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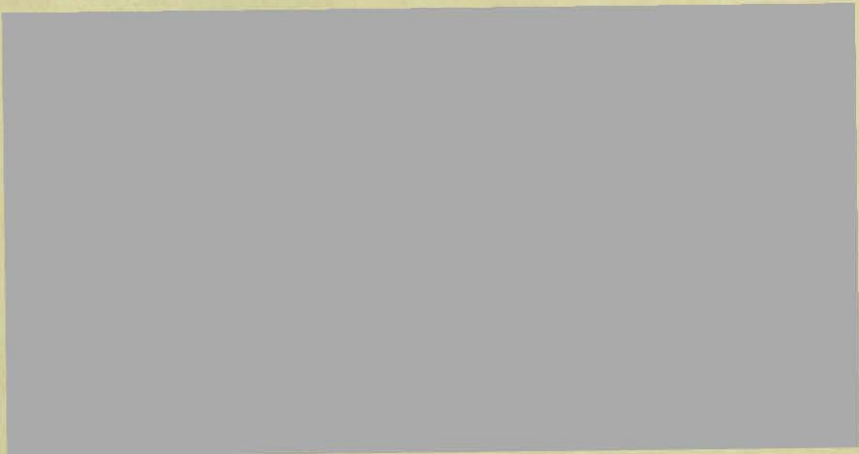


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RESEARCH ADVISORY PANEL  
Meeting October 1978 (1)



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Volume 1

**DECLASSIFIED**  
WBG Archives

General Research Advisory  
Panel meeting  
October 26 - 28, 1978

schedules

History of Research

RAP Briefing Papers on  
~~An~~ analysis in Bank Operations, and  
Impact of Bank Research

List of External Research Projects

Specialized RAP's  
reports (drafts) + memos  
- incomplete

MS. minutes

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NOTE: Descriptive material relating to the Bank's Research Program may be found in the Report on the Research Program of January 1978. For information on individual research projects, the Abstracts of Current Studies of December 1977 and "Narratives of New Research Proposals" may be consulted. These, and other background documents, have been sent to Panel members: additional copies are available on request.

PANEL  
INFORMATION

## OFFICE MEMORANDUM

TO: General Panel

DATE: October 24, 1978

FROM: Alan Gelb, VPD *AG*SUBJECT: Information on Arrangements for the  
General Research Advisory Panel

Members of the panel have the following offices assigned to them for their use during their visit to the Bank:

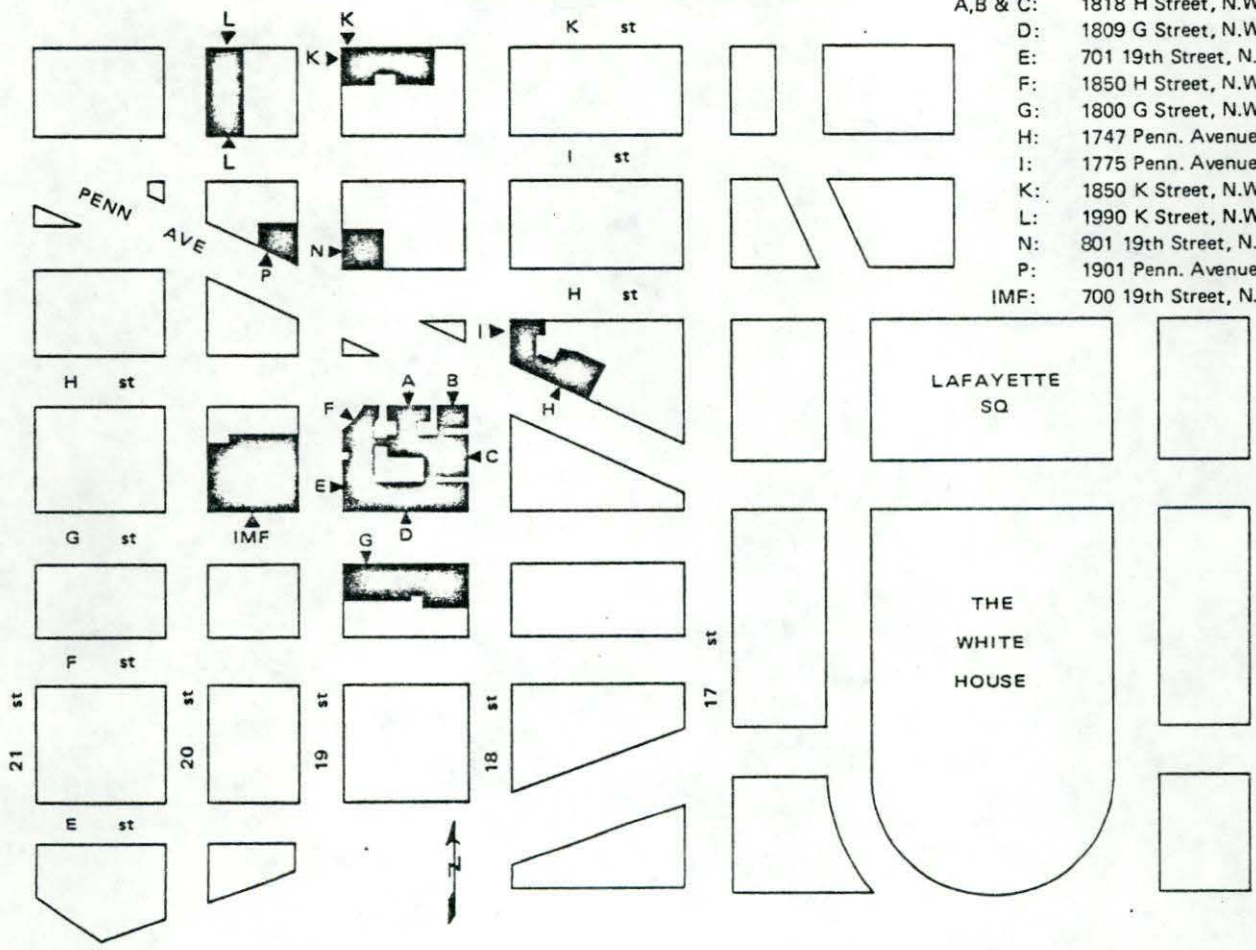
Sir Arthur Lewis	K-3504	Ext. 60001
Mr. David Bell	K-3305	Ext. 61974
Mr. Carlos Massad	K-3503	Ext. 60010
Mr. E. Malinvaud	K-3501	Ext. 60012
Mr. Kim Mahn Je	K-3604	Ext. 60018
Mr. Herbert Giersch	K-3702	Ext. 60029
Mr. O. Aboyade	K-3703	Ext. 60028
Mr. Nurul Islam	K-3704	Ext. 60027

All of these offices are on the 3rd floor of the K Building of the Bank, the entrance to which is at 1850 K Street, N.W. at the intersection of 19th and K Streets. The positions of the Bank's offices are indicated on the street plan appended to this note.

While the panel is in the K Building, Suman Bery, the panel's secretary will be using the office K-3300, Ext. 61980. His secretary is Ms. Leela Thampy. While the panel is in the main Bank building, Mr. Bery's office will be F-1233, Ext. 76003. Mr. Bery will be coordinating arrangements for the panel and will be assisted by Mr. Alan Gelb. The office of Mr. Bela Balassa, Research Adviser is K-3411, Ext. 61998.

The panel's first meeting is scheduled for 9:30 a.m. on Thursday, October 26 in Room E-1208. It is suggested that members meet at Mr. Bery's office in the K Building at 9:15 a.m., from where they will be accompanied to their meetings.

### STREET PLAN OF BANK OFFICES



- A, B & C: 1818 H Street, N.W.
- D: 1809 G Street, N.W.
- E: 701 19th Street, N.W.
- F: 1850 H Street, N.W.
- G: 1800 G Street, N.W.
- H: 1747 Penn. Avenue, N.W.
- I: 1775 Penn. Avenue, N.W.
- K: 1850 K Street, N.W.
- L: 1990 K Street, N.W.
- N: 801 19th Street, N.W.
- P: 1901 Penn. Avenue, N.W.
- IMF: 700 19th Street, N.W.

Tentative Schedule for General Research  
Advisory Panel

October 26, 1978

9:30 - 11:30 [E-1208]	Meeting of panel with Messrs. Chenery, Balassa, King
11:30 - 1:00 [E-1208]	Internal meeting of panel.
1:00 - 2:15 [D Dining Room, Room D]	Lunch with members of the Research Committee
2:15 - 3:15 [K-3700]	Meeting with Mrs. Hughes and staff from the Economic Analysis and Projections Department
3:15 - 4:30 [K-3700]	Meeting with Mr. King and staff from the Development Economics Department
4:30 - 5:45 [K-3700]	Meeting with Mr. Pyatt and staff from the Development Research Centre.
6:00 - 7:30 [D Dining Room, Rooms A & B]	Reception

Note: This schedule is subject to revision at the first meeting. Messrs. Bery and Gelb will serve as secretariat to the Panel.



October 27, 1978

9:30 - 12:00  
[E-1028]

Meetings with Central Projects  
Staff:

9:30 - 9:50

Mr. Baum (Vice-President, CPS)

9:50 - 10:25

Mr. Jaycox, Urban Projects Dept.  
Mr. Gordon, Industrial Development  
& Finance Department

10:25 - 11:00

Messrs. Pickering, Donaldson,  
Agriculture & Rural Development

11:00 - 11:30

Mr. Carmichael and Staff from  
the Transportation Department

11:30 - 12:00

Wrap-up discussion

12:00 - 1:00  
[E-1028]

Meeting with selected Research  
Committee Members from  
Regional Offices (Messrs.  
Picciotto, Lerda, Waide).

1:00 - 2:30  
[D Dining Room]

Internal Meeting of Group (lunch)

2:30 - 5:30  
[K Building]

To be determined at option of  
Panel Members

Dinner  
[Mr. Chenery's  
residence]

Panel Members, Messrs. Balassa,  
Chenery.

October 28, 1978

9:30 - 12:00

Meeting of Panel (with Mr. Chenery  
as desired)

From 1955 to 1963 he was Professor of Economics at Dacca University. Following that he was Director of the Institute of Development Economics in Pakistan between 1964 and 1971, and then Deputy Chairman of the Bangladesh Planning Commission between 1972 and 1975. He is the author of numerous books and articles on economic development planning, and international economic problems and policies.

Kim Mahn Je

Mr. Kim Mahn Je, a Korean national, is currently President of the Korea Development Institute. He obtained his Ph.D from the University of Missouri. Since 1974, he has also been the Director of the Korea Atomic Energy Research Institute and has been closely involved with economic policy formulation in Korea. He has had an important role in the formulation of the Five-Year Plan and is currently involved in developing the long term prospective plan for Korea.

TASK OF PANEL

## OFFICE MEMORANDUM

TO: Members of the Research Advisory Panel  
on Income Distribution and Employment

FROM: Orville F. Grimes, Jr., VPD *OG*

SUBJECT: The Research Committee: An Informal Early History

DATE: October 10, 1977

1. This memorandum outlines the rationale and origins of the Research Committee, established in April 1971 to guide the conduct of research in the Bank. While the coverage is selective and treatment of each topic is brief, this account may provide a basis for more detailed discussions with participants in the events described.

Antecedentsa. 1968 Review by Orcutt

2. One of the earliest reviews of Bank research, prepared by Professor Guy Orcutt in 1968, took the view that the Bank should be doing a great deal more research than it was then doing. A five-year target budget of \$10 million per year was recommended as both feasible and "as small as should be considered reasonable." "If the Bank doesn't have the responsibility, the resources, and the opportunity to carry out and promote (inductive and applied research along with needed research tool building), then who does?" <sup>1/</sup> In its simplest form the principal contention of the paper appears to be that (a) the Bank needs knowledge to formulate intelligent policy; and (b) research can supply that knowledge.

3. Another suggestion of the Orcutt review was that since research in the Bank was then scattered among Area, Project, and Economic Departments, there was need for further consolidation of research activities. One wonders whether this conclusion followed from a more all-inclusive perception of research than was (and is) generally accepted in the Bank, in which the analytical work of operational units is regarded more as support of country programs and projects than as research. Already, in fact, most staff engaged in research on the narrower definition had been grouped in departments which devoted a significant portion of their resources to research. This paper called attention to the inefficiencies from duplication of effort, failure to

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<sup>1/</sup> Guy H. Orcutt, "Research and the World Bank," May 6, 1968, p. 10.

initiate research on high priority topics, and inadequate contact with users among departments conducting research. However, it seems to have contributed little to later attempts to coordinate research on a Bank-wide level.

b. Economics Department Research Committee (1969)

4. A subsequent attempt to improve the coordination of research was the formation in January 1969 of a Committee of nine members, drawn mostly from operating departments, to advise on the research program of the Economics Department of the Central Economic Staff. Chaired by Andrew Kamarck, the Economics Department director, this Committee was established so that operational departments would "...be familiar with the (Economics Department research) program and make a contribution to its periodical assessment and to the general direction of the research effort." Responsibility for planning and carrying out research remained with the Economics Department.

5. Though such a judgment is undoubtedly easier with hindsight, it seems evident that given its mandate as an advisory rather than a review body, the success of the Economics Department Research Committee depended critically on the quality (particularly the level of detail) of the documents it was asked to examine. In the event, the Committee met three times during 1969 to discuss the future research programs of individual Divisions. These were presented as a series of brief statements about the need for research on selected topics. On this basis Committee members found it difficult to comment in depth on specific proposals, and on probably more than one occasion, "questions regarding the details of methodology and content were raised, but the Committee felt this should be left to the researchers to decide." <sup>1/</sup> Advice to the research sponsors thus consisted primarily of requests to give more weight to some topics and de-emphasize others. Little scope could have been expected for setting down guidelines on how the studies could have best been carried out.

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<sup>1/</sup> Review of research program of Economics of Industrialization Division, July 29, 1969, p. 3.

c. Pearson Commission Report (1969)

6. During this period the report of the Pearson Commission was issued. It suggested that multilateral lending agencies should begin to finance research projects on a larger scale than hitherto, and recommended that the World Bank (as well as the Regional Banks) "pay greater attention to problems of research and development in their country studies and should themselves identify needs for scientific and technological research. Increased involvement in, and support of, such research activities will considerably strengthen the capacity to formulate projects in agriculture, education, and urban services, which take full account of the specific needs of the country." 1/

d. Review of Progress (Balassa, 1971)

7. In October 1970 Hollis Chenery was appointed Economic Adviser to the President and initiated a review of the research program. A comprehensive review ("Economic Research in the Bank," January 1971, prepared by Bela Balassa) went beyond previous efforts by suggesting that individual research projects be appraised in terms of their relative costs and benefits, describing the requirements of a coordinated research program, and evaluating each of the studies undertaken in the Central Economic Staff. Employment, planning, trade policy, and other new areas of inquiry were proposed to the two research departments (the Development Research Center and the Economics Department) with a comparative advantage in their design and execution. These departments would prepare research proposals which should have the support if not the active participation of operational departments, which would also participate in the selection and review of proposals and in evaluation

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1/ pp. 205-206

of completed research. 1/ The report concluded that "Responsibility for setting research priorities, approving the overall research program, and establishing a review process on research should be entrusted to an Economic Research Committee chaired by the Economic Adviser to the President." 2/

Research Committee: Scope of Activities

8. This section briefly describes the birth and early development of the Research Committee, and touches upon its subsequent evolution. The coverage is limited to a few themes raised when the Committee was established and dealt with at various times during its formative period. Since these themes are also taken up in the successive Annual Reports on Bank research, especially the last two, the discussion does not extend much beyond early 1974.

a. Objectives and Purpose

9. Consistent with the recommendation of the Balassa review, a Bank-wide Research Committee was established in April 1971. A general set of guidelines was prepared in Mr. Chenery's memorandum of March 1971 (Annex 1); these were subsequently adopted by the Committee. While in size

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1/ p. 22. Research departments of the Central Economic Staff were encouraged to improve cooperation with each other as well as with operational units. An illustration cited in the report was the Basic Research Center (now the Development Research Center), established in 1969, whose major research projects in the first 18 months of operation were undertaken by outside academics. The work of the Center "has to be made more relevant for the Bank's operational activities. This could be accomplished by involving the operational departments in the choice and the implementation of the research projects, by establishing close cooperation between the Center and the Economics and Economic Program Departments, and by making the Center's research program an integral part of the overall research program of the Central Economic Staff." (p. 20).

2/ p. 23.

the Committee has remained at roughly 10-12 members, the composition has varied in response to changes in staff responsibilities, attempts to ensure representation of a broad range of departments producing and using research, and the normal succession of staff each serving for about two years. A list of Bank staff who are or have been members of the Research Committee, with their period of tenure, is attached as Annex 3.

10. It was established at the first meeting of the Committee that its terms of reference were to extend beyond the review of project proposals. "There would be broad responsibility for developing an overall research program, setting priorities and, where necessary, initiating research proposals." (minutes of first meeting, p. 2). An implication of this mandate was that when the administrative arrangements for the research program were in full operation, the Research Committee would review and advise the Chairman on all major studies undertaken with Bank resources. The Committee would consider proposals within a long term program of research, whose estimates of cost would serve as the basis for a yearly review of research and for budget allocations.

11. In its early deliberations the Committee further made a rather careful distinction between research undertaken inside the Bank and that contracted to outside analysts. A note on the role of development research in the Bank discussed at the first meeting of the Committee indicated that at a later date an external committee on development research was also envisaged, to advise on overall priorities and on relations with outside research groups. 1/

12. An informal panel of outside advisers 2/ had met in December 1970 to discuss alternative means for the Bank to coordinate research with agencies in developing countries.

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1/ This proposal was discussed with Mr. McNamara at that time, but the establishment of external panels was deferred until programs in the major areas had been in operation for a reasonable period. The first panel (on population) was set up in 1975.

2/ Messrs. G. Ranis, M. Bruno, C. Diaz-Alejandro, W. Falcon, D. Hopper, B. Minhas, T. Watanabe.



This was followed by a conference of directors of research and training institutes in Belgrade (August 1972), jointly sponsored by the OECD Development Centre and the Bank, in which many of the papers presented had been prepared by Bank staff or under Bank auspices. <sup>1/</sup> However, as it became clear that projects, even though carried out by others, required at least a critical minimum of Bank design and supervision, the distinction between in-house and outside research became less meaningful.

13. In the first year of operation both the objectives of the Committee and the criteria by which it judged proposals were further clarified. Its functions were seen in May 1972 as (a) recommending an overall research budget and allocating the resources among different subject areas and individual projects; (b) recommending total staff resources to be devoted to research and the distribution within the Bank required for the successful implementation of the research program; (c) monitoring the implementation of such other research objectives as involvement of developing country institutions, liaison with academic institutions and coordination of research with other agencies; and (d) evaluating the Bank research program and individual research projects.

14. The following criteria for consideration of proposals were established: (i) research design; (ii) priority of the subject; (iii) relation of the project to the sector or the general subject; and (iv) the time in which useful results could be expected. An appropriate balance was sought between studies at the basic vs. at the applied end of the spectrum, those more "risky" or less so, and those yielding useful results over the long term or sooner. As to the extent of participation by outside research institutes, the Committee in a May 1973 meeting recognized that lack of Bank staff limited the progress of research in many areas. While not encouraging the submission of unsolicited proposals from outside, the

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<sup>1/</sup> The other topics were multi-level planning models and decentralized decision making, income distribution and employment, and private foreign investment. Suggestions for improving cooperation among research agencies were made in light of a survey of the priority interests of these institutions by Peter Clark, then a Bank staff member.

Committee decided to accept a limited expansion of research conducted by outside institutes, provided Bank staff participated fully in the design and monitoring and that the proposals were judged against the same criteria applied to research conducted by the staff.

b. Sector Reviews

15. At the mid-year review of the FY73 research program, the Committee recognized that a continuing problem was the absence of a broader, long-term framework within which to consider individual projects. One outcome of this concern was the preparation of guidelines for the allocation of funds by sector over the ensuing five years, which were later set out in the first Annual Report on Bank research (November 12, 1973). Another was a series of sector reviews, held from January to April 1973, on the basis of one- or two-year research programs. Attached as Annex 2 are the conclusions of this review, considered by the Research Committee in May 1973, for research on income distribution and employment.

16. At irregular intervals, the Committee has considered overviews of research priorities in particular sectors. A paper on income distribution research discussed at a meeting in March 1975 identified seven categories of research in which the Bank had a potential interest: developing the factual base, developing measures of inequality and social welfare, modelling growth and distribution, modelling a part of the economy, studying isolated relationships, studying the historical experience of growth and distribution, and studying the impact of particular policy instruments. <sup>1/</sup> Aside from suggesting that additional work on data collection or modelling should have a clear policy focus, little guidance was provided by the Committee on the relative emphasis to be placed on each of these categories. One suggestion was that a list of policy instruments that influence income distribution should be drawn up, with assistance from country and project analysts, as a basis for determining the relevant topics amenable to research. An issue not yet resolved from this and subsequent reviews of research on education (October 1975) and urban problems (March 1976) is whether

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<sup>1/</sup> M. Ahluwalia, "Income Distribution Research: An Overview of Research Prospects", March 1975.

reviews of this sort tend inevitably to produce a broad menu of possible research categories, perhaps admitting all potential studies on an equal footing, or could instead provide a strategy for setting research priorities or identifying promising projects.

17. Research directions for the Bank and others were reviewed in a much broader context during the conference on social science research held at Bellagio in February 1974 and co-sponsored by the Ford and Rockefeller Foundations, IDRC, USAID, and the Bank. The need for coordination of research activities in the form of consultations and exchange of information led to several programs of exchange of reports and project descriptions among major donors. It was also agreed that networks of research agencies could play an important role in financing and carrying out research in developing countries. Participants accordingly decided to hold smaller meetings of subgroups to exchange information on research priorities in these areas, explore possibilities for joint financing, and improve their awareness of externally-financed research being undertaken.

Attachments

cc: Messrs. Chenery, Balassa, B. B. King

THE ROLE OF DEVELOPMENT RESEARCH IN THE WORLD BANK

As the scope of its activities has expanded, the World Bank has taken on a number of new functions, including the conduct of research on development. Hitherto not much consideration has been given to the proper function of research in the Bank or to the role of the Bank in relation to research done elsewhere. The purpose of this memorandum is to suggest guidelines for a systematic program of development research for the Bank.

Relation of Research to Bank Objectives

2. Many activities originally undertaken as incidental to lending are now recognized as proper functions of the Bank as a development institution. These include the preparation of country economic reports and specialized sector analyses, on which the Bank now spends more than \$15 million per year. The Bank also regards institution building and the provision of technical assistance as important additional objectives to the transfer of financial resources. More recently the Bank has recognized the need to support agricultural research in order to increase the technological information available to the developing world. In these and other ways, the Bank is taking increased responsibility for improving knowledge of the development process.
3. While it is recognized that research on a variety of economic, social, and technical questions is required as a basis for development policy, the Bank itself has taken only limited steps to support this activity. Total Bank resources allocated for research -- broadly defined -- in FY 71 were about \$2-3 million, of which less than \$500,000 was for consultants. Hardly any Bank funds are used to finance research institutes in developing countries.
4. A large part of the research financed by the Bank has been geared to acquiring information necessary to design and evaluate projects (e.g. the highway design study and the Indus Basin study). By contrast little work has been done on the general methodology of project appraisal or on the relationship between national policy objectives and project selection. Despite the Bank's interest in the broader aspects of the development process and in the choice of development strategies, research on these problem areas has been scanty -- with some exceptions such as fiscal policy and protection.<sup>1</sup>
5. In short, the present research effort is limited, uncoordinated, and lacking in focus. The most useful research undertaken has been

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<sup>1/</sup> Despite the limited resources available, there have been several significant pieces of individual work. (Bela Balassa's survey of Economic Research in the Bank, January 1971).

primarily for the Bank's immediate operational needs. Wide areas relevant to the Bank's broader policy interests have received little attention. No effort has been made to improve the developing countries' ability to undertake research on their own behalf.

#### Orientation of Future Development Research

6. The Pearson Commission recommended that the Bank should take a more active role in a variety of research fields. So far, the Bank has considered the overall needs of technological research on questions of population and agriculture. A similar examination is needed of the uses of economic and social research, the existing institutions which support and carry out such research, and the proper role for the Bank in this area. It will take time to develop a comprehensive program of action.

7. The Bank should concentrate on those areas where its experience will give the Bank a comparative advantage that can be utilized in research work. The Bank is unique in having accumulated experience on projects, in undertaking country economic missions on a regular basis, and in carrying out policy advisory activities. It therefore has an advantage in project- and policy-oriented research and in utilizing the data made available through its country missions.

8. Beyond this, the absence of special advantage, as well as the need to avoid building up an overly large staff, call for the use of outside researchers. In most cases, cooperative arrangements with research groups would be the appropriate vehicle. The Bank will need some "counterpart" staff to ensure that such research is oriented towards the proper objectives. This will entail expanding the Development Research Center. Some of the functional divisions of the Economics and Economic Program Departments will also be involved. There is a need for the Bank to make better use of the most advanced research techniques and findings in the principal areas of development economics.

