we have no data on extrabudgetary outlays in Ningbo and Quzhou, we cannot get a good, comparative estimate of per capita expenditures in the city proper area.

^{13/ &}quot;Temporary" population is not included in these estimates.

Table 3: GROWTH IN LOCAL EXPENDITURE AND POPULATION (Average annual percent increase)

				\ \					
	Hang	zhou	Sha	oxing	Ni	ngbo	Wen	zhou	Quzhou
104 20	1980-85			1984-85	1980-85	1984-85	1980-85	1984-85	1983-85
evenue increase									
Municipal govern-	7.0	0.9		33.8	6.2	-20.0		53.5	23.9
ment									6303
County area	17.3	0.1		41.5	18.5	45.7		38.7	
City region	9.5	7.8	6.9	39.3	11.6	4.2	18.1	44.2	
opulation increase									
City proper	2.0	1.9	2.3	2.4	2.1	1.3	2.1	5.0	5.0
County area	0.8	0.3	0.5	0.3	0.6	0.3	1.5	0.3	
City region	1.0	0.1	0.6	0.1	0.9	0.1	1.6	0.1	v 3
rice index <u>/a</u>	4.2	14.0	4.2	14.0	4.2	14.0	4.2	14.0	8.6

ote: /a Provincial General Retail Price Index.

ource: Computed from data provided by provincial and municipal government officials.

29. These expenditure data also may be used to examine the distribution of expenditures by type. The main question about the structure of local government expenditures is the share of the total that is allocated to capital investment. For our broad definition of the local government sector in urban areas, capital expenditures may be estimated as a sum from four accounts: capital construction, technical modernization of enterprises, \frac{14}{} urban construction and maintenance expenditures, and the capital expenditures of the public utilities. The total amounts reported for these categories are described in Table 4. According to these data, the capital expenditure share

^{14/} While "technical modernization and transformation of SOEs" was shown as an expenditure in the local government accounts, some of these outlays may in fact take the form of a loan.

30. We might turn to provincewide statistics to see if these general patterns hold up. The data presented in Table 5 are for all local governments in Zhejiang Province, and the provincial government but do not include the public utilities. Using the same definitions as above, we can determine that per capita capital expenditures in the province were about ¥ 93 in 1985, an amount well below the levels estimated for these municipalities. On a provincewide basis, the capital expenditure share in 1985 was 30%, lower than the level reported for these municipalities. \(\frac{16}{4}\) A major difference is that capital expenditures are growing more slowly than current expenditures for all local governments in the province whereas the opposite is true for the five municipalities under study here. This suggests a much greater emphasis on infrastructure development in the urban areas.

^{16/} We say it is lower because the municipality data included public utility capital expenditures in the numerator (and there was very little reported) and all public utility expenditures in the denominator.

Table 5: ZHEJIANG PROVINCE EXPENDITURE: 1983-1985

Expenditure	1983	1984	1985	Annual growth rate (%) 1983-1985
Total: In 10,000 yuan	219,418	287,958	374,016	30.56
A. Capital construction	35,611	43,815	47,665	15.69
B. Technical reform	23,102		35,231	23.49
C. Agricultural support	27,131	36,111	33,690	11.43
D. C.E.S.S. /a	68,004	85,610	105,822	24.74
Of which: education	38,485	47,220	60,471	25.35
E. I & C Administration /b	4,673	7,476	8,762	36.93
F. Administration	27,617	40,519	41,939	23.23
G. Pension & social relief	5,005	6,657	8,521	30.48
H. Other expenditure	15,735	18,572	27,737	32.77
I. Price subsidy			33,342	
J. Urban maintenance and				
construction	12,540	17,862	31,307	58.01
EXHIBIT: yuan/person				
Per capita total expenditure	55.4	72.1	92.8	29.48
Per capita (real) total expe		69.7	85.5	19.2
Per capita capital expenditu		23.3	28.3	25.55
Per capita (real) capital es				
ture	18.0	22.5	26.1	15.6

[/]a Culture, education, science and sanitation.

31. Another issue to be considered is the extent to which these reported capital expenditures are for construction or maintenance. Data provided by MURCEP suggest that one fourth to one third of all urban capital spending is for maintenance, both in the nation and in Zhejiang (see Table 6). For example, 23.9% of urban capital expenditures in China in 1985 went for maintenance (23.2% in Zhejiang). These shares are down considerably from those reported in the early 1980s. It appears that about one half of all capital outlays is for construction, and that this proportion has been on the increase. Zhejiang, according to these data, differs from the rest of the

[/]b Industry and Commerce.

Source: Computed from data provided by provincial government officials.

nation in allocating more of its urban capital investment to general infrastructure and less to technical reform.

Table 6: THE COMPOSITION OF URBAN CONSTRUCTION AND MAINTENANCE EXPENDITURES /a: ZHEJIANG AND THE NATION

		Chi	na		(80)	Zhej	iang		
9	Total	. Р	ercent of t	otal ·	Total	Percent of total			
	(100 million yuan)	Mainten- ance	Technical reform	Capital construction	(100 million yuan)	Mainten- ance	Technical reform	Capital construction	
79	28.40	50.2	_	49.8	0.64	63.8	_	36.2	
30	29.69	51.5		48.5	0.57	55.0	-	45.0	
31	38.07	47.5	14.2	38.3	0.72	49.6	31.4	19.1	
82	44.45	38.9	15.6	45.5	0.85	44.4	33.5	22.4	
83	49.64	43.2	19.2	37.6	1.42	48.4	23.8	27.8	
84	63.58	34.5	23.0	42.5	1.63	35.3	18.5	46.1	
85	84.12	23.9	26.4	49.7	2.40	23.2	16.3	60.4	
nual	growth								
rate	/b 19.8	5.9	42.4 /	19.8	24.6	5.2	14.9 /	c 35.6	
nual grow	real th	-			K.)	2			
rate	<u>/b</u> 15.7	2.2	37.4	15.6 /c	19.2	0.7	10.0 /	<u>c</u> 29.8	

MURCEP definition.

Compound rate between 1979 and 1985.

Compound rate between 1981 and 1985.

arce: Computed from data supplied by MURCEP.

32. For reasons discussed above, it is difficult to get a true picture of the total financing of capital expenditures. We can say that public utility capital expenditures are financed from some combination of user charges, grants and transfers from the municipal budget. Municipal budgetary capital expenditures are financed by grants, general revenues and the urban maintenance and construction tax (UCMT). As may be seen from Table 4, however, the urban construction and maintenance tax is not the primary source of capital expenditure financing. It accounted for less than one fifth of

capital financing in the three cities that reported. $\frac{17}{}$ It would appear that general municipal revenues are the primary financing source.

33. The MURCEP data suggest that a much greater percentage of financing is from the UCMT, i.e., 70% of the total urban capital financing in the nation in 1985 (see Table 7). However, these data do not include capital expenditures for technical reform of enterprises and do not include all urban construction expenditures (compare Tables 6 and 7). When these adjustments are made, the UCMT would appear to contribute about one third of total financing.

Table 7: SOURCES OF FINANCE FOR SELECTED /d URBAN CONSTRUCTION AND MAINTENANCE EXPENDITURES: ZHEJIANG AND THE NATION

		China		14		Zhejiang		
	Total	Percent of	financi	ng from	Total	Percent of fi	nancing	from
	(100 million yuan)	Extrabudge- tary funds <u>/e</u>	5% tax	UCMT	(100 million yuan)	Extrabudge- tary funds <u>/e</u>	5% tax	UCMT
1979	28.36	70.7	29.3	-	0.60	68.4	31.6	-
1980	27.62	70.8	29.2	-	0.71	71.2	28.8	400
1981	34.56	56.1	43.9	-	0.85	68.5	31.5	4000
1982	42.60	58.2	41.8	-	1.11	67.4	32.6	-
1983	40.85	54.5	45.5	-	1.30	70.1	29.9	(39)
1984	46.88	55.6	44.4	-	1.02	59.3	41.7	***
1985 Annual	46.10 growth	29.5	-	70.5 <u>/c</u>	1.68			
rate Annual	8.4 <u>/a</u> l real	5.4 <u>/a</u>	20.2	<u>/ь</u> -	18.5 <u>/a</u>	7.9	17.4	
grow		1.7 <u>/a</u>	16.0	<u>/ь</u> -	13.4 <u>/a</u>	3.3	12.3 <u>/b</u>	

a Compound growth rate between 1979 and 1985.

Source: Computed from data supplied by MURCEP.

Compound growth rate between 1979 and 1984. Excludes Shanghai UCMT of 4.749 (in 100 million yuan).

MURCEP definition, excluding technical reform expenditures and their financing, and excluding central energy and transportation funds.

e Public utility surcharge, IC tax surcharge and state grants.

^{17/} During the interviews, municipal and provincial officials repeatedly

34. Per capita current expenditure, broken out by current and capital amount, are shown in Table 8. This disaggregation shows, as might be expected, that Hangzhou spends considerably more per capita than do the other cities. This is primarily due to the much greater amount they spend for capital purposes. We may compare the pattern of expenditures in these municipalities with the total amount spent by all local governments (and the provincial government) in Zhejiang Province. Per capita spending by all local governments in Zhejiang and the provincial government was Y 93 in 1985, a level well below that spent in any of the five municipalities. All local governments in the province spent about 30% of their total budgets for capital construction and maintenance and about 15% on price subsidies and transfer to enterprises.

stressed that the UCMT rarely covers all maintenance expenditure requirements.

Table 8: PER CAPITA LOCAL GOVERNMENT EXPENDITURE: ZHEJIANG PROVINCE (in yuan)

City		Current	Capital
1985	expenditure	expenditure	expenditure
Hangzhou:			
1985	389.8	116.7	273.1
Shaoxing:			
1984	203.5	109.3	94.3
1985	244.2	129.9	114.3
Ningbo:			
1984	212.2	141.5	70.8
1985	182.3	103.7	78.6
Wenzhou:			
1985	205.0	123.0	82.0
Quzhou:			9
1985	169.0	153.6	15.4
Province:			
1984	72.1	43.8	28.3
1985	92.8	67.3	25.5

Source: Computed from data provided by provincial and municipal officials.

E. Taxation and Tax Sharing

35. China's revenue sharing system is primarily a sharing of central government taxes among the central, provincial, and local governments.

Whereas in most countries the taxes are collected by the central government and then allocated to the subnational governments, in China the taxes are collected by the local governments and "shared-up" to the higher levels. The amount of revenue finally coming to the local government, then, depends on (a) the tax base and the tax rate, and (b) the effectiveness of the tax administration, and (c) the sharing formulae. To understand the revenue-sharing system, one must understand all three of these dimensions.

- 36. The responsibility for the three dimensions of revenue sharing is divided among the three levels of government. Near all tax structure and tax policy decisions are taken at the central government level. The exception to this rule seems to be tax exemptions and tax preferences which may be given, under some circumstances, by the provincial government. Tax-sharing arrangements between the center and province are decided by the central government, and tax-sharing arrangements between the provincial and local governments are decided by the province. Local governments have no autonomy at all in setting the tax rate level, defining the legal tax base, or determining the local tax shares. However, because the local governments are responsible for tax assessment and collection, they can have an important effect on the amount of revenues available for sharing.
- 37. It is clear that in order to understand how the revenue sharing system works, one needs to understand the structure of the taxes, and their administration and the vertical sharing arrangements among the local, provincial and central governments.
- 38. All taxes in China are central government taxes. However, they can be divided into several categories according to the disposition of their yield: those that belong exclusively to the central government, those that are shared between the provincial and municipal governments $\frac{18}{}$ and those that are assigned exclusively to the municipal or district levels of government. $\frac{19}{}$ As may be seen from Table 9, most municipal government collections are in the shared tax category, and the sales and profits taxes together

^{18/} Or between the suburban districts and municipal governments.

^{19/} Some taxes are assigned to the provincial government, but since all provincial taxes go into a pool that is shared with the central government, there would seem to be, strictly speaking, no taxes that are exclusively provincial.

Table 9: BUDGETARY AND EXTRABUDGETARY REVENUES OF MUNICIPAL GOVERNMENTS: CITY PROPER IN 1985 (in % of total amount)

	Hangz	hou	Shaox	ing	Ningbo	Wenzi		Quzhou
	Budgetary	Budgetary & extra- budgetary	Budgetary	Budgetary & extra- budgetary	Budgetary & extra- budgetary	Budgetary	Budgetary & extra- budgetary	Budget- ary
				•		=		
udgetary								
Shared Taxes	49.06	45.52	53.96	52.09	49.49	68.76	62.32	38.12
Sales taxes	0.75	0.70	0.64	0.62	0.68	0.00	0.00	0.08
Wage bonus tax		0.00	0.00	0.00	1.15	0.00	0.00	0.00
Construction tax	0.00			0.000	4.72	0.00	0.00	0.00
Central E&T funds	0.19	0.18	0.00	0.00			20.05	55.30
Profit taxes /a	44.29	41.10	40.25	38.86	41.61	22.12	7.97	50.52
SOEs	27.32	25.35	27.41	26.46	17.97	8.79	200 0 To 100	
Collectives	16.97	15.75	12.84	12.40	23.63	13.33	12.09	4.78
Local Revenue:					- 10 m	V 100000 040		2001 800000
UMCT	4.70	4.37	3.47	3.35	0.00	4.89	4.44	0.00
Agriculture tax	0.19	0.17	0.51	0.49	1.21	0.71	0.64	3.57
Salt tax	0.00	0.00	0.02	0.02	0.81	0.24	0.22	0.20
Other tax revenues	0.55	0.51	0.32	0.31	0.42	0.83	0.75	2.85
,								
Other Local Revenues	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.24
Enterprise remittance	-0.06	-0.06	0.00	0.00	0.00	0.00	0.00	0.24
or loss					0.00	0.00	0.79	0.00
Effluent fee	0.45	0.42	0.61	0.59	0.00	0.88		-0.69
Price subsidy	-0.41	-0.38	0.00	0.00	-1.02	0.00	0.00	
Other revenues	0.29	0.26	0.21	0.21	0.93	1.57	1.43	0.34
xtra Budgetary Revenues								
IC surcharge	_	0.16	-	0.12	<u>-</u> −.	-	0.12	-
PU surcharge	_	1.08	_	0.96	-	_	1.15	_
User charges/institutional	_	0.00	_	2.14	_	-	2.66	-
income								
Central and provincial	-	3.74	-	0.00	-	-	5.10	-
grants Self-generated		0.83	_	0.00	-	_	0.00	-
Other	=	1.40	_	0.24	_	_	0.33	-
Other	=	1.40		0.24				
Total Amount (Y 10,000)	131,923.0	142,161.0	15,458.5	16,012.7	46,449.0	15,306.0	16,886.0	10,142.0
Amount retained (Y 10,000)	38,803.0/	<u>b</u>	5,356.1/c		17,449.0 <u>/c</u>	8,220.0 <u>/c</u>		3,413.0
Percent retained	29.41		34.65		37.57	53.70		32.65

Legend: E&T Funds = Energy & Transport Funds; ad. tax = adjustment tax; IC = Industrial & Commercial; SOE = State-owned Enterprises; UMCT = Urban Maintenance & Construction Tax; PU = Public Utility.