9. The first task will be to indicate the major research objectives, the types of research needed to pursue them, the role that the Bank can play in carrying out such research, and the organizational arrangements necessary to ensure that research actually serves these objectives. Among the objectives of a coordinated program, a distinction should be drawn between internal objectives that are directly related to the Bank's activities and external objectives that are indirectly related to them. This is not a rigid distinction since research aimed primarily at external objectives will often provide a basis for improvements in the Bank's work. Conversely, research directly related to Bank activities will benefit the developing countries not only through Bank operations but also by increasing the knowledge of development.

### Internal Objectives

- (1) The establishment of a factual and conceptual basis for Bank policies on particular aspects of development: population, resource mobilization, international trade, the use of development programs, etc.
- (2) Support for Bank operations in particular sectors: agriculture, industry, transportation, education, etc.

### External Objectives

- (3) Increasing knowledge of the basic development process in areas of particular importance to the Bank, such as development strategies, employment, rural-urban balance, the productivity of capital and of external resources, the transfer of technology, etc.
- (4) Development of institutional capacity for research in the developing countries both to support planning and policy efforts and to increase knowledge of the development process.

10. The principal change from present Bank thinking is to recognize the need to develop and support research institutions in the developing countries which can undertake an increasing share of the empirical research and analysis. Since the quality of Bank economic reports can be no better than the underlying data available and the understanding of the development process in each country, the Bank's own interests would also be served in this way.

11. The external objectives may best be served if the Bank's research activities -- both in-house and sponsored -- are geared primarily to attaining internal objectives because of the gain in relevance and sharpness that will follow. Topics for cooperative research can be selected with these objectives in mind.

### Types of Bank Research

#### Lending-Oriented Research

12. The selection of projects to be financed by the Bank should further the development objectives of a particular country. To attain this goal the Bank should carry out research on the methodology of project appraisal, giving attention to the interdependence of the project, the sector and the national economy. This requires, first, research on the use of shadow prices of foreign exchange, capital, and labor taking appropriate account of economic and social objectives and their application in particular countries.

Second, research is needed in formulating sectoral policies in the framework of an overall development strategy. Third, there is need for research on the relationship of projects with sector. In these areas the Bank should apply existing knowledge and also undertake original research to adapt known techniques to its needs.

#### Policy-Oriented Research

13. As its role as a policy advisor expands, the Bank needs to clarify some of the major policy issues in development, explore alternative solutions to particular problems and, to the extent possible, unify the practices followed by Area and Projects Departments. Position Papers will be required setting out the relevant alternatives and their respective advantages, to provide for the continuous evolution of Bank policies on particular questions. These position papers should deal with developmental objectives, the choice of policies aimed at reaching particular objectives, and the use of policy instruments.

14. Position papers are as good as the research underlying them. They require research on policy objectives such as growth, employment, income distribution and the trade-off among them; on policy choices such as export promotion versus import substitution, agriculture versus industry and public versus private enterprise; and on policy instruments such as exchange rates, tariffs, quotas, taxes, and investment licensing. Bank research in these fields may range from evaluating the applicability of existing findings to original research undertaken by Bank staff possibly in cooperation with researchers in developed and developing countries.

#### Knowledge of the Development Process

15. While intimately related to policy-oriented research, the objective of increasing our knowledge of the development process goes beyond the immediate operational needs of the Bank. Such research is nevertheless valuable for the Bank since an increased understanding of the process of development will contribute to improvements in policy-advice and lending activities. This type of research is carried out at universities and research institutes and many gaps remain to be filled before it can be applied to practical problems. Questions like the relationship of population and economic growth, the environmental effects of industrial development, or the productivity of foreign aid have received little attention. Yet answers to these questions can help to improve Bank policies and the selection of projects. This suggests the need for the Bank to systematically explore the implications of research carried out elsewhere.

16. The Bank is in a good position to formulate this type of research project but it may not have an advantage in carrying it out. Thus the Bank should extend contractual support for research done elsewhere. The need to make the results of such external research relevant to the Bank's activities will usually call for cooperative arrangements with the research institute concerned.

#### Research Capacity in Developing Countries

17. Institution-building in, for example, development banking, highway design, and agricultural planning is a recognized objective of the Bank. But improving the capacity of the developing countries to undertake economic research has received little or no attention. The development of indigeneous research capacity is an important part of the task of improving policy-making. From past experience it can be demonstrated that the Bank's policy-advisory and lending activities benefit directly from the availability of reliable data and other results of indigeneous research.

18. The experience of Pakistan, India, Israel, Chile and Nigeria shows the value of local research groups and the improvements that are possible within as little as five years. In each of these countries small research groups supported initially by foundations have made substantial contributions to the understanding of the development of their own countries, thereby both facilitating a better analysis of their current economic problems and contributing to the broader growth of knowledge of development.

19. While the financing of these institutes is basically the responsibility of the individual countries, the Bank can contribute to their development through cooperative arrangements and by sponsoring research on problems relevant to a particular country. Cooperative research projects bring direct benefits to the Bank since they facilitate exploring various issues in a comparative framework. In turn, apart from obtaining some additional financing, research institutes in developing countries would benefit from the technical assistance and coordination the Bank can provide.

20. In addition to comparative studies, there is need for research on the experience of individual countries which should be commissioned in cooperation with the Area Departments to ensure that projects enhance the Bank's understanding of a country's economic problems.

21. These provisions would help existing research institutes in developing countries. But they would not contribute to the establishment of new institutes in countries like Turkey, Korea, Tunisia, and the Central American Common Market. It is not proposed that the Bank should finance the establishment of such institutes, since



this can be done more readily by private foundations. But the Bank can play an intellectual and financial role in furthering the development of such institutions once they are launched.

Implementation

22. In order to develop these ideas further and to put them into operation, the following stages are envisaged:

1. Discussion of this memorandum in the Economic Committee and with an informal panel of external advisors who have been invited for this purpose (Professors Ranis and Falcon [U.S.], Hopper [Canada], Diaz-Alejandro [Cuba], Watanabe [Japan], Minhas [India], and Bruno [Israel].)
2. Establishment of an Economic Research Committee in the Bank -- with members drawn from the Central Economic Staff, the Area and Projects Departments, and IFC -- having responsibility to set research priorities, advise on research proposals, and review research results. Interdepartmental research panels should also be formed to evaluate research in particular fields.
3. With the help of the external advisors, the Economic Research Committee will identify promising areas for cooperative research. Topics in the fields of employment, population, agriculture, resource mobilization, the use of planning models and industrial technology have already been identified and are included in the budget proposals for FY 1972.
4. Once the general lines of the Bank research policies have been approved, the establishment of an external committee on development research to advise the Bank on research priorities and on relations with the external research community is proposed.

Hollis B. Chenery  
March 15, 1971

(Extract from: "Formulating a Bank Research Program," A. Ray and E. Stern, May 21, 1973)

### Income Distribution and Employment

The immediate program of the Income Distribution Division involves preliminary empirical and methodological work. The basic issue in this program concerns the balance between the four areas identified in the DRC discussion paper - i.e., evaluation of data, general policy reviews, quantitative general equilibrium models and project evaluation. No consensus emerged during the meeting regarding the areas of priority. The discussion paper also contains possible elements of a longer term program. Program preparation and the identification of the research options appeared to be strongest in this area among the major areas discussed.

A large part of the FY1974 expenditures will be for completing the Korea and Yugoslavia models (RPO 206) and the Brazil model (RPO 269). As noted during the meeting, large scale projects to generate data may not be suitable for Bank financing but should await, in any event, the necessary background work on the problems of measurability and data interpretation. This is the primary intent of the ECLA and ECIEL projects...and of the Botswana Survey being funded separately.

Research on employment in the Population and Human Resources Division is presently limited to the studies of labor markets and the unemployment survey in Costa Rica (RPO 245, 247). The Belo Horizonte project tentatively approved by the Committee in April is basically a part of RPO 245 and does not extend the area of research involvement. While it may not be feasible with existing staff to undertake new employment research in addition to these studies and the study on public works which it is monitoring, research on the employment aspects of development has no strategy and is weak. Little work seems to be in progress which will yield projects in the next few years. It was suggested during the meeting that a comparative study on the structure and nature of unemployment in different countries would fill a priority need.

In judging the adequacy of the programs of research on income distribution and employment, we note that concern with these areas is beginning to run through most of the research program as a whole. While this is a welcome development, there is no framework in terms of which the intended contributions of the other studies can be meaningfully assessed. There is therefore an apparent need for a broader research strategy, especially in employment, which will give guidance to the preparation of other research projects relevant to these areas.

Research Committee Members

	H. B. Chenery (Chairman)	April 1971 -
Mrs.	I. Adelman	November 1971 - Spring 1972
	H. A. Adler	Summer 1971 - October 1974
	J. H. Adler	April 1971 - Spring 1972
	D. Avramovic	April 1971 - October 1974
		November 1975 - February 1977
	B. Balassa	April 1971 -
	G. B. Baldwin	April 1971 - December 1971
	J. Baneth	Spring 1972 - October 1974
	B. de Vries	October 1974 -
	V. Dubey	November 1975 -
	R. Gulhati	April 1971 - October 1974
	M. ul Haq	Spring 1972 - March 1973
Mrs.	H. Hughes	October 1974 - September 1975
	E. V. K. Jaycox	October 1975 -
	A. Karaosmanoglu	November 1972 - November 1975
	B. B. King (Deputy Chairman)	April 1971 - June 1972
		June 1974 -
	P.-P. Kuczynski	May 1972 - October 1973
		December 1976 - July 1977
	E. Lerchau	October 1974 -
	I. M. D. Little	November 1976 -
	R. Picciotto	November 1976 -
	M. Qureshi	March 1972 - October 1974
	H. Schulmann	May 1972 - December 1975
	E. Stern (Deputy Chairman)	January 1972 - September 1974
	W. Thalwitz	October 1974 - August 1976
	H. G. van der Tak	November 1971 -
	H. Vergin	October 1974 -
	J. Waelbroeck	October 1974 - September 1976
	E. B. Waide	April 1977 -
	M. L. Weiner	April 1971 - Spring 1972
	C. Weiss	November 1971 - Spring 1972
	M. Yudelman	October 1973 - November 1976

Research Advisory Panel

Briefing Paper I:  
The Role of Analytic Work in the  
Bank's Operations

October 24, 1978

## The Role of Analytic Work in the Bank's Operations

### Introduction

The aim of this paper is to provide the Panel with an idea of the contexts within which analytic work is conducted in the Bank, the relationship of this analytic work to the Bank's operations and the particular role that research plays in the overall analytic effort.

The plan of the paper is as follows. The paper first provides a brief description of the organization of the Bank Group, identifying functional responsibilities and the important loci of research. It then enumerates the principal 'end products' produced by the Bank. This is followed by a description of the use that is made of analytic work in the Bank's various operations, and by a more detailed account of the analytic work itself. The paper finally continues to a description of the kinds of research that the Bank has undertaken and their relationship to the rest of the analytic effort.

### Bank Group Organization

The World Bank Group consists of three financial institutions: the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), and the International Finance Corporation (IFC). IBRD and IDA share common staff and differ only in the sources of

their finance and the terms of their lending, while the IFC has separate staff and distinct operational procedures. This paper deals only with IBRD and IDA, which for convenience are referred to below as 'the Bank'. The organizational structure of the Bank is set out in the attached chart. Four groups of departments may be distinguished: the six Regional Offices; the Central Projects Staff (CPS); the Development Policy Staff (DPS); and a heterogeneous group of central support departments responsible for legal, personnel, financial, information and general administrative services.

The Regional Offices (or Regions) are each responsible for planning and executing the Bank's country assistance programs for the countries assigned to them. Each region includes one or two country programs departments and a projects department. The country programs departments handle country relations, and are responsible for the overall design of the lending and operational strategy for a particular country. They are also responsible for the design and conduct of 'country economic work', as discussed below. The regional projects departments undertake the preparation, appraisal and supervision of most projects being financed by the Bank in the region. They are responsible for conducting economic analysis at the sectoral level, also described below.

This decentralized operating structure is supported by various service departments and by the CPS and the DPS.

As its name indicates the CPS is concerned with the Bank's project work. While the CPS departments are all functionally specialized their responsibilities differ. In the case of sectors where operational responsibility has been decentralized to the Regions (Agriculture; Transportation; Energy, Water and Telecommunications; Industrial Development and Finance and Education) the Central Projects Staff play a support role. In sectors where the Bank's demand for specialized staff is too small to permit efficient decentralization, or where the Bank's lending activities are relatively new, the CPS departments have direct operational responsibility and service country program departments throughout the Bank. This group of departments (known as the Central Operating Projects Departments or COPDs) deal with projects in the areas of rural development, large scale industry, tourism, population and urban development. Within the CPS, policy development and research activities are generally undertaken by the non-operational departments.

The mandate of the DPS is to undertake socio-economic research, to coordinate the Bank wide research effort, to support and improve the quality of the Bank's economic work and to coordinate the Bank's policy work. There are five departments in the DPS: Economic Analysis and Projections (EPD); Policy Planning and Program Review (PPR); Development Economics (DED); the Development Research Center (DRC) and the Computing Activities Department (CAD). Of these the DRC has the heaviest emphasis on research in its activities. EAP and DED both undertake a

combination of research, policy work and support of regional economic work. PPR coordinates policy work in the Bank and reviews country lending and economic work programs prepared by the regions. In lending sectors where the CPS has direct project responsibility, policy development and research activities are vested in the DPS, particularly in the functional divisions of the DED. Project responsibilities on the one hand and policy development and research on the other for a given lending sector are thus entrusted to separate organizational units.

#### The Bank's Output

The Bank's institutional mandate is to assist the development of its poorer member countries. It does this in three principal ways:

- (i) Through provision of finance in the form of loans and credits.
- (ii) Through provision of analysis and advice on economic policy issues in its member developing countries.
- (iii) By commenting on more general issues of development policy and analyzing the effects of world trends and developed country policies for their impact on developing countries.

#### Definition of Analytic Work

In the provision of these services, the Bank undertakes



a variety of analyses and produces a wide range of documents. In principle one can distinguish between operational documents and reports that the Bank prepares as part of the lending cycle and more analytic background documents and studies which influence the Bank's immediate lending operations at one remove. It is this second category which is referred to as 'analytic work' in the present note, although the distinction between operational and analytic work is often a difficult one to draw in practise.

#### Range of Analytic Work

Formal Bank research forms a small part of this general analytic effort. For the objectives and attainments of the research program to be seen in proper perspective, it is desirable to have a view of the usual contexts in which the Bank's analytic work occurs and to have an idea of the contribution that this analytic work makes to the production of the Bank's main outputs. The analytic work undertaken by the Bank can be divided into the following categories:

- (i) country-specific analyses of economic trends, economic prospects and major sectoral issues;
- (ii) preparation of policy papers on issues connected with the Bank's loan operations in various sectors;
- (iii) analyses of world development trends and issues of international development policy;
- (iv) research.

In addition, the Bank undertakes information gathering and data collection activities which may also be considered part of the analytic effort. The relative resources devoted to these various activities is given in Table 1.

#### Country-specific analysis

The bulk of country level analysis is undertaken by the staff of the Regional offices. In addition, a fair amount of Bank research also contains country specific analysis. While the relevant regional program and projects divisions monitor economic events continuously, the analytic effort is concentrated on the production of formal country-specific economic reports. The format of such reports is flexible and has been evolving; the following taxonomy is therefore suggestive rather than exhaustive.

- (i) Economic Memoranda: these update the Bank's information on economic trends and policy initiatives; in addition, they often contain annexes which take a more detailed look at a particular issue. Economic Memoranda are issued annually on major borrowers, less frequently on smaller countries.
- (ii) Basic Economic Reports: these are more ambitious documents, and are intended to evaluate the country's development strategy and its development prospects over the long term. While the rigor of analysis differs

Table 1: DISTRIBUTION OF EXPENDITURE ON ANALYTIC  
WORK BY MAJOR CATEGORY  
(in percent)

	<u>% of Total Administrative Budget</u>		<u>% of Total Expenditure on Analytic Work</u>	
	<u>FY74</u>	<u>FY78</u>	<u>FY74</u>	<u>FY78</u>
Country Economic and Sector Work <u>1/</u>	11	9	57	53
Policy Work <u>2/</u>	2	3	13	16
Data <u>3/</u>	1	1	3	7
Research	<u>5</u>	<u>4</u>	<u>27</u>	<u>24</u>
Total	19	17	100	100

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Source: FY79 Budget paper.

- 1/ Excludes costs of country program papers.
- 2/ Includes expenditure on 'Prospects' paper and World Development Report. Also includes analytical tools for project analysis.
- 3/ Includes monitoring systems.

substantially between reports, an attempt is usually made to address issues of intersectoral resource allocation, public investment, and the demand for external capital. In addition, major policy issues are also selectively examined. Where data availability permits, an attempt is made to construct an economy-wide model, and to simulate the effects of major policy alternatives. Basic Reports are prepared roughly every five years for major borrowers.

- (iii) Special Economic Reports: While economic memoranda and basic economic reports tend to be produced on a regular schedule, special economic reports are produced on an ad hoc basis to examine particular issues of interest to the region, particularly in the interval between Basic Reports. The variety of topics handled within this format is wide and can include such topics as a review of the fiscal or financial system, in-depth analyses of the impact on a country of increases in the cost of energy, or the evaluation of major administrative changes. A sequence of special reports will usually be undertaken prior to a Basic Report, to provide material for it.

(iv) Sector Reports: While the economic reports described above usually include some discussion of sectoral issues, these are looked at more intensively in various types of sector reports produced by the regional project divisions and the central projects staff. The preparation of these reports is done on an ad hoc basis, as need arises and staff availability permits. Such reports typically review available information, comment on policy toward the sector analyse specific issues and determine future investment requirements.

The preparation of these reports usually involves a field trip by Bank staff to the country. The reports are discussed in draft form with government officials; when finalized, they are usually forwarded to the Bank's Board of Executive Directors, and, via this channel, to all member governments of the Bank. In addition, some reports are distributed to members of aid consortia and consultative groups in which the Bank participates.

This pattern of country economic reporting, supplemented as needed by less formal, more confidential studies, provides the basic stock of country economic information needed for the Bank's lending operations. In addition it constitutes the principal vehicle for policy dialogue with borrower countries, and the raw material for the Bank's general judgements on development

strategies and on the effects of world economic events on developing countries.

The link of country economic work to loan operations is primarily through a document known as a country program paper (CPP), which is also prepared by the country programs departments, which outlines and justifies the Bank's operational involvement in a country. All CPPs contain a discussion of recent economic developments and likely economic prospects, and these discussions draw heavily upon the findings of country economic analysis. In addition, the CPP makes explicit use of economic judgements on needs for external finance and assessments of country creditworthiness.

The contribution of country economic reports to the policy dialogue between the Bank and its borrowers arises directly out of the manner of their preparation. Both the initial mission and the discussion of the draft report with the government enable policy issues to be identified, the Bank's views to be expressed and the governments' reaction to these views noted. The follow up can take a variety of forms. In some cases the government may simply note the Bank's views; in others it may conduct further studies of its own or it may decide on policy changes on the strength of the Bank's analysis. In certain cases the Bank may press more vigorously for policy reform, and raise policy issues in the course of loan negotiations.

Sectoral Policy Work

Responsibility for sectoral policy work is vested in the CPS and the DPS. The aim of this work is to review and improve the Bank's objectives and procedures in the sectors to which it lends, and to explore the issues involved in extending Bank lending to new sectors. Such analyses are undertaken on an ad hoc basis, usually in response to requests from the senior management of the Bank.

Three types of policy documents may be distinguished: issues papers, policy papers, and operational manual statements. An issues paper is prepared when there is need for exploratory work on a particular policy topic. This outlines the main questions to be addressed and highlights directions for further work. More complete analyses are undertaken in the preparation of sector policy papers. These papers are intended to define the strategic objectives of Bank lending in the sector and to establish the framework within which more detailed policies will be elaborated. The preparation of a policy paper can be a major analytic exercise, involving a review of research results, assimilation of technical developments occurring around the world, assessment of the Bank's own previous experience in the sector and comment on various possible institutional arrangements. Drafts of policy papers are extensively discussed by interested departments within the Bank; once the paper is finalized, it is reviewed by the President and presented to the Board for review and discussion. Once a policy paper has been approved, its

contents are implemented in part through the issuance of operational manual statements which translate the policy into detailed operating instructions to Bank staff where this is appropriate. While the principal purpose of policy papers is clearly to improve and extend the Bank's own operations, many of the more important papers are published and disseminated as Bank documents and, as such, contribute to the discussion of appropriate sectoral strategies within the development community as a whole.

#### Analysis of Development Trends and Policies

Over the 1970s the Bank has defined a role for itself as a commentator on development policy issues as these arise in both domestic and international contexts. These views are articulated through several channels. One important forum has been the annual address of the President of the Bank to the joint meetings of the Board of Governors of the Bank and the IMF. In these addresses, Mr. McNamara has commented on issues such as the prevalence of poverty in LDCs, the adjustment problems facing LDCs, the consequence for developing countries of protectionist trends within the developed countries and the like. In addition, since 1974, the Bank has undertaken an annual review of development prospects which has provided the basis for its views on trends in the international economy and on relationships between trade, aid and LDC growth. In its initial form this exercise was incorporated in a document entitled "Prospects for Developing Countries" (henceforth 'Prospects'). This document was intended



primarily for the Bank's management and Board. In 1978, the Bank prepared a global overview document explicitly intended for public release entitled the 'World Development Report' (henceforth WDR). This has now replaced the Prospects series and is also intended to be an annual document but with less focus on immediate macro-economic analyses and more emphasis on structural issues and long-term trends. The Bank also expresses its views on major international policy issues through the preparation of papers for various international conferences.

The preparation of these documents primarily involves the central staff of the Bank, but the expertise of the regional staff is also drawn on extensively. The final document (such as the WDR or the Annual Address) is the synthesis of a number of ad hoc notes and papers which bring together available information on developing country performance and policy experience and analyse policy issues of international concern. In addition, the Bank has conducted an annual global projection exercise in conjunction with the 'Prospects' and WDR papers. This has provided the framework for estimates of LDC growth prospects and external capital needs. The development of such global models draws heavily upon the expertise of the Bank staff in areas such as commodity trends, the debt position of LDCs, prospects for manufactured exports of LDCs, and construction of country models.

#### Research

Although original work is undertaken within the framework of country economic work and in the preparation of a

document like the WDR, this work does not fall within the Bank's definition of research. What is termed research by the Bank includes (i) relatively large studies funded from the Bank's 'External Research Budget', subject to review and approval by the Research Committee (henceforth 'external' research), (ii) smaller efforts, often of a preparatory or exploratory kind totally financed by individual departments (henceforth 'departmental' research). This definition of research explicitly excludes three other activities of potential interest: (i) work undertaken by the Bank on the monitoring and evaluation of physical projects; (ii) participation by the Bank in technical research consortia such as the Consultative Group on International Agricultural Research (CGIAR); (iii) research provided for under loans and credits, paid for by borrowers, and therefore under their ultimate control.

Given the definition of research adopted by the Bank, the links between the research effort and Bank operations are less direct with the analytic work already described. In the companion briefing note provided to the Panel, three case studies have been prepared to document how Bank research on particular topics evolved and the contribution such research has made to altering operations and policy positions. Other case studies of the diffusion and dissemination process have been undertaken as Chapter III of the 1977 and 1978 Annual Reports on Bank Research being made available to the panel.

It may be useful to taxonomize the research undertaken by the Bank, so as to indicate in general terms the points of contact between these activities and the Bank's operations. It should be stressed that this taxonomy is not intended to be exhaustive.

(i) Project and Sector Research

This category encompasses research in several functional categories and of a variety of styles. Such research has included, inter alia, comparative analysis of country rural development strategies; design and conduct of experimental interventions in health, nutrition and education; specification and testing of engineering design alternatives in transport, sanitation, water supply and electricity, analysis of cost recovery policies in public utilities, transportation, and irrigation; development of planning techniques in industry, agriculture and water resource use, and exploration of approaches to project evaluation.

One important objective of such research is to provide a sound analytic basis for sectoral investment policy, for project design and for the positions the Bank adopts in its negotiations with borrowers. The Bank also sees itself as having a general responsibility for keeping au courant with analytic and planning techniques and propagating these where possible. User manuals are therefore being prepared in the manufacturing programming study, and a research project is currently underway to design software for easier implementation

of programming techniques. Such research can occasionally lead to direct transfer of analytic tools to borrower countries through country case studies. This has been true of several case studies in a project on programming in the manufacturing sector, and with some agricultural planning models.

(ii) Research on trade and finance

This category of research has concentrated on three main areas: markets for primary commodities, analysis of export prospects and export policies, and the development of a modelling framework for the world economy. Research on LDC import policies and their protective structure is more suitably discussed under the heading of country development strategies.

The Bank's routine work on commodity market analysis and price forecasting is not classified as research. This work has been supplemented, however, by a few research studies to provide in depth understanding of the markets for individual commodities, and to improve forecasting methodology. Work on exports has previously focused on export incentive policies of developing countries, but is now additionally looking at marketing channels and their importance in export growth. A recently initiated program of studies is to examine protectionist trends in developed countries and their implications for LDC export growth. Work on global modelling has expanded from initial work linking commodity and country models, to a richer analysis of the sources and constraints on LDC growth and the relationships between developing and developed countries.

Research in these areas principally contributes to the Bank's policy activities although improved commodity forecasts have implications for loan operations as well. Studies of export incentives and export policies help to provide information and techniques for policy advice to individual countries. The research on market penetration is expected to help the Bank advise LDCs on long term prospects for exports of manufactures and to help it assess protectionist trends in the developed world. These issues were discussed in the first World Development Report and are likely to remain critical in the future. The role that quantitative modelling plays in the preparation of global overview documents such as WDR has already been mentioned.

(iii) Assessment of country development strategies

Included in this category is the substantial volume of research undertaken by the Bank on incentive policies, comparative advantage and policy influences on resource allocation. Of particular interest is earlier research on the structure of protection in developing countries and a recently completed project on development strategies in semi-industrial countries.

These studies have persuaded the Bank of the role of outward looking policies and a fairly neutral incentive system in fostering efficient growth. Such a policy strategy is regarded as underlying the success of the East Asia economies, particularly those of South Korea and Taiwan. While clearly the Bank's research program has not been alone in reaching these

conclusions, its influence on the Bank's point of view has probably been considerable.

Such perceptions of successful and unsuccessful strategies underlie, if only implicitly, the dialogue on policy issues between the Bank and its borrowers. The conclusions from such research have also been reflected in Mr. McNamara's annual addresses and in the World Development Report. Finally, the techniques of analysis used in the research have been adapted for use in country economic and sector work and have thereby entered into country level policy analysis.

(iv) Workings of key economic and social institutions in developing countries

Included in this category is much of the Bank's research in the area of population and human resources. This includes studies of urban and rural labor markets, of migration and of the determinants of fertility. Much of the work on urban institutions and processes also belongs under this heading, such as analyses of urban public finances, of housing and land markets and the comprehensive urban analysis being undertaken in the City Study. Studies on the functioning of capital markets and operation of small scale and public enterprises may also be considered primarily institutional analyses.

Such research often responds to an unease within the Bank that, while understanding the workings of such institutions if of importance, there is no clearly established mode of analysis

available. There may be an additional perception (especially in the case of factor markets) that there are important market distortions which need correction: examples would be barriers to entry in labor markets, controls on financial markets or regulations on urban land use. The basic contribution of such research is to provide an analytic framework for discussion of policy issue in these areas.

As such it is best seen as sharpening the Bank's own thinking about these issues, rather than being directly related to its operational activities. However, techniques of analysis first used in a research context can later be applied to country economic reporting, through the participation of researchers on economic missions. This has been the case in virtually all the subject areas mentioned above.

(v) Analysis of development processes and structural change

This category constitutes the most 'basic' research undertaken by the Bank. Most of the studies in the 'Development Policy and Planning' category of the external research program come under this heading, as well as certain studies classified under industry and agriculture. Specific examples include the program of work on income distribution, the quantitative analyses of the patterns of industrial development and the studies of the sources of growth.

The immediate aim of this type of research is to contribute to our understanding of the nature of the development process, and to provide a comparative framework within which

individual country achievements and characteristics can be assessed. A longer term goal is to develop tools of analysis and a body of comparative information which permit country economic analysis to become more rigorous. One analytic tool which has been extensively used in this class of studies is the economy-wide computable general equilibrium model. The development of in-house expertise on the construction of these models is beginning to have its effect on more orthodox country economic work, as exemplified by the application of such a model to the analysis of policy options in Turkey. In addition, work on income distribution has helped to introduce distributional issues into policy dialogue between the Bank and certain of its borrowers.

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RESEARCH ADVISORY PANEL

Briefing Paper II

Assessing the Impact of Bank Research:

Three Case Studies

October 25, 1978

Assessing the Impact of Bank Research:  
Three Case Studies

I. Introduction

This paper examines three areas in which the Bank's outlook, or operating emphasis, has changed over the last decade, and in which the Bank has invested effort in research. Through the use of case studies it attempts to demonstrate the channels by which the Bank's research has modified its operations and affected its institutional positions. <sup>1/</sup> The case studies are based on interviews of Bank operational personnel, on the perceptions of researchers and on the examination of Bank documents.

The first case study deals with a fairly specific, project-related issue, that of pricing policies in the electric power sector, where the Bank has increasingly pressed for the incorporation of efficiency pricing considerations in the tariff policies of its borrowers. The second study deals with the change in the Bank's attitude towards issues of protection and industrial strategy. The impact of this change has been primarily on the Bank's country analysis and policy dialogue with its borrowers, but has also affected the strategy of its own industrial sector lending. The third study deals with the research strategy which has accompanied the Bank's concern

<sup>1/</sup> Additional case studies are to be found as Chapter III of the 1977 and 1978 reports in the World Bank Research Program. A discussion of the impact of the research program is also to be found on pages 10-13 of the 1977 report.

with poverty redressal. This body of work is more recent than the other two and its effects on Bank policy have only begun to be felt.

It should be stressed that the nature of the Bank's research differs substantially in the three areas. In the area of public utility pricing, Bank research was able to draw upon a well-established theoretical tradition and prior application of these principles in Western Europe. The research task was to adapt this work to the purposes of the Bank and its borrowers. The Bank's research on comparative advantage and incentive policies was also able to draw on a reasonably well developed theoretical framework and on similar work being conducted elsewhere. In the economic analysis of poverty and income distribution, there is less agreement on the appropriate theoretical framework. The Bank's research effort has therefore had to be more exploratory.

In the following narratives, no firm distinctions are drawn between the contributions of research and the contributions of researchers. Personal contact between researchers and the operating staff have been of major importance in the spread of research ideas through the Bank. This paper, therefore, should be seen as an analysis of the role played both by research and by an in-house research staff in the Bank's operations.

## II. Efficiency Pricing in Electric Power

### Origins

The Bank's traditional concerns with user charges in revenue earning infrastructure projects have been twofold: the need to generate internal resources for expansion, and the need for the operating authority to preserve autonomy from the legislative budgeting process.

In the late 1960s, the Bank began to pay attention to microeconomic aspects of user charges. An early and influential work was the volume, "The Economics of Road User Charges" by A. A. Walters, published by the Bank in 1968. Also in 1968, the Bank's Public Utilities department began its first desk studies on marginal cost pricing in the electric power sector. After further exploratory work, this became a formal research project in 1971 to study public utility pricing and its relationship to investment decision making in power, telecommunications and water supply.

### The Research

The research in electric power was to critique the Bank's existing methodologies, suggest improvements and to conduct case studies in several countries. The first report prepared under

the project established basic principles for marginal cost pricing in the power sector and provided guidelines on how the pricing structure ought to deviate from pure marginal cost if there were additional revenue objectives to be attained.

Further work proceeded in two parallel directions: theoretical development and conduct of case studies. The theoretical work formalized the principles underlying the general approach, and brought in explicit consideration of uncertainty in demand. In addition the research focused more directly on the relationships between tariff schedules, benefit measurement and investment policy, and explored ways in which revenue requirements and social objectives could be reconciled with the basic philosophy of marginal cost pricing. The costs and technicalities of metering were also studied. The outcome of this work was a 'three-step' approach to tariff determination, beginning with an analysis of marginal costs of supply at various points in time, adjusting this cost schedule to cope with practicalities of metering and then adjusting this 'ideal tariff' to allow for consideration of finance, fairness or acceptability.

Concurrently with this theoretical work, case studies were undertaken on Tunisia, Sudan, Thailand as a formal part of the research and in Andhra Pradesh in India for the regional

projects department. The case studies were undertaken in countries suggested by projects staff. These were designed to expose the researchers to a broad range of operating contexts, and to confront them with the practical problems involved in implementing their approach. The theoretical papers and the case studies were finally published together as a World Bank Research Publication entitled "Electricity Economics: Essays and Case Studies" in 1977.

The research phase served to convince Bank staff, particularly those in CPS, on several points. The first was that an 'economic' rather than 'accounting' approach to pricing was warranted and that pricing policies were especially important for investment decisions in sectors where the explicit identification of benefits was difficult. The second was that the empirical application of an 'economic' approach was tractable, and that the compromises needed to apply the principle did not violate its essential logic.

#### Dissemination

The next step was to disseminate the new approach to regional projects staff, and to get them to discuss tariff issues within this framework with the borrowers. One channel used by the CPS was its review of projects under preparation. These reviews provided a forum for examining existing tariff structures

and for requesting borrowers to undertake tariff studies. The use of this review power was supplemented by a more general campaign of explanation, illustration and documentation.

An important element in winning acceptance was the presentation of the basic logic of efficiency pricing in clear, nontechnical form. The regional projects staff consists of engineers and financial analysts, rather than economists, and they had to be inducted into the micro-economic point of view. The fact of case studies already being available was an important factor in determining the acceptability of the proposed approach.

The dissemination process has not been restricted to Bank staff alone. The Public Utilities department of CPS took the view that this approach to power pricing would not be fully institutionalized until the power authorities themselves possessed an in-house capacity to undertake tariff studies. Accordingly, it has been conducting regional seminars in various parts of the world to train technical staff from the borrowing entities in techniques of tariff analysis.

#### Effects on Policy

In 1974 the Public Utilities department drew upon the research it had undertaken in the electric power field as well as its analyses in other sectors in the preparation of a CPS policy document entitled "The Economic Evaluation of Public

Utilities Projects". Work on pricing had simultaneously been proceeding on similar lines in other sectors, including the analysis of pricing rules in port projects and water charges in irrigation projects. Formulation of the general principles that should govern cost recovery policies in public sector projects was issued in 1975 by a member of the Projects Advisory Staff. A condensed version of this paper appeared in March 1977 as an 'Operational Manual Statement'. The inclusion of the efficiency pricing concept and the associated body of ideas in this document marks their acceptance as official Bank policy.

#### Operational Effects

The change in the Bank's approach to pricing policy can be seen by examining successive appraisal reports for power projects in a given country. In the case of Thailand, for instance, the discussion of tariff policies in a 1969 appraisal report was purely concerned with cost recovery and a target for self-financing of investment by the borrower. A 1974 appraisal report concurred with this general approach to cost recovery policies. By contrast, a 1977 appraisal report referred to the working paper that had been produced under the research program and noted that "Government and EGAT (the power authority) have agreed to carry out a tariff study of the entire power sector on a marginal cost basis....". Similar tariff reviews are being undertaken in other countries.



### III. Incentive Policies and Comparative Advantage

#### Bank Research

Formal Bank research on LDC incentive policies began in 1967 with the research project "The Structure of Protection in Developing Countries", the findings of which were published as a book in 1971. This project described the adverse consequences of inward looking industrialization policies followed by developing countries after the Second World War. The countries studied were Brazil, Chile, Mexico, Malaysia, Pakistan and Norway, and the allocative effects of the protective structure were analyzed through the use of effective rate of protection calculations.

Subsequent work has been undertaken in the context of two concurrent projects. The project "Development Strategies in Semi-Industrial Countries" has attempted to demonstrate the superior consequences of outward looking policies in countries following a variety of development strategies. The countries studied are Argentina, Colombia, Israel, Korea, Singapore and Taiwan. The scope of the investigation has been extended to cover credit and tax incentives and to estimate effective rates of subsidy that incorporate all these incentive measures. The project also analyses the export or import bias of the incentive structure.

The project "Industrial Policies and Economic Integration in Western Africa" establishes quantitative measures of the incentive structure and assesses sectoral comparative advantage on the basis of domestic resource cost calculations. Estimates of domestic

resource cost are made for both agricultural commodities and industrial products, while incentive calculations are restricted to just the industrial sector. Both sets of calculations for industry have used firm level data. Countries studied are Ghana, the Ivory Coast, Mali and Senegal.

#### Dissemination

Considerable efforts have been made to disseminate the results and policy implications of this research. An early summary of the findings of "The Structure of Protection in Developing Countries" was circulated internally in 1970. Personal contacts between researchers and operating staff, discussion of results and presentation of seminars have been extensive and appear to have been of importance in spreading the policy implications of the analysis. The influence of researchers in diffusing analytic technique is discussed below. The dissemination of results outside the Bank, particularly to the governments of the countries studied, was also given high priority. This process

was aided by the fact that the authors of several country studies in the research projects rose to influential positions in their governments.

#### Effects on Country Economic Analysis

There has been a considerable change in the discussion of industrial strategy in country economic and industrial sector analysis between the late 1960s and the present. <sup>1/</sup> The reports of the sixties and the early seventies were typically complacent about the import substitution policies of countries. By contrast, more recent reports tend to be vigorous in their advocacy of outward looking strategies, and critical of the maldistribution of resources thought to result from unbalanced and excessive protection.

Complementing this strategic reorientation, there has been a trend toward a more sophisticated discussion of resource allocation issues. Recent reports are more prone to make industry-specific investment recommendations on the basis of comparative advantage criteria, to discuss the internal allocative role of exchange rate policy, and to relate the pattern of economic activity to the structure of incentives. According to staff in the Bank's Regional Offices, the use of formal methodology and the presentation of specific and detailed results are increasingly important for the Bank's policy discussions with government to be credible.

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<sup>1/</sup> A sample of 23 reports on six countries was examined for this exercise.

Despite the demand for more thorough work, the expense and length of time needed for a proper analysis of the incentive system makes this difficult to encompass within a conventional economic or sector mission. In some cases (such as the work on the Ivory Coast and on Korea) detailed analysis undertaken initially in a research context has been absorbed into the country economic report and entered into the Bank's policy discussions in that way. In addition, the regional offices have undertaken initiatives: early examples were a study of effective protection in Iran, conducted under regional sponsorship, with the participation of research staff on the study team, and a report on Nicaragua. A more current example is a study on the effects of trade and other incentive policies in resource allocation in the Cameroon. This is being done in the context of a review of the industrial sector, and the exercise is making use of staff from the DPS, the CPS and the regional office together with staff from the Cameroon and from UNIDO. Certain recent research initiatives should also be noted. The South Asia Region Office has initiated a study to examine incentive issues in relation to the trade policy of Bangladesh. The earlier cited project on West Africa has led to a comparative investigation of agricultural pricing, sponsored by the Agricultural Projects Department of CPS.

Wider use of these techniques is also constrained by the availability of staff to undertake the required analyses. Despite their interest, regional staff can seldom be released for the time needed for proper training in the new methodology, or for its execution. As a result, whether or not a study gets done depends on whether a DPS researcher can be released for regional work, or a suitable consultant identified. In general, the DPS is not equipped to meet all requests for such regional support. As a consequence; the quality of the treatment that this set of issues gets in country reporting still depends heavily on the availability and contribution of specific individuals.

#### The Impact on Country Policies

In some cases the effects of the research on policy making have been direct and appreciable. An example of this is Argentina, where a reform of the system of incentives resulted from the Bank's research findings. The authorities have since commissioned a second study to obtain more recent information for a change in tariff policies. Policies in Israel, Korea, Singapore and Taiwan may have been influenced by the fact, noted earlier, that several of the researchers are now in policy-making positions in their governments. The Western Africa research project has led to a tariff and tax reform in Senegal. In addition, Bank research staff have advised several LDC governments on incentive system reforms and trade liberalization strategies. The Government of Nigeria has commissioned a study of incentive policies with the Bank's assistance which is now complete.

#### IV. Research and the Concern with Poverty

##### Change in the Bank's Orientation

In the early 1970s, the Bank's orientation shifted toward explicit concern with poverty alleviation in developing countries. This arose from the judgement that conventional development strategies had made an inadequate impact on the welfare of the poor.

This shift was signalled in four speeches delivered by Mr. McNamara. The Santiago address to UNCTAD in April 1972 discussed the unevenness of development within as well as between countries. The September 1972 address to the Board of Governors suggested the establishment of targets for income growth among the poorest 40% of the population, the promotion of labor intensive projects and proposed shifts in the pattern of public expenditure towards the very poor. The September 1973 address to Board of Governors in Nairobi focused upon inequality, the concentration of poverty in rural areas and strategies for rural development. The September 1975 address to the Governors examined issues of poverty redressal and employment creation in the urban sector.

##### Bank Research

Initial Bank research on the economics of poverty and inequality began in 1972, in collaboration with the Institute of

Development Studies at Sussex University. Papers on a variety of factual, analytic and policy topics were prepared for a conference in April 1973; this work appeared in a substantially modified form as a World Bank Research Publication, "Redistribution with Growth" (1974). The shift in Bank orientation spawned further research in a variety of areas. These may be discussed under the following headings:

- (i) Dimensions of poverty and inequality.
- (ii) Analytic frameworks for antipoverty policy.
- (iii) Issues in the provision of public services.
- (iv) Creation of income opportunities for the poor.

A brief description of the research undertaken in each area is provided below. 1/

An important initial objective of the ensuing research has been to establish the scope and quality of existing data on income distribution in developing countries. This was felt necessary to establish the factual position less ambiguously, and to permit identification of socioeconomic target groups. Several research projects have accordingly concerned themselves with the assembly and basic analysis of income distribution data sets from all over the world.

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1/ A fuller description of individual research projects, and of the research strategy motivating them is provided on pp. 31-45 of the Annual Report of the World Bank Research Program (January 13, 1977), which has been made available to the Panel.

Work on provision of public services has been both economic and technical. The economic work has consisted of empirical analyses of the distributive pattern of public expenditure. Complementing this has been an extensive program of work, especially in the field of public utilities, which has aimed to establish delivery systems and design standards which facilitate access to such services by the poor. In a slightly different vein, work has been initiated on aspects of food distribution policy and its potential role in alleviating malnutrition.

The Bank's income augmenting strategy in rural areas has concentrated on the small farmer, and has stressed the importance of integrated rural development. An early research project, the African Rural Development Study, compared country experiences with rural development in Africa. Other work on rural development has included attempts to devise a coherent analytic basis for both design and evaluation of rural development projects.

In the urban sector the basic strategy for increasing the productivity of the poor has centred on the promotion of small scale enterprises. Systematic examination of the characteristics of small scale enterprises, the policy environment in which they function, constraints to their growth, and successful promotional interventions is being undertaken in a recently initiated research project.



### Assessing the Impact

The discussions surrounding "Redistribution with Growth" and the book itself helped to contribute various ideas to the development of Bank policy. Perhaps the most important was the definition and identification of key poverty target groups in both urban and rural sectors which could become the focus of an altered lending strategy. The second was redirection of the initial emphasis on relative poverty to concern with issues of absolute poverty. The third was a stress on provision of public services as a supplement to the basic strategy of increasing the productivity of the poor.

All three elements have continued to characterize the Bank's basic approach to antipoverty policy. The consequences for Bank loan operations of these strategic choices have been substantial. The sectoral composition of the lending program has shifted away from conventional infrastructure project towards agriculture; in addition the 'target group' concept has been formalized as an aspect of project justification.

As with the work on effective protection, some of the results of the research have been directly absorbed into country economic reports and entered into policy discussions between the Bank and the country. This for instance has been the case with the analysis of income distribution in Malaysia and of trends in poverty in India. The concern for documenting the

facts of income distribution and for identifying poverty target groups has widened beyond the research community at the Bank to become a more general focus of country economic analysis. In certain cases this transition has taken the form of detailed country studies sponsored by the regional offices, the findings of which have also figured in the policy dialogue between the Bank and the country, and in discussions of Bank lending strategy. Examples of this would be work undertaken on Brazil, Tanzania and Kenya. A similar process has occurred in the analyses of the labor market; the examination of these issues has become absorbed into country economic work, and in this process of dissemination researchers have played an active role.

The program of work on public service delivery has had a direct effect on the Bank's own policies. Based in part on the findings of research, sector papers were prepared on village water supply and rural electrification, and have guided the Bank's lending in these areas. The research on disposal of effluents, although still underway, has begun to have an effect on design standards in urban projects. More generally, the initial concern with provision of public services as an element in a poverty redressal strategy has broadened into the recent emphasis on the provision of basic needs to the poor, and the Bank is now involved in the formulation of a detailed basic needs strategy for Mexico.

Much of the research on income augmenting strategies for the poor has got underway comparatively recently, and it is premature as yet to assess its impact. The more analytic approaches to the design and evaluation of rural development projects are still in the process of completion. Similarly, a major study for integrated examination of employment, labor market, and spatial issues (the City Study) is still underway but is expected to provide the basis for a comprehensive approach to the 'urban informal sector' when complete.

SBery/AGelb:tr

EXTERNAL RESEARCH PROJECTS BY FUNCTIONAL GROUPING  
(current and past)

I. Development Policy and Planning

I.A. General/Planning

- 670-02 Country Programming Study: Chile
- 670-04 Study in Multi-Level Programming: Ivory Coast
- 670-10 Survey of Economy-Wide Planning Models

I.B. Income Distribution

- 670-06 Short-run & Long-run Influences upon Income Distribution
- 670-09 Size Distribution of Income
- 670-69 Growth & Income Distribution in Brazil
- 670-83 Evaluation of Latin American Data on Income Distribution
- 670-84 Growth, Employment and Size Distribution of Income
- 670-85 Urban Income Distribution in Latin America
- 670-94 Employment and Income Distribution in Malaysia
- 670-96 Distributive Impact of Public Expenditures
- 671-08 Evaluation of Asian Data on Income Distribution
- 671-36 Income Distribution in Thailand
- 671-41 Indirect Estimation of the Size Distribution of Income
- 671-76 Household Incomes and Expenditures in Mexico

I.C. Growth/Country Economic Analysis/Development Strategy

- 670-01 Development Strategies in Semi-Industrial Countries
- 670-03 Patterns of Demand & Savings in the Development Process
- 670-05 Cross-Section Analysis of the Development Process
- 670-07 International Model
- 670-08 Project Appraisal and Shadow Prices
- 670-54 Employment and Capital-Labor Substitution
- 670-68 International Comparison Project
- 670-74 Analysis of Income and Consumption (ECIEL)
- 670-86 Prototype Models for Country Analysis
- 670-92 Conferences
- 671-01 Country Concentration
- 671-25 Commercial Bank Behavior
- 671-27 Social Accounts & Development Models
- 671-58 A General Algebraic Modelling System
- 671-65 Small Enterprise Financing: Role of Informal Credit Market
- 671-66 Research Support for the World Development Report
- 671-69 Capital Market Imperfections and Economic Development
- 671-72 Growth Poverty and Basic Needs

II. International Trade and Finance

- 670-11 Prospects for Jute and Competition from Synthetics
- 670-19 Expansion in Manufacturing for Exports in  
Developing Countries
- 670-22 Economies of Scale & Tariff Levels
- 670-49 International Hotel Comparison
- 670-79 Economic Development of East & Southeast Asia
- 670-81 Comparative Analysis of Resource Allocation  
in Cocoa Production
- 670-82 Seminar in Inflation and Commodity Prices
- 671-09 Natural Resources & Planning -  
Issues in Trade & Investment
- 671-10 Promotion of non-Traditional Exports
- 671-23 Agricultural Commodity Projections
- 671-28 Linkage of Commodity and Country Models
- 671-35 Export Incentives in Developing Countries
- 671-56 Marketing Manufactured Exports
- 671-67 Effects of Increased Imports of Manufactured  
Goods from Developing Countries
- 671-68 Key Institutions and Expansion of Manufactured Exports
- 671-75 International Trade Policy for the  
Development of Bangladesh

III. Agriculture and Rural Development

- 670-12 Reappraisal of Credits for Financing Farm  
Mechanization in Pakistan
- 670-13 Evaluation of Alternative Methods for Specifying  
Agricultural Sector Development Strategies
- 670-14 Agriculture Mechanization Study in India
- 670-15 Agriculture Research and Productivity Changes
- 670-16 Agricultural Sector in Mexico
- 670-18 Rural Development in Africa
- 670-50 Mechanization in India: Its Extent and  
Effects on Hired Labor
- 670-73 Rural Development in Northeast Brazil
- 670-80 Land Reform in Latin America
- 670-89 Development Strategies for Smallholder  
Agriculture in Yugoslavia
- 670-93 Evaluation of Lilongwe Land Development Program
- 671-04 Rural Savings and Investment
- 671-17 The Analytics of Change in Rural Communities
- 671-21 Foodgrain Production in Asia
- 671-22 Raising the Productivity of Small Farms
- 671-24 Simulation of Buffer Stocks
- 671-29 Agricultural Pricing and Storage Policies  
in East Africa
- 671-34 Management and Organization of Irrigation Projects
- 671-39 Price Intervention in Agriculture
- 671-42 Country Case Studies of Agricultural Prices  
and Subsidies
- 671-43 Consequences of Risk for Agricultural Policy
- 671-44 Agricultural Innovation and Rural Development
- 671-45 Programming and Designing Investment: Indus Basin
- 671-57 Distribution of Income through the Extended  
Family System
- 671-62 India: Impact of Agricultural Development  
on Employment and Poverty: Phase I
- 671-64 Food Deficits of Target Groups
- 671-80 Evaluation of Food Distribution Schemes