Source: Computed from data provided by Provincial and Municipal officials.

[/]a Including the adjustment tax.

 $[\]frac{b}{b}$ Actual amount retained. Data were supplied by Hangzhou municipal officials. Our approximation would be Y 371.8 milion or 96% of the actual amount retained.

[/]c Approximated. See text.

account for 80% or more of budgetary revenues. This picture does not change significantly when extrabudgetary revenues are considered (see Table 9). Two other interesting patterns may be observed from the data in this table. One is that in two of the five municipalities—Ningbo and Wenzhou—more profits tax was raised from collectives than from SOEs. The other is that provincial and central grants account for a very small share of revenues in these municipalities.

39. When we examine revenue data for all local governments in the Province, a similar picture emerges (Table 10). The sales tax and profits tax shares are about the same for all local governments as for these five municipalities, though collectives are more important revenue generators in the entire province than in these municipalities.

Central Government Taxes

- 40. All taxes in China are central government taxes. Some are actually collected by the Central Government, some are collected by the local government and all collections are assigned to the center, and some are collected locally and shared among the local, provincial and central governments. The question we might address here is which revenue sources does the central government deny to provincial and local governments.
- 41. All customs duties are collected by the Central Government, and the revenues are assigned exclusively to the Central Government. The same is true for sales taxes collected on imported goods and taxes on banks, railways and civil aviation. The Central Government also has an exclusive claim on the revenues collected from centrally owned enterprises, even though the collections may be done by the local government. All remaining taxes are collected by the municipal government and shared with the provincial and central governments.

Table 10: ZHEJIANG PROVINCE REVENUE: 1983-1985

			•		Annual growth rate (%)
Exp	enditure	1983	1984	1985	1983-1985
Tot	al: In 10,000 yuan	406,822	460,698	609,145	22.37
A.	Tax revenue /a	310,580	the state of the second st	666,581	46.50
	Sales tax (3 taxes)	234,539	273,606	376,548	26.71
	Profits tax from SOEs			125,330	
	Adjustment tax from SOEs			17,376	
	Profits tax from collectives	51,558	70,597		44.59
	Wage bonus tax			2,482	
	Other tax	1,742			6.59
	Salt tax	5,188	4,711	6,313	10.31
	Construction tax			6,116	
	Agricultural tax	17,553	18,106	22,652	13.60
В.	Income from enterprise	117,136	114,908	(37,645)	
c.	Price subsidy	(22,313)	(23,681)	(22,368)	#
D.	Other revenue	1,419	962	2,577	34.76
EXH	IBIT: yuan/person				
	Per capita total revenues	102.7	115.4	151.2	21.35
	Per capita (real) total revenues	102.7	111.6	139.2	11.7

[/]a Estimates on UCMT collections were not supplied.

Source: Data provided by provincial government officials.

Shared Taxes

42. Most taxes are shared between the local government and the Province. The most important of these are sales taxes and taxes on profits. The other locally collected and shared taxes that are of some importance in Zhejiang Province are the construction tax, energy and transportation tax, and the wage bonus tax. Each of these is discussed below in terms of the structure of the tax and the sharing arrangement which determines the amounts of revenue that will become available to the municipality.

- 43. Taxes on Profits and Retained Earnings. The most important revenue source for local governments in China is the profits tax. It is levied on the gross profits of SOEs, collectives, and private businesses according to three different rate schedules. 20/ A flat rate of 55% is applied to large and medium sized SOEs, and a graduated rate schedule which rises from 7% for firms with profits less than Y 300 to 55% for firms whose profit is greater than Y 80,000 is applied to smaller SOEs. Private businesses are also taxed according to a graduated rate schedule.
- In addition to the general profits tax, there is an excess profits tax, known as the "adjustment tax." At the first stage of the switch from a remittance to a tax system in 1983, the adoption of a 55% rate would have created some inequities. Enterprises selling products with relatively high fixed prices and those which have benefitted heavily from past government investment (e.g., those with well developed and modern plant and facilities) could be argued to earn "excess" profits. The government attempts to tax most of these excess profits away, according to a complicated rate determination which must be carried out for every liable enterprise. The process for determining the amount of tax is described below with the help of a hypothetical example.
- 45. Suppose that in 1983 a firm earned Y 100 in revenues and made gross profits of Y 60 (rows 1-3 of Table 11). If required remittances were Y 50, the profit retention rate would be 10% of gross revenues. Now suppose that the firm's revenue and cost position increased by tenfold between 1983 and 1986 (rows 1-3). With the introduction of the 55% profits tax, the retention rate would increase to 27% of gross revenues. The adjustment tax is set at a

^{20/} The tax rate and base is described in some detail in World Bank, China's Fiscal System: Recent Trends and Issues, April 30, 1986.

rate to wipe out this advantage—in this hypothetical example, a 63% tax on 1986 retained earnings (about 20% on gross profits) would drive the retention rate back to its 1983 level of 10%. However, this rate is only applied to 70% of net profits, hence the retention rate would fall only to 15.1% in this example. In practice, the adjustment tax is reported to have an average rate in the 15-30% range. It also was suggested that there is an element of negotiation in the determination of the adjustment tax for each firm.

Table 11: PROFITS TAX AND ADJUSTMENT TAX FOR A HYPOTHETICAL FIRM

	1983	1986	
1. Gross revenues	100	1,000	
2. Allowable costs	40	400	•
3. Gross profits	60	600	
4. Remittance	50	-	
5. Profits tax	_	330	
6. Retained earnings	10	270	
7. Retention a rate	10%	27%	
8. Earnings subject to adjustment tax	_	189	
9. Adjustment tax (rate = 63%)	_	119	
10. Retained earnings	_	151	
11. Retention rate	-	15.1%	

- 46. A third component of the profits tax is a 15% tax rate on retained earnings. This tax is earmarked for central government energy and transportation projects and only a small amount of the revenue is retained by the municipal government. It is, however, assessed and collected by the municipal government.
- 47. To summarize in terms of the example, shown in Table 11, the 1986 situation is as follows:

Gross profits	600
Profits tax	330
Adjustment tax	119
Central E & T fund	23
After tax profits	128

The tax rate on profits from these taxes alone is nearly 80%.

- 48. Tax assessment and collection is the responsibility of the municipality, and to a lesser extent its districts. The bulk of the administrative responsibility belongs to the municipality and they collect most of the revenues. 21/ Districts collect from their own enterprises and collectives, and in some cities they have been given responsibility for assessing and collecting the tax from all private sector businesses. As is suggested by the rough estimates in Table 1, districts generally collect less than 20% of all tax revenues.
- 49. The municipalities, districts, province and Central Government all share in the revenues collected from the profits tax. Local-provincial sharing is determined by the provincial government in the form of a set of allocation formulae, and provincial-central sharing is determined by the central government. A summary of the arrangement is presented in Table 12, but some elaboration about a few important points are necessary.
 - (a) The government may not share in the profits tax revenues of a business owned by a higher level government. For example, the municipality has responsibility for collecting the tax from provincial and central enterprises, but it may not share in these revenues. The province, however, shares in the revenues collected from municipal enterprises, etc.
 - (b) The sharing formula first attempts to protect the level of local government expenditures in 1983 and the level of remittances made to the province as of 1983. It then allows a 70/30 municipal/provincial sharing on any increments. 22/Since suburban districts have recently been given taxing authority, they do not participate in the 1983 rule but share with the municipality on a 50/50 basis.

^{21/} The county assumes this responsibility outside the city proper area.

^{22/} The 70/30 split is the most common among the municipalities we visited in the Province.

- (c) The base of the profits tax is reduced by preferential tax treatment for certain enterprises, and these tax preferences may be granted by the provincial government. For example, the tax rate on public utilities and on services is held to a maximum of 15%.
- (d) The general terms of sharing arrangement between provinces and counties is the same as that between provinces and cities.

Table 12: TAX AND TAX SHARING ARRANGEMENTS FOR PROFIT AND ADJUSTMENT TAX

	District government	Municipal government	Provincial government	Central Government
TAX BASE: PROFITS OF	Suburban	Municipal and	Provincial	Central
PROFILE OF	district owned enterprises collectives and	suburban district owned enterprises and collectives	owned enterprises and collectives; and all taxes	owned enterprise and all
	all private businesses		collected or profits received	profits taxes
	4.8		by the municipal government	collected in the Province
DISCRETIONARY REDUCTIONS IN BASE	Public utilities	and services are taxe	d at a maximum rate	of 15%
SHARING	1. Shares 50% of	1. Receives 50%		1. Receives
ORMULAE	collections with the	of suburban district		45% of all pro-
	municipality	collections	*	fits taxes
				collecte in the Province
		2. The difference between 1983 revenues col- lected and "adjusted" 1983	2. Receives the difference between 1983 revenues and adjusted ex-	
		expenditures is remitted to the Province. The	penditures from every local govern-	
	¥	base amount is retained by the municipality	ment, except for those given special treatment	
	8	3. Keeps 70% of the increment in revenues	3. Receives 30% of the increment in revenues ove	
	*	over 1983	1983, from all local governmen except those gi special treatme	ven

- (e) Local governments in Zhejiang Province receive little revenue from either the salt tax or the natural resource tax. If they did, however, the sharing arrangement would be the same as in the case of the Profits tax.
- (f) Suburban districts have been given authority to collect all taxes from private businesses in the municipalities studied. This is shared with the municipality on a 50/50 basis.
- 50. It should be noted that these general sharing rules do not hold for every local government in the province, e.g., at the option of the province, a muncipality or a county could be allowed to keep all profits tax collected. This points up an important feature of Chinese intergovernmental fiscal relations: that the provincial government can freely alter the sharing formula. Indeed, it was pointed out by provincial officials that the sharing percentages do vary among local governments depending on their level of economic development.
- on specified uses of retained earnings by enterprises. Neither are particularly strong revenue producers, and both seem designed to achieve allocative goals. The wage bonus tax is meant to discourage the use of aftertax profits to pay excessive wage bonuses and the construction tax to penalize certain types of (extrabudgetary) construction investment by enterprises.

52. The potential bases against which these taxes might be levied are strictly defined by central government regulations. This might best be illustrated by returning to the above hypothetical example. The situation in this example was an after-tax retained earnings of 138, i.e.,

Gross profit		600
Profit and adjustment tax		449
Net profit	•	151
Energy and transportation tax		$\frac{23}{138}$
Retained earnings		138
Allocation of retained earnings:		
Capital investment		82.8
Employee welfare		27.6
Wage bonus		27.6

Now, we may note that the state requires these retained earnings to be allocated 60% for capital investment purposes, 20% to improved employee welfare, and 20% to wage bonuses.

53. Wage bonuses are not taxed unless the bonus exceeds four months pay. The tax rate is 30% of the bonus for a bonus equivalent to 4 to 5 months pay, 100% for 5 to 6 months equivalent, and 300% for more than 6 months equivalent. There are, however, many exemptions and a special set of rules applies to nonproductive enterprises. 23/ The wage bonus tax is assessed and collected by the municipality. The district makes collections from its enterprises but passes the full amount on to the municipality. The sharing of wage bonus tax is 52% of total collections retained by the municipality and 48% passed on to the province.

^{23/} The national accounts defines "productive" activities in terms of activities in certain sectors (agriculture, commerce, transportation, construction and industry). All other activities—e.g., education, health, etc.—are classified as "nonproductive."

- The construction tax is part of the Central Government's program to control certain types of extrabudgetary capital construction. Planned construction, financed by grants, or "nonproductive" capital construction is exempt from tax. Otherwise, a tax rate of 10% is applied to all capital construction expenditures made from retained earnings—including any expenditures on housing made from the employee welfare allocation from retained earnings. The construction tax is administered by the municipal government but all revenues are turned over to the province.
- 55. <u>Sales Tax</u>. China has a uniform national sales tax, administered by municipal and county governments. 24/ This is the most productive tax in the system but its revenues accrue primarily to the provincial and central governments.
- 56. In its present form, the sales tax is relatively new and still evolving from the extended excise system that it had been. 25/ It has three components. The first, the product tax, is a gross receipts tax on commodities produced or imported. About 360 rates are applied to 22 categories and 213 subcategories of goods, though most of the rates are in the 5-10% range. The product tax alone yields about one third of all national revenues. The second component of the sales tax, the operations tax, yields about 15% of national revenues. This is essentially a sales tax on services and on retailers, is charged on a gross receipts basis for most activities (a value-added base for wholesaling) and is levied at rates ranging from 3% to 15%. The third component, the value added tax, accounts for only 9% of total

^{24/} An advanced sales tax on imported goods is assessed, collected and kept by the central government.

^{25/} A more complete description is in China's Fiscal System.

revenues and is presently levied on 12 sectors of the economy. $\frac{26}{}$ An enterprise will pay only one of these three taxes.

- 57. The sales tax is primarily assessed and collected by the municipal government. The suburban districts assess and collect the sales tax on their own enterprises and on private businesses, and pass the shared amount of revenue on to the municipality. For the most part, the tax is applied in the ad valorem form, but for small businesses with inadequate books of account, flat charges and even stall rentals are used.
- The sharing of sales tax revenues does not favor municipalities and counties. From total revenues collected in any year, an amount equivalent to the previous year's collection will be turned over to the provincial government. Of any increment over the previous year's collections, 5% may be retained by the municipality in the case of Hangzhou and Ningbo, and 10% in the case of Shaoxing, Wenzhou and Quzhou. The remainder of the increment is turned over to the province. The sales tax is revenue productive but local governments would appear to share very little in this revenue productivity. Local Taxes
- 59. Revenues collected from a few taxes are assigned totally to the local government doing the collecting. Rates and base definition, however, are not under local control. The local taxes account for a very minor share of total local revenues, as may be seen from Table 9.

^{26/} Industrial machinery, agricultural machinery, trucks, steel, fans, bikes, sewing machines, medical pills, textiles, electronics, thermos bottles and pottery.

- The Urban Construction and Maintenance Tax (UCMT). The UCMT is set at 7% of total sales tax liability for municipalities (5% for towns and 1% everywhere else). The tax accrues entirely to the municipal government, is earmarked for the urban construction and maintenance account, and is collected from all enterprises (municipal, provincial and central). It is not a big revenue earner in any of the municipalities under study here in that it accounts for less than 5% of total revenues in the four cities reporting (Table 9).
- 61. If we narrow our concern to the financing of urban construction and maintenance expenditures—as defined by MURCEP—the UCMT assumes a role of much greater importance. Moreover, MURCEP reports than Zhejiang's municipalities have done relatively well with this tax. Of over 300 cities collecting UCMT in 1985, only 18 have surpassed a collection rate of 70 yuan per person. These include Hangzhou at Y 78.20, which was 12th highest in the country. To give an idea of Zhejiang's success with this tax, the following are per capita collections and rankings among the cities which levy UCMT:

 Ningbo, Y 64.80 (24th); Shaoxing, Y 54.60 (42nd); Quzhou, Y 38.40 (95th); and Wenzhou, Y 24.60 (160th).
- 62. The Bed Tax. The City of Hangzhou receives all revenues from a bed tax equivalent to 10% of the value of the hotel room charge. The city of Ningbo also made application to levy this tax, but was turned down.
- The Property Tax. Local governments in Zhejiang may levy a property tax, equivalent to 18% of the annual rental value of residential and certain nonresidential properties. Most business enterprises are exempted from the tax, but nonproductive enterprises are liable. The tax assessment is notional, and carried out jointly by the municipal and suburban governments.