IV. Industry

- 670-20 Industrialization and Trade Policies for the 1970's
- 670-21 Export Promotion and Preferences: India
- 670-23 Scope of Capital-Labor Substitution in the  
Mechanical Engineering Industry
- 670-24 Programming in the Manufacturing Sector
- 670-25 Industrial Capacity Utilization in  
Selected Latin American Countries
- 670-77 Financing of Small Scale Industry
- 670-87 Industrial Policies and Economic Integration  
in West Africa
- 670-95 Industrial Capacity Utilization
- 671-05 Patterns of Industrial Development
- 671-32 A Comparative Study of the Sources of Industrial Growth  
and Structural Change
- 671-51 Appropriate Industrial Technology
- 671-59 Small-Scale Enterprise Development
- 671-71 Public Manufacturing Enterprises
- 671-77 Appropriate Industrial Technology, Phase II
- 671-79 Sources of Growth and Productivity Change:  
A Comparative Analysis of Three Countries



V. Transportation

- 670-26 Substitution of Labor and Equipment  
in Civil Construction
- 670-27 Highway Design Study, Phase II
- 670-28 Measurement of Road Width/  
Vehicle Speed Relationship
- 670-29 Yemen Arab Republic Feeder Road Study
- 670-30 Impact on Port Congestion of Ship Rescheduling
- 670-31 Promotion of Road Construction Industry  
in Developing Countries
- 670-32 Compilation of Highway Design Standards
- 670-33 Railway Traffic Costing Study
- 670-71 Ethiopia Feeder Road Study
- 671-13 Port Pricing and Investment Policies  
for Developing Countries
- 671-14 Madagascar Feeder Road Study
- 671-50 Economic Role of Railways

VI. Public Utilities

- 670-36 Property Values and Water Supply
- 670-37 Village Water Supply
- 670-38 Analysis of Problems and Issues in  
Village Electrification
- 670-39 Pricing and Investment in Electricity Supply
- 670-67 Standards of Reliability of Urban Electricity Supply
- 670-76 Pricing and Investment in Telecommunications
- 671-11 Public Utility Pricing and Investment
- 671-12 Reduction in Waste Water
- 671-46 Appropriate Technology for Water Supply  
and Waste Disposal

VII. Urbanization and Regional Development

- 670-34 Urban Transport and the Automobile
- 670-40 Economic Model of Internal Migration
- 670-41 The Urban Data Needs of the IBRD
- 670-70 Urban Public Financing and Administration
- 670-97 Urban and Regional Subsystems in West Malaysia
- 670-98 Urban Land Use Policies: Taxation and Control
- 671-16 Standards for Site and Services Projects
- 671-18 Pricing and Financing of Urban Public Services:  
Water Supply and Sewage Disposal
- 671-20 Urban Traffic Restraint (Singapore)
- 671-37 Analyzing the Effects of Urban Housing Policies  
in Developing Countries
- 671-47 Strategic Planning to Accommodate Rapid Growth  
in Cities of Developing Countries ("City Study")

VIII. Population and Human Resources

VIII.A. Education

- 670-42 Professional Structure in Southeast Asia
- 670-44 Education Finance and Income Distribution
- 670-46 Cost Effectiveness of Alternative Learning Technologies in Industrial Training
- 670-51 Survey of Non-Formal Rural Education
- 670-78 Project Evaluation Methodology:  
Education Attainments
- 670-91 Benefits of Schooling for Workers
- 671-19 Economic Development and Educational Reform
- 671-33 Ability Characteristics as Factors of Production
- 671-49 Education and Rural Development in Nepal and Thailand
- 671-52 Occupational Structures of Industries
- 671-54 Economics of Educational Radio
- 671-55 Retention of Literacy/Numeracy Skills Among School Leavers
- 671-60 The Influence of Books on Learning
- 671-78 Educational and other Determinants of Farm Household Response to External Stimuli

VIII.B. Labor & Employment

- 670-43 Labor Market in Malaysia
- 670-45 Labor Force Participation - Income and Employment
- 670-47 Costa Rica Unemployment Survey
- 670-75 Rural and Urban Public Works
- 670-90 Labor Market in a Rapidly Growing Economy
- 671-06 Employment Models and Projections
- 671-07 Council for Asian Manpower Studies (CAMS)
- 671-26 Migration Patterns in West Africa
- 671-30 Structure of Rural Employment Income and Labor Markets
- 671-31 A Comparative Analysis of Rural-Urban Labor Market Interactions
- 671-48 Urban Labor Markets in Latin America
- 671-63 Labor Migration and Manpower in the Middle East and North Africa

VIII.C. Population/Health

- 670-48 Economic Issues of Health
- 670-99 Economic Aspects of Household Fertility Behavior and  
Labor Supply in Northeast Brazil
- 671-02 Population Growth and Rural Poverty
- 671-03 Maximizing Usefulness of Household Surveys
- 671-15 Effects of Health and Nutrition Standards on  
Worker Productivity
- 671-38 Narangwal Population and Nutrition
- 671-40 International Review Group on Research in  
Population and Development
- 671-53 El Salvador Health Study
- 671-61 Socio-Economic Aspects of Fertility Behavior  
in Rural Botswana
- 671-70 Case Studies of Determinants of Recent  
Fertility Decline
- 671-73 Kenya - Health, Nutrition and Worker  
Productivity Studies
- 671-74 The Economics of Schistosomiasis  
Control Activities
- 671-81 Determinants of Fertility in Egypt

June 6, 1978

External Expenditure FY75 to FY78, Compared to Guidelines  
(Percentage of external expenditure)

<u>Category</u>	<u>Guidelines</u>	<u>Actual</u> <u>1/</u>
IA. General Planning	1.0	-
IB. Income Distribution	14.0	11.4
IC. Growth/Country Economic Analysis	10.0	13.4
II. International Finance and Trade	4.0	6.4
III. Agriculture and Rural Development	20.0	17.9
IV. Industry	10.0	6.5
V. Transportation	10.0	11.0
VI. Energy, Water and Telecommunications	5.0	8.1
VII. Urbanization	10.0	7.8
VIIIA. Education	5.0	4.6
VIIIB. Labor and Employment	5.0	7.5
VIIIC. Population, Nutrition, and Health	5.0	4.7
Others	1.0	0.7
	<u>100.0</u>	<u>100.0</u>

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1/ Actual for FY75 to FY78 (in FY79 \$).

Table 1: Outlays under the External Research Program by Functional Category: FY73 to FY78

(in thousands of US dollars)

Category	FY73 (Actual)	FY74 (Actual)	FY75 (Actual)	FY76 (Actual)	FY77 (Actual)	FY78 (Actual)	FY73-FY78 Total
I. Development Policy and Planning							
A. General Planning	124.6	10.1	-	-	-	-	134.7
B. Income Distribution	121.3	295.3	374.0	343.6	118.7	73.1	1326.0
C. Growth/Country Analysis	273.6	174.5	165.3	344.8	367.8	241.3	1567.3
Total Section I	519.5	479.9	539.3	688.4	486.5	314.4	3028.0
II. International Trade and Finance	17.2	52.8	49.7	150.2	172.0	118.3	560.2
III. Agriculture and Rural Development	300.7	301.6	342.2	238.6	503.9	493.6	2180.6
IV. Industry	102.2	222.6	118.1	141.4	99.3	184.3	867.9
V. Transportation	433.8	199.4	323.6	229.6	248.0	86.6	1521.0
VI. Public Utilities	144.0	123.3	82.8	37.4	232.7	380.0	1000.2
VII. Urbanization and Regional Development	55.6	78.8	214.5	172.8	65.1	193.3	780.1
VIII. Population and Human Resources							
A. Education	96.2	68.8	71.6	54.1	51.4	222.1	564.2
B. Labor & Employment	74.7	178.1	175.2	225.5	69.9	146.3	869.7
C. Population & Health	6.7	15.5	59.6	126.6	91.0	121.4	420.8
Total Section VIII	177.6	262.4	306.4	406.2	212.3	489.8	1854.7
IX Other	22.6	20.9	9.2	-	19.4	40.4	112.5
GRAND TOTAL	<u>1773.2</u>	<u>1741.7</u>	<u>1985.8</u>	<u>2064.6</u>	<u>2738.0</u>	<u>2300.7</u>	<u>11905.2</u>

Source: For FY73-FY75 data, Annual Report of the World Bank Research Program, December 30, 1975.  
 For FY76 and FY77 data, Annual Report of the World Bank Research Program, January 23, 1978.  
 For FY78, P&B data.

SPECIALISED  
RAPs



## OFFICE MEMORANDUM

TO: Research Advisory Panel  
 FROM: Alan Gelb, VPD *AGelb*  
 SUBJECT: Current Status of Panels

DATE: October 25, 1978

1. Commodities: First meeting held July 10-14; *// Kun*  
 Second meeting planned for February 79.
2. Transportation: First meeting held July 10-15; *Massad*  
 Second meeting, October 30 - November 3.
3. Trade and Industry: First meeting held July 17-20; *Geisler*  
 Second meeting planned November 30-- December 2.
4. Agriculture: First meeting held September 7-15; *Islam/Abryale*  
 Second meeting planned December 11-15.
5. Public Utilities: First meeting October 17-19; *Malinward*  
 Second meeting planned for February 79.
6. Income Distribution and Employment: Panel report  
 distributed to EDs June 78 (SecM78-493). *Lewis*  
 Research Committee discussed Panel's  
 recommendations June 27, 1978.
7. Education: Panel members have visited several countries. *Beli*  
 Panel meets October 30 - November 1 in Washington;  
 draft Panel report is currently being circulated.  
 A report is expected in November.

AGelb:tr

## OFFICE MEMORANDUM

TO: Mr. Hollis B. Chenery  
FROM: Suman Bery *SKB*  
SUBJECT: Timetable for draft reports by Specialized Panels

DATE: October 23, 1978

1. The following is the current schedule for reports by the Specialized Research Advisory Panels:

### Agriculture and Rural Development

Draft report expected to be prepared at December meetings and available for circulation by end December.

### Commodities

Draft report to be prepared by Chairman at beginning of January. Panel will meet again in Washington end January, early February, 1979.

### Industrial Development and Trade

Panel will prepare draft in Washington end November. Draft for circulation should be available mid December.

### Public Utilities

Complete draft will be prepared at second meeting of Panel, February 12 to 18, 1979.

### Transportation

First draft prepared. Second meeting of panel at end-October.

2. Detailed terms of reference and work programs are available for the Industrial Development and Trade, Public Utilities and Transportation Panels, and are attached.

Attachments:

SKBery:lt

## Narratives of New Research Projects

### Industry and Regional Effects of Increased Imports of Manufactured Goods from Developing Countries

Potential exports of manufactures by developing countries depend critically upon protectionist measures adopted in developed countries. This study will analyse the economic, social and political factors which have affected the nature of protection on an industry basis for the United States over the past 30 years. The study's objective is to assist in determining sectors of potentially successful export expansion for developing countries by anticipating industries potentially able to master powerful protectionist forces. (Ref. No. 671-67)

### Key Institutions and Expansion of Manufactured Exports

The principal aim of this project is to learn more about the promotion of and prospects for manufactured exports from developing countries. The study will focus initially on the marketing of consumer goods in the United States with emphasis on non-price aspects of competitiveness. Subsequently it will assess the prospects for specific manufactured exports. It also aims to identify information sources to improve World Bank projections of manufactured exports. (Ref. No. 671-68)

### Capital Market Imperfections and Economic Development

This study is closely related to other Bank projects on small enterprises and capital markets (671-25, 671-65, 671-59) and aims to study the interaction between capital market structures and economic development. The effects of capital market imperfections in discriminating against traditional sectors and the effect of policy interventions are central themes. The study will use a country specific and substantially micro-economic approach. A later phase involves analysing the relationship between financial development and GDP growth. (Ref. No. 671-69)

### Case Studies of Determinants of Recent Fertility Decline in Sri Lanka and South India

Fertility declines of the magnitude recently observed in Sri Lanka and Kerala are virtually unprecedented in poor populations. Between 1969 and 1974 the Sri Lanka birth rate declined from 37 to 27 births per thousand; in Kerala it fell to 22. In both areas, changes in marriage patterns were largely responsible. This study aims to understand these fertility declines and to study the determinants of age at marriage, using household sample survey data. (Ref. No. 671-70)

Small Enterprise Financing: The Role of Informal Credit Markets

Despite the importance of so-called informal credit markets in the financing of small enterprises in Asia and Africa they have been little studied. Greater knowledge of their operations would be useful in designing policies to operate through the credit market and in obtaining estimates of transaction costs. This project involves a study of the indigenous bankers of India, the Shroffs. A number of these and of their clients will be interviewed. The project is also intended to indicate those aspects of the informal credit market most in need of study in other countries. (Ref. No. 671-65)

Research Support for the World Development Report

The principal objective of this project is to refine and improve a fifteen-region global model, which has been developed to explore the growth potentialities of the developing countries under alternative assumptions about international developments and domestic management. The model encompasses a variety of economic and technological constraints to development. The growth of individual regions will be described by submodels, and some 20 product groups will be differentiated. The study will also deal with protectionism and changes in market share between developed and less developed countries. (Ref. No. 671-66)

### Labor Migration and Manpower in the Middle East and North Africa

Little is currently known about the phenomenon of substantial labor migration in the Middle East and North Africa, although about 2 million persons migrated in this region in 1975. This study will prepare projections of manpower supply and demand for 1975-85 using computer simulation manpower-planning models. Projections will be for 8 major sectors and 7 broad occupational groups. The study will also examine the economic implications of and prospects for future labor movements. (Ref. No. 671-63)

### Projections on the Extent of Food Deficits of Target Groups under Alternative Policy Programs

Large segments of the populations of developing countries may continue to consume at levels below minimum nutritional standards even when aggregate food supplies are likely to be sufficient to cover average nutritional needs. This study will estimate food deficits by major commodity categories as experienced by target groups of the population. Calorie-income functions will be computed, and projections will show food and distribution requirements under a number of alternative policy programs and relative price shifts. (Ref. No. 671-64)

Managerial Structures and Practices: Public Manufacturing Enterprise

Government owned and managed enterprises form a substantial and growing segment of the industrial sector in a number of developing countries. The purpose of this research is to identify those characteristics of the structures and policy environment that are consistent with the efficiency and growth of such enterprises. The project draws on organization theory and management science to study, by extensive interviewing, several industries in each of Egypt, India and Yugoslavia. The study is directed mainly at strengthening the Bank's ability to deal with management and other issues arising out of lending to the public sector. (Ref. No. 671-71)

Growth, Poverty and Basic Needs: Development Policies in Sri Lanka, Kerala and Punjab

"Basic needs baskets" have been differently packaged and delivered in Sri Lanka, Kerala and the Punjab. Whereas the last-mentioned has relied mainly on accelerated economic growth to alleviate poverty, the first has relied on subsidies and public services to achieve a fairly high level of basic needs satisfaction at low income levels. This study will prepare a comparative picture of the causes of development in each region, attempt to isolate tradeoffs and complementarities between basic needs satisfaction and growth, and identify consequences of policy interventions. (Ref. No. 671-72)

### Kenya - Health, Nutrition and Worker Productivity Studies

The relationship of health and nutrition to the productivity of Kenyan road workers, and that of parasitic infections to the growth of children have both been investigated by a previous World Bank research project (Ref. No. 671-15). This study extends the earlier research and will evaluate a number of possible policy interactions. The effects of different caloric intakes on work output will be determined. Health and nutritional factors will be surveyed and evaluations will be performed of alternative feeding and parasitic control programs. (Ref. No. 671-73)

### The Economics of Schistosomiasis

Schistosomiasis is a tropical parasitic infection that now victimizes about 250 million people in 71 developing countries. Moreover, with the development of irrigated agriculture, dams and fisheries, the habitat of the host (vector) snails is increasing. This problem has had to be contended with in 30 Bank-financed development projects since 1971. The study is concerned with the construction of the most economical control programs, and models dynamically efficient control strategies. The model utilises the experiences of control strategies (chemotherapy and mollusciciding) in Puerto Rico and St. Lucia. (Ref. No. 671-74)



### International Trade Policy for the Development of Bangladesh

Carried out in cooperation with the Government of Bangladesh, this study will provide the basis for an international trade policy to promote the country's development over the next five to ten years. Specifically, its objectives are: (1) to measure resource scarcity by estimating current and future shadow prices for major factors and products, (2) to measure sectoral comparative advantage in the form of domestic resource costs of foreign exchange, and (3) to prepare and evaluate trade policy alternatives, particularly export promotion policy. (Ref. No. 671-75)

### Household Incomes and Expenditures in Mexico (Phase 1)

Much current World Bank lending to Mexico is presently directed to the rural and urban poor, as will be part of future Mexican petroleum revenues. By identifying the poor and the causes of poverty, and estimating the cost of reducing income disparities, this study is designed to improve the orientation and quality of anti-poverty efforts. Phase I will begin by describing distributional trends using national sample survey data. Policies for reducing poverty will be analysed in a later Phase. (Ref. No. 671-76)

### Appropriate Industrial Technology (Phase II)

This follows another study on appropriate choice of technology (Ref. No. 671-51), which indicated that employment and income originating in a typical developing country's manufacturing sector could be roughly doubled without additional investment by appropriate technology choice. The present project will produce an integrated case study of technology choice in a specific environment: that of the production of blended cotton textiles. Efficient engineering alternatives will be delineated, and the effects of operating inefficiencies and alternative industrial organization patterns on technology choice will be considered.

(Ref. No. 671-77)

### Educational and Other Determinants of Farm Household Response to External Stimuli

An understanding of the determinants of farm household responses to such events as changes in factor and product prices, capital and land endowments, credit availability and household size could be extremely useful for policy. Such determinants might be degree of literacy, proximity to markets, levels of nutrition, etc. Certain controllable cultural and nutritional factors could also influence the degree of response. Using a sample of farm households in Thailand this study will attempt an empirical examination of the determinants of changes in consumption, production and migration behavior, and will investigate the way in which response characteristics are modified by changes

in the underlying environment. The project aims at improving methodology for project appraisal in agriculture. (Ref. No. 671-78)

The Sources of Growth and Productivity Change: A Comparative Analysis of Three Countries

A better understanding of the sources of growth and of policy impacts on development is an objective important to the World Bank. The present study will extend considerably the comparative methodology developed in the final phase of the project: "Sources of Industrial Growth and Structural Change" (Ref. No. 671-32). It aims to link current, demand-oriented, analysis to an analysis of the sources of growth from the supply side. The effects of policies will be analyzed within a general equilibrium framework and a sectoral breakdown will complement aggregate analysis. Three countries, Korea, Turkey and Yugoslavia will be focussed on, using a comparative and historical approach and careful modelling. (Ref. No. 671-79)

### Evaluation of Food Distribution Schemes

There is currently a lack of information on food distribution schemes; little is known of their required scale or of their benefits and costs. The project will study such schemes and develop and assess methodology for their evaluation. It follows up on a previous research project which developed a methodology to relate caloric intakes to income and food price levels and suggested that in many countries food distribution schemes will continue to be necessary (Ref. No. 671-64). The present study will also evaluate the benefits and costs of basic needs programs in rural development projects. (Ref. No. 671-80)

### Determinants of Fertility in Egypt

The Egyptian Fertility Survey will shortly collect economic and fertility data from 10,000 women. The present project is phased to follow this survey. 20% of the households will be selected and their male heads interviewed. The resulting data set will contain a unique combination of male-female economic and fertility data, and is expected to contribute towards the design of policies to encourage smaller family size. (Ref. No. 671-81)

## OFFICE MEMORANDUM

TO: Members of the Industrial Development and  
Trade Panel

DATE: July 21, 1978

FROM: Assar Lindbeck *Assar Lindbeck*

SUBJECT: Schedule for the Next Meeting

1. The time schedule that we agreed about is:

October 26: First draft sent to all members  
(including Bery)

November 15: "Second man" sends revision of draft (made  
by "first man") to all members

Obs.: Only section 3 of the first draft (dealing  
with specific projects) and recommendations  
in connection with this has to be revised

November 30, December 1 and possibly half of December 2:  
Meeting in Washington, D.C.

2. Members of the panel are recommended to arrange, in cooperation  
with Bery, private meetings with people at the Bank - either in connection  
with meetings in Washington or at any other time, or both.

Suggested organization of the papers  
for the next meeting by each participant

- (1) General comments on the research problems of the Bank.
- (2) Comments on research on trade and industry within the Bank.
- (3) Comments on the specific projects studied by each of the panel members -- organized in some systematic way.
- (4) Implications of points (1) - (3) for future research and research organization of the Bank

Division of labor among panel  
members in the scrutinization of specific projects

A.L.	0	General points	(20 pp)
JD/KJI	I	Incentive policies (incl. integration)	(10 pp)
EB/JD	II	Patterns of growth and trade and comparative advantage	(10 pp)
KJI/GB	III	Export promotion and access to markets	(10 pp)
GB/RN	IV	Institutional reforms -- credit markets, small scale industry, and public enterprise	(10 pp)
KP/EB	V	Industrial programming for process industries	(10 pp)
RN/KP	VI	Industrial programming for non-process industries -- capacity utilization, capital-labor substitution, technological change	(10 pp)

CHECKLIST FOR WRITERS

- (1) What has been learnt from the research in the Bank? Direct as well as indirect effects on the stock of knowledge (via influence on scholars outside the Bank as well).
- (2) Is there in the material that we have studied an indication that the knowledge outside the Bank has been transmitted to the Bank, and adopted for dissemination by various members of the Bank. Duplications?
- (3) The relevance of the research in the Bank
  - a) for Bank operations/(i) lending, (ii) policy advising/
  - b) for developing and disseminating knowledge and paradigms about the development process.
  - c) for the need of the LDCs in their national policies
- (4) Has the Bank been engaged in "basic research"?
- (5) Willingness and ability of "operating people" of Bank to absorb and use research ("assimilation problem")
- (6) Involvement of LDCs in Bank research
  - a) in initiating research of Bank
  - b) in participating in Bank research
  - c) in organizing research in the LDCs and/or in the training of researchers in the LDCs
- (7) The use of "outsiders" (non-Bank people) in Bank research; the use of consultants
- (8) The composition of research
  - a) development of theory and methods vs. empirical research
  - b) the degree of policy orientation of research
  - c) choice (mix) of topics (problems)
  - d) "academic" research vs "information gathering", assessments and forecasting



- (9) Criteria used by the Bank when choosing projects. Constraints on research in Bank.
- (10) Recommendations on the basis of analysis above, for instance about
- a) size of research by Bank
  - b) composition of research on fields, problems and methods
  - c) procedures of hiring researchers
  - d) dissemination and assimilation of research
  - e) how to use "outside" knowledge and resources better
  - f) how to make research more "relevant" - for what?
    - (i) for instance, should the Bank be a "knowledge Bank" and not only a financial Bank?
    - (ii) to what extent should the research of the Bank be subordinate to operation activities within the Bank
    - (iii) should the Bank engage itself in "basic research" - to what extent?
  - g) how much and how should LDCs be involved in Bank research? How?
  - h) how much and how shall outsiders be used?

## OFFICE MEMORANDUM

TO: Members of the Transport Research Review Commission      DATE: July 13, 1978  
FROM: J. Cauas, Chairman/  
SUBJECT: Future Work of the Commission

As per our conversation and the approved terms of reference (see Appendix), the following are the main elements of the future work of the group:

1.      Main Issues to Be Considered:

- (i) Is the program responsive to member country needs and how could it be more so?
- (ii) Does the program make best use of the World Bank's "comparative advantage", i.e. as compared with other ways and means of getting transport research for developing countries done and applied?
- (iii) Is Bank operational work on transport (loans, loan conditions, sector reports and sector policy discussions) suffering from lack of research in some areas? Should the Bank be responding more to its borrowers' needs by either different ways of treating present types of projects or new types of operations - perhaps based on research first?
- (iv) Is enough being made of research possibilities in connection with transport projects financed - e.g. small built-in research or research based on results of built-in evaluation and monitoring?
- (v) Is the Bank taking enough advantage of transport research done outside - adequacy of links with outside institutions, responsibilities for bringing into Bank relevant results from outside research?
- (vi) What is the right scale of effort for the Bank to make in transport research?
- (vii) Has there been a correct balance between staff and outsiders in the Bank's research program and does the Bank have adequate staff to supervise new research projects? Has there been a correct balance of outside collaborators, e.g. from developed countries vs. developing countries, and between different regions of the world?
- (viii) Is the Bank's transport research "operational" enough - in subject matter and also in the way it is executed and disseminated? Or should it go beyond research suitable for disseminating through Bank operations (and hence helping to improve them)?

- (ix) Are there any ways of getting a better dissemination of results - mostly within the Bank since it is research for Bank operations (and sometimes difficult), but also sometimes direct to member countries, whence it can reflect back to Bank operations? Are Regional offices doing an adequate job of dissemination?
- (x) Should higher priority be given (in research and/or operational programs) to working with and assisting research institutions in developing countries, rather than treat that, as now, mainly as a byproduct of efforts to reach answers on an important topic?

2. Draft Report Outline: This will be in four sections and will cover the following aspects :

- A. Introduction
- B. Research Areas
  - (i) Highway Design and Maintenance Standards
  - (ii) Rural Roads
  - (iii) Substitution of Labor and Equipment in Civil Construction
  - (iv) Ports
  - (v) Railways
- C. General Evaluation
  - (i) Impact within the Bank
  - (ii) Impact in member countries
- D. Future Research
  - (i) Transport
  - (ii) Specific Recommendations

3. Responsibilities and Timetables for the First and Second Drafts of the Report:

Sections A and C	:	J. Cauas
Section B (i)	:	D. Bjoernland
Section B (ii)	:	D. L'Huillier
Section B (iii)	:	R. Felix
Section B (iv)	:	K.L. Goon
Section B (v)	:	S. Jagannathan
Section D	:	Pending - for next meeting

The first drafts will be sent to the Transportation Department by mid-September 1978, for distribution to the members of the Commission only. A second draft of the report (including section D) will be available for limited distribution by the end of November 1978.