In fact, few of those liable pay this tax and a negligible amount of revenue is collected.

- Extrabudgetary Revenues. Another source of revenue for local governments, earmarked for capital purposes, are extrabudgetary funds. There are presently four such revenue sources whose amounts are not reported in the municipal budget. In Hangzhou, these account for 7.2% of total municipal (budgetary plus extrabudgetary) expenditures and in Shaoxing and Wenzhou they account for 3.4% and 10%, respectively.
- 65. Two sources of extrabudgetary funds, self-financing and external grants, are discussed below. The other two important sources are the public utility surcharge and the industrial and commercial tax. The former is a 10% tax on the utility bills on consumers. The revenues go directly to the collecting utility, and are earmarked for capital expenditure purposes. The industrial and commercial tax, a 5% surcharge on industrial and commercial profits, was replaced by the UCMT in 1985.

F. User Charges $\frac{27}{}$

66. The public utilities attempt to recoup a substantial portion of costs through user charges. Unfortunately, we do not have the data to make a good estimate of the percent of total costs recouped by user charges. We can but speculate about the possibilities for recoupment under the system as it presently exists in China. The most important question is whether user prices can be quickly and easily changed to better reflect the marginal cost of operating the enterprise? The answer is both yes and no. Within limits set

^{27/} The financing and charging structures of water supply and transportation services are taken up in other annexes to the Sector Report.

by the Central Government, the municipal government can increase rates.

Approval from neither the center nor the province is required. Despite this ease in procedure, however, user charges have not changed frequently. For example, the rates for residential water use in Shaoxing and Hangzhou have not been increased for more than a decade.

G. Borrowing, Grants, and Self-Financing

- 67. Capital projects in urban areas around the world are commonly financed with some combination of capital grants, loans and beneficiary charges (self-financing). Many types of current expenditures, especially those with substantial external benefits are also commonly supported with grant financing from the central or provincial government. China is quite different in that it has no regular grant program to support capital projects or current expenditures (all grants are on an ad hoc basis); there is no mechanism or formal program for lending to local governments; and there is neither central government authorization nor leadership in helping local governments to develop beneficiary financing schemes.
- 68. The absence of central or provincial government direction in this area, however, does not mean that variants of these financing methods are never used. In fact, there are grant programs at the central and provincial government levels but they are ad hoc, i.e., they are related to particular projects or objectives and cannot be counted on as a regular flow by the local governments. As may be seen from Table 9 above, grants are a minor source of revenues for the municipalities under study here.
- 69. None of the five municipalities had any loans outstanding for general government purposes. Moreover, officials in most municipalities

stated that local governments were not permitted to borrow. Yet among these cities and some smaller towns, we did find evidence of some use of borrowing and self-financing schemes. The following are illustrative of the kinds of capital financing programs that have developed.

- Ningbo reports that the water company has bank loans outstanding but the gas and bus companies do not because they would not have the capacity to repay the loan. Essentially the same story was reported in Quzhou.
- Shaoxing has a loan outstanding from the Construction Bank (0.4 million Yuan) with a two year maturity.
- Wenzhou acknowledged that the municipal government can borrow for nonproductive activities such as schools, but this is done only for small projects. There seems to have been some history of borrowing from the banks where the bank helped prepare the project and the local government was responsible for repaying the loan.
- Hangzhou officals also stated that local governments have no general borrowing powers but noted that it was possible to mix loan finance and beneficiary financing for special projects. They illustrated the possibilities with three examples in the Hangzhou area. The first is a township "scenery spot." The project, carried out by a district, was to build a road to make this area accessible. The funds for building the road were supplied in the form of loans from

enterprises and from some individuals. A charge was then imposed on parking and road use, on the use of the grounds near the scenic spots for restaurants, etc. This revenue was used for maintenance of the road and to repay the loans from the individuals. No statistics were available on the repayment rate or the overall success of the project. A second project is a municipally financed scheme to build and operate a ferry below a crowded bridge near the city. Financing is from a combination of a grant and loan to the municipal engineering company for construction of the ferry, and from user fees. A third project is a municipal gas plant. The financing involves the municipality borrowing the monies from the enterprises in return for promising a reliable supply of natural gas.

70. There was scattered evidence of the use of benefit charges in several of the local authorities visited. For example, Wenzhou supports bridge construction with tolls, the town of Baixiang is able to charge a per unit fee for housing construction completed, and there are some turnkey projects wherein enterprises construct a public facility and turn it over to the local government for operation. These are interesting and apparently workable innovations, and have not been carried out under a well-defined central government program. They might be viewed as the beginnings of an experiment to devise alternative methods of local government financing.

H. Intergovernmental Fiscal Relations

71. There are three important dimensions to the system of intergovernmental fiscal relations in China. The first is provincial-central government relations, and includes both tax sharing and the flow of grants and subsidies. The second is the system of provincial-municipal tax sharing which was outlined above. The third is the system of horizontal fiscal relations within the province, the method by which the provincial government allocates fiscal resources among its counties and municipalities. As will be seen below, these three dimensions are closely interrelated.

Central-Provincial Relations

72. The Central Government determines that a specified share of all taxes collected in each province is to be passed to the Central Government. 28/
The share is determined by a central formula which has two elements: (a) the difference between total taxes collected in the province and total provincial and local government expenditures as of the 1983 base year should be turned over to the Central Government, and (b) 30% of the increase in taxes since 1983 should be turned over to the Central Government. The application of this formula to Zhejiang Province leads to a sharing arrangement under which 45% of revenues collected in the province are turned over to the Central Government and 55% is retained. As may be seen from Table 13, the sharing ratios vary widely across provinces and Zhejiang

^{28/} Excluding, of course, central government taxes which are passed directly to the Central Government in their entirety. Also it should be noted that some provinces are not covered under this formula system. For a description of the alternative methods, see World Bank, "Local Government Finance, Intergovernmental Fiscal Relations and Revenue Sharing in China" May 29, 1986.

Table 13: CHINA: THE CENTRAL-PROVINCIAL SYSTEM OF REVENUE SHARING, 1985/a

Provinces and regions	Fixed percentage of total revenue retained by province (%) 1986		Province retains all own revenue and receives fixed amount from the center (in Y mi	all own revenue and pays fixed amount to the center	
North China					
Beijing	49.6	-	_	_	
Tianjin	39.5	-	-	_	
Hebei	69.0	72.0	-	_	
Shanxi	97.5	-	-	. -	
Inner Mongolia	(-	1,783 <u>/b</u>	(4	
Northeast China					
Liaoning	32.7	_	-	-	
Jilin	-	_	397	-	
Heilongjiang	91.0	-	-	_	
East China					
Shanghai	-	-	-	· —	
Jiangsu	40.0	41.0	-	-	
Zhejiang	55.0	_	-	-	
An Hui	80.1	=	-	第	
Fujian			235		
Jiangxi	-	_	239	_	
Shandong	59.0	-	_	-	
Central/South China					
Henan	81.0	-	-	- ,	
Hubei	66.5	-			
Hunan	88.0	-		778	
Guangdong	-	-	716 <u>/b</u>	_	
Guangxi	-	-	-	-	
Southwest China					
Sichuan	89.0	-	7.07	-	
Guizhou.	-	-	743/b	-	
Yunnan	-	-	637/5	_	
Tibet	-	-	750 <u>75</u>	-	
Northwest China			070		
Shaanxi	=		270	-	
Gansu	-	-	246	-	
Qinghai	_	-	611/b	_	
Ningxia	-	_	49475		
Xinjiang	-	-	1,450 <u>75</u>	_	

 $[\]frac{/a}{}$ These arrangements govern revenue sharing between the central government and the Provinces for five years beginning in 1985.

[/]b Minority areas receiving larger transfers from the Central Government.
Source: Ministry of Finance.

Province retains a relatively small share. (Only Beijing, Tianjin, Liaoning and Shanghai retain smaller shares.)

73. The sharing ratio serves another important function in that it gives the province a target for total expenditures of all its local governments. From this allocation of 55% of locally raised revenues, Zhejiang Province must decide on its own budget, as well as the level of expenditures for each local government in the province. One of the decisions the provincial government must make the amount of funds it wants available for ad hoc distribution among all local governments in the Province.

Vertical Tax Sharing: Provincial-Local

- 74. The province has set general rules which define the sharing of revenues among the provincial, county and municipal governments. The basics of this sharing arrangement are described above and summarized in Table 12.
- 75. It was not possible to obtain information from each municipality on the exact amount of revenue retained and the amount passed forward to the province. We can, however, get some idea of these amounts from data supplied by Hangzhou municipality. As may be seen from Table 9, Hangzhou collected Y 1,319 million in taxes and retained Y 388 million in 1985, i.e., 29.4% retained and 70.6% remitted. This likely is toward the high end of the rate of tax remitted by local governments in Zhejiang, but only Hangzhou submitted data that enabled us to make this computation. The retention rates for the other four municipalities can be roughly approximated by substituting budgetary expenditures net of grants for taxes retained. Ningbo has the same sharing formulae as Hangzhou, hence we would expect about the same retention/remittance rate. In fact, the estimated retention rate is 37.6% in

Ningbo, perhaps higher than might be expected. 29/ We can estimate the expected lower retention rate in Shaoxing and Quzhou (vs Hangzhou) where 10% of incremental sales taxes may be retained. Both cities retain about one third of what they collect (see Table 9). The city of Wenzhou is also allowed to retain 10% of incremental sales taxes and receives a favored treatment on its profit tax collections. As a result, we estimate that Wenzhou remits less than half of the tax that it collects (See Table 9).

76. These data are for only five municipalities out of a total of 78 local governments in the province: In total, there are 7 municipalities, 68 counties, and 3 county-level cities in Zhejiang. These 5 municipalities together account for 17% of expenditures made in the Province and 59% of revenues collected. 30/

Horizontal Sharing: Provincial-Local

- 77. Another important dimension of intergovernmental relations is the degree to which the provincial government redistributes taxable capacity, e.g., from rich to poor counties or from urban to rural areas. This feature of the intergovernmental system might be referred to as horizontal sharing.
- 78. The Province has two fiscal tools which it can use to redistribute fiscal resources. The most powerful is that it may vary the tax sharing ratios for each local government, apparently without central government approval. For example, the municipality of Wenzhou was permitted, by Provincial order, to retain a greater share of its profits tax collections

²⁹ Part of Ningbo's higher tax retention rate is due to its lesser degree of reliance on the sales tax, which is remitted to the province at a much higher rate than the profits tax.

^{30/} The amounts for municipalities in the computation exclude public utilities and extrabudgetary accounts.

than were other municipalities. As a result, Wenzhou retained 53% of all taxes it collected in 1985, by comparison with about a one-third retention rate for the other municipalities. The explanation given for this arrangement was that Wenzhou is relatively poor, has very few state-owned enterprises and therefore must rely heavily on smaller collectives and private firms to generate revenues. Wenzhou is only one example. Provincial officials also acknowledged that the profits tax sharing rate differs among the counties, as does the sales tax sharing rate. The sales tax sharing rate varied only slightly among the cities under study here but provincial officials noted that the rate actually varies "from higher income areas turning it nearly all over to lower income areas keeping it all." The decisions about tax sharing rates are made on an ad hoc rather than a formula basis.

- 79. The second tool available to redistribute fiscal resources within the Province is grants and subsidies. There are two dimensions to any grant program: the method used to determine the size of the total grant fund, i.e., how much is available for distribution; and the method used to distribute the grant amongst eligible local governments. Central and state or provincial governments in industrialized and low income countries use several different formal and informal methods to decide on these two components of the grant system. Zhejiang Province in China does not use a formal method to make either decision. The grant program for local governments is purely an ad hoc affair and is changeable from year to year.
- 80. How large is the grant pool which the provincial government has available to distribute each year? We might make a rough estimate. If all municipal and county governments shared taxes at the same rate as the municipalities under study here, the provincial government would have discretionary

funds equivalent to roughly Y 1,300 billion. 31/ It could use these funds to finance its own activities and to redistribute resources to local governments. Of course this results is somewhat hypothetical because all local governments do not remit taxes to the provincial government at the same rate, because some local government are given subsidies in the form of a preferential sharing rate. We could obtain no firm estimate of actual total remittances to the Province but can guess that discretionary funds are likely in the neighborhood of 20% of all revenues collected in the Province.

81. Whatever amount is available, the principle for distributing it within the Province is equalization, i.e., "to stimulate economic development in the poorer areas". Three considerations are important in determining the actual distribution. The first is location in a backward area. Of Zhejiang's 68 counties, 16 are defined as showing relative "backwardness". 32/ The second is special expenditure needs, e.g., due to remoteness or unfavorable terrain. The third is the economic development trend in the past few years. The Province claims that they do have per capita income estimates for each municipality and county, but they do not use these in making the grant allocations. They rely instead on "expert judgment" to guide their equalization efforts.

^{31/} Calculate this as follows. A total of Y 6,071 billion in revenue was collected in the province. Assume that the local governments keep one third (Y 2,003 billion) and the province gets the remainder (Y 4,067 billion). Now the province must pay over 45% of total collections to the Central Government (Y 2,731 billion), leaving Y 1,335 billion for provincial purposes.

^{32/} The Central Government has a poverty criteria, but none of Zhejiang's counties fall below this line. The Province used its own approach to identify the 16 backward counties.

III. PROBLEMS AND ISSUES IN ZHEJIANG'S MUNICIPAL FINANCES

- 82. Like any system of local finance and intergovernmental fiscal relations, the Chinese system has great strengths and weaknesses. If reform is necessary, then one wants to identify the problems to be remedied and design changes that will not compromise the strengths of the system. This analysis, some earlier studies, and interviews with local and national officials in China have pointed up four areas of concern:
 - (a) The adequacy of revenues and revenue growth,
 - (b) Undesirable effects on resource allocation created by biases in the tax structure and tax sharing system,
 - (c) Tax administration weaknesses, and
 - (d) Inadequate monitoring and planning of local government finances.

A. Revenue Adequacy

83. Revenue adequacy is not so easily defined. It is always true that there is too little tax money to satisfy public service desires. On the basis of information gathered during this field visit we can say little about whether the present rate of current expenditures is generating a "proper" level of public (general government) services. To answer that there is underspending for general government services is to argue that taxes are too low or there is not enough debt or too much is being spent on subsidies to people or for industrial development. These are normative issues and can be only addressed in terms of government policy. This paper will ask two, more

modest, positive questions. Is the level of general government infrastructure expenditures seen by authorities to be too low, and has the growth in general revenues kept pace with the growth in population, prices and income?

Infrastructure Needs

- 84. The provincial government takes the position that there is a large backlog of unmet infrastructure needs, and points out the substantial diversity in per capita spending across municipalities in the province. It would appear from this evidence that there is a need to mobilize more resources for general government infrastructure services and that the need is greater in some areas of the province than in others. $\frac{33}{}$
- 85. We can say more about the adequacy of the present rate of capital expenditures by Zhejiang's municipalities, based on estimates made by MURCEP. It is important to note that these estimates relate only to MURCEP activities which include expenditures in cities for public utilities, urban planning and all activities under the urban construction bureau (parks, sanitation, environmental protection, etc.). 34/ Nevertheless, they do indicate a substantial shortfall in revenues available to meet capital infrastructure needs.

^{33/} The problem of urban infrastructure shortage is discussed in Jun Zhang,
Urban Construction Reconsidered. China's Cities: Issues and
Solutions. The World Bank, June 1986. The problem in Zhejiang Province
is discussed in "Communique on Fulfillment of Zhejiang's 1985 National
Economic and Social Development Plan" issued on March 15, 1986 by the
Zhejiang Provincial Statistical Bureau.

^{34/} MURCEP estimates do not include towns (only cities) and cover about .
120 million in urban population.

86. MURCEP has worked with the province to develop a projection of the capital outlay needs of urban areas in the Zhejiang. They project that over the next 5 years, urban area capital needs are Y 1.6 billion. Of this amount, financing of Y 1.0 billion has been identified, hence a financing gap of Y 0.6 billion (38%) remains. By comparison, MURCEP estimates the financing gap for the entire nation at only 25%. Even with this larger gap, however, Zhejiang's municipalities spend more in average per capita terms for capital purposes than do those in the rest of the nation. The MURCEP estimates presented in Table 14 show that three of the five municipalities under study here are spending at a rate above the national average.

Table 14: ESTIMATED PER CAPITA URBAN CAPITAL EXPENDITURES /a
IN 1985: SELECTED CITIES IN ZHEJIANG AND THE NATIONAL AVERAGE

**	Per capita
City	amount
	(in yuan)
Hangzhou	70
	60
	55
	25
Quzhou	. 38
National average	42
	Hangzhou Ningbo Shaoxing Wenzhou Quzhou

/a MURCEP definition.

Source: Data supplied by MURCEP.

87. A related issue is the possibility of inadequate expenditure for maintenance of the capital stock. No data were readily available to estimate Zhejiang's maintenance expenditure needs, but MURCEP did supply some idea of the national problem. Their estimate is that annual maintenance expenditures

are 1% of the needed amount for housing, 25% for roads, and 32% for drainage pipes. For these three items alone, the gap amounts to 1.88 billion yuan. 35/ Even allowing for the possibility that standards have been overestimated, the indication is that maintenance expenditure needs may be substantial.

- 88. Finally, there is a substantial list of anecdotal, impressionistic and indirect evidence about capital expenditure needs.
 - (a) Every city visited had prepared a statement of more or less urgent capital construction needs;
 - (b) There are, in fact, very few sources of capital finance;
 - (c) There seemed to be a consensus at the central level that urban construction finance was a major issue and steps were being considered to earmark a new tax source;
 - (d) Extrabudgetary financing is permitted, but apparently only if designated for capital financing.
- 89. This evidence leads to the general conclusion that there is need to somehow mobilize more resources to deal with unmet public servicing needs.

^{35/} Information supplied by MURCEP, September 1986.

Revenue Growth

- There also is the question of satisfying the growth in expenditure 90. needs, i.e., the second part of the adequacy question is whether revenue growth is responsive enough to income growth and inflation to keep pace with the growth in demand for public services. In short, have local governments in Zhejiang been keeping up with expenditure needs or are they falling further behind needs? The answer to this question depends on how fast expenditures should grow. This is another normative question that we cannot answer. What we can do, however, is offer two benchmarks against which to compare the actual growth in revenues and expenditures. One is population and prices, i.e., to argue that at a minimum, public expenditure growth (and therefore public revenue growth) should remain constant in real per capita terms. other is income, i.e., to argue that the demand for public services responds about in proportion to income growth and therefore that expenditures should grow at least in proportion to income. The question we now raise, then, is whether revenue growth in these five municipalities has matched the growth in population, prices and income.
- 91. This question cannot be easily addressed in a statistical analysis because the trend of tax revenue growth in China in recent years reflects discretionary changes as much as automatic growth. A new profits tax, a revised sales tax system, and a change in the local tax sharing formulae all have occurred in the past few years. In short, one cannot tell how much of the past revenue growth reflects the adequacy (built-in growth) of the revenue system and how much is due to legal changes in the tax system. These measurement problems notwithstanding, there are indications that revenue growth is inadequate. The World Bank estimates the buoyancy $\frac{36}{}$ of the

profits tax--the major local government tax--at less than 0.5, a rate that would not support an expenditure growth that kept up with income growth. They estimate a higher bouyancy for the entire tax system (0.87), but still the indication is that taxes are growing more slowly than income. Even though this evidence is drawn from a national analysis, it does cause some concern about the viability of the profits tax as the major source of revenue support for local governments.

- 92. Another approach to studying the adequacy of revenue growth is to use the very limited data available for Zhejiang Province to estimate the amount of expenditure growth that was actually supported by the tax and transfer system in recent years. We can estimate an expenditure-income elasticity of unity for all local governments in the province between 1983 and 1985, i.e., expenditures grew almost exactly in proportion to the increase in income earned. It is not likely that this conclusion holds for the urban sector where income growth was probably much higher. The limited data available indicate that these five municipalities actually did increase expenditures in real per capita terms, but probably did not keep pace with personal income growth. 37/
- 93. To the extent that one can reach any conclusion from so limited a data set, it would have to be that revenue growth does not keep pace with local income growth. There is a reform need, then, to increase the

^{36/} The buoyancy is the percent increase in observed tax revenue divided by the percent increase in incomes. The elasticity is this same ratio, calculated after the revenue impacts of discretionary changes have been netted out.

^{37/} We must say "probably" because we do not have a time series of personal-income estimates for each municipality.

responsiveness of the profits tax to income growth, to find other more income elastic local financing sources or to plan a more modest growth in local government expenditures. The first step toward a reform that would lead to a more elastic tax structure is to search for an explanation for the inadequate growth in revenues from the present profits and the sales tax structure. We can compute an elasticity of 0.9 on the sales tax in Zhejiang between 1983 and 1985.38/ That is, for every 10% increase in income there was a 9% increase in sales tax revenues. One explanation for the inelasticity is that the tax base itself is not buoyant, i.e., that taxable sales are not growing in proportion

 $[\]frac{38}{}$ The World Bank estimates the buoyancy of China's indirect tax system at 1.18 for the 1980-1985 period.

to income. 39/ This seems improbable in the case of sales taxes because the tax base is essentially total consumption and production, and should grow as fast as income. However, inelasticity could result from a growing amount of legal exemptions of taxable sales from the base or from administrative difficulties in taxing all sales. The problem may also lie with the

$$T = a + bY \tag{1}$$

where T is tax revenue and Y is income, we may define the revenue-income elasticity (E) as

$$E = \frac{dT}{dY} \frac{Y}{T} \tag{2}$$

or, the percent change in tax revenue divided by the percent change in income. We may also specify

$$B = e + dY$$

$$T = e + fB$$
(3)

where B is the tax base. By substitution,

$$B = e + fc + fdY \tag{5}$$

which reduces to

$$E = \frac{dT}{dY} \frac{Y}{T} = \frac{[(dT)}{[(dB)} \frac{(B)}{(T)}] \frac{[dB}{[dY]} \frac{Y}{B}]}{[(6)}$$

Now we see that the income elasticity is the product of a "rate" and "base" elasticity. The first term, the rate elasticity, is the percent increase in taxes that results from a one percent increase in the tax base. The rate elasticity will be unity for flat rate taxes, greater than unity for progressive rate taxes (because of bracket creep), etc. The second term is the base elasticty, i.e., the percent increase in the tax base that is associated with a 1% increase in income.

^{38/} It is useful to think in terms of a rate and base elasticity of tax revenue growth. We can define these in terms of a simple set of tax functions. If we specify

complicated rate structure and the possibility that faster-growing components of total sales are taxed at lower rates. The revenue growth of the profits tax is more difficult to analyze because it has only recently been introduced in place of a remittance system. In terms of revenue growth, there has been a substantial increase since the introduction of the tax in 1983, but it does not follow that the "automatic" percentage increase in revenues is greater than that in income. In fact, there are some features of national economic growth that cause some concern about the growth prospects of the profits tax base. The mainstay of the tax base is the state-owned enterprise sector, whose share in the national economy has decreased. The collective and private sectors will be much harder to tax in an administrative sense. Other potential compromises to the tax base are that price reforms may have reduced the average rate of profits, and wage increases have been greater than labor productivity increases.

94. Another potential problem is the difference between the elasticity of the profits tax base and the local government profits tax base. We can say that these elasticities will be different, but we cannot say by how much or in which direction. We can, however, acknowledge some forces which potentially cause this difference. If the base of the profits tax is growing slowly because heavy industry profits are growing slowly, then the municipal tax base will not be hurt as much in cities where a substantial number of heavy industry SOEs are centrally or provincially owned as in cities where the municipal tax base is dependent on heavy industry. In our sample, for example, Hangzhou and Quzhou are heavily revenue dependent in SOEs, whereas Wenzhou is not. If there is a shift in the profits tax base toward collectives and the private sector and away from heavy industry, local

governments would experience a stronger growth in their base than would the Central Government. An opposing effect is that since smaller firms and the private sector are taxed at a lower rate, hence the shift away from the heavy industry sector could compromise the elasticity of the local profits tax.

- 95. In fact, gross industrial output in the SOE sector nationally grew by 7.2% per year between 1980 and 1984, whereas the collective sector grew by 12.9% annually. By 1984, collectives produced Y 0.34 of output for every one yuan produced in the SOE sector. $\frac{40}{}$
- 96. Yet another compromise to the local profits tax revenue growth is that the provincial government may offer preferential tax treatment to certain firms or sectors, e.g., Zhejiang province taxes utilities and service firms at preferential 15% rate.
- 97. Another explanation of the inelastic performance of revenue yield is that while the legal tax structure should generate an adequate revenue growth, the tax administration is weak and this growth is not captured. One potential advantage of the local profits tax is that its base includes the more rapidly growing collectives and private (household) sector, but this is also a potential disadvantage since these firms are probably harder to tax. If this is true, and if enforcement of the profits tax is not adequate, then the growth in collections will be dampened. Similarly, sales that take place among smaller collectives and private firms are the most difficult to police and may fall out of the tax net. The broader issue of tax evasion is taken up below.

^{40/} State Statistical Bureau Statistical Yearbook of China, 1985.

B. Tax Prices and Resource Allocation

98. The Chinese system of taxation and tax sharing includes a number of penalties and incentives that might draw out actions from businesses and local governments that would be undesirable. We refer to these incentives and penalties as "prices" because they change the cost of one activity or decision relative to all others. We cannot document the extent to which responses to these price effects are actually taking place, other than with impressionistic or hearsay evidence, but guided by theory we can point out the direction of the possible impact of these "tax-price" distortions in the fiscal system.

The distortions we consider here are those which may effect the incentive to efficiently collect taxes, to undertake capital construction, and to earn profits. There also are questions about whether the present system introduces penalties that retard decentralization of government decision-making and whether it provides incentives that promote economic and population decentralization within the metropolitan area.

Incentives to Collect Taxes

99. The tax sharing system in China presents provincial and municipal governments with a set of implicit prices that may effect their tax administration efforts. The provincial government must pass 45% of the revenues collected in the province to the Central Government. Municipalities normally keep about one third of what they collect, but a greater share is possible depending on what has been negotiated between the local government and the province. Even more important in the case of municipalities is the fact that they may keep 70 fen of each "marginal" yuan of profits tax collected, but only 5 to 10 fen of each "marginal" yuan of sales tax revenue collected. Finally, it should be noted that the municipal government does not share at

all in the tax revenues collected from provincial and Central government enterprises or in the construction taxes, and it shares very little in the energy and transportation tax. $\frac{41}{}$

100. Would it not be reasonable to presume that local governments will try harder at collection when they receive a greater share of the amount collected? Is a one-third share a great-enough incentive for municipal governments to make an aggressive effort at assessment and collection? Certainly one would expect cities to try less on the sales tax than on the profits tax, \frac{42}{} and to be more relaxed about assessment and collection of any tax from provincial and central government enterprises. As we will discuss below, the municipal and provincial governments in Zhejiang argue that there is no tax administration response to these price effects. World Bank and central government officials seem to disagree with this position, or at least they argue that tax evasion and a weak tax administration are a significant problem.

101. One would like to test the hypothesis that these tax shares do matter, and try to estimate the revenue impact, by comparing the ratios of taxes due to taxes collected for profits and sales taxes, and for different types of enterprises. Unfortunately, data could not be made available that would enable us to do this, though such data almost surely exist in some form. There are two other possibilities to indirectly study the implications of this price effect for tax administration efforts. The first would make use

^{41/} The local government may keep 21% of whatever it collects above the target amount set by the provincial government.

^{42/} Though it should be remembered that municipal governments may keep all of the UCMT, which is set at 7% of sales tax liability.

of the fact that local governments retain a much smaller share of the sales tax than the profits tax--their "prices" are different-- and would look for the response of a differential rate of growth in collections. In fact, over the 1979-1985 period, sales tax collections increased at a much greater rate than profits tax collections in both Ningbo and Hangzhou (Table 15). But these changes reflect tax law adjustments and economic changes as well as changes in administrative effort. During the more recent 1983-85 period, which is more free of such changes, the gap in revenue growth rate narrowed markedly, especially in Hangzhou. These comparisons, of course, fall short of telling us how revenue collections should have grown under the best of administration efforts, hence we cannot even guess at the separate impact which price effects may have had.

102. A second approach is to compare the growth in municipal taxes

(Table 15) with that of all local governments in the Province (Table 10).

Since the latter are reported to have more favorable sharing ratios, one would expect, cet. par., a greater growth in revenue collections. A raw comparison of these numbers supports this conclusion, but of course many other things effects the growth in revenues and we have controlled for none of these.

Table 15: GROWTH RATE IN COLLECTION FROM SELECTED TAXES AND NONTAX REVENUE (%)

	Hangzhou		Shaoxing	Ningbo		Quzhou
4	1979-85	1983-85	1984-85	1979-85	1983-85	1983-85
Total budgetary revenues	8.86	6.49	33.75	15.41	25.83	22.73
Tax revenue	8.82	8.20	34.14	15.40	25.88	22.40
Sales taxes	10.66	7.78		18.00	30.59	-3.17
Profits taxes	4.98	-	•	10.84	19.73	59.59
Local nontax revenues	-26.97	-71.33	-0.55	-28.00		

Source: Data provided by provincial and municipal officials.