4. Draft Agenda and Timetable of the Next Meeting:

The second meeting is scheduled for the week of October 23 or October 30, 1978 (the exact date to be confirmed by Mr. Willoughby). The proposed agenda is as follows:

Monday	-	morning	:	Commission meeting - private
		afternoon	:	Meeting with Regions - Highways
Tuesday	-	morning	:	Meeting with Regions - Railways
		afternoon	:	Commission - private meetings with regional staff
Wednesday	-	morning	:	Meeting with Regions - Ports
		afternoon	:	Commission - private
Thursday	-	morning	:	Meeting with Projects Directors
		afternoon	:	Commission - private meetings with regional staff
Friday	-	morning	: )	Commission - private
		afternoon	: )	

A luncheon will be arranged with the Director of the Policy Planning and Review Department for discussion of general Bank policy issues.

CRWilloughby/BMitchell:ww

cc: Messrs. W. Baum, Vice President Central Projects  
 H. Chenery, Vice President Development Policy  
 B. Balassa, Research Adviser (Acting)  
 C. Willoughby, Director, TRP  
 C. Harral, Adviser, TRP

## OFFICE MEMORANDUM

TO: Dr. Jorge Cauas, Chairman, Transport Research Review Commission      DATE: July 5, 1978  
FROM: Christopher R. Willoughby, Director, TRP *CRW*  
SUBJECT: Terms of Reference

1. The review of the research program of the Bank is intended to assist the Bank management and Executive Directors in evaluating the effectiveness of past efforts and determining the size and nature of the program for the next five or six years. Transportation was one of the earliest areas of Bank involvement in research and it grew into a large scale activity over the years particularly as Bank resources came to be complemented by much larger efforts from various governments and agencies. However, during the past two years, major emphasis has shifted to the implementation of results from previous research rather than new research. Thus, the convening of the Transport Research Review Commission (TRRC) comes at a juncture when important decisions as to the future level and direction of transport research in the Bank have to be considered.

2. Below, I set out a series of questions on which we hope ultimately to have your advice; in Attachment 1, we have set out a suggested agenda for the meeting of the panel during the first week. The accompanying memorandum from Mr. Harral provides an overview of the transport research program since 1969 and a list of the most relevant publications and other documents for review by TRRC. As the total volume is rather substantial, it is suggested that Commission Members may wish to divide responsibilities as they see fit.

3. For a broader background and perspective on the role of research in the Bank in other sectors as well as transport, the functions of the Research Committee and the continuing evaluation of the basic objectives, effectiveness, and appropriate scale of the Bank's research effort, you are referred to the compendium of brief documents in Attachment 2 plus the 1978 Annual Report on Research, which is being provided separately.

A. Objectives

The review of the transport research program should focus on the period 1969 to 1978 as major research initiated in 1969 is still underway. In light of the overall objectives of the Bank's Research Program, the general questions to be addressed by the panel will concern:

- choice of research topics,
- the way in which the research has been conducted,
- operational relevance of the results
- lessons for future research.

July 5, 1978

## B. Guidelines for Evaluation

The general objectives of the Bank's overall Research Program (all sectors) have been defined as follows:

- to support all aspects of Bank operations, including the assessment of development progress in member countries,
- to broaden our understanding of the development process,
- to improve the Bank's capacity to give policy advice to its members,
- to assist in developing indigenous research capacity in member countries.

Given these general objectives, an approach to evaluation of the transport research program is illustrated below in the form of questions for discussion at review panel meetings. These questions, taken together, are an attempt to determine how effectively the research program has met its goals and how useful it has been in improving knowledge of development issues involving the Bank. While not intended as exhaustive, questions are grouped into headings which may be useful as a first draft of an organizing format for the report on the Commission's findings.

### Choice of Topics

1. Are the general problems to which the research has been addressed of relevance for an international development institution?
2. Did the research address an important gap in the understanding of (i) the role of transportation in economic development, (ii) planning methodology or (iii) factual basis necessary for planning and evaluation of transportation investments?
3. Were the objectives of the research clearly formulated?
4. Was the research perceived to be of relevance by operating staff?
5. Did the research tasks follow a logical sequence?

### Conduct of Research

1. Were the approaches and methodologies employed in the various studies appropriate to their stated purposes?
2. Has the research program been successful in terms of developing methodologies or providing factual information?
3. How effective were the consultants or consulting firms employed?
4. Was the extent of Bank staff involvement in design, implementation, and supervision adequate quantitatively and qualitatively to meet the study's objectives?
5. What was the nature and extent of awareness, support, or participation among:
  - Bank operating departments?
  - Researchers in developing countries (in government agencies or research institutes)?
  - Decision makers in developing countries?

6. How did the results of the studies correspond to what was originally expected? To what can be ascribed any differences between original and actual objectives?
7. Were efforts made to coordinate work with other studies underway in the Bank or outside, to enhance the comparability of results or avoid duplication?
8. Are the research outputs written and presented in a manner which makes them accessible to the intended audience(s)?
9. By what means have findings been communicated to the intended beneficiaries?
10. How do overall costs and efficiencies of the various studies compare with initial estimates? Did they take longer than expected? If so, why?
11. What appreciation, however broad, can be given of cost-effectiveness?

#### Operational Relevance of Results

1. To what extent has the research program yielded results that have been - or are likely to be - of value in fostering development?
2. Has the research program had any impact on policies of the Bank, of other development institutions, or of developing countries themselves?
3. Has the program assisted in developing research or other analytical capacity either in the countries under study or in general?

#### Lessons

1. What lessons for the conduct of future research projects can be drawn from the research program?
2. Should additional new research in transportation be undertaken and, if so, in what principal areas?
3. What measures should be taken to ensure effective dissemination of research results to policy makers in developing countries, to the research community and the Bank?

cc: Mr. Dag Björnland  
Mr. Rodolfo Felix Valdes  
Mr. Goon Kok Loon  
Mr. S. Jagannathan  
Mr. Daniel L'Huillier

Mr. Hollis B. Chenery (VPD)  
Mr. Warren C. Baum (CPSVP)  
Mr. Bela Balassa (VPD)  
Mr. C.R. Willoughby (TRP)  
Mr. C.G. Harral (TRP)

Review of Research in Energy, Water and Telecommunications

Terms of Reference for Panel

A. Introduction

It is intended that a review of the research program of the Energy, Water and Telecommunications Department over the period 1972 to 1978 should be conducted by a high level panel of experts from outside the Bank. In light of the overall objectives of the Bank's Research Program, the general questions to be addressed by the panel will concern:

- choice of research topics,
- the way in which the research has been conducted,
- operational relevance of the results,
- lessons for future research efforts.

B. Guidelines for Evaluation

The objectives of the Bank's Research Program have been defined as follows:

- to support all aspects of Bank operations, including the assessment of development progress in member countries,
- to broaden our understanding of the development process,
- to improve the Bank's capacity to give policy advice to its members,
- to assist in developing indigenous research capacity in member countries.

Given these general objectives, an approach to evaluation of the research program of the Energy, Water and Telecommunications Department is illustrated below in the form of questions for discussion at review panel meetings. These questions, taken together, are an attempt to determine how effectively the research program has met its goals and how useful it has been in improving knowledge of development issues involving the Bank. While not intended as exhaustive, questions are grouped into headings which are suggested as an organizing format for the report on the panel's findings.

Choice of Topics

1. Are the general problems to which the research has been addressed of relevance for an international development institution?
2. Did the research address an important gap in the understanding of development issues?



3. Were the objectives of the research clearly formulated?
4. Was the research perceived to be of relevance by operating staff?
5. Did the research tasks follow a logical sequence?

Conduct of Research

1. Were the approaches and methodologies employed in the various studies appropriate to their stated purposes?
2. Has the research program been successful in terms of developing methodologies or providing factual information?
3. How effective were the consultants or consulting firms employed?
4. Was the extent of Bank staff involvement in design, implementation, and supervision adequate quantitatively and qualitatively to meet the study's objectives?
5. What was the nature and extent of awareness, support, or participation among:
  - Bank operating departments?
  - Researchers in developing countries (in government agencies or research institutes)?
  - Decision makers in developing countries?
6. How did the results of the studies correspond to what was originally expected? To what can be ascribed any differences between original and actual objectives?
7. Were efforts made to coordinate work with other studies underway in the Bank or outside, to enhance the comparability of results or avoid duplication?
8. Are the research outputs written and presented in a manner which makes them accessible to the intended audience(s)?
9. By what means have findings been communicated to the intended beneficiaries?
10. How do overall costs and efficiencies of the various studies compare with initial estimates? Did they take longer than expected? If so, why?

11. What appreciation, however broad, can be given of cost-effectiveness?

#### Operational Relevance of Results

1. To what extent has the research program yielded results that have been - or are likely to be - of value in fostering development?
2. Has the research program had any impact on policies of the Bank, of other development institutions, or of developing countries themselves?
3. Has the program assisted in developing research or other analytical capacity either in the countries under study or in general?

#### Lessons

1. What lessons for the conduct of future research projects can be drawn from the research program?

#### C. Composition of Panel

A high level review panel, with representatives from the academic world as well as from the utilities under consideration has been appointed. a listing of the five-person panel is as follows:

Mr. Boiteux (Chairman)	Director General Electricite de France
Prof. A. R. Prest	Chairman, Economics Dept. London School of Economics
Mr. Romulo Furtado	Secretary General, Ministry of Communications, Brazil
Mr. A. K. Roy	Sanitary Engineer, SEARO, WHO
Mr. Lambert Konan	Director General Energie Electrique de la Cote d'Ivoire

#### D. Research Projects to be Considered

The major projects to be considered by the panel are as follows:

- Analysis of Problems and Issues in Village Electrification
- Pricing and Investment in Electricity Supply

- Village Water Supply
- Standards of Reliability of Urban Electricity Supply
- Pricing and Investment in Telecommunications
- Rural Water Supply
- Wastewater Reuse
- Appropriate Technology for Water Supply and Waste Disposal
- Oil and Gas Potential of Oil-Importing Developing Countries
- Design of Low Cost Water Distribution Systems

In addition, a number of smaller projects should also be considered. These include research on a variety of subjects, ranging from the development of a hand pump for rural areas of developing countries to an analysis of telecommunications usage in Papua New Guinea. Since the dividing line between the research work conducted in this sector and operational work, particularly in the economics area, is so blurred, the terms of reference of the panel should be defined to include consideration of the general development of economic analysis in the sector, and the way in which this has been reflected in operational work.

E. Schedule of Work

The panel will begin its work in October 1978. A tentative work program is as follows:

October 1978	Panel spends 3 days in Washington, gathering documentation and talking to staff: division of labor among panel arranged.
February 1979	Panel meets in Washington for one week, to discuss findings on individual projects: an approach to preparation of draft final report to be agreed. Future talks as necessary with Bank staff.
March 1979	Submission of final report.

# International Bank for Reconstruction and Development

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FROM: Vice President and Secretary

June 6, 1978

REPORT OF THE RESEARCH ADVISORY PANEL  
ON INCOME DISTRIBUTION AND EMPLOYMENT

Attached is the report of the Research Advisory Panel on Income Distribution and Employment that was appointed by the President in the Fall of 1977. It is the first of a planned series of assessments of the main fields of Bank research, which were described to the Board in the last annual review of the Research Program (R78-18[IDA/R78-11] dated January 30, 1978).

The recommendation of this Panel will be discussed by the Research Committee in the near future. Reactions to this and other panel reports will be reported to the Board in the next annual report on research.

Questions and comments may be addressed to Mr. Balassa, Acting Research Adviser (extension 61998).

Distribution:

Executive Directors and Alternates  
President  
Senior Vice President, Operations  
President's Council  
Vice Presidents, IFC  
Directors and Department Heads, Bank and IFC

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REPORT OF THE  
RESEARCH ADVISORY PANEL  
ON INCOME DISTRIBUTION  
AND EMPLOYMENT

May 1, 1978

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Annex      List of Research Projects

Appendices:    Reviews of Research Results

- A      Income Distribution: The Empirical Foundation  
Annex: Sample of Papers
  
- B      Research on Income Distribution  
Annex: Sample of Papers
  
- C      Research on Employment  
Annex: Sample of Papers

Panel Members

Albert Fishlow (Chairman)

Professor of Economics and Director of the Concilium on International and Area Studies, Yale University

Simon Kuznets

Professor Emeritus of Economics, Harvard University

Sir Arthur Lewis

Professor of Economics, Princeton University and University of West Indies, Barbados

Justinian Rweyemamu

Personal Economic Advisor to President Nyerere, Tanzania on leave to the Independent Commission on International Development

Gerardo Sicat

Director - General of the National Economic Development Authority, Philippines

Leopoldo Solis

Sub-Director General, Bank of Mexico

Preface

The Panel was appointed by Mr. McNamara during the Fall of 1977 to review the research undertaken by the Bank on the subjects of income distribution and employment. Our terms of reference were broad and arrived at among ourselves. They included evaluation of the quality of research performed in these areas, future research priorities, and the effectiveness of Bank procedures relating to the research program.

Two meetings of the Panel were held in Washington, D. C. in October and December of 1977. Numerous interviews were held with Bank staff in the relevant research divisions, and more widely in the Bank. A wide sample of research was studied and reviewed. Two Panel members visited third countries which were the object of Bank study and international agencies to discuss how Bank research on these subjects was related to their own research efforts.

Throughout we have received full cooperation and have had complete access to research committee files. Numerous Bank staff in the DPS, CPS and regional departments have responded candidly and at length to our inquiries. We especially thank Montek Ahluwalia, Chief of the Income Distribution Division, Mark Leiserson, Chief of the Employment and Rural Development Division, and Ben King, who at the time was Research Advisor, for their help. We also thank Michael Beenstock of the Policy Planning Division who served as the Panel's liason with the Bank.



## Policy Issues and List of Principal Recommendations

### Policy Issues

The Bank program of research upon income distribution and employment has on the whole performed to high professional standards. Both the quality and quantity of its output are a tribute to the competence and technical proficiency of the staff and consultants. This is the more impressive in view of the modest resources committed to formal research.

There remain, however, larger policy issues and options to which it is useful to call attention. These fall into four categories:

i) Research Orientation - In general the research output in these areas has not seemed to relate as closely to the operational and policy requirements of the Bank as it might. To some extent this reflects a lack of practical interest in research and its implications on the part of the operational departments; to some degree, a failure to design projects that illuminate important policy issues, both from the standpoint of the Bank and of developing countries.

ii) Data - The Bank publishes and consumes a vast amount of data, yet it does not assume adequate responsibility for its consistency and reliability. This ambiguous attitude towards primary data has resulted in insufficient attention to the preparation of basic statistical series in both of the subjects reviewed.

iii) Developing Country Research - The objective of fostering research in the developing countries has been honored in the breach. Research efforts have gravitated to where the data have been most accessible and where indigenous research institutes have been most developed. Institution building cannot adequately be pursued as a by-product.

iv) Dissemination of Research - The dissemination of research output can be improved. More attention should be paid to communication with the operational and regional divisions of the Bank. At the same time, external dissemination might be improved both by opting for a new Staff Papers as well as more personal contact with developing country research institutes.

In some instances, recommendations represent major departures for the Bank, involving large additional resources, and implying possible organizational changes. This would certainly be the case were a serious effort made to collect and organize relevant data sets. Forging closer and more diversified ties with developing country research institutions is another potentially significant and new commitment. Even a fuller program of dissemination of research results, particularly extended to developing countries, can require large new inputs of time and money.

By contrast, the efforts required to reorient the focus of the research program and to facilitate articulation between researchers and other

staff are more subtle and not cost-related. Essential is a definition of research priorities that is conscious at all stages of the policy relevance of the results, with less attention to pure methodological research and an academic audience. We include in the following list of specific recommendations some suggestions for such a focus, as well as particular means of improving the dissemination of results and the administration of the research program.

### List of Principal Recommendations

#### Substantive Research Priorities

##### Data

i) We recommend a considerably greater initiative and expenditure by the Bank to assure collection and dissemination of reliable, consistent and continuous data on income distribution and employment. For a number of representative countries, time series data should be obtained. Information should be sought for relevant socio-economic groups. Data collection and analysis, particularly in the preliminary phases, should be closely related.

ii) We see considerable merit in a decisive Bank contribution to the design and execution of the 1980 Census for a representative panel of countries. The objective of this exercise would be to establish benchmark measures for the distribution of income and the pattern of wage rates and earnings.

##### Income Distribution

iii) We recommend a change in focus from the size distribution of income per se to the levels and changes of the income status of a relevant set of socioeconomic groups. Of special importance is closer attention to the changing composition of socioeconomic groups over time.

iv) We detect a need for issue-oriented research to examine the direct and indirect consequences of particular policy interventions on various absolute and relative distributional indicators.

v) Income may not be a sufficient condition for the fulfillment of basic human needs or an adequate measure of welfare. We therefore endorse research upon a basic needs approach, especially in the areas of measurement, linkages among the components, and characteristics of delivery systems. However, it is important that this research upon basic needs be closely integrated with that upon the income distribution as a whole.

vi) We suggest that research upon specific policy instruments should be complemented by a series of comparative case studies organized around representative country units.

### Employment

vii) We endorse an emphasis upon analysis of the functioning of labor markets, and the relationship between wage rates, earnings and employment in different institutional settings and for different sectors.

viii) We recommend a more careful and consistent measurement of employment and underemployment, and a systematic study of those who are and may remain in these groups.

ix) We judge that the Bank has a comparative advantage in project-oriented research that has not been satisfactorily exploited. A concerted effort should be made to assess the direct and indirect employment impact of its own many projects.

### Research Dissemination

x) We recommend the preparation of a new series of reports aimed at the non-technical reader in the Bank. In the same spirit we see a need for an expanded seminar program at the beginning and conclusion of the research cycle for the regional departments and the operating divisions.

xi) We recommend regular missions to developing countries that have been studied, and others, to present research findings.

xii) We suggest publication of a new Bank Staff Papers to enhance the dissemination of the Bank's research output and to motivate research more relevant to Bank and developing country policy.

### Research Administration

xiii) We recommend wider latitude for Bank research management in initiating projects and financing the first phases of projects.

xiv) We conclude that the present system of project-by-project evaluation is too mechanical and leads to bland evaluations. We suggest a more subject-oriented and recurrent review of completed and ongoing research.

REPORT OF THE RESEARCH ADVISORY PANEL ON INCOME  
DISTRIBUTION AND EMPLOYMENT

Introduction

The written work of the Bank in the fields of income distribution and employment is extensive. In the last several years, as Bank operational objectives have become redefined, more staff activities have been directed to these problems. Country reports, policy papers, and project evaluations all contain elements of research relating to income distribution and employment. These questions are of course interrelated. Sheer focus on employment misses the need to translate individual earnings into receipts of family units. It also misses the contributions to family welfare of access to goods and services that satisfy basic needs like potable water, adequate sanitation, satisfactory nutrition, minimal educational levels, etc. Examination of income shares or the absolute incomes of the poor, without a parallel emphasis upon the changing structure of employment opportunities, likewise affords only a partial view.

Taken together, these subjects provide a broader and necessary perspective of the development process that goes beyond aggregate averages like income per capita or measures of production capabilities alone. How the income distribution and absolute incomes of the poor alter with economic growth of different kinds, and how successfully economies create employment opportunities - and the possible tensions between such objectives - are central issues relevant for Bank and developing country policy alike.

In interpreting its mandate, the Panel has necessarily concentrated upon issues of internal, rather than international inequality. This reflects the emphasis of Bank research. We are pleased to see, however, that the Bank is beginning to pay more attention to the obvious international disparities and to the factors responsible for them. In practice this has meant that the panel has paid special attention to the activities of the Income Distribution Division of the Development Research Center and the Employment and Rural Development Division of the Development Economics Department. In the case of employment research, where the effort has been more diffuse, we have, however, considered some of the output of other divisions. Time did not permit us to cast a wider net. The research performed within these units is quite voluminous itself and covers a diversity of topics that are representative of Bank priorities. Such a scope was sufficient to expose us to a range of broader issues centering on the relationship of the formal research program to other Bank activities.

One part of our task has consisted of critical evaluation of the research product accumulated over the last few years. Three specialized appendices provide detailed and specific reactions. Here, it may be simply said in summary that our general impression of the quality of work is quite favorable. In an activity in which risk is high and disappointments are always to be encountered, the Bank output - compared to other research organizations and academic institutions - on the whole meets rigorous professional standards. This is the more so in view of the modest resources allocated to formal research. Our principal caveats are the failures to afford

sufficient priority to the collection and processing of basic data on a consistent and continuous basis, and to relate the research more closely to the operational and policy requirements of the Bank.

These evaluations of past research have also served as a basis for suggestions and recommendations regarding future research priorities and procedures. We offer these fully aware of our partial viewpoint and limited knowledge of Bank practices. We believe they may nonetheless serve to stimulate and focus discussion of these subjects within the Bank. The research program is an important component of Bank activities, and can make significant contributions to its operations. As we have noted above, this is especially true of research on income distribution and employment. The Bank's lending operations require systematic knowledge of how particular kinds of projects can generate productive employment, alleviate poverty and lessen inequality if a general concern for the welfare of the poor is to be translated into practice. The Bank's consultations with foreign governments require a comprehension of the underlying economic processes at work and their responsiveness to different kinds of policies. The Bank's leadership role within the development community provides an opportunity to speak on these issues both with authority and influence; it also imposes the obligation to understand the complex income distribution and employment problems in depth.

The body of this report is organized around a series of recommendations for future research priorities and for procedural changes to facilitate them. There are seven parts. The first considers the appropriate objectives and emphasis for Bank research on income distribution and employment. Although our suggestions derive from our perusal of the research performed on these subjects they frequently have relevance for the program as a whole. Next, three sections illustrate concretely how such a reorientation of research objectives helps to define a promising agenda for the collection and analysis of data, and for the study of income distribution and employment. Based upon our review of research in these subjects, three final sections relate our recommendations for changes in the research process to improve the articulation of the research program with other parts of the Bank, to make more effective the dissemination of results, and to make more efficient the selection and evaluation of research projects. These views must await corroboration, and perhaps modification, from reviews of Bank research conducted upon other subjects. It has seemed useful to offer them based upon our study of the research process relating to income distribution and employment.

## I. Research Objectives

Research within the Bank as a formal activity is of relatively recent vintage and still modest proportions. External spending for the last few years has been at an almost constant \$2.5 million (in constant FY77 dollars), and has declined as a percentage of total current expenditure. Allocating staff time committed to research projects and adding other outlays increases the absolute level to only about 4 percent of expenditure,

and does not alter the trend. Income distribution and employment have together commanded about a fourth of that budget between FY1974 and FY1976. In the last fiscal year, as the initial research program has been progressively completed, its share fell to less than 10 percent.

The objectives of the Bank research program, from its beginning have been ambitious. As identified at its initiation, and reiterated subsequently, the goals have been far ranging:

- (1) To support all aspects of Bank operations, including the assessment of development programs in member countries;
- (2) To broaden understanding of the development process;
- (3) To improve the Bank's capacity to give policy advice to its members;
- (4) To assist in developing indigenous research capacity in member countries.

The intended audience for research results has been correspondingly diverse: the policy and operating staff of the Bank; policy makers in developing countries; and the international research community.

The choice of such a broad perspective for Bank research has been conscious. "It has sometimes been suggested that we should concentrate more on the Bank staff as the major concerns of our research output. However, since research that is valuable for internal use in the Bank will almost by definition be of value to others concerned with development problems, we have concluded that most research projects must be addressed to all three groups". \*

This approach has been characterized by extensive use of outside consultants in the research program and a willingness to undertake longer-term, more basic analyses of the development process. It has meant accumulation of a highly qualified technical staff. It has led to an increasing volume of publication in externally refereed professional journals. It has, moreover, successfully established an academic integrity for the Bank's research program, an accomplishment of some proportions: Bank research does not hew to a single line or insist upon a single point of view.

But such a broad mandate has also produced an independence from operational concerns that is worrying. Table 1 provides a classification of research projects in the fields of income distribution and employment by their inspiration. Category I encompasses projects which have been instigated outside the DPS. This research can be said to service a felt need emanating elsewhere in the Bank. Category II contains projects originating in the DPS,

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\* World Bank Research Program, December 30, 1975, p. 2.

Table 1

Origination of DPS Research\*

Category I -- Service Projects

- a) Income Distribution
- b) Employment

671-61.

Category II -- Collaborative Projects

- a) Income Distribution 670-94, 671-27, 671-36, 671-17, 671-62
- b) Employment

670-43a, 671-30a, 671-48a, 671-26, 671-59a.

Category III -- Independent Projects

- a) Income Distribution 670-06, 670-09, 670-69, 670-83, 670-84, 670-85,  
670-96, 671-08, 671-41, 671-39
- b) Employment

670-45a, 671-06, 671-31a, 670-90a, 670-99, 671-02, 670-42,  
670-40.

\* Research Project titles are provided in the Annex.

a Project of the Employment and Rural Development Division

but characterized by significant discussion and collaboration with regional and relevant operating departments of the Bank. Category III includes research initiated and pursued by the DPS more independently.

It is clear from the Table that the majority of projects - and even more so the expenditure - fall in Category III. A marginally larger proportion - but still a minority - of the employment studies are in Categories I and II than was true for income distribution. One might have anticipated a greater difference in view of the operational responsibilities of the divisions engaged in employment research, and the Income Distribution Division's more comprehensive research design that it early on justified and progressively implemented.

Autonomy in the initial design and execution of Bank research makes more difficult its subsequent articulation with other parts of the Bank. That is a problem to which we revert subsequently, and one to which the researchers are not the only contributors. Independence also tends to encourage original and theoretical research that may be more responsive to conceptual needs of the profession than to policy requirements of the Bank.

The comparative advantage - and for the most part, needs - of Bank research reside in the following:

(1) Establishment and analysis of a basic data base

The Bank needs to know, on a consistent basis, what has been, and is, happening with regard to underlying development processes in order to conduct its affairs. Its frequent missions, country offices, and position in the United Nations structure in turn afford significant opportunities.

(2) Project-related inquiry

Bank lending operations pose specific economic and social questions with regard to effectiveness of alternative design that call for focused and project-related research.

(3) Policy-related inquiry

Bank consultation with individual countries centers around policy packages of one or another kind. The Bank and country positions are influenced by what is known about the effectiveness of such policies in different contexts. Research outside the Bank may not serve as a satisfactory basis for such judgments, making it necessary for the Bank to conduct its own studies.

(4) Development strategy

The Bank's role in the development community - and its unique comparative, international perspective - requires



it to take a position on questions of larger magnitude: the workability of trickle-down vs. Basic Needs, for example.

It is our sense that the research program in income distribution and employment, while of high quality, has not focused narrowly enough upon these requirements and opportunities.

Such is the case with the creation of a data base. There seems to be a deep-seated ambiguity in the Bank attitude toward the importance of data. At one level there is strong commitment to empirical analyses as a means of discriminating among alternative interpretations and views. At another level, however, there is frequent acceptance of information from other, and sometimes non-primary, sources with only minimal attention to reliability, comparability and continuity. The Bank compiles, issues and consumes an impressive volume of statistics; at the same time, it avoids responsibility - intellectual and financial - for their accuracy and their completeness. The character of the research undertaken by the Bank to develop a better quantitative record relating to income distribution and employment is a good illustration of this ambiguity, as Appendix A documents.

In similar fashion, project-related inquiry regarding income distribution and employment impact has relatively little weight in the present scheme of formal research.\* In part its modest role reflects an intentional division of labor within the Bank, reserving to the DPS more fundamental inquiry, and allocating to the CPS more operational studies. In part, its limited importance is also a requirement imposed by the level of resources available to the DPS; the research budget is a very modest one. Yet the potential significance of such research within the Bank context requires that more conscious priority be given to it by the professional research staff. Two aspects should be stressed. One is the design of research to exploit the quasi-experimental access to information operating projects afford. The other is direct assistance to operational staff in coping with project design. The DPS should be involved with both. Its research concerns should include prominently such questions as whether direct "cost per job" criteria adequately select projects intended to help the poor more generally.

Commitment of large, additional resources for research need not be involved in closer relationships between research and operational staff although some increment will surely be necessary. The DPS could offer to the operating departments on a regular basis an initial diagnosis and definition of the economic issues arising in the course of project design, and recommend outside consultants qualified to pursue them in direct collaboration with the operating divisions. Budget for such consulting is already available to the operating divisions; indeed, some portion might very well be internally allocated to the DPS to recompense their contribution. Recurrent economic problems of a more general character could in turn stimulate a genuine medium-term research effort within the Bank whose objective would be to devise

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\* The exceptions are RPO's 671-17, 671-30 and 671-45.

approaches Bank staff might find useful in their preparation and evaluation of projects.

Policy related inquiry has an equal, and perhaps even more important, claim upon the research budget. Just as project-related advice and research provides a direct link to the operating departments, a policy related emphasis responds to felt regional and management needs. Policy in this context has a dual meaning and dual relevance: Bank policy and developing country policy. The apparent formal separation of the preparation of Bank policy papers from the research process in these two subjects has had the unintended effect of diminishing the incentive for design of research projects whose final contribution might be a policy paper. Similarly, developing country policy has been viewed as too narrow and descriptive an area to merit formal investigation. Rather, income distribution and employment research has come to be defined as long-term to the exclusion of more focused and medium term efforts. Adaptation and application of existing conceptual research has not been encouraged; the researcher's own biases in favor of more basic analysis, particularly if there is interest in a subsequent non-Bank career, are thereby reinforced.

Yet such policy-related inquiry is of the essence for the Bank. It is needed to provide a firm basis for the Bank's hortatory influence upon domestic policy within developing countries. It is required to make decisions about which individual country lending programs should be supported to a greater or lesser degree. It is indispensable if the specific projects undertaken by the Bank are to be translated into a larger and coherent influence upon economic policy and resource allocation within particular countries.

A rich experiential basis for research upon policy interventions exists. Particularly in the areas of income distribution and employment, it is difficult to imagine policy instruments that one developing country or another has not already used, at one or another time. Such research also especially lends itself - as does a more serious data collection effort - to greater collaboration and institution building within the developing countries themselves. Advice that has its roots firmly grounded in local inquiry and analysis - particularly when it relates to sensitive issues like income distribution and employment - is more likely to be taken seriously. We return to this point at the end of this section.

The last Bank requirement, an understanding of the larger questions of development strategy is less a separate category or style of investigation than an integrating principle. Increasingly, the Bank is called upon to take positions about how development should be pursued, internationally and by its member countries. The Bank has spoken out forcefully to call attention to the widening inequality, persistence of absolute poverty and inadequate employment opportunities associated with sheer income growth. The Bank will undoubtedly be called upon to do so again, if only to give greater substance and structure to the evolving possible consensus in favor of development assistance oriented toward satisfying basic human needs.

These Bank positions should emanate from a cumulative and technically informed view of both underlying development processes and responsiveness to policy interventions. They therefore require a synthesis of Bank and outside research. It might well be useful to have the relevant research divisions prepare at regular intervals a user's rather than a producer's review of the literature on these larger issues. While the Bank has financed many good and useful reviews on the literature relating to employment and income distribution, these surveys have been largely directed to a professional audience. What we have in mind is a review process that goes beyond the conventional background papers written for policy documents and which draws implications for Bank policy and development strategy. Such reviews should anticipate management needs and help set an agenda for more specific policy papers. Such reviews in turn could help to define new Bank research projects to test the validity of the conclusions and to question the conventional wisdom.

This reorientation of substantive priorities should be accompanied by greater attention to the research capability and potential in the developing countries. It is fair to say that among the diverse and ambitious goals the research program on income distribution and employment has set for itself, an impetus to indigenous research capacity in developing countries has been most honored in the breach. This has not happened entirely for lack of trying. Two of the principal, data-oriented income distribution projects have been contracted to regional agencies, for example. Still the focus of research attention upon a few developing countries - Colombia, Korea, Malaysia among others - stands out. They are selected not on the basis of practical need or interest, but largely out of convenience in terms of indigenous research capacity and accessible data. Frequently, those same countries become the focus of research projects on other subjects. We are not advocating that each research topic should be spread over a wide range of countries; we are concerned, rather, that there be representativeness - consciously determined - in the program as a whole.

Institution-building is costly, both in human and financial resources, and cannot be achieved as a by-product of other goals, which is the present expectation. Consultancies will have a natural tendency to be concentrated in the industrial countries, and even in the United States, because the necessary supervision and desirable interaction with the Bank staff are easier to assure. Solicited and unsolicited suggestions for projects will come forth from a circle restricted by the asymmetry of information about Bank research interests and procedures. Particular country targets therefore must be identified as such; the specification of the research projects themselves may have to come subsequently. We appreciate this is a departure from the present practice that focuses on projects and not institutions. The specific research undertaken in chosen targets may well have to depend upon the indigenous research capacity and professional interests that can be mobilized.

No less than the research projects themselves, the means of developing indigenous capacity requires careful planning and continuous monitoring. Some efforts at collaboration have not worked out as well as had been hoped and anticipated. One of the reasons has been the inadequate

interaction from the Bank side; there are simply too many other competing demands on staff time. If an effort is to be made, it must be adequately financed and staffed.

Closer collaboration between the Bank and developing country research institutions admittedly presents additional complex problems of freedom of academic inquiry and publication. Governments and academic research institutions overlap to a considerable degree in developing countries. Inquiries involving income distribution and employment are sensitive and political matters - involving not merely different socio-economic groups, but frequently also racial and regional divisions. The Bank has an obligation to press for dissemination of research results as a condition for participation, just as it has an obligation to insist upon objective and professional standards of inquiry. Some countries may refuse to collaborate on such terms; others will be eager for assistance and recognize the advantage of research rather than advocacy.

Despite the significant additional costs, financial and supervisory, we believe the goal of supporting research in developing countries deserves greater attention and priority. The Bank's existing involvement with developing country research institutions should be diversified and extended. If one ultimate objective of the research program is to influence developing country policy makers, it is difficult to imagine its realization absent a more sustained set of initiatives to encourage research in the countries themselves. A more explicit policy focus to research - and one less emphatic on conceptual originality - can contribute. Those problems are more consistent with interests found in the developing countries.

Beyond the direct institution building benefits of greater research interaction, we detect and emphasize two others. In the first instance, research collaboration with developing countries is a reciprocal relationship. There are diverse ideologies of economic development being pursued today in a variety of countries. The implications of these different models for income distribution, poverty alleviation and employment creation are a source of continuing debate. The Bank requires broad intellectual contact with developing countries of diverse developmental styles beyond its relationship through missions and project teams. Such contact can and should influence the questions the research program seeks to answer.

The second indirect benefit involves a closer potential association of developing country researchers with regional Bank staff as well as formal research staff. A significant element of the relationship with developing country research institutions will have to be managed by those in the Bank who are responsible for following individual country performance. In the normal course of missions and other overseas travel, abundant opportunities for interaction are presented. Involving the Bank's regional staffs more deeply in the research efforts of the countries also means more concern and interest in the research underway in the Bank itself.

We thus see reinforcement of other objectives as a consequence of a sustained effort to fulfill the Bank's potential institutional contribution

to developing countries. It is a major departure that will have to be pursued diligently and in a phased fashion. Selectivity among countries will still be necessary, although more broad and based upon other criteria than the present small group enjoying close association with the Bank's research program on income distribution and employment.

The reorientation suggested here to some extent merely accelerates tendencies within the present research program. Taken together, and implemented coherently, the recommendations help to define more specific priorities. The next three sections spell out some consequences for new research initiatives involving collection and analysis of basic data, study of income distribution and examination of employment questions.

## II. Data Collection, Processing and Analysis

We recommend a greater initiative and expenditure by the Bank to assure collection and dissemination of reliable, consistent and continuous information on income distribution and employment.

The Bank has played a prominent role in publicizing and using extant information on the size distribution of income in a large number of developing countries. It has also sponsored two large regional projects - one in Latin America, the other in Asia - to exploit survey data already available but not uniformly organized. As Appendix A details, these efforts fall short of what is desirable and necessary. The primary concern of such research has not been with the data themselves; nor have the projects been designed as a continuing effort to monitor changes over time as development proceeds.

We understand the reluctance of the Bank to accept prime responsibility for such a data effort. It represents a major departure from current practice and must be carefully weighed. The undertaking is expensive and difficult to execute. Yet we emphasize its importance if the Bank is to make well-informed and reasonably based judgments concerning the most fundamental income distribution and employment issues. At the present time, it is frequently difficult to say whether conditions have improved or deteriorated in a given country, let alone precisely how. Sporadic accumulation of instantaneous data in a number of countries is not a solution. Cross-section studies are not an adequate basis for formulating "development laws," or even more modest projections of the positive and negative forces operating on the income distribution in specific countries.

What holds for income distribution holds with equal force for employment statistics. The Bank currently relies extensively upon information obtained directly from member countries through missions, and upon statistics of the ILO. How such data compare with those of previous missions is often not a matter of concern. Neither is the quality of price deflators that frequently have a central importance in the determination of whether real wages have increased or declined. The dominant practice seems to be, when either the employment or income distribution issues are addressed, to use as much and as diverse information as possible and to hope for modal consistency.

Such a casual view - perhaps understandable in the immediate pressure of producing a country report or a policy paper - is inconsistent with longer term requirements. As an institution, the Bank can afford an investment whose social yield is extremely high but farther off in the future; no individual or academic institution can have that luxury. There is a large pay-off to the Bank in reducing the present duplicative and inaccurate procedures. Ideally, the statistical office of the United Nations or the ILO should undertake the required effort. That simply has not happened. The considerable intellectual requirements, particularly at the start of such an undertaking, and the usefulness of the information to the Bank call for greater Bank initiative and responsibility. Country statistical offices cannot be expected - even with technical assistance - to perform the required tasks alone.

We therefore see considerable merit in a decisive and immediate Bank contribution to the design and execution of the 1980 Census that all countries will be undertaking in the very near term. Bank participation need not be universal. The choice of a reasonable panel of countries, based not upon the ease of data collection but their representativeness, is a feasible means for establishing benchmark measures of the distribution of income.

The objectives of such a project should include the size distribution, not merely for individuals but also for households. There should also be attention to relevant socio-economic groupings - urban service workers, rural landless laborers, etc., cross-classified by other characteristics. To the extent that individual incomes at any point are influenced by a series of random effects that do not affect the long-term permanent streams of income, the size distribution may be a misleading indicator. This measure also fails to draw attention to the full implications of structural change and mobility as groups change in size and composition.

Such information on socio-economic groups provides a more direct link to the production process than data regarding the size distribution. This makes them easier to obtain accurately and on a continuing basis over time. It also facilitates the construction of economic models that more naturally relate to these groups than the individuals and households that underline the size distribution. We therefore encourage and endorse the on-going work at the Bank to estimate such social accounting systems. What is now required is a much larger and more systematic approach toward collection, organization, and testing of the data than has been characteristic in the past.

In parallel fashion the Bank must concern itself with developing reliable series on unemployment, wages, skill differentials, price deflators, etc., not for single years, but over time. The Bank cannot afford to wait for others to take the initiative. A policy decision is called for if the ILO is unable to meet the need.

Research at the Bank is largely conceived as hypothesis testing. Data have been collected for micro-studies when they have been found necessary; conversely research projects have been designed around data that have become

available. The thrust of our recommendations is to elevate systematic and aggregate data production to an equivalent status. Such conscious and continuing effort by the Bank would have a large pay-off for the quality and policy consequences of the research done upon income distribution and employment, both inside and outside the Bank.

### III. Income Distribution Research Priorities

We have identified four priorities for future income distribution research. These include research upon the characteristics of socio-economic groups; study of the consequences of different policy interventions pursued by countries to alleviate poverty or improve the distribution of income; specific analysis of the effectiveness and implications of a basic needs approach to the problem of inequality; and comparative case studies of the relationship between national strategies of development and evolution of the distribution of income. These new directions are compatible with the evolving interests of the Income Distribution Division, and build upon its previous analyses.

Our first category exploits socio-economic groups as central actors in the production and distribution process. Empirical studies of the behavioral characteristics of these groups are a fruitful area for investigation. Some of these characteristics have been more studied than others - like consumption demands; others have been less explored - like the possibilities for substitution among different classes of workers in production; and still others have been largely ignored - mobility among groups and regions.

These characteristics, among others, are the essential building blocks for more complete and formal models of the distribution process. To some degree, as Appendix B comments, earlier Bank research has proceeded to formal models that are not firmly rooted in these behavioral relationships. There is still much to learn about the nature of the demand for labor by small sector industry, urban service activities, and peasant agriculture. Supply conditions of labor, including those of supplementary earners, have not been systematically examined. The appeal of modern industrial goods to low income consumers, and differentially in urban and rural areas, is likewise a topic for further study.

Such empirical investigations are required for a wider range of countries. The hypotheses have an interest in their own right; the research is not merely a means for determining the best parameter estimate for one or another model. We want to know how different groups are likely to respond to changes in income, prices, wages, etc., and therefore whether income change alone is sufficient to alter some of the worst characteristics of poverty.

Closer attention to the changing composition of these socio-economic groups over time is especially merited. Equal measures of inequality give rise to far different implications in societies of high and low mobility. Temporary circumstances of individual poverty can be compensated by transfers, private and governmental. Permanent, continuing conditions of deprivation for the same groups are another matter.

Socio-economic mobility is not an easy subject to study. Longitudinal data are not abundant in developing countries, particularly for the rural and informal sectors. What we have is limited to a few surveys. There is more that can be done in the formal urban sector, however. Most developing countries now have social security schemes and hence data on individuals over time. The importance of the mobility issue commends a major effort to define a research project on the subject.

A second thrust for future Bank research ought to be analysis of the impacts of particular policy interventions. What makes income distribution policies more difficult to implement than most is that the initial consequences get diluted by subsequent market interactions: a rise in minimum wages may limit employment opportunities for the unskilled, as well as contribute to price increases that cancel the gain in nominal wages; public services that are provided free or at nominal cost may be traded or underutilized. There is a need to pursue systematically these and other policies to trace their ultimate impact.

Such partial analysis frequently runs aground because the second-order effects should ideally be studied in a general equilibrium context. Yet there are also many cases where one can stop short of looking at the whole economy to understand what has happened. It is that difficult, but creative, intermediate research that we wish to encourage.

The policy interventions that could be studied are diverse. They range from governmental sectoral programs involving the selective provision of social services, food distribution programs, etc., to macro-economic policies like monetary stabilization packages, minimum wage legislation, and tariffs and subsidies encouraging more complete integration into world trade and capital markets. They also explicitly include the impact of individual Bank projects as well as Bank sectoral lending priorities. The consequences of developing country interventions as well as the experience with loans and credits are relevant to the continuing evolution of Bank policy. Bank recommendations for specific member country domestic policies, as well as its own selection and design of projects, should both be informed by such research.

One specific set of policies merits special and separate attention. Growing concern within the Bank, as well as among development assistance donors more generally, with a basic needs strategy commends the subject for careful analysis. It is a natural and appropriate outgrowth of the Bank's interest in absolute poverty and its indicators, and policies to alleviate its worst effects. In designing its own research, the Bank should take cognizance of the mushrooming volume of investigations underway in other international agencies like ILO, UNRISD, and UNESCO as well as in national donor agencies.

Three aspects would seem to have priority for the Bank. One is the analysis of linkages and complementarities among the various basic needs that have been advocated. This is an essential input into the efficient design of appropriate delivery systems to satisfy the needs. The second is the consistency between satisfying basic needs and continuing inequality in the



distribution of income. There is sometimes the suggestion that a basic needs approach can leave the production and distribution structure substantially unaffected, and avert significant income redistribution. Yet large changes in the composition of output may be implicit in a basic needs approach, with consequences for the returns to labor and capital, as well as the ownership of productive resources. Closer examination of the overall distributive implications and compatibilities of a basic needs approach is therefore very much required.

The third topic is an extension of the last. It is the integration of the basic needs approach within a broader framework. More careful attention must be paid to which basic needs the market can satisfy better than others and to what the potential trade-offs may be between provision of such needs and other applications of such resources that might enhance equalizing growth. Absolute and relative deprivation, as well as economic growth itself, must all be interrelated more explicitly.

These questions are all amenable to research. They are issues in which the Bank has considerable interest as well as comparative advantage. It is less obvious that topics like participatory planning or internal political issues involved should be accorded the same priority. The first duplicates what the ILO has been studying; the latter involves questions of the nature of the state and the interests it represents, complex subjects in which the Bank does not seem to have an evident expertise, and which are susceptible to potential controversy.

Our fourth category is a natural complement to the issue-focused analyses previously discussed. We see advantage in a series of comparative case studies organized around country units that can capture the cumulative impact of diverse development strategies. The countries should be carefully chosen for representativeness. Close collaboration with local researchers and research institutes should be established as part of such a project, as well as a start on collection of basic data.

The usefulness of such country studies for policy purposes should perhaps be underscored. The now changed perception of developing country opportunities to benefit from international trade has been much influenced by such comparative national studies; one pioneer effort has been undertaken by the Bank itself. That had the advantage of a simple measure, effective protection, around which the studies could be grouped. Similar organizing principles must inform a set of studies on development and distribution to avert mere catalogues of policy measures and unstructured speculation.

These four specific research priorities give substance to our earlier views relating to desirable objectives of the Bank research program. These are not projects as they stand; they obviously require more precise formulation. It is our sense that it will repay the effort to do so.

#### IV. Employment Research Priorities

Our priorities for research upon employment issues are, not surprisingly, closely related to those for income distribution. They may be

grouped under three categories: careful study of developing country labor markets; analysis of the characteristics of the unemployed; and research on direct and indirect employment creation resulting from different kinds of projects. These generally conform to the emphases of the Employment and Rural Development Division. Their effective implementation would seem to require a degree of coordination of research upon employment among the relevant research divisions that has been lacking in the past.

The need to know how labor markets work in developing countries is a pressing requirement. The institutional circumstances that condition market forces, the relationship of enterprise characteristics to labor demand, and the determinants of labor supply are all important parts of the story.

The principal concern is whether there is any tendency for wage rates to adjust to unemployment and to facilitate creation of new employment opportunities. How long the adjustment process takes, and whether it favors particular groups - skilled or unskilled, say - are central issues, especially when population growth assures continuing rapid expansion of the labor force.

Labor markets have been conventionally disaggregated into three components: the informal and formal sectors in urban areas, and a rural sector. These distinctions have facilitated the construction of analytic models, but may not exhaust the potential for study of their different adjustment processes.

There seems to be abundant opportunity for studies that examine the informal sector in detail to determine which activities expand with higher income, for example, as well as the sensitivity of employment opportunities to wages paid in these different activities. The characteristics of the internal labor market - the practices of recruitment, training and promotion within firms - likewise call out for study, particularly in the middle income countries. The role of trade unions, of hiring and firing regulations, and of the practices of public sector enterprises, are important and neglected subjects. They have considerable influence upon how efficiently and effectively labor markets can perform. Finally, there is the structure of employment within industry, and the pattern of interindustrial wage rates, that have not been examined with care.

We also call attention to the neglect of the growing importance of international labor migration - increasingly unskilled - as a phenomenon relevant to many developing countries. The implications for employment creation in these countries, the role of remittances, the permanence of settlement abroad, and the consequences for income distribution are questions that would repay careful research. Not least, such migration - like the movement of capital and goods - affords a mechanism by which the poor can share in the prosperity of the rich.

Our second category is a logical counterpart to the focus on how labor markets function to create employment opportunities. We note the need for more careful and consistent measurement of unemployment and underemployment as well as systematic study of those who belong to both groups. In many

countries it is almost a matter of sheer guess-work to assess the degree of unemployment and underemployment. Inconsistent definitions over time and among countries inhibit meaningful comparisons. The composition of these groups are not known with great precision. Nor is there much information about how they are financed when they are not working, or have limited earnings opportunities.

Policies to promote employment are, as a practical matter, policies to create jobs for many who are currently without work or underemployed. The effectiveness of such policies necessarily depends upon better knowledge about the persons for whom jobs are being created. Design of income transfer mechanisms to those without earnings require similar information. We are not advocating mere compilation of statistics. In most countries policies of both kinds to deal with unemployment and underemployment have been tried. It is important to find out what has been successful in reducing the pool of the jobless and partially employed and to analyse the reasons for failure as well as success.

A third line of research activity to be encouraged is more specifically project-oriented. High in priority are studies that trace through the direct and indirect employment effects of different types of projects. For example, does lending that establishes a low capital input per job ultimately mean a larger level of employment? Under what conditions will such a proposition hold, both in rural and urban settings? This type of inquiry can start from the data generated by particular projects themselves, but requires extension beyond direct and short-run impacts.

A second aspect of project-oriented research should be technology-focused. Some Bank work already has been undertaken in the design of civil construction techniques that are more suitable for labor abundant economies. The research derived from that experience has been largely descriptive and uninformed by more analytic considerations. More can be done. Much of the small-scale industry research now being planned can be tied to different kinds of projects actually implemented.

Project-oriented research has not always been highly regarded because it has seemed insufficiently conceptual, and rather too much a practical matter. That is a mistaken view, especially from the vantage point of the Bank. Understanding and interpreting practice is not a mere matter of description. An economics, as well as an engineering, perspective is required to be sure that relevant interactions are not missed. The experimental opportunities afforded by project-related research are matched by the need for conceptual talents if they are to be effectively exploited.

Research on employment issues by the Bank is complicated by the designation of the ILO as the primary U.N. institution in this area. This leads to overlaps of responsibility, particularly as regards collection and analysis of basic data, and imposes problems of coordination. The Employment Division also has had a far-ranging set of obligations that have made it difficult to focus its research efforts upon a series of key projects. The priorities we have suggested may help better to define the interface with the

ILO, better to concentrate the efforts of the small number of staff in the Division, and better to coordinate the research under way in other divisions.