103. Since we cannot get an empirical answer, we might turn to a more a priori approach. If local or Provincial governments see the share of taxes they must turn over to a higher level of government as "too great," one would expect that they might use some sort of evasion or avoidance technique to remit a smaller share. Zhejiang's 45% remittance rate may be high enough to bring forth this form of response. A fair question is whether provincial and local governments in China are able to adjust their administrative efforts in response to tax price effects.

In fact, central officials stated a suspicion that many of the provinces were "holding back" on the proper level of remittance. It was believed that many had authorized the tax exemption and preferential tax treatment of certain firms, thereby lowering the total taxable base. In this way the after-tax profits of municipally owned firms may be increased and more resources may be "kept at home" in the province. We have no data to make even a rough estimate of the extent to which this is happening, though we can note that public utilities and the service sector in Zhejiang have been given a

preferential 15% profits tax rate. The World Bank has also noted this as a national issue, "... there is some suggestion that local cadres provide tax exemptions and preference for "their" enterprises and local undertakings, $\frac{43}{}$ which are not in accordance with strict interpretation of central policy". One independent study of tax compliance in China reports a stream of evidence that local officials have evaded or avoided payment of taxes in order to use funds for local purposes. $\frac{44}{}$

105. Another piece of evidence that incentives matter relates to the suburban districts. Provincial and municipal officials in Zhejiang Province explained that suburban districts were given a share of profit and sales tax collections in order to increase their incentive to collect taxes. They also noted that they faced an incentive problem on the wage bonus tax where district governments do not retain a share. Since the districts have assessment and collection responsibility for the hard-to-tax sectors—small collectives and private business—it is imperative that they have a sufficient incentive to maximize the revenue take.

Incentives for Capital Construction

106. A deficient urban infrastructure is a major problem facing the cities in Zhejiang Province--MURCEP projects urban needs for the next five years at Y 1.6 billion and a financing shortfall of Y 0.6 billion. Does the fiscal system in China work to reduce or to accentuate this gap? More specifically, the question is whether the system encourages municipal governments to spend a greater share of their budgets for capital purposes, such as roads,

^{43/} World Bank, China's Fiscal System, pg. 42.

^{44/} David Bachman "Implementing Chinese Tax Policy" unpublished paper,
Department of Political Science, Stanford University, June 1983, p. 42.

water supply, bus service, etc. The answer to this question is not as clear as government planners would hope.

- 107. The urban construction and maintenance tax and the public utility surcharge are earmarked for capital construction and maintenance. While these presumably encourage spending to improve the capital stock, they do not account for a large share of capital construction expenditures in these municipalities (see Tables 4 and 9). The greater share of capital financing must be supported by the general revenues of the municipal government.
- There are some features of the fiscal system that provide 108. disincentives to increased capital investment by local governments. One issue is the construction tax, a 10% provincial government levy on any capital construction expenditure made from the retained earnings of enterprises. Central and Provincial government officials stated that the construction tax no longer applied to "nonproductive" investments made from extrabudgetary resources by public utilities and public service companies, but this could not be verified. It is clear, however, that if an enterprise makes an extrabudgetary investment in its public utility system or in housing, the construction tax applies. Two other potential incentive effects relate to the public utility surcharge on consumer utility bills and the preferential 15% profits tax on utilities. The former is earmarked for capital purposes and the latter presumably frees up utility resources for capital investment. But profits tax relief might not be the best way to stimulate capital spending by public utilities. Rather, the relief may only help to hold user charges down, whereas a tax transfer to the municipal government would more likely have been spent for capital purposes.

- 109. More problematic as constraints to increasing the rate of capital investment by local governments are those methods of financing that are not available to municipalities. The most important is borrowing, which is rarely done by local governments and even then on an ad hoc basis for special projects. There is no formal mechanism whereby a local government can apply for and secure a capital construction loan, even if repayment potential is not in question. Long-lived and expensive projects, then, must be financed from a combination of current revenues, ad hoc grants and accumulated savings from current revenues. This is another important "price" effect in that it shifts the burden of financing projects with future benefits onto current taxpayers and current beneficiaries. This enhances the relative attractiveness of consumption-type expenditures.
- 110. Finally, there is no formal program of benefit charge financing which local governments may follow. Even if there is a strong willingness to pay on the part of those who might derive primary benefits from a project, there is no mechanism to tap this willingness. The central or provincial governments do not offer technical assistance to set up such programs, though there are isolated examples of the application of benefit or user charges to finance capital projects. The result is that some desired projects may go unfinanced, and others may be underpriced to beneficiaries and overpriced to the general public.

Incentives for Governmental Decentralization

Does the system of intergovernmental relations in China give incentives for more decentralization in government? Decentralization as a strategy is meant to move government decisions closer to people who will be most effected by those decisions, to allow tax rates and expenditure composition to

vary with local preferences and to make local officials more accountable to their constituencies. The fruits of decentralization ought to be a more efficient system of local government, and one whose makeup varies from place to place depending in part on what residents want and what they are willing to pay for. But in order to get the benefits of decentralization, one has to permit local residents to make some fiscal choices. In other words, decentralization requires that it be possible for the price of public services—tax rates—to vary from one local area to another depending on the public service demands of local residents.

- 112. In China, there appears to be a marked degree of administrative decentralization in the system of governance and financing within urban areas. The public utility companies (water, gas, buses) are more or less autonomous in their management and day to day operations. The "suburban," outlying portions of the metropolitan area are governed by several counties that are financially independent from the city. The city area itself (in four of the five cases studied) is divided into districts that have independent budgets and identified expenditure responsibilities and sources of finance.
- 113. But this decentralized structure does not extend to a freeedom to make tax rate choices. Uniformity in tax rates and bases is imposed on all local governments and they are given little room for choice. Municipal government budgets have to operate within limits prescribed by the provincial government, employee compensation is strictly controlled by the central government, and there are mandated expenditure requirements. The suburban districts are faced with the same kinds of restrictions. A decentralized administrative structure is in place, but there is little if any fiscal decentralization.

114. It is not easily seen why the administrative structure for service delivery is so decentralized in China. The advantages which prompt decentralization are not there in the Chinese setting. In many countries decentralization takes place purely for management reasons—some urban areas grow too large to be easily controlled from the city manager's office or the menu of services they must provide gets too large and too diverse and some necessary specialization is lost. This leads to various forms of decentralization. For example, public service companies are created to allow technical specialization, to avoid civil service salary schedules and work rules, and perhaps to protect any financial surplus that might be generated. But these advantages are not important in the system in China where work rules and salary schedules are centrally determined, and where transfers between the enterprise and municipal budgets are strictly mandated.

Incentives for Spatial Decentralization

- 115. Though local finance policy is centrally determined, there are some built-in tendencies for the system to bias location choices of residents and enterprises. We might think of the metropolitan area as being roughly divided into an inner city, a city area and the outlying urban counties (though much of the latter area is in fact rural). The question is whether the tax and expenditure system is neutral in its treatment of these areas or whether it promotes development of one at the expense of the others.
- 116. The system in China is not neutral. The following are examples of the nonneutrality:
 - (a) Public service levels are clearly higher in the city proper, highest in the built-up area of the city and lowest in the outlying areas of

the city and in the counties. The rates of sales tax, profits tax, utility surcharge and the user charge rates, however, are uniform within the area. Since there is no differential charge for better services, a subsidy to central locations is implied.

- (b) There is no annual tax on land, 45/ yet land has a substantial location value in these cities. Since land has value and is owned by the state, its use imposes a cost which is paid by someone. If location value is highest in the built-up area, then a greater subsidy is implied for those parcels than for those located in the suburban and county areas.
- (c) There may be some cases that run in the opposite direction. The UCMT rate is only 5% in towns (vs 7% in municipalities) and the percentage of profit and sales taxes retained by counties surrounding these five cities may be higher than that retained by cities (though we were unable to verify this for the urban counties).

Profit-Making Incentives

117. It is beyond the scope of the paper to consider the economic effects of the Chinese tax structure, for example, whether the current structure of the profit tax biases business decisions in a way that unnecessarily slows the growth in profits. Yet for urban local governments in China, the growth in profits defines much of the growth in their tax base. If central policy slows

^{45/} As noted above, some land is subject to a nominal property tax but it is not collected to any significant degree.

this growth, it compromises the municipal government's ability to deliver and finance services. It is important, therefore, to determine whether there are price effects inherent in the structure of the profits tax that slow the rate of increase in profits.

- 118. The profits tax, rules for the distribution of retained earnings and the ancillary taxes on profits and retained earnings are complicated (which makes administration difficult and perhaps uneven across enterprises) and are restrictive and burdensome in a way that may cause both a dampening of enthusiasm for profit making and a search for ways around the tax. A telltale sign of such a deficiency in the tax structure is when the government itself begins making special provisions to offset the undesirable features of the system, e.g., the giving of tax incentives.
- 119. The profits tax rules and exceptions are roughly summarized in the hypothetical example above and repeated here as shown in Table 16. This firm begins with gross profits of Y 600 and pays taxes of Y 480 (excluding sales taxes). Every firm will not end up paying an 80% average rate as does this hypothetical firm, but this example does suggest how onerous the tax may become $\frac{46}{}$

^{46/} An effective marginal tax rate of 80% or higher, may not be an unreasonable example under the present company tax system in China. See Audrey Donnithorne "Center-Provincial Economic Relations in China" Contemporary Economic Papers #16, Australian National University, 1986.

Table 16: TAXES ON PROFITS AND USES OF RETAINED EARNINGS
BY A HYPOTHETICAL FIRM

<u>Item</u>	Amount (yuan)	Comments
Total revenues	1,000	*
Total cost	400	
Gross profits	600	·
Profits tax	330	There are many exceptions. Joint
Profits tax	330	ventures with foreign firms pay a
		maximum of 30%.
Net profits	270	maximum of Jose
Adjustment tax	119	
Adjustment tax	117	
Retained earnings	151	
Energy and transportation	tax 23	Paid fully to the Central Government
Disposition of retained		
earnings of 128:		
Plant expansion	77	
Construction tax	7.7	Paid fully to the provincial government
Employee welfare	26	
	3	
Wage Bonus	26	* * * * * * * * * * * * * * * * * * * *
Wage Bonus tax	_	# # #
_		
Exhibit: Distribution of		
Capital expansion and n		
Employee welfare and wa	ge bonuses	52 8.7
Taxes		480 80.0

120. We might sum up the potential problems with the profits tax in three points. First, it severely restricts the choices which managers may make to improve the efficiency of operations. The use of retained earnings, for example, is strictly prescribed (60% for plant expansion, 20% for employee welfare and 20% for wage bonus). Second, and more important, a high rate of tax is imposed on the firm, leaving a relatively small amount for investment. This is not conducive to stimulating profit making through reinvestment, it does not provide an incentive for managerial risk-taking, and it may leave the firm with insufficient resources for expansion.

121. A third problem is that the high tax rate gives a greater incentive for evasion to the firm and perhaps to the local government who owns the enterprise. A local government may be more prone to evade the tax if it recognizes that a significant portion of any amount of tax collected will escape the municipal area and even the Province. Though we have no official government estimates of evasion, and have made none of our own, we can report the results of earlier work of the issue. Based on newspaper reports and some data, Bachman is able to reach the following conclusions.

"By mid 1982, a total of 2.5 billion yuan of financial violations had been recovered by the state and this did not include the 1.3 billion yuan in tax evasions uncovered. By the end of 1982, 3.8 billion yuan of taxes were in arrears, an increase of 11.3% over 1981. In Inner Mongolia, "the total amount of money involved in financial violations amounted to about one-fourth of the region's annual financial revenue". It was estimated that about 40% of Shanghai's state-owned and collective enterprises evaded taxes. In Qinghai, 57% of all enterprises were guilty of tax evasion or fraud. In Liaoning a survey of 2,617 enterprises revealed that 1,311 had evaded tax payments. In ten provinces, 47% of all enterprises and 63% of all supply and marketing coops inspected violated financial discipline. Most of this was attributed to a lack of understanding of the law and negligence, but fraud and deliberate evasion were present also. It appeared that the harder Chinese officials looked for violations, the more they found. And from late 1980, the State Council and the CCP have authorized multiple financial investigations as the best way of cracking down on these abuses."47/

C. Tax Administration

122. Is the Chinese tax system administered efficiently? Is the "proper" share of profits and sales captured by the tax system and are different types of enterprises somehow given equal treatment? We cannot answer these questions directly based on this field work, because very little data and

^{47/} Bachman, page 43.

information were made available. Certainly the provincial and local government officials did not think there was a tax administration problem. However, based on the evidence we did collect, and some a priori reasoning, we might infer that tax administration is a problem which the Government of China is now facing and must continue to reckon with. Whether the problem extends to Zhejiang is unclear. In this paper we explain the position of the Zhejiang officials on this matter and then suggest why tax administration could pose a problem in some Provinces in China.

- weaknesses in the Chinese tax administration system. First, the system is complicated and not easily administered. There are three different sales taxes levied on different types of sales—including a value—added tax on 11 sectors—at more than 60 different rates. The profits tax has three different rate schedules, includes six different taxes on profits and the use of profits, and it provides special treatment for incentive firms. The adjustment tax must be computed separately for every firm. The Chinese tax system is not substantially more complex than those which exist in many countries—and there is no personal income tax to administer—but it is no simple matter to efficiently administer this system. It requires a well—developed assessment, collection and recordkeeping system and a highly qualified staff to do the work.
- 124. It appears that the system is self-assessed. Each firm declares its liability in a monthly form submitted to the Municipal Tax Bureau and remits payment through the People's Bank. It could not be determined whether the Tax Bureau itself sent out assessment notices or whether it had a formal audit program. Collections are handled through the Bank who receives the tax

payment and makes deposit to the appropriate account. The mission could not determine whether the Municipal government had its own collection program involving notices and/or visitations. In short, we were able to learn very little about the operation of the assessment and collection process.

- Recordkeeping is a source of difficulty in tax administration in most low income countries. One side of the problem is inadequacies in the books of account kept by the firms liable for tax. One would expect this to be a problem in China. It is virtually certain that small firms do not keep books of account that would allow assessment of modern sales and income taxes. We could not determine the nature of the accounts for larger firms. Some would take the view that there are staffing inadequacies within the enterprises. It is reported that from a national survey of the financial and accounting personnel of 1,200 enterprises, only 22% had graduated from middle school or above and 48% had not even received short term training in finance and accounting. 48/
- 126. The other side of the recordkeeping problem is the master file kept by the Government. The purpose of this file is to identify all potential taxpayers, record their payment history, and provide information necessary to assess their tax liability. Common practice is to identify firms by a unique taxpayer identification number. The Zhejiang system is a manual one which consists of a ledger book (none of the five municipalities was computerized) and there is no unique taxpayer identification number.