#### V. Articulation

Research at the Bank has among its prime objectives an influence upon Bank operations. Indeed, many would regard it as the principal goal. For that very reason, the relationship of research to operations has not been an easy one within the Bank. Operational expectations of a proximate feedback are inevitably frustrated by the larger and longer perspective of the research effort, the intermediate rather than final character of much of the output, and the generic inability to meet close deadlines. The small size of the research staff relative to Bank operational capacity also means a limited in-house capacity to take on specific problems for solution, and thereby creates an impression of lack of responsiveness. Limited staff likewise reduces the capacity to perform research directly. The role of consultants is therefore large; in the early phases of the research on income distribution, it was unusually so. These consultants are not on the scene to explain and motivate their research; nor is it easy for them to mold it to conform better to the interests of others in the Bank. Their interactions are limited on the whole to a restricted research circle.

There has been a conscious decision, moreover, to protect formal research from the all consuming demands of immediate problems. The Income Distribution Division, for example, was sheltered from operations by its assignment to the DRC in order to facilitate its initiation of a research program. This has been tantamount to the creation of a small research center within a larger institute for development economics. One of the consequences has been a lively and congenial atmosphere - involving more personal interaction than seems typical of the Bank as a whole, and an independence that is an important element in creative scholarship.

Elsewhere in the Bank, however, such an arrangement is looked upon with a somewhat jaundiced eye. It is interpreted as freedom to pursue esoteric and irrelevant interests. This lack of shared values among different parts of the Bank reflects itself in the style and extent of intellectual interaction. Despite procedures designed to be supportive of contact, and indeed, a variety of requirements for consultation, there has not been much effective collaboration. Research projects have been primarily developed by the researchers. We have found expressions of disappointment among Bank nonresearch staff regarding the usefulness and relevance of the research, and on the whole, little enthusiasm: laissez-faire seems to be the modal view, preserving as it does the status quo.

Conversely, among researchers themselves engaged in the study of income distribution and employment, there is also dissatisfaction with inadequate attention to, and appreciation of, their efforts. Potential users in the rest of the Bank are not entirely innocent victims. As far as we can tell, it is not standard practice for those with regional and operating responsibilities to examine research reports with care, and still less to

return comments, even when the focus is one's country, or functional specialization. The typical reason offered is lack of time. It is not wholly acceptable or convincing; it is just another way of saying that such interaction has low priority. On the user side, such neglect is symptomatic of the larger pressure to get on with projects, or the required country reports, memoranda, etc. Relevant research in this sense is viewed not merely as nonproductive, but potentially counter-productive. If particular views must be re-thought and old patterns altered, the same pace of committing resources cannot be maintained. In some instances, it has even been suggested that irrelevance is therefore preferred to more applicable analysis.

That undoubtedly is a caricature. Still, from what we have seen in these two subject areas, the Bank reward and incentive system does not seem to encourage individual initiative and novelty. Indeed, in the case of one country office of apparently above average performance, it is standard practice not to retain any of the earlier research reports in the files. Each country economist is presumed to start from scratch, and unburdened by knowledge of on-going research relating to the country.

Nor has there been an impressive impact at the management level. Research reports do not seem to have been regularly and systematically fed into the DPS policy papers that form their basic agenda. Rather it seems to be more typical for other, and sometimes parallel, shorter term assignments to inform the management on such income distribution and employment questions like urban poverty, basic needs, etc. To be sure, the formal research staff has sometimes made significant contributions by initiating memoranda growing out of their own perceptions. But these interventions would be more effective if they were a regular outgrowth of the research process.

This lack of articulation between Bank research and operations is therefore not a simple problem. It can be somewhat ameliorated by creating larger and more varied working groups from different parts of the Bank to supervise research projects, and by improving dissemination. Resolution of the problem goes deeper. It goes to the heart of how operations proceed, how policy decisions are taken, how far the departments concerned are willing to cooperate, and how individuals are motivated to respond to changing ideas.

One can perhaps make a start by conceiving of policy papers as the culmination of the research process, rather than as its source. There will be obvious exceptions - as when the research is explicitly methodological and therefore intermediate. Sensitive management would be required to anticipate policy needs, and to avoid succumbing to the pressure to produce immediate policy papers without adequate scope for research that could enhance their value.

## VI. Dissemination of Results

Communication of findings is a central part of the research process. As the research program has prospered in recent years, the Bank has broadened its audience. Publication of articles in professional journals by Bank staff has been encouraged; books regularly appear with Bank sponsorship; working

papers in their preliminary form are sent to a series of recipients (outside the United States), in developed and developing countries both. The increased external dissemination of Bank research results is both a significant accomplishment of the research program, as well as a measure of its high quality.

Despite this success, and indeed partly because of it, we recommend a new departure. That is the publication of a new Bank Staff Papers analogous to those of the Fund. We believe such an outlet would be a necessary and powerful incentive to guide research along more policy applied lines as we have earlier recommended. So long as Bank research staff must aim for academic journals as a primary outlet for their published efforts, their research will almost inevitably be academically slanted. Publication is essential for research staff to retain their professional identification and mobility. It is important to have a vehicle that remains of high caliber but whose principal focus is development practitioners concerned at least as much with problems as with concepts.

We perceive a second advantage. Such Bank Staff Papers would be a medium that is not exclusive to formal research personnel alone. Other Bank staff could and should contribute as well. Such an opportunity will have a subtle but powerful influence upon integrating research and operational personnel. Originality in response to Bank needs will be given explicit reward and encouraged. More abstract research results adapted to particular applications will have an intellectually respected outlet. Differentiation between economists working elsewhere in the Bank and those specifically engaged in research would narrow.

The arguments against such an innovation seem to be two-fold. One is cost. This does not seem binding. The I.M.F. Staff papers, published three times a year, have a net cost of \$100,000 annually, after full allowance for personnel allocated to editorial effort. That would represent only 5% of the present Bank external research budget, and less than 2% of total expenditures for research. This must be regarded a modest expense to reach on a regular basis some 3,000 subscribers, and many more readers through access in libraries.

The second argument is that such a Bank publication is premature at best. Some feel that the quality of Bank research, especially as broadly defined, cannot guarantee the regular flow of results required. Reliance on outside refereeing, as at present, assures automatic enforcement of standards; internal decisions, coupled with the pressure to produce continuing issues, might be more lax. Such an assessment cannot be taken lightly, particularly when professional journal publication has been subject to exponential proliferation. We do not concur, however. What is at stake is not quality, but too narrow a criterion of research and relevance. Something intermediate between Finance and Development and decentralized publication of individual research results could be an appropriate and powerful medium for encouraging a distinctive style and focus to the Bank research program. Admittedly this requires an editor and editorial board of good judgment.

The question can be more reasonably decided by seeing what sample issues of such Staff Papers might look like. The current annual flow of working papers, country reports, policy papers, etc., can be culled to prepare representative issues. These can then be evaluated for their quality. Such a test excludes the beneficial internal incentive effects that the new publication should have. The experiment seems well worth undertaking; there is already an Editorial Committee and a cumulative experience with monograph publication.

With or without a new journal, external dissemination of Bank working papers, some which will perhaps not be published at all, can be extended. At present, university centers in the United States are excluded. There seems to be no good reason. The number of institutions abroad receiving the series on a regular basis might also perhaps be increased; at the very least greater publicity should be directed to their availability. The intended effects on developing country research and research institutes do not seem to have occurred from the present distribution program; there does not seem to be much regular reference to parallel Bank research in the work done abroad.

An additional inadequacy of the present structure of communication with developing countries should also be pointed out. Our review of income distribution and employment research indicates infrequent post-research contact with the countries that have been studied. As a rule, research results relating to a specific country, or some group of them, ought to be presented there. Even without the greater direct collaboration advocated earlier, seminars in developing countries can contribute to institution building and can influence research priorities and methods. Country reports presently are the occasion for careful consultation with governments; parallel considerations apply to research. The Bank research effort is, and will remain, small relative to the capacity for local investigation in borrowing countries. Its activities therefore must have a catalytic component, one that is not being fully exploited at the present time.

A ready extension of this principle suggests the usefulness of sponsoring Bank seminars abroad more widely, even when countries have not been the object of study. This has been done on occasion for other topics. Demonstration of new techniques and exposition of research results could stimulate emulation. In some cases regional meetings might be held; in others, individual countries might be more appropriate. Such a broader program could counteract the inevitable concentration of research upon a limited number of countries, and expose Bank researchers to a greater diversity of developing country views and experience.

A second aspect of dissemination is internal to the Bank. The present system relies primarily on written rather than verbal transmission. Memoranda substitute for discussion. Seminars in regional departments or operating divisions are infrequent. There is evidence that current practice is not entirely adequate. Two mechanisms suggest themselves.

The first is preparation of a new series of reports in a special format for non-DPS staff, in addition to the working papers themselves. These

could take the form of a relatively short - but more than an abstract - statement of the research results within a broader context. It would largely spare technique in favor of drawing out explicitly implications for country application and policy. These statements would be widely distributed, reserving for a narrower audience the original research publications themselves. The latter would remain available on request.

Secondly, the program of Bank seminars should be extended. Every project - as it is being elaborated and even prior to submission for research committee approval - should be the occasion of a seminar in the relevant region or operating department. At the conclusion of the project, a similar presentation of results is indicated. Seminars that are presently scheduled during the research project cycle are largely directed to Bank researchers themselves, that is as it should be. What is proposed in addition is an out-reach to potential users, before and after. These may have been served more adequately in other subjects, but not as regards findings in the income distribution and employment fields.

Care and attention to internal communication can ameliorate, if not resolve, the problems of articulation. It can expose end-users more satisfactorily to what researchers are doing. It can also increase the gratifications to researchers by providing them a wider Bank audience. The activity is one the researchers themselves should undertake; a new layer of specialist translators is inappropriate.

#### VII. Research Administration

The administrative structure governing the Bank research program has evolved and been formalized considerably in the last several years. It has responded well to felt inadequacies of project preparation, supervision, and evaluation. That makes it unnecessary to dwell at length upon the subject. More attention has increasingly been paid to pre-Research Committee panels drawing together diverse interests within the Bank, to the phasing of projects involving large expenditures, to the need for adequate internal supervision of consultants, and to the standardization of the final evaluation process. We dare say that many of our earlier suggestions have already been anticipated.

To some degree, our present recommendations, given the evolution of the research effort in income distribution and employment, react to what now seems perhaps an excessive formalization of the process. Research projects are considered in an NSF-like fashion, to the possible erosion of a more active management role in positively stimulating the research that the Bank wants especially to see done. Submitted projects are vetted well, but they may not be the most important ones. The Research Committee, because its members have many other responsibilities, have not been an effective force in the establishment of clear research policy guidelines; nor was the attempt to define priorities through a series of research overviews in particular subjects wholly successful.



At this point, therefore, additional flexibility and wider latitude for Bank research management may be the most productive course. Higher professional standards of recent years can stand on their own with less need for continuous vigilance. As a matter of course, management should be able to finance the initial phases of projects - at higher limits than currently imposed - without going through a cumbersome review process. The burden of proof ought to come later after initial results are in. This requires tough-mindedness, because unpromising lines of inquiry will simply have to be ended. But such a policy, if implemented, should lead to a higher proportion of large project successes.

Similarly, at the other end of the research cycle, the present system of project-by-project evaluation is too mechanical. It can hardly uncover research styles and approaches that have been more successful than others. Evaluation of single pieces of research in isolation by committees of different composition seems destined to produce not merely partial, but also rather bland, observations. No project fails to make some kind of contribution; none, taken alone, is a spectacular success. A more useful evaluation framework should be more subject-oriented and recurrent, taking into account projects both completed and underway. Such an internal exercise, performed annually or at longer intervals, could more probably feed back to the determination of research priorities on an informed basis. That review, unlike our own, should be dominated by Bank personnel, with perhaps minority outside representation. Whatever the advantage of occasional outside perception, self-criticism has the virtue of more likely leading on to corrective change. It is only when Bank management and staff come to feel strongly that inadequacies should be remedied that they will; internal discussion is more likely to produce that consensus than outside reports.

Research Projects

<u>Project Code</u>	<u>Title</u>
670-06	Short-run and Long-run Influences upon Income Distribution
670-09	Size Distribution of Income
670-40	Economic Models of Internal Migration
670-42	Professional Structure in Southeast Asia
670-43	Labor Market in Malaysia
670-45	Labor Force Participation, Income and Unemployment
670-69	Growth and Income Distribution in Brazil
670-83	Evaluation of Latin American Data on Income Distribution
670-84	Growth, Employment, and Size Distribution of Income
670-85	Urban Income Distribution in Latin America
670-90	Labor Market in a Rapidly Growing Economy
670-94	Employment and Income Distribution in Malaysia
670-96	Distributive Impact of Public Expenditure
670-99	Economic Aspects of Household Fertility Behavior and Labor Supply in Northeast Brazil
671-02	Population Growth and Rural Poverty
671-06	Employment Models and Projections
671-08	Evaluation of Asian Data on Income Distribution
671-17	The Analysis of Change in Rural Communities
671-26	Migration Patterns in West Africa
671-27	Social Accounts and Development Models
671-30	Structure of Rural Employment, Income, and Labor Markets
671-31	A Comparative Analysis of Rural-Urban Labor Market Interactions

<u>Project Code</u>	<u>Title</u>
671-36	Income Distribution in Thailand
671-39	Price Intervention in Agriculture
671-41	Indirect Estimation of the Size Distribution of Income
671-45	Programming and Designing Investment: Indus Basin
671-48	Urban Labor Markets in Latin America
671-59	Small-Scale Enterprise Development
671-61	Socio-Economic Aspects of Fertility Behavior in Rural Botswana
671-62	India: Impact of Agricultural Development on Employment and Poverty: Phase I

APPENDICES: REVIEWS OF

RESEARCH RESULTS

INCOME DISTRIBUTION: THE EMPIRICAL FOUNDATIONIntroduction

We focus in this Appendix upon the adequacy of the Bank research, upon the measurement of the income distribution in diverse countries and its change over time. The three studies which we principally take up are Size Distribution of Income (5), Redistribution With Growth (4), and "Inequality, Poverty and Development" (1).\*

The data requirements for the study of the distribution of income are admittedly highly demanding. Proper measurement, free from transient disturbances and from the systematic effects of different phases of the life cycle of income, among comparable recipient units, and with adjustments for purchasing power differentials among various distinct groups, is difficult to achieve. Adequate measures are rare enough even for developed countries. For developing countries estimates are more likely to be non-comparable and deficient in many respects. They require critical scrutiny and adjustments to reduce non-comparability; and even then, extreme caution must be exercised in interpreting the results.

The discussion here focuses upon several central problems common to the principal Bank research upon the measurement of internal income inequality. These include problems of: (a) inadequate international coverage of the data and estimates; (b) errors in those estimates, relative to what they claim to cover; (c) lack of sufficient concern for definition of the recipient units; (d) disparities between the concepts of income used and those required for proper analysis. The brief discussion will not do justice to these problems touched upon, but it will at least expose the full range of difficulties. We conclude by reflecting on the effects of these limitations on some of the substantive findings.

Data Coverage

Redistribution with Growth (4) contains in Table I.1 a comprehensive cross-section of ordinal income shares for 66 countries, 5 of them socialist, and almost two-thirds of the remaining, developing market economies. The compilation, Size Distribution of Income (5), provides income shares, measures of aggregate inequality, and a few other measures, for 71 countries, 6 of them socialist. A more recent cross-section, "Inequality, Poverty, and Development" (1), covers 60 countries selected almost wholly from (5), the choice having been "dictated by particular judgements about the reliability of data in some cases" (p. 339). This list contains 41 developing market economies, 13 developed market economies, and 6 socialist countries. We shall not discuss the data for socialist countries; both their selective definition of income and their institutional arrangements preclude straightforward economic comparisons of income shares.

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\* Full citations are in the Annex to Appendix A.

The large number of market economies for which size-distribution estimates have been assembled suggests a wealth of data. But this impression rapidly dissipates when the lists are examined. The first observation is that some major developing countries in important regions are missing. Thus, for Subsaharan Africa, (1) -- which is the most selective -- fails to cover the more populous countries: Nigeria, Ethiopia, Zaire, and Sudan. Were we to possess a proper typology of developing countries, we would likely find other important omissions for some of the relevant type-classes. Second, the size-distributions each refer to a single year, with few relating to a time span (e.g. , Lebanon for 1955-60). The dates, moreover, vary widely within the period from the mid-1950's to 1971. Thus of the 41 developing countries in (1), 10 countries are covered by estimates relating to years from 1955 through 1960; another 9 by estimates for years from 1961 through 1965; and 22 countries by estimates for the period 1966 to 1971. Since size-distributions can be affected not only by transient elements peculiar to a particular single year, but also by changes over time -- quite apart from changes in per capita product in constant prices -- the time range of one and a half decades introduces elements of non-comparability. It also means that the impressions for many countries are badly out of date and are not a good guide for present decisions.

But the most serious limitation in coverage of data is revealed not in (1), but in (4), in which some effort is made to make comparisons of change over time for income as a whole and the income of the lowest 40 per cent. The sample is only 13 developing countries; actually 12, excluding Yugoslavia. This is a rather small sample; even were we to assume full statistical comparability, the limited extent of the time interval (six years and not more than ten) means that trends in income inequality, if any, are not easily discernible. That is true without regard for the incomparabilities in data for the same country at different times. (5) makes apparent how such data come from different sources and refer to different recipient units. Such scarcity of time series relating to size-distributions of income in a sufficiently diverse sample of developing countries, is a major information lack.

#### Errors in Estimates

Size-distributions are usually estimated from sample studies of household income (and/or expenditures) or census income questions. Under certain conditions, they can also be derived -- usually only partially -- from the national accounts data using components of factor income that can be integrated with an array by size of income. The commonly observed result is that income totals and factor income components corresponding to size-distribution estimates tend to fall appreciably short of comparable totals in the national economic accounts; and the shortfalls are both substantial and significantly different in relative magnitude for labor and capital income, components associated with recipients placed differently in the income distribution.

The results of Bank research in Latin America, Income Distribution Estimates from Household Surveys and Population Censuses in Latin America:

An Assessment of Reliability (2), emphasize this conclusion. There is therefore little need to labor the point further here. It is not one limited to Latin America. In another World Bank study, Size Distribution of Income in Malaysia (3), the author states (Chapter III, p. 22) that the "mean household income estimated from the Post-enumeration Survey (for 1970) is \$264 per month ... and the degree of understatement in PRS income relative to the National Accounts is on the order of 25%". Then the author adds: "Although this might seem quite large, it is in fact not particularly great by the standards of household surveys conducted in LDCs".

Both of these Bank studies, and other Bank research underway on estimation of social accounts matrices, therefore negate the validity of aggregate compilations. They show the incomparability of the surveys over time, and implicitly therefore warn against their use. Yet even those more intensive studies do not undertake much experimentation with alternative adjustments in an attempt to produce a more reliable and comparable set of statistics even on a cross-section basis. It is only when there is such an alternative that the research task is complete: warnings and cautions do not inhibit analysis and even policy conclusions.

#### Scope of Coverage and Definition of Recipient Units

There is neither consistency in the scope of coverage -- national, urban, etc. -- or in the definition of recipient unit -- household, workers, etc. -- in the aggregate compilations so far emanating from Bank research.

Of the 60 market economies reported in (5) and published without commentary in (4), the coverage is short of national for 8 countries, with some question about the ninth. For Argentina, Burma, Dominican Republic, Greece, and Iran, the coverage is either of the capital city alone, or of urban only; for Guyana, Sierra Leone, and Uganda, there are major geographical or group exclusions. For Thailand (1970), (5) shows distributions for rural and urban households separately, but not aggregated; the ordinal shares presented in (4) are close to those for the urban distribution in (5). For these 9 countries there is thus an important element of non-comparability, associated with limitation of coverage, relative to the distributions for other countries with full national coverage.

For the remaining 51 countries, the size-distributions are for the following types of recipient units, using the terminology of (5): households - 25 countries; income recipients - 12 countries; economically active population - 5 countries; total population, a rather vague category - 6 countries; and per capita - 1 country (the United States, indicating an aggregation of the distribution among unattached individuals with that among families reduced to a per person basis). Distributions among households thus dominate, followed by distributions among income recipients -- whether all or only the economically active population.

A check on the data base of the more recent summary of cross-section evidence on size-distributions of income in (1) indicates that of the 41 developing countries only 2, Uganda and Guyana, relate to an area or group

short of the national total; that of the remaining 39 developing countries, the distributions in 16 countries are among households; the distributions among income recipients, or economically active population, or total population cover 7 countries each; and for 2 countries the distributions are for per capita income. The distributions for the 13 developed countries are among households for 8 and among income recipients for 5. The distribution for all 52 market economies is quite like that for the 51 countries in Table I.1 (4), as described in the preceding paragraph, as it should be since the underlying common source is (5).

Two comments can be made about the possible results of such a mixture of size-distributions referring to different recipient units. First, there is a marked tendency for distributions among individual income recipients to show wider inequality than for those among households. Thus, in (4), distinguishing the 25 countries for which the distributions use household units (Group I) from the 26 countries for which the recipient units are individuals (Group II), the 9 countries with low income (below \$300 GNP per capita in 1971 prices) in Group I show an average income share of the lowest 40 percent of 14.2 percent; whereas the 12 countries of Group II in the low income category yield an average of 11.2 percent. A similar comparison of the 10 countries in Group I with the 5 countries in Group II that are in the middle income bracket (\$300 to \$750 per capita GNP) yield average income shares for the lowest 40 percent of 13.4 and 8.0 percent respectively. For the 6 countries in Group I and the 9 countries in Group II that are in the highest per capita income class (\$750 and over), the average income shares of the lowest population group are 17.1 and 14.2 percent respectively. Disparities in income shares of this magnitude within similar ranges of per capita income are too great and too consistently in one direction to be neglected.

Second, and perhaps more important, neither of the widely used types of unit, whether household or individual, stands for equivalent groups of dependent consumers. Households differ in number of members, and in their ages. The distribution of income per household would naturally show a significant positive correlation between size of household and its total income, a smaller number of persons dependent upon lower incomes. The same is likely to be true of the size-distribution among individual income recipients. Earners or recipients of lower incomes, dominated by younger, part-time workers and secondary labor supply, tend to have fewer dependents supported by that income than the higher income recipients who are more usually heads of households. The latter are more frequently of an age in the life cycle where both income and number of dependents are likely to be large. It follows that income shares, say of the lowest 40 percent of households or of income recipients may represent shares of population (whether persons or consuming units adjusted by age) that are distinctly below 40 percent; while the shares of the top 20 percent of households and income recipients represent more than 20 percent of population or of consuming units. The essential point is that these adjustments vary differentially among countries and over time, introducing significant incomparabilities in the welfare implications of the measures.



This comment affects not only the cross-section compilations but also the uses of the shares (and inequality measures) in other applications -- some undertaken by the Bank. It relates to attempts to use the conventional size-distributions to identify people below poverty lines, or deficient in associated consumption levels. Even disregarding the advisability of employing equivalent consuming units rather than persons, or of using the distribution and levels of consumption rather than of income, the need of adequate adjustment to shift from households and income recipients is indispensable.

There are additional major difficulties that apply to intertemporal comparisons. As noted earlier, these include the need for adequate statistical comparability among two or more samples over time and for adjustment to compensate for transient characteristics of the particular years. Analytically most important, and related to the recipient unit, the extent of mobility over time is of critical significance. We want to know how many of the poor and rich of today were among the poor and rich of, say, a decade ago. Clearly, extensive mobility lends an entirely different meaning to comparisons across time of the shares of the poor and the rich than when such mobility is lacking.

A final problem obscured in the cross-section compilations is the very definition of the household or family in diverse cultural settings. Changes in family structure with modernization and income growth impose limitations upon use of unchanging and conventional recipient units. This is over and above the more familiar problems already discussed, and for which partial solutions at least exist.

#### The Concept of Income

The definition of income is itself not a simple matter. Two observations can be made regarding the Bank results. The first is that the income concept must have differed among countries and years. We know that for some countries (e.g., the United States) sample studies of family and household incomes are limited to cash income and exclude income in kind; that for other countries, households are grouped by total income receipts including gifts and transfers from other households (e.g., Taiwan); and so on. Hence, the multi-country cross-sections must also include elements of noncomparability in the definitions of the income totals; how serious such elements are, we cannot tell at present, because the matter has received insufficient attention.

The second comment is that few size distributions, whether for developed or developing countries, are based on an analytically desirable income concept. That would require, in the first instance, completeness of coverage in its inclusion of both cash and income in kind; of flows from government and other institutional sources, as well as the compulsory drafts that may be imposed by them; and also of receipts and transfers among households. In the second place, there is the need to eliminate or dampen transient, short-term components in annual income, as well as to adjust for the effect of the life cycle upon the income of the recipient unit. Thirdly, the possibility of substantial differences in purchasing powers between the

rural and urban recipient units, and within these large groups, between the lower and higher income groups, has to be considered. And finally, one should note again, for intertemporal comparisons, the possibility of mobility of recipient units among the distinctive size-classes, even after full adjustment.