^{48/} Reported by Bachman, p. 15, based on Lu Peijian "Vigorously Raise the Professional Level of Financial and Accounting Personnel," Caiwu Yu Kuaiji, 1979, No. 2, September 1979.

- 127. This system of taxation requires an adequate sized, qualified staff. In this case, "qualified" means an understanding of the tax laws and the capability of doing an examination of books of account. Both the profits tax and the sales tax (particularly the VAT) require analysis of the income statements of firms and therefore some level of training in accountancy. Most low income countries have great difficulties in recruiting a tax administration staff with such training. One would guess that China might face this same problem. In fact, a recent study of the Chinese tax administration system underlines that staffing may be an important problem. This study-relying on field interviews, government reports and newspaper reports—comes to the conclusion that the quantity and quality of personnel is a major issue. It reports that of 2,215 tax cadres in 47 tax bureaus in Liaoning, 1,137 cadres were "unfamiliar" with their work.
- 128. It is worth considering the possiblity that tax administration could be a major problem in China's future. The growing private sector and especially the increasing number of small firms almost certainly suggest more difficulty in assessment and collection. The smaller firms are likely to have the least complete books of account and to be the hardest to monitor in terms of gross receipts or profits. Moreover, increased reliance on the profit motive together with a high tax rate heightens the rewards to tax evasion and tax avoidance increases the premium for effective tax administration. This problem may be exaccerbated by the fact that responsibility for assessing and collecting from private firms seems to lie with the suburban district governments, which are possibly less well equipped than the Municipal

^{49/} Bachman, p. 17.

government to pursue the hardest-to-tax sectors.

- 129. These suspicions about the tax administration problem in China are shared by some central government officials. Bachman's paper also cites a large number of reports and newspaper articles that further call attention to the problem as a serious one.
- 130. Municipal and provincial government officials in Zhejiang do not see tax administration as a problem or a major concern. They were quite emphatic in arguing that the present administrative system was very efficient and that there was, effectively, no evasion. The following points were made:
 - (a) The profits and sales taxes are not new taxes at all. They have evolved over a long period and there is great familiarity with them.
 - (b) Many of the personnel of the tax bureau have 30 years experience.
 - (c) Those who keep the enterprise accounts are not only experienced accountants, but can act independently of the enterprise or the municipality as representatives of the state.
 - (d) The tax structure is not very complicated.
 - (e) There is great specialization in tax administration within the department, for example, certain officers look after only collectives of certain sizes, etc.

- (f) It is true that some of the tax administration task are complicated, but the tax bureau personnel are very well trained.
- (g) There are some problems with collections from private businesses,
 but the sub-urban districts have the promise of a retained tax share
 as an incentive to be active in pursuing evaders.
- (h) The severe penalties for evasion are an effective deterrent.
- (i) It is absolutely impossible to eliminate all evasion, but the goal has been to reduce and control it and this has been successfully done.
- (j) The administration job is made easier because taxpayers see it as their duty to comply with the law.
- 131. On the issue of whether the local tax administration staffs were qualified in sufficient numbers to administer this sytem, some doubt was expressed at the central government level. Local and provincial officials disagreed and pointed out that there was a great deal of appropriate training for tax administration officers in Zhejiang Province. New officers in tax administration may have two or three years in a career school after high school, may be a university graduate, or may be a high school graduate. In all cases, they receive on-the-job training in the tax bureau for three months, and then undergo a three-month apprentice training program. There are formal schools for tax administration training that are administered by the

province: (a) a four-year finance and economics institute; (b) a professional school of finance (two years); (c) a professional school of taxation (two years); and (d) two schools for retraining existing employees.

D. Financial Planning and Monitoring

The mission could not gather detailed evidence on the adequacy of the system of local government financial management. The meetings with local officials and a working of the data supplied, however, indicate problems in two general areas. The first is that the budget is not used as an instrument of fiscal planning, indeed, there appears to be little fiscal planning done by local governments. The second problem is that there appears to be no system of tracking and monitoring revenue and expenditure activities.

Budget Consolidation

- 133. Effective local financial management begins with adequate information. One would like to know, for example, how much is spent by all local governments operating in the urban area, for what purpose these funds are spent, and what are the revenue sources that support this expenditure. To obtain such information, the following is necessary:
 - (a) A method to net out transfers and prepare a consolidated budget or financial statement for all local governments in the urban area.
 - (b) A uniform set of budget classifications that would allow clear identification of capital expenditures, current expenditures by type, etc.

- (c) A clear demarcation between various types of taxes, charges, fees and financing from external sources.
- None of these conditions would seem to be met by the present system of local financial administration. There is no consolidated budget prepared by local or provinical officials. As described above, we attempted to construct a consolidated budget but were unable to net out all interaccount transfers or to identify all extrabudgetary expenditures and revenues. Because we cannot net out all transfers (for example, between a public utility and the municipal budget) we cannot know the extent to which each enterprise is financially self-sufficient or is dependent on general revenue financing. More important, we cannot trace the flow of subsidy among the public utility-type enterprises, the state owned enterprises and the general municipal government sectors.
- A second important need is to track the level and rate of growth in capital expenditures, as well as the source of financing these outlays. Under the present budgetary system this is not easily done. "Capital" expenditures are reported in the municipal budget under "capital construction," "technical modernization" and "urban maintenance and construction," but the latter includes a great deal of maintenance expenditures. There is a category "capital expenditures" included in the public utility accounts for some cities, but it is not clear that this includes only (or all) capital spending. We were unable to get an accounting of capital expenditures made by municipal public service enterprises, such as for road construction, but presume that the financing of these companies is at least partially supported

by general fund transfers. The short of it is that we are unable to make a good estimate of the share of local resources allocated to capital investment.

- 136. The same classification problem arises on the current expenditure side where financial planning requires good estimates of at least the amount being spent on maintenance of the capital stock and the degree of subsidy provided to enterprises. With respect to the latter, the subsidy is sometimes shown as a negative tax, sometimes as an expenditure, sometimes as both and is sometimes subsumed in "net" tax collections.
- 137. It would be very difficult to establish and monitor targets for capital spending and revenue mobilization in a setting where neither can be tracked. Moreover, how can the provincial government base its allocation of grants and shared taxes on expenditure needs when it cannot even know (much less compare) the amount or object of expenditures or the actual amount of revenues raised? Finally, there is the question of whether proper audits can be based on such incomplete information?

Forecasting

- 138. Financial planning means multiyear planning. This year's capital expenditures imply future commitments to maintenance, loans must be repaid, industrial sectors may have temporarily high sales and profits, etc. It is essential that local governments make their financial decisions in light of what the future may hold. This implies the need for a multiyear forecast of revenues and expenditures. No local government we visited had done any such multiyear fiscal planning.
- 139. It is important to point out that a budget forecast is not meant to predict the future. Rather, it is meant to help us understand how alternative future events might impact on the local budget. Consider a few examples:

- (a) What are the implications for the municipal budget of an increase in user charges for public transport?
- (b) What maintenance commitments are implied by any particular pattern of capital investment?
- (c) What are the revenue implications of a downturn in a particular industrial sector, or of rapid growth in the number of private sector firms?
- (d) How long should special-case subsidies for municipal governments be kept in place by the Province?
- 140. Especially in a planned economy, where local revenues may be significantly influenced by central government economic policies, it is surprising that such questions are not systematically addressed with a forecasting model.

Capital Budgeting

141. A capital budget has two components. One is a multiyear capital expenditure plan with priorities clearly established and timing clearly set out. The other is a multiyear financing plan which clearly lays out the sources of revenue support for each year. The capital budget should also acknowledge the maintenance requirements implied by any given level of capital spending activity. Without such a budget, capital facility planning has to be year by year.

142. No local government we visited had such a plan. Most had some form of "wishlist" for capital projects, but none had a financing plan. The revenue component is important in that it brings more realism to the wishlist and it stimulates local governments to search for ways to cover their capital costs. Again the story seems to be that local governments in China do not use their budgets for planning purposes.

IV. OBJECTIVES AND REFORM OPTIONS

- 143. If this list of problems and issues is reasonably accurate, then one might turn to a consideration of reforms to address these issues. The Central government is considering a number of important changes that could make the local fiscal system stronger, and still others might be suggested. In this section of the report we review and evaluate these fiscal reform options. We should emphasize that this discussion goes well beyond local government reform options. A true reform of China's system of financing local services will cover tax and expenditure policy, the tax sharing formulae, tax administration and it will search out new methods of resource mobilization. Such a reform program would have to be initiated at the center and would have important effects on all three levels of government.
- The place to begin a reform discussion is with a statement of the objectives for subnational public finance in the Chinese economic system.

 What is it intended that the local the local and provincial fiscal systems should accomplish? Most countries in the world have not sorted out the proper role of local government in their economic system. The traditional thinking is to give local governments responsibility for allocation decisions, e.g., decisions about how available revenues should be divided up among local public expenditure programs, whether local services should be financed through taxes or user charges, etc. This role would seem to match the comparative advantage of local governments which stems from their closeness to the people and hence their potentially greater ability to translate local needs and preferences into local budgets. The objectives of equalization of incomes through

progressive taxes and transfer payments to individuals, and stabilization policy, are best achieved by central governments. $\frac{50}{}$

In practice, the role of subnational governments in lower income 145. countries departs from this norm. Allocation is the major function of local governments in most countries, but local taxing powers and the flexibility to adjust user charges are usually not sufficient to complete the job. The gap between local public service demands and available local government revenues is typically filled by some form of intergovernmental transfer. Moreover, horizontal equity--the equalization of fiscal capacities among local governments -- is also achieved by grant systems. The design and administration of these grant systems is a central government function in most unitary systems and a shared central and provincial government function in federal countries. Most countries leave stabilization policy and income redistribution programs to the center, though local governments can have an important impact on the living conditions of the poor. Still, the financial status of subnational governments in most countries--whether they have access to enough revenue to do the expenditure job assigned to them--is a question mark and research and reform programs to redefine the powers and functions of subnational governments seem always to be underway.

146. China is no exception in that the role of subnational governments in the changing economic system has not been sorted out. We did not get an official statement of what the government is trying to accomplish with it's system of local public financing. We may, however, try and deduce the

^{50/} The classic statement of the allocation, distribution and stabilization roles of government is made in Richard Musgrave, The Theory of Public Finance (New York: McGraw-Hill, 1959) Chapter two.

objectives based on government rhetoric and on the way the local finance system has been designed. This would lead us to the following possibilities:

- (a) To increase the overall level of resource mobilization for general government purposes.
- (b) To increase the flow of resources to urban construction and maintenance expenditure.
- (c) To increase the efficiency of local government tax and expenditure operations by creating a more decentralized local financing system.

If these are in fact the objectives of government policy, we might consider the policy options open, as well as those presently under discussion in China.

A. Increased Local Taxing Powers

147. The authorization of local taxes is one reform possibility that would fit the objectives outlined above: it could raise more revenue, it could be earmarked for capital purposes and if imposed at local option it could lead to a more decentralized local fiscal system. But what kind of new local tax? Most prominently mentioned by government officials in this connection is a land-use tax or a land-use fee. While this seems the best possibility for a new tax to be levied at the option of a local government, a local surcharge on the profits or sales tax and increased user charges might also be considered. Another, more far reaching option, is a separation of central-provincial-local taxing powers with designated taxes assigned to each level.

The Land-Use Charge

- 148. There are now proposals at the Central government level to enact a new type of property tax—a land—use charge. On June 25, 1986, the People's Congress passed an authorizing Land Law under which there would be a charge for the use of urban land. However, there is not yet an authorization to impose the charge or a prescribed procedure for setting the rate, implementation, etc. The matter is now under study in the Ministry of Finance, under the direct supervision of the State Council.
- 149. No details about the likely form of the tax are available, and firm decisions have not yet been made. However, government officials were willing to describe some of the possibilities being considered. The base of the tax, by all of these accounts, will have to do with the physical characteristics of the land: its use, location and area. Some thought has been given to including the area of buildings, but most officials interviewed felt that only land would be in the base. For purposes of taxation, this base will have to be transformed to value terms. A surrogate for land (or property) value would have to be developed and imputed to each property, a kind of index number that would establish the relative value of properties on a square foot basis. An alternative to imputing characteristics to each property would be to identify value zones in the urban areas, i.e., assign a value per square foot to each area of the city and subject each property in the area to the same charge. This would greatly simplify the administrative job but could be arbitrary in applying estimated average values or rents to all properties within a broad area.
- 150. The rate of tax or charge will not necessarily be uniform--there could be different rates applied to commercial, industrial and residential

property, with the latter probably receiving a tax preference and with enterprises paying the bulk of the tax (or perhaps all of the tax). In other words, it could be a such as that imposed in most of the US. 51/ of classified property tax. While classified property taxes may fit some notions of ability to pay-large commercial shops have a greater capacity than warehouses-but they also send some other signals to those choosing a business location. Lowered taxed activities will receive a subsidy in prime locations relative to more heavily taxed (presumably more profitable) activities.

151. How will the tax rate be determined and will the funds be earmarked for any particular purpose? On the first question, there apparently has been a good deal of discussion on these points and much interest in using this tax to provide some local autonomy. To allow local governments to set the tax rate would be a major departure from present practice where local governments have no rate-setting autonomy. MURCEP officials felt that local governments should be permitted to make the decision on the tax rate but that the upper and lower limits should be prescribed by the central government. In any case the determination of the tax base--keeping the cadastre, identifying the value zones, updating land value or rent estimates--will certainly be left to the local governments. Since the land-use fee will be locally administered, the local governments will play a major role in determining the allocative effects of the tax and its revenue success, whether or not it sets the tax rate.

152. As to how the new revenues will be spent, the logical candidates

152. As to how the new revenues will be spent, the logical candidates would seem to be general purposes or earmarked for infrastructure. Most of

^{51/} Under a classified property tax, the effective rate of taxation varies according to the use of the property. In the US, this usually means a lower rate for residential and agricultural uses and a higher rate for commercial and industrial uses.

those interviewed seemed to agree that the urban construction bureau of the municipal government should collect the land use fee. The implication of placing administration of the tax within the urban construction bureau is that the tax would be earmarked for capital purposes. Hence it would supplement the UCMT as a source of capital finance. In some ways this is appropriate since the location value of land is significantly influenced by the availability of public infrastructure services.

- 153. The land use charge is expected to achieve two very important objectives. The first is to raise a significant amount of revenue and the second is to effect a better distribution of land use. Whether it can do either depends in part on how the tax is designed, as will be discussed below. The land use fee also could have major shortcomings. The most important is that it could be very expensive to administer. Certainly it implies preparation of tax maps which identify, measure and somehow "value" every property. If buildings also must be measured, and their general condition determined, the administrative costs multiply. How will a tax base, a kind of land value, be imputed to each parcel? This seems a formidable problem in a country where there is no formal land market, no staff trained in property tax administration, and probably no up-to-date cadastral maps. Most students of land taxation agree that the property tax assessment process is subjective in its best forms and without a strong administrative structure can become very arbitrary and unfair.
- 154. These administrative problems are real enough, but are not insurmountable. Chinese officials felt that land records are already in reasonable shape and that the Central Government could provide important technical assistance in establishing the assessment system. MURCEP expected

that a special state land management bureau might be created to assist in the recordkeeping and to lay the groundwork for administration. They also felt that a cadastre may already exist in many if not most cities. The Chinese Academy of Sciences (CASS) was even more sanguine about the possibilities for effective valuation. CASS argued that area and location are presently taken into account in estimating new housing construction cost, and that the municipal urban construction bureau already sets a kind of notional land price. They seemed to be arguing that there was a market for some land uses and that prices were certainly established when land was transferred from farm to urban use. Both groups felt that administration of a land use tax was feasible and could be accomplished at reasonable cost.

- 155. Experience in other countries has shown that even in the best of circumstances, good property tax administration can be an expensive proposition. If this were the case in China, one might argue that a high administrative cost would mean that the land use tax can be justified only if it is levied at a high enough rate to be a substantial revenue producer. MURCEP took issue with this point and argued that the tax cannot be large in amount. The reason they gave is that land prices are low and that enterprises could not absorb a very high rate without price consequences. Consequently, they expected it to be a "small" tax, probably yielding less than the urban construction and maintenance tax. This raises a key question. Why set up a costly new administrative mechanism to collect a relatively small amount of revenue?
- 156. One discussion emphasized the justification of the land use tax in terms of allocative effects, i.e., that a price for the use of state-owned land would force land use into a more optimal pattern. A tax on land, if it

could not be passed forward to consumers, would force users to choose more optimal locations and a "better" distribution of land use would result.

Whether such land use effects would actually result depends on three considerations. The first is whether there is some mechanism for enterprises to sell or trade property rights and choose alternative locations. Land use effects require that firms be mobile and that they be able to choose among alternative locations. At present this would not seem to be the case.

Certainly enterprises do not own land, and the allocation of land to enterprises is made by the municipal governments. Enterprises may not buy or sell land freely but transfers of land between enterprises is possible with municipal government approval. Though the process of transfers is cumbersome, it is required that some form of compensation be paid to dispossessed enterprises and workers. This means that there are property rights and that there is a kind of price of property.

- 157. The second consideration is whether enterprises would be able to avoid the tax by passing it forward in the form of an increase in product price. If so, there would be no real incentive for a firm to move from a high cost to a low cost location. The third consideration is the level of the tax rate itself. At a low rate, the land use tax could not have important allocative consequences, i.e., even if enterprises were free to move, and even if the tax could not be passed on, the penalties for a 'bad' land use choice would be small.
- 158. Without a good understanding of how land use choices are made, whether there are some property rights that might be traded, and how prices will vary with the tax, it is difficult to even guess at the potential effects of a land use tax at high rates. There are scenarios, however, under which

one would expect a more intensive use of higher valued land, e.g., larger buildings and less residential land use in central areas. A high-rate land-use tax would probably also promote employment decentralization within the urban area as it forced every enterprise to pay the higher cost of more centrally located and better serviced sites. There could also be undesireable allocative consequences. If the land-use fee effected plant and housing location choices, it could effect the demand for public transit and possibly increase congestion. Moreover, there is the question about whether society gains from charging the right price for land when services such as transport and housing are improperly priced.

The land use tax presents an important quandary to local 159. officials. The central issue is what is to be accomplished with this tax. If the idea is to raise money, improve the allocation of land among various uses, and give local governments some revenue autonomy, then one can justify the high administrative cost by levying the tax at a high enough rate to make it a substantial revenue producer. To allow enterprises to pass the tax on in the form of higher prices or to give preferential tax treatment to certain uses (housing) would defeat the revenue raising and allocative objectives of the tax. It also seems clear that the allocative objectives of a land use tax can only be served properly if the government moves to get other prices "right," e.g., public utilities, housing, transportation, etc. Underlying any thought of using a land use fee to raise revenue is the need to establish some form of land market or at least a mechanism for the trading of property location rights among enterprises. A tax on immobile firms could raise significant revenue but it would not cause any improvement in the distribution of land uses, and it would be partially paid out of reduced profits taxes.

160. If the tax is levied at a low rate to avoid undesirable price effects, as some have argued it should, then it may be a much less interesting proposition. It would raise less revenue, have little effect on allocative decisions, and would require the government to put in place an expensive administrative machinery. A surcharge on the profits tax or a higher UMCT rate would be a better way to go.

A Local-option Surcharge

- 161. As an alternative to designing a new local tax, municipalities could be given the option of taxing the present system at a prescribed higher (local) rate. For example, an additional percent on the sales tax or profits tax base could be imposed at the discretion of the local government. This approach has obvious advantages of administrative ease (when compared with the creation of a new tax) and it would grant some local government autonomy.
- 162. The urban maintenance and construction tax is such a surcharge, except that it is not presently levied at local government option. We did find some precedence for a local option surcharge in Zhejiang. The provincial town of Baixiang imposes an "administrative fee" equivalent to 1.5% of the sales value of all goods sold in the city. This tax produced 60% of total local revenue, and was self-authorized (not approved by a higher level government) by the local People's Congress. None of the larger municipalities levied such a tax.
- 163. There are disadvantages to a local option tax. One is that governments with stronger economic bases will be given an extra advantage over poorer local governments. They can collect more revenue at the same rate, for example, note the difference among muncipalities, shown in Table 17, in per capita profits and urban construction taxes. Hangzhou, because it has a

stronger economy and higher level of income can collect 2.5 times as much profits tax per person than Ningbo, even though profits are taxed at the same rate in the two municipalities. It follows that if the government allowed (at local option) an add-on to the profits tax, Hangzhou could levy half as high a rate and raise the same amount of revenue as Ningbo. A similar story can be told for the UCMT, as shown in Table 17. Hangzhou's advantage under both taxes would be further compounded if it were able to "export" a greater share to foreigners or to purchasers of Hangzhou products who reside elsewhere in the Province or the country.

Table 17: PER CAPITA PROFITS TAX AND UCMT: FOR 1985 (in yuan)

	Profit tax	UCMT
Hangzhou	468.7	49.7
Shaoxing	248.9	21.5
Ningho	191.4	
Wenzhou	64.3	14.2
Quzhou	258.6	

Source: .Computed from data provided by provincial and municipal officials.

164. On the other hand, the surcharge has great advantages over the alternative of designing and implementing a new tax. The administrative structure to assess and collect the tax is in place and it can be a substantial revenue producer. Moreover, it could be a way to give local governments some revenue autonomy, if the surrate were to be levied—within prescribed limits—at the option of the local government. Compared to a low yield land use tax, a profits tax surcharge or an increased UMCT are clearly superior as revenue raising measures.

- The surrate on profits is not a good substitute for a land use 165. charge because it does not effect the allocation of land use, i.e., profits are taxed the same regardless of where they are earned. This may lead some to try and combine the advantages of the profit tax and land use fee by proposing a surcharge on the profits tax that varies by location within the urban area. For example, one might think of imposing an additional 3% profits tax in the high rent zone, 2% in the next zone, etc. If this surrate were imposed on each firm, it would penalize those who are more profitable but it would weigh less heavily on those who are inefficient and/or unprofitable. If land uses are mobile, this tax would have the effect, at the margin, of driving more profitable activities away from preferred areas. If land uses are not mobile, it acts as another excess profits tax. A second version of this approach is to establish urban "profitability zones" -- based on actual performance of firms operating within the zones--and charge every firm in the zone a fee based on average profitability. This approach has merit in that it would tax a firm's location and not its profitability, but it is not without some important drawbacks. It would require a substantial administrative effort to keep a current record of enterprise profit rates, the decision about the profitability zone boundaries well necessarily be arbitrary and subject to periodic changes, it would not reach residential or institutional land users, a few large firms could substantially bias the average profitability in an area, and there would be pressure to lower and to change the surrate as profits varied.
- 166. Regardless of the form of a surcharge (or a land-use fee), a localoption surcharge would have to be coordinated with a revision in provinciallocal fiscal relations. It would make little sense to give a municipal

government the option to levy a higher local tax and then have the provincial government allocate resources away from the municipality by adjusting the sharing rate on other taxes. The municipal revenue raising objective would be defeated. A better strategy would be to redefine the intergovernmental grants and shared tax system to maintain neutrality if not to reward those local governments who choose to levy the local option tax.

Increased User Charges

- 167. A third option for generating more local resources is increased user charges. This could make the public utilities more self-sufficient and generate more resources to be applied to capital financing. Where subsidies to the utilities have been necessary or where municipalities have made direct expenditures on behalf of the utilities, increased user charges also could relieve some pressure on the general municipal budget.
- 168. The key policy question is whether user charges are presently too low. Little information could be gathered on the extent to which the public utilities are financially self-sufficient in these five municipalities. We do have some statistics and some indirect evidence, but it does not help this discussion markedly. Provincial authorities provided some statistics on the operations of public utilities and other public service companies, as is shown in Table 18. These data would seem to indicate that most of the water supply, transportation and gas undertakings make a profit, are able to pay a full 15% tax on this profit and retain earnings for capital investment and wage bonus. Wenzhou's bus company is the lone exception to this pattern. This information suggests a surprisingly high degree of fiscal self-sufficiency.

Table 18: FINANCIAL POSITION OF PUBLIC UTILITIES (10,000 yuan)

		Water	Public transit	Gas
Uenezhou				
Hangzhou		1 505		
Operating		1,505		
	expenditure	1,135	9	×
After-tax	profits	295 <u>/a</u>		
Shaoxing			one the one	
Operating	revenue	NR	104	
Operating	expenditure	NR	77	
After-tax	profits	85	21	
Ningbo				
Operating	revenue	653	544	194
Operating	expenditure	426	500	175
After-tax		205	20	23
Wenzhou	•			
Operating	revenue			
	expenditure			
After-tax			(16)/b	
Quzhou				4
Operating	revenue	63	50	
	expenditure	46	43	
After-tax		17	4.1	

<u>/a</u> Estimated by reducing gross profits by 15% income

Source: Computed from data provided by provincial and municipal officials.

169. Other information provided to the mission and some questions about these statistics might lead us to reach a different conclusion. First, the expenditures reported here do not include any capital expenditures and may not include capital maintenance. Second, operating revenues may include some subsidy from the general municipal budget and some public utility current expenditures may be made directly by the municipal government from budgetary or extrabudgetary funds. Certainly it is hard to imagine that a water company such as that in Shaoxing could accommodate urban growth and run a surplus while

[/]b Gross, before tax loss.

not raising residential rates for 23 years! In short, the mission does not have adequate information to evaluate the financial position of the public utilities or to assess the adequacy of the present level of user charges.

170. This leads us to raise the hypothetical question about what actions could be taken if user charges are too low. It would appear that municipal governments do have the authority to adjust user charges without seeking approval at a higher government level. Responsibility for setting the user charge rests with a municipal price commission. Despite this autonomy, however, there have been few adjustments to these rates in recent years.

Tax Assignment

- 171. Another possibility for increasing municipal revenues, said to be under consideration, is to assign taxes to either phe Provincial, municipal of central government level, i.e., the entire amount of tax A would accrue to the municipality, etc. There are advantages to this approach, which is followed in many countries. Local governments could be given control over the rate of tax, within limits, and would finally have some autonomy. Local residents could clearly identify with "their" tax and could more easily hold local officials accountable for the level of the tax rate and for the efficiency with which the revenues are spent.
- There are also disadvantages. The most obvious is tax administration. This proposal would call for a separate administration of central and local taxes. Otherwise one would have to find some way to face up to the incentive problem, i.e., what incentive would there be for a municipal government to vigorously collect a central or provincial government tax in whose proceeds it would not share? Another big issue is what tax will the local governments be given? It is not likely that the Central Government

would relinquish control over either of the two major taxes. Moreover, even the assignment to local governments of the profits tax from local enterprises would raise some problems because of the potentially erratic behavior of profits, the sensitivity of the tax base to changes in central government policy, and the disadvantaged position of those local governments with relatively few profitable enterprises.

In most low income countries, municipal fiscal problems can be 173. traced to two root causes. First, local governments are typically assigned tax bases that are not revenue productive and not elastic in their response to growth in income and prices. Central governments, faced with stabilization and savings mobilization needs, are loath to give up the more productive income, consumption, production and foreign tax bases. Second, local governments usually do a poor job of administering the taxes they do have available. The best hope for local governments in China would seem to be to continue to share (with some modifications) in the growth of the profit and sales tax bases. Administrative improvements are important, as discussed below, but the creation of two separate tax administrations would seem counterproductive. For example, assessment of the profits and sales tax on a firm can be carried out by the same inspector or team of inspectors Moreover, there are great economics of scale in recordkeeping, training, computerization, etc.

B. Increased Local Tax Shares

174. Another way to increase municipal revenues is simply to change the sharing formulae, i.e., to allow the local governments to retain a greater percentage of what they collect. This reform presumably could be accomplished

without central government approval, because the formulae are fixed at the provincial government level. Moreover, there are presently variations. At least one of the cities we visited had a preferential sharing arrangement with the province, and it was reported that the sharing rate varies across countries.

- There are some advantages to this approach to generating more revenues for local government purposes. Most important, it would keep a substantial amount of revenue at the municipal level and therefore increase the amount available for allocation to capital projects. This approach could also stimulate municipal governments to increase their rate of collection on the shared tax. At present, Hangzhou retains for its own purposes only about 30 yuan of every hundred it collects; the corresponding number for Shaoxing and Ningbo is roughly the same. A greater local tax share might also create more of a sense of local autonomy as local residents identified the profits and sales taxes more as local levies and less as intergovernmental transfers. A variant on this reform possibility would be to fix the municipal share as a single percent of total taxes rather than as a different share of each tax. This would eliminate the municipal government's present incentive to do a better job of collecting the profits tax than the sales tax.
- The proposal for a greater local tax share also has serious drawbacks. The biggest disadvantage is that it would reduce the Provincial government's "distributable pool" and hence its ability to reallocate revenues among local governments in the Province. Such a change would generally reduce the importance of the fiscal role played by Provincial governments in the Chinese system of public financing. In other words, this proposal would involve a tradeoff between encouraging more revenue mobilization by local

governments and redistributing more funds from richer to poorer areas of the province. Such a change would generally reduce the importance of the fisal role played by provincial governments in the Chinese system of public financing. Would the more vigorous tax administration efforts at the municipal level yield enough increased revenues to offset the possible losses in fiscal equalization? Would an increased local tax share really give a sense of more local autonomy, even though the local government has no control over the tax rate? These are important questions to be answered in evaluating the alternative of increasing the municipal tax share.

C. Borrowing and Self-Financing

177. Local governments in China make relatively little use of borrowing to finance capital projects. The mission found no evidence of a formal program for lending to local governments, e.g., a revolving fund or a specialized local government loans authority. Both low and high income countries make some use of debt to finance infrastructure development in urban areas. These projects are long-lived and it is appropriate to pay for their use over a period of time, providing of course that the borrower has a sufficient capacity to repay the loan. Typically, local governments must borrow in a prescribed way from a central government loan fund. These funds are usually capitalized by the central government, distributions are controlled by central government regulations, and in some cases technical assistance is provided for project preparation. There are many such schemes but their common feature is that the Central Government sets the terms and uses of debt and controls the flow of loan funds. There is quite a different situation in the US where local governments are given a great deal of autonomy in deciding how much to borrow, under what terms and from whom.

- 178. There is clearly some potential for debt finance by local governments in China. For one thing, local governments may have a quite adequate repayment potential for certain long-lived municipal projects, with repayment made directly from general revenues or from project beneficiaries. We did find some evidence of self-financing of this type, but it was being carried out in an ad hoc manner and it was not looked to as a general method for financing capital projects.
- 179. To move forward with borrowing and self-financing as methods to stimulate local resource mobilization and local capital investment, the Central Government will have to take the lead. Some form of national or regional loans authority will have to be set up and funded, and rules for the distribution of funds established. Such an agency would require a capable staff that could assist municipalities in preparing project application and financing schemes and that would be skilled enough to evaluate repayment potential. Clearly the creation and maintenance of such a scheme would not be costless.
- 180. A key question is whether local governments have a capacity to repay the debt they incur. The answer to this question is that it depends on the local government and on the priority they can give to capital outlays. In general we can say that there are two sources from which loans may be repaid: general revenues and beneficiary charges. For the municipalities in Zhejiang which have been studied, we may say that revenues have increased in real per capita terms, but not in proportion to the increase in personal income. This does inidcate a repayment capacity but also suggests that the capacity to repay debt could be substantially enhanced by a reformed system of municipal financing that was more responsive to income growth.

181. The other capital financing possibility is self-financing i.e., municipal loans can be repaid in part by beneficiary charges. In many countries, the government captures a share of any increase in land values that results from a public investment. For example, when a new road causes adjacent land values to increase, a special tax may be levied on the increase. In China, there is no mechanism for land value increment taxation, recoupment might be from tolls, user charges, or perhaps from an increase in enterprise profits. While there are no formal benefit charge programs, there is plenty of evidence of innovative self-financing schemes in Zhejiang. What is needed now is central government guidance in setting such programs up and encouraging their use.

D. Budgeting and Planning

- 182. Based on information supplied to the mission, it can be concluded that fiscal planning at the provincial and local government level is not as well developed as it might be in Zhejiang Province. A first step to modernizing the fiscal planning process would be to alter the structure of the local budget to make it a tool that could be more effectively used for planning and control. Some immediate steps in this direction would be to:
 - (a) Clearly delineate current from capital expenditures, and capital construction from capital maintenance expenditures;
 - (b) Show price subsidies and transfers to enterprises as separate expenditure items rather than as reductions in total taxes collected;

- (c) Prepare a consolidated budget that includes public utilities,
 extrabudgetary funds and the general municipal budget, where all
 transfers have been netted out.
- 183. These data may be used to plan the finances of the local government over a multiyear period. Municipalities should prepare five-year revenue and expenditure forecasts that can be used to study the potential impact of future changes in the local economy or in government policy, and five year capital budgets that include both capital expenditure priorities and a financing plan.

E. Tax Administration

Provincial and local officials in Zhejiang see no significant problem with the present system of tax administration. If they are wrong, however, they are missing the opportunity to mobilize a substantial amount of resources. There are indications that they are wrong, though we should be clear that it is intuition, and not evidence, that causes us to think that tax administration might be a problem. Simply put, China's tax structure has very recently been modernized (a profits tax and a value-added tax have been installed in the last couple of years) but its tax administration may not have kept pace. At least there does not appear to have been a recent program to update the administrative procedures and the training. The new system appears to be operating with much the same type of staff and under much the same procedures as when the major revenue instruments were profits remitances and an extended excise system.

- 185. If there is a tax administration problem in China, it may get worse. The growing number of small private firms, and collectives—which may be the hard-to-tax sectors in China—suggests an increased opportunity for evasion and a much more difficult administrative task.
- 186. Without a survey of administrative problems, it is difficult to even suggest the elements of a reform program. One might, however, think of four areas where some investigation might be made. The first is whether the government's personnel policies and training programs have led to an adequate number of qualified tax administrators. The second has to do with whether the administrative system has been adapted to accommodate the changing economic system. For example, a growing private and collective sector implies a greater need to identify enterprises and track their activities, hence the need for a taxpaying numbering system, more information on transactions, more government attention to assessment and audit, and computerization. Third, there is the question of whether the structure of the tax system is so complicated that it blocks effective administration. This problem would suggest that the first step toward a better administration is a simplification of the tax structure.
- 187. The fourth area is the most difficult to address. Should there be separate central and local taxes and separate tax administrations? Should there be a centralized tax administration similar to that which exists in most countries? The arguments in favor of this are strong. Under the present system where the local governments must surrender a majority of the tax they collect, there are disincentives to aggressive assessment and collection efforts. A centralized system would eliminate this incentive by taking local governments out of the business of collecting central government taxes.

Another advantage of a central tax administration is that procedures can be standardized across the country and the processes of manual preparation, monitoring and gathering and reporting statistics can all realize economies of scale. The Central Government is also more able to bring specialized technical assistance to the whole system of tax assessment and collection, and is in the best position to modernize the tax administration to keep it in step with the modernization of the tax structure. It is important that China's new tax structure be implemented so that it achieves the intended economic impacts, and that it be implemented in a uniform way across the country. Finally, there are a number of advantages to centralization that relate to the staffing of an efficient tax administration service. Among these are the advantages of central organization of the training programs, the ease of transferability of personnel within a centralized system, and the greater possibility of promotion and advancement within a central revenue service. 188. There are also disadvantages to the proposal to create a central tax administration service in China. Coupled with increased local fiscal autonomy, this proposal would mean that there would also have to be a local tax administration. A central and local system would involve duplication of effort and inevitably a weaker, "second-class" local administration. A central revenue system in China would be an enormous bureaucracy and in any case would have to decentralize to accommodate the great diversity in tax administration needs within the country. The biggest disadvantage to centralization, though, is that intimate familiarity with the local economy and its taxpaying base can be lost. Most central sales- and income-tax systems in low-income countries do not have a very broad coverage of firms, whereas locally administered systems seem more able to identify and assess smaller firms.

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- 189. Perhaps a better way to go would be to reform the tax administration to capture some of the best features of centralization and decentralization.

 A few principles that might be considered in thinking about such a reform are as follows:
 - (a) General procedures for taxpayer identification, recordkeeping, and assessment should be centralized, and all related manuals should be centrally prepared and updated;
 - (b) A major staff training program should be centrally designed, and implemented soon;
 - (c) A "statistics of taxation" series should be organized centrally and regularly collected to help in monitoring the performance of the tax system and the administrative efforts of each decentralized local unit.
 - (d) Assessment, collection and audit responsibilities should remain at the local level, but procedures should be established by the Central Government and regulated through the provincial level.
 - (e) Tax sharing is a good scheme to stimulate local tax effort but the local shares should be the same for all taxes so as not to encourage different levels of effort for different taxes.

These are but some preliminary thoughts. The tax administration issue in China calls for serious study.

V. SUMMARY AND CONCLUSIONS

190. In considering these conclusions about municipal finance problems and possibilities in Zhejiang province, three important considerations should be re-emphasized. First, the municipal and county governments have almost no autonomy in revenue raising and very little in determining the level and composition of expenditures. Second, there are three definite tiers of governance in China--central, provincial and local--and each has a different sphere of responsibility. The Central Government formulates tax policy and decides how much revenue will be given to each province; each provincial government decides on how resources will be divided among its local governments; and the local governments are responsible for tax assessment and collection. Each level, then, can have an independent and important effect on the workings of the Chinese fiscal system. The third point is that the taxation system and the tax sharing arrangements are new, hence municipal financing in China is in a period of transition. It is important to try and distinguish inherent flaws in the system from short term adjustment problems.

A. Municipal Fiscal Performance

191. We have very little information on which to base a summary statement of revenue and expenditure patterns of local governments in the province. The limited data available to us, however, suggest the following about Zhejiang municipalities:

- (a) municipal expenditures have grown in real per capita terms in recent years, but have not grown as fast as personal income;
- (b) there is considerable variation in the per capita spending level across the 5 municipalities under study here, from Y 390 in Hangzhou to less than Y 250 in Shaoxing and Wenzhou;
- (c) the share of expenditures allocated to capital construction and maintenance is reported to be around 70% in Hangzhou and is somewhere between one third and one half in the other municipalities. Capital financing is mostly from general municipal revenues and only a small proportion is from the urban construction and maintenance tax (20%) and from grants. A reasonable proposition is that the capital expenditures reported in municipal budgets are more maintenance than construction;
- (d) Profits and sales taxes combined account for about 80% of total taxes collected by the municipalities. After tax sharing, it appears that municipalities retain about one third of what they collect (e.g., Hangzhou 29.4%, Shaoxing 34.6%, Ningbo 37.6% and Quzhou 34.1%). Wenzhou has a preferential arrangement and retains 53.7%; and
- (e) borrowing, self-financing and grants account for an insignificant share of total revenues for the five municipalities under study here.

192. There are some significant strengths in the local financing system in Zhejiang. The system has generated a growth in revenues which is faster than the growth in population and prices—the real position of local budgets has not slipped. There are also some examples of ad hoc but very innovative uses of benefit financing of capital projects, an indication that there is some willingness to finance higher levels of local public services. Despite these strengths, however, there are some problems with the structure and the implementation of the local financing system. It is to these problems that we now turn.

B. Problems to be Faced

- 193. The mission did not engage the Zhejiang authorities in any direct discussion of public financing problems. Based on discussions in Beijing and on what we have discovered about the local financing system, however, a number of problem areas can be identified.
- The first problem is that the present fiscal structure may not give local governments an adequate revenue flow to meet their expenditure requirements. In recent years, the growth in municipal expenditures has not kept pace with the growth in personal income and there is reported to be a substantial backlog of infrastructure needs. The future will hold the need to eliminate this backlog and to deal with the budgetary pressures of urbanization. The major source of financing for municipal governments—the profits tax—does not have an income—elastic base, is cyclically unstable in yield, and is sensitive to central government decisions about pricing policy, etc.

 Moreover, the continuing shift of the economic structure towards collectives

and household firms expands the profits tax base to include activities that are taxable at a lower rate and are harder to identify and assess. The sales tax may be more income elastic in the long run but only a small proportion of its revenues accrue to the municipal governments.

- 195. A second set of problems has to do with the structure of the local financing system, and with the price incentives it may provide for inefficient behavior.
 - (a) An important potential problem area, where local governments may not be stimulated to maximum efficiency, is tax administration. Tax rates are high, municipal tax shares are low (especially for the sales tax), and the principal tax base is municipally owned enterprises, hence the returns for avoiding full tax payment may be substantial;
 - (b) the "price" of capital construction is high in that it must be financed from current revenues rather than from loans, i.e., by current rather than future beneficiaries; and by the general public rather than by beneficiaries because self-financing schemes are not available;
 - (c) the governance system is decentralized in terms of the administration of public services, but local fiscal autonomy is limited and tax rates/expenditure structures do not vary significantly among communities. Without the diversity in tax prices, there can be no significant fiscal decentralization and the goal of making local

officials more accountable for their actions and thereby improving the efficiency of the delivery of local public services cannot be achieved;

- (e) the tax/subsidy system probably promotes a concentration of economic activity in the city proper versus the outlying areas; and
- (f) the profits tax structure is complicated, restricts enterprise decision-making, and the rates are high enough to have an effect on the rate of increase in profits. This potentially compromises the growth in the local profits tax base.
- The third concern is tax administration. Local officials in Zhejiang Province see no problem and claim that there is full collection of the amounts due. Previous analyses, the views of some central government officials, and our own a priori reasoning, however, suggests that there are at least potential problems with tax administration. Certainly there are incentives and opportunities for provincial and local governments to alter the system (e.g., through preferential treatment of their own enterprises) in order to retain a greater share of revenues collected. Moreover, the system is complicated and difficult to administer, it requires a highly qualified staff for efficient administration, and books of account for smaller firms may be inadequate to the task of determining sales and profit tax activity.
- 197. Finally, there are problems with the way in which municipal governments marshall financial information to plan and control their fiscal activities. It was not possible to construct a consolidated budget of local

government finances or of total capital expenditures in the urban areas, and we were unable to net out interfund transfers. There is no multiyear budgetary forecasting and no capital budget. In general, the budget is not used for planning purposes.

C. Reform Possibilities

- 198. The first step in a reform program is for the Government to decide on the role it wants to assign the provincial— and local—government sector. In particular, the question as to whether municipal and county governments will be given some revenue—rasing autonomy must be decided. If that route is chosen, and it would be consistent with the general economic reforms underway, then a number of fiscal changes might be considered.
- 199. Several possibilities are open to increase the revenues of municipal governments. If local taxation is to be permitted, a land use tax at a high rate could be an attractive option. It could raise significant revenue and have desirable effects on the distribution of land use, though it could have undesirable product price effects, may generate significant external costs, and would be costly to administer. At a low rate the land use tax would lose its advantages and have little to recommend it. A local option surrate on the profits and sales taxes, in that case, would be much better.
- 200. If autonomy in local taxes is not to be allowed, an alternative to increase municipal revenues is to increase the municipal tax-sharing percentage. If the retention rate were increased above its present level of about 30% and if the same rate were applied to combined sales— and profit—tax collections, an incentive to improve administration could also be provided. However, under the present system this would be a provincial government

decision and would come at a cost of less opportunity for fiscal equalization within the province.

- 201. There are other good possibilities for mobilizing more resources. A formal mechanism for borrowing and benefit financing could permit local governments to finance capital projects in a more efficient way and tap the willingness to pay by project beneficiaries. Likewise, a more formal and appropriately designed program of provincial government grants to stimulate local fiscal activity in desired areas should replace the present ad hoc system.
- 202. Municipal budgets in Zhejiang Province can be recast as more effective planning tools. The objective should be to regularly produce a consolidated local area budget, fully identify capital construction and maintenance spending and financing, and trace out all interaccount transfers. Multiyear budgetary forecasting and capital budgeting should also be considered.
- 203. Potential improvements in tax administration are an important consideration. Without a survey of administrative problems, it is difficult to even suggest the elements of a reform program. Among the possible needs are the introduction of taxpayer identification numbers and a master file, more staff training, simplification of the tax structure itself, improved collections and assessment, and computerization. An even more important underlying question is whether the tax administration system should be more centralized and whether the administrative problems are as much related to the structure of the tax system as to its operation. It would seem ill advised to consider the creation of a separate central—and local—government tax administration.

STRUCTURE OF HANGZHOU PEOPLE'S MUNICIPAL GOVERNMENT Hith Details on Urban Construction Institutions