Admittedly, these criteria are a counsel of perfection. Yet there is value in specifying such analytically desired income totals, if only to induce experimentation that relates the actual concepts to the desired. That can provide a better notion of the magnitudes involved and the consequences of adjustment, even if crude. It can clarify the kind of basic data required to relate to the policy issues implicit in the analysis of the distribution of income.

### Conclusion

The previous discussion relates solely to the weakness of the empirical foundation provided by the conventional data on size distributions of income among households or among income recipients. The comments should not be misinterpreted: as denying the value of emphasis on the distributive aspects of economic growth, particularly in developing countries; as negating the ingenuity with which Bank research has attempted to distill findings from disparate data, with increasing caution concerning the limitations of the underlying information; as rejecting analysis of the distributive implications of structural aspects of growth illustrated by relatively simple models employing notional but still plausible parameters; as counseling against introduction into project appraisal and other operations of the Bank sensitivity to possible impacts on internal income inequality. But one is left with the question whether much more experimentation with the underlying data should have preceded (rather than followed) the kind of generalization that was exemplified in the empirical summary of the size-distributions of income of the type provided in Sources (1) and (4), or in publications relating to poverty, or in the compilations exemplified by (5).

Many of the limitations of the data used, relating particularly to the nature of the recipient unit and definition of income have been recognized in the course of Bank research. Yet the natural inference from such limitations to more serious attention to the underlying data was apparently not followed. Instead the presumption has been that the errors are random and do not lead to spurious conclusions. In a subject so wrought with political implications, the attempt to obtain the right numbers for individual countries cannot be so easily dismissed in favor of the aggregates; nor can randomness be assumed when the various effects of recipient unit, size of family, etc., earlier discussed, are considered.

One may wonder whether a closer scrutiny and rejection of a number of estimates, while presenting adjusted data that are more reliable, would have furthered quantitative research more. There is danger that the now readily available Bank compilations can be put to uses that are more misleading than enlightening. There is still time, in the case of the Bank research now underway on Latin America and the Far East, for such counsel to influence the final stages of those projects, as well as the form of publication of the results.

SAMPLE OF PAPERS

- (1) Ahluwalia, M.S., "Inequality, Poverty and Development", Journal of Development Economics, 3, 1976, World Bank Reprint Series 36.
- (2) Altimir, O., "Income Distribution Estimates from Household Surveys and Population Censuses in Latin America: An Assessment of Reliability", November 1976 (mimeo).
- (3) Anand, S., The Size Distribution of Income in Malaysia, November 1977, (mimeo).
- (4) Chenery, H.B., et al, Redistribution with Growth: An Approach to Policy, Oxford University Press, 1974.
- (5) Jain, S., Size Distribution of Income: Compilation of Data, Johns Hopkins University Press, 1975.

RESEARCH ON INCOME DISTRIBUTION

Introduction

The Bank program of research upon income distribution has emerged in a self-conscious, planned fashion. In recognition of the limited investigation conducted elsewhere, the Bank has been prominent in stimulating and pursuing research on income distribution in developing countries. The initial Bellagio conference and subsequent publication of Redistribution with Growth has meant a leadership role that has not been characteristic of all fields of Bank research.

Bank research prospects and priorities were established after careful review of what was and was not being done elsewhere, the likelihood of potential progress, and the relevance to Bank interests. The research strategy, elaborated for and endorsed by the Research Committee in 1975, has emphasized three subject matters:

- . empirical, data-oriented, analysis
- . construction of economy-wide models for policy experiments
- . examination of consequences of policy interventions in a partial equilibrium framework

The first two components of this program have absorbed the lion's share of external resources. More internal staff time has been allocated to the third.

These priorities were chosen to respond to the issues posed to the Bank as it seriously began to grapple with the income distribution question. The data base was limited and uncertain, and called out for improvement in 1975, and it was still impossible to say how the income distribution in even the most important countries had fared over time. Beyond that, there was much talk of iron laws of development, inevitable impoverishment, and the like. The role of public services in offsetting the inequalities of private receipts was a matter of debate and dispute. The characteristics of the poorest groups were known for only a handful of countries.

How to intervene most effectively to reduce inequality and ameliorate poverty - while retaining the market and growth orientation emphasized by the Bank - was also not part of the conventional wisdom. There was considerable appeal to viewing the income distribution in the context of the productive structure, in order to include the second-round effects that direct policy analysis often fails to capture. Hence the relevance of large country models, in addition to research directed to specific policy instruments.

The larger strategy thus made, and for the most part, continues to make sense. The professional quality of the analytical results compares favorably with non-Bank sponsored research in the field. Many have been or are in the process of publication. Bank consultants have been eminently qualified and highly regarded. Question has rightly been raised in Appendix A about the weakness of the compilations of data, and the uncertain yield of the substantial research investment intended to extend the data base. There is no need to rehearse those issues here. The principal shortcoming here is the inability to follow through sufficiently on the strategy to yield findings that can inform Bank and developing country policy.

In the following sections, we evaluate a sample of 16 individual contributions under the three headings noted above. The concern is less with the research for its own sake, than with the implications for future priorities.

#### Empirical and Analytical Analyses

The research classified under this rubric is largely of two sorts, cross-section analysis of aggregate data, and country studies. Seven works have been examined, three of the first kind [1, 2, 6] and four of the second [3, 4, 5, 7]. Three are book length, four take the form of articles.

The cross-section aggregate research [1, 6] responds to the important issue of how the size distribution of income changes with sectoral, educational, and per-capita income change in a large number of countries. It is clearly the most sophisticated of its genre. The limitations of cross-section analysis are clearly understood and presented. Publication in academic journals was amply warranted.

Still, for Bank purposes, it might have been better to start the other way around: that is, with the substantive issue of the trade-off, if any, between rapid growth and inequality. The cross-section regressions in that context would have figured as one piece of the evidence, rather than being the central analytical focus. A small selected set of countries whose inequality trends had been carefully measured might have been compared with the cross-section predictions. These experiences would have merited comment. More narrowly, the U-shaped curve of the size distribution as per capita income varies might have been assessed more critically as the possible artificial statistical consequence - at the lower end - of minimum subsistence requirements. Finally, other Bank research bearing on international income comparisons might have led to use of a more meaningful set of measures for per capita income.

These criticisms do not mean that research upon income distribution variability is not useful. Quite on the contrary. The Bank results - properly understood - suggest that great care is needed before affirming the inevitable propensity for the poor to get poorer, and that even relative inequality may not vary regularly. The authority of the result, and its relevance for Bank policy, could have been much enhanced, however, had those

hypotheses, rather than the method, dominated. That is why, in our recommendations, we have tried to stress a policy rather than an academically oriented research view.

Decomposition analysis of the Latin American survey results [2] employs a cross-section perspective somewhat differently. Not only is the single region involved, but the basic question is also another: what is the influence of personal characteristics versus market characteristics in the explanation of inequality. Again, both in the theoretical discussion of alternative decomposition techniques and in their application, the research goes beyond previous efforts. Its technical proficiency is not at issue. What is, is the domination of the substantive concerns by the mechanics. The variables measuring market influences are inadequate - because of the characteristics of the surveys - leading to a statistical decomposition whose interpretation is in doubt - the more so because of interactions with personal characteristics. There is no comparison among the different Latin American countries to see how the results conform to other, indirect evidence. Finally, although considerable effort was expended in order to test the validity of the raw data - which turn out to be highly variable in reliability - the uncorrected information continues to be processed in all cases.

As before, and is characteristic of much of the Bank (and academic) research, the basic limitation is the attempt to exploit a particular set of data, rather than to examine a broader set of hypotheses. Research that does not go beyond the second stage fails to have the impact on Bank and developing country policy it should and might have.

Country-oriented empirical research within the Bank has managed more frequently to cross that barrier, perhaps because it requires broader concerns. The Malaysia study [4] is a case in point. While utilizing information from surveys, it is critical in its evaluation of their comparability, and careful in the inferences drawn. It transcends those particular data to take on a series of policy questions and issues relating to the size distribution and its changes. The study is consequently one that both Malaysian economists and those in the Bank will find helpful in understanding what has been going on; the great irony is that the Bank country economists were largely unaware of its existence.

The construction of a social accounting matrix for Malaysia [5] is also of value, although its principle objective is measurement rather than analysis. A single country focus and a need for consistency between the production and distribution accounts produces a more constructive attitude toward data than has characterized the more global efforts. While more experimentation with different imputation techniques and different assumptions might have been tried, the monograph is evidence that Bank research can take data seriously. One of the motivations is the usefulness of these data for a subsequent modelling effort.

Yet country research can also bog down in too narrow a context. The Taiwan study [3] becomes a virtual catalogue of Gini coefficient decompositions of all shapes and sizes over time, neglecting some of the basic

forces at work that reflect themselves in these coefficients. There is little discussion, for example, of the factors favoring the spread of rural industry in the case of Taiwan, little explanation of the processes by which dualism diminished within sectors, the reasons why technological change favored wage income, etc. Taiwan is an essential component in the puzzle of rapid growth consistent with equity. The study, while a technical advance in its application of Gini coefficient decomposition, fails to draw out those lessons and make them available to Bank and developing country decision-makers.

The work on earnings functions growing out of an extensive study of income distribution in Thailand [7] is of a similar bent. It is the technique that is central more than the substantive results. The article makes its point that better and indirect estimation of the contribution of education to earnings is feasible from survey data including self-employed. It does not, however, much advance our appreciation of the special circumstances of the Thai case. Perhaps the larger monograph underway will. It should. For Bank needs, the substance and the policy must count as much as methodological contributions; that is what differentiates its research agenda from that of an academic institution.

#### Large Scale Models

The research upon economy-wide, general equilibrium models shares some of the same attraction to technique at the expense of some basic questions. Two large but different models, for Brazil [9] and Korea [8], have been estimated and put through simulation paces. These efforts have been major projects. Their intent was to examine the effects of government policy upon the size distribution of income. Both have made technical advances in theoretical and programming terms. Yet neither lives up to the original intent.

There seem to be three reasons why. One is inattention to the inherent limitations of what remain "standard" economic models for the analysis of the size distribution of income. The basic rules for distributing income to persons, as opposed to economic agents defined by the productive process, are not an integral part of such models. The personal distribution is obtained subsequently by allocating factor income to individuals using static and non-behavioral constants computed from earlier survey and Census results. This is equivalent to saying the rank-ordering of persons does not itself feed back upon the economic (and political) process. In practical terms it also means that inequality within groups is held constant, although both its level and changes are significant in observed performance.

A theory of distribution to individuals is not a simple matter. But until it is explicitly tackled, it will not be possible to examine how the distribution of permanent, or life-time, income varies in response to economic change and economic opportunity. Nothing less than a complete specification of individual mobility, and the variation in individual incomes, is needed. This class of models does not attack such questions. The difficulty of the task, indeed, is one reason why attention might perhaps be

more profitably focused on socio-economic groups. But even then, more than mechanical allocation of labor income and profits is required, and mobility between groups cannot be ignored.

A second limitation of such models is that while nominally they are large, by virtue of including many sectors and groups of income recipients, they are in fact very sensitive to their macro-economic specifications. The interactions among most sectors makes little difference to the outcome compared to assumptions built into the models. In this sense, the models are too simple. Both, in fact, seem to equilibrate by taking some magnitudes as fixed in nominal terms, and allowing the overall price level or the terms of trade to adjust to make real demands and supply equal. Such effects then become the source of the distributional changes. Whether these processes conform to the structure of the actual economies is another matter. In neither case was the issue the subject of empirical investigation. If they are inaccurate or exaggerated representations, then policy conclusions are, of course, much affected, and much weakened. It is difficult to believe, for example, that increased agricultural productivity in Korea goes to naught because demand for output is fixed, provoking deteriorating terms of trade; or that in Brazil inflation improves the distribution because some service incomes do not change while all other wages do.

In the third instance, too little attention has been paid to capturing the differences among clusters of sectors, or groups, rather than multiplying their number. Sheer size is a complication, not merely for calculations, but also comprehension. The crucial parameters like the elasticity of substitution, the characteristics of technological change, and savings propensities get lost in the exercise. The simulations take these for granted in assessing policy impacts, when their changes - partially in response to policy - may be more important.

The upshot of the matter is that these models have had little impact on the analysis of Korea and Brazil, within the Bank or within the countries themselves. It was perhaps exuberantly optimistic to think that such would be the result. Lowered expectations might have been in order. In that context, they can be, and have been, evaluated more favorably and positively. They have advanced Bank thinking about model construction. They have also forced Bank researchers to ponder their common result that little change can be induced in the size distribution even by far reaching policy measures. Yet caution is indicated in exaggerating the significance of that result. Small changes in Gini coefficients can correspond to rather large shifts in the share of income commanded by different groups.

It is important to note that these criticisms and others have emerged from critical discussion within the DRC itself. Indeed, one of the papers under review [10] is a thoughtful appreciation of the characteristics of such models written by one set of the authors after the fact. It in turn has inspired other such analytic work within the Bank, and contributed to discussion at the Bank sponsored second Bellagio meeting. This capacity to learn, and to adjust future priorities is a strong point; what is important is to shorten the perception time, and also to target less ambitiously technically, but perhaps more so substantially.



A contrast in model building is the effort underway in the last few years to construct one for the Muda Regional Economy. It takes its start from a serious effort to estimate regional accounts for relevant socio-economic groups [11]. The ultimate purpose is to measure more accurately the second-round consequences of project investment in the region, whose spill-over potential has been considerable. Both by rooting the exercise in region-specific information, and by developing techniques for ascertaining the indirect project effects, the exercise has been better suited to Bank need. The model in question is less sophisticated than those for Brazil and Korea. Its results, however, should potentially inform Bank policy to a much greater extent. Such research in addition has been carried on in close contact with the Malaysian planning office. The lesson is that there are useful models that can grapple with the issue of distribution.

### Specific Policy Instruments

Four papers have been sampled among the diverse output that falls in this category. They each represent a significant aspect of research.

The most general is a recently published occasional paper on malnutrition and poverty that has aroused considerable interest [13]. It seeks to establish that increased income is inadequate to solve the malnutrition problem, requiring other forms of intervention instead. The problem then turns on defining efficient instruments. This research should be the precursor for a whole series of inquiries regarding basic needs. The two basic criticisms of the paper are potentially applicable to this larger set as well.

First is the problem of measuring the consequences of income changes. This depends upon knowledge of the per capita distribution within families. As Appendix A notes, this information cannot be casually derived from data usually available. In this instance, the problem is further compounded by the limited income distribution data for many of the lowest income national units. Although only orders of magnitude are perhaps all that is required at this point, at what point do errors of 10 and 20 percent begin to matter? When basic needs do come down to implementation, surely the inaccuracies must begin to affect the effectiveness of policies.

Beyond the income distribution measurement problem, there are the further difficulties of estimating minimum nutritional standards, as well as the elasticity of intake of nutrients with respect to income. The former are still a matter of controversy among nutritionists. The latter are not constants to be readily applied: they surely must vary widely with custom, the intrusion of advertised processed foodstuffs, the rural-urban mix, let alone traditional economic variables like the prices of other goods.

The monograph thus makes the definition of the problem too easy, when the observed persistence of malnutrition in spite of income growth cries out for more subtle and variegated research. At the level of solution, there is the same simplification. Efficient intervention is required, yet that efficiency is measured by reference to consumer preferences that are rejected by the very necessity of intervention itself. The essence of the strategy

is its delivery system that ignores individual wants. Deciding how much is sufficient, and devising substitute means for allocating the relevant goods and services is a central topic for research.

Despite its limitations, the monograph is an example of how Bank research can attack problems ignored elsewhere. Measurement of basic needs and schemes for intervention are matters that are likely to be of continuing priority in the next several years. The attractiveness of this research style lies in its capacity to eschew larger and general equilibrium approaches in favor of a partial focus. So long as each basic need is considered individually, that may be true; when taken as a composite such independence may well no longer prove feasible and there must be more attention to the interrelationships among them.

A second set of research has been conducted on the distribution of public services across income groups. The size of the public sector in most developing countries makes the potential contribution of fiscal policy to the distribution of real goods and services a significant one. Yet the problem as treated in [14] fails to take into account differences in the quality of services to persons in different income strata. Nor is there adequate discussion of why the survey on which it is based differs so substantially from an earlier one in which the distribution of educational services is much more unequal. Has there been a real change in Colombia, and why? Or can we safely presume the irrelevance of the earlier Bank study. The study instead concentrates upon its own statistical basis, to the detriment of the substantive issue. Nor are there plans to extend the work, either in the Bank or in collaboration with developing countries. The merit of such research, after all, consists in measurement not for a single country, but for a variety of representative countries. The absence of an explicit policy emphasis to the research effort makes itself felt, not only in what is done, but also what is omitted. What should be conceived as a pilot study to be replicated elsewhere becomes another final product.

The research on sharecropping is of a different style. The basic theoretical contribution that is reviewed here [15] makes significant amendments to a literature that has greatly expanded in the last several years. Its publication in the professional journals, as with much of the related Bank research relating to sharecropping, is a measure of its quality and novelty. What is perhaps more important from the Bank standpoint is the productive relationship between such theorizing and empirical application. Both are proceeding simultaneously. What is less fortunate is that while the structure of agricultural tenure is critical to the distribution of income, the theory, and micro-testing, have not lead on to a more synthetic piece that relates the results to larger issues of agrarian reform. Excellent as the work is, and promising in its continuing extensions, this hiatus does not appear likely to be bridged of its own momentum.

The final paper under review, yet unpublished and only recently completed, also relates to the agricultural sector [16]. It is motivated by concern with the implications of price intervention for the distribution of income and casts the problem in partial and simple general equilibrium form.

The paper makes clear the crucial dependence of the size and duration of the full policy impact upon the mobility of factor inputs and the distribution of assets. The paper is a useful first step in establishing a simple theoretical framework for subsequent application; its contribution to the Bank will depend upon whether the latter is pursued.

### Conclusion

This review makes apparent both the high quality and varied character of Bank income distribution research. It has been technically proficient and directed to a wide range of problems. Its quantity should also be remarked upon. The productivity of Bank staff compared with academic environments in which research is a large and regular component of responsibility is quite high. Specific criticisms have related as much, if not more, to the product of outside consultants than of Bank staff.

The deficiencies of the research have related less to its execution than to the erosion of policy orientation and focus as it has been conducted. There has sometimes been a tendency for narrow technique and exploitation of a particular data base to dominate at the expense of the larger substance.

A second limitation has been the failure to sustain more policy oriented research beyond single, isolated efforts. The Bank budget is small and its research agenda cannot be greatly expanded. For that very reason, however, it should be endeavoring to play a much more active catalytic role. This has lead us to stress the potential inherent in closer links with developing country research institutions.

A third characteristic has been a greater faith in large models than was probably merited. There are limits to what can be extracted from them. Systematic study of the second round effects of projects and policies has been slighted in favor of trying to solve everything at once. That lesson now seems well understood. More comparative, country-study analyses over time should be preferred to models that have no story to tell.

SAMPLE OF PAPERS

- (1) Ahluwalia, M.S. "Inequality, Poverty and Development", Journal of Development Economics, 3, 1976, World Bank Reprint Series 36.
- (2) Altimir, O. and S. Pinera, "Decomposition Analysis of the Inequality of Earnings in Latin American Countries", August 1977 (mimeo).
- (3) Fei, J.C.H., G. Ranis, S.W.Y. Kuo, Equity with Growth: The Taiwan Case, 1977 (mimeo).
- (4) Anand, S. The Size Distribution of Income in Malaysia, Nov. 1977, (mimeo).
- (5) Pyatt, G. and Round, J. Distribution of Income and Social Accounts: A Study of Malaysia in 1970, December 1977 (mimeo).
- (6) Ahluwalia, M. S. and J. Duloy, "Poverty Alleviation and Growth Pessimism: A Re-Examination of Cross Country Evidence", Bellagio Workshop on Analysis of Distributional Issues in Development Planning, April 1977, (mimeo).
- (7) Chiswick, C.U. "On Estimating Earnings Functions for LDCs", Journal of Development Economics 3 (1976), World Bank Reprint Series No. 44.
- (8) Adelman, I. and S. Robinson, A Wage and Price Endogenous General Equilibrium Model of a Developing Country: Factors Affecting the Distribution of Income in the Short Run, Stanford University Press, November 1977 (joint publication Stanford University and Oxford University, U.K.).
- (9) Bacha, E., L. Taylor, F. Lysy, Models of Growth and Distribution in Brazil, 1977, (mimeo).
- (10) Taylor, L. and F. J. Lysy, "Vanishing Short-Run Income Redistributions: Keynesian Clues about Model Surprises", Bellagio Workshop on Analysis of Distributional Issues in Development Planning, April 1977, (mimeo).
- (11) Bell, C., S. Devarajan, P. Hazell, R. Slade, "A Social Accounts Analysis of the Structure of the Muda Regional Economy", November 1976, (mimeo).
- (12) Bell, C., P. Hazell and R. Slade, "Autonomous Growth and Project Impact in the Muda Regional Economy: 1967-1972", September 1977 (mimeo).
- (13) Reutlinger, S. and M. Selowsky, Malnutrition and Poverty: Magnitude and Policy Options, World Bank Staff Occasional Paper No. 23, 1976.
- (14) Selowsky, M., The Distribution of Public Services Across Income Groups: A Case Study of Colombia, May 1977 (mimeo).

- (15) Bell, C., and P. Zusman, "A Bargaining Theoretic Approach to Cropsharing Contracts", World Bank Reprint Series No. 45, American Economic Review 66 (September 1976)).
- (16) Bertrand, T. "Market Interferences and Income Distribution: A Methodology for Studying the Agricultural Sector in Less Developed Economies", August 1977, (mimeo).

RESEARCH ON EMPLOYMENTIntroduction

This review is based on a sample of over twenty research papers <sup>1/</sup> relating to employment questions produced during the last few years. An evident feature is the generally high quality of the output. Indeed a number of pieces have already appeared or are about to appear in learned publications, and many of the authors have been acknowledged as experts in the field. On the other hand, the relationship between the subject matter of the research and the operational needs of the Bank has not always been evident. Perhaps a reflection of this lack of impact is the judgment in [4] that these standards evident in the research have not always been complemented in the Bank's country economic reporting.

The impression created is a series of papers that do not relate to any clear research strategy, although clusters of interests can be identified. In some cases successive or even contemporaneous researchers did not seem to be interacting. And while the bibliographical essays have provided useful summaries of where the field is, they do not seem to have guided continued Bank research or to have suggested policy implications. Their number - five, [5], [9], [10], [17], [19] - accordingly seem excessive. Frequently contracted out to consultants, the reviews languish for want of translation into more suitable Bank form. The fault is not with the quality of the papers, nor their excessively theoretical perspective. It rather lies with the limited resources for follow-up research, and definition of those priorities.

This impression partially derives from the diverse form of the research results sampled - conference proceedings, working papers, division papers, policy papers. It also partially reflects the decentralized character of Bank employment research. Although the Employment and Rural Development Division assumes principal responsibility, several other divisions engage in complementary studies. The lack of focus of the work as a whole - which this Appendix includes, rather than a narrow review of the Division - nonetheless should be a matter of concern.

The main substantive categories of the research, and the associated papers, cover the following topics; the organization is our own.

1. Rural Employment  
[1], [2], [7], [8], [9]
2. Urban Employment  
[10], [14], [22], [23], [24]
3. Rural-Urban Migration  
[3], [11], [12], [15], [16], [18]

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<sup>1/</sup> Enumerated in the annex.

4. Education  
[13], [16], [17], [19]
5. Shadow Wage Rates  
[15], [21]

The basic conceptual framework seemingly underlying the research relies upon differences in the way urban and rural labor markets function, with a theory of rural-urban migration to link the two. In addition, there has been emphasis upon the segmentation between formal and informal labor market in the urban sector. Education has been singled out for special attention because of its influence upon the structure of wages and its relationship to employment opportunities. Shadow wage rates have been studied because of the obvious relationship to project design and selection; the topic also brings together many of the considerations relevant to the actual performance of labor markets.

Implicit in much of the research is the presumption of an unemployment or underemployment equilibrium. Reliance upon segmentation to produce those results, however, may have been overplayed. Much more attention to the adjustment process, especially over time as the characteristics of entrants in to the labor force change, may well be indicated, as is pointed out in the text.

#### Rural Employment

After an earlier period in which rural unemployment was believed to be a potential source of "cheap" urban growth, followed by a series of studies suggesting that rural labor markets were in fact working, a more balanced and realistic concern with the need to create additional employment opportunities in the rural sector has come to prevail.

The Bank's work in drawing attention to rural, non-farm activities as a source of employment is therefore much to be welcomed. A review of the issues posed by such a strategy [1], a case study of Taiwan [8], and advocacy of small enterprise as a means of providing employment [9] are among the contributions in this category. These are atypical products: two are highly policy oriented, [1] and [9], and one [8] is very highly descriptive rather than analytic, and served as a factual basis for [1].

For all the usefulness of the facts organized in the Taiwan study, one is still left unsure why in Taiwan the increased demand for non-farm goods in the rural sector - characteristic of almost all developing countries - was met by supply in the rural areas. One answer seems to be the relatively well developed infra-structure and favorable conditions of labor supply because of agrarian reform. Such hypotheses are barely specified, let alone given adequate test. More studies of successful, and also unsuccessful, historical experiences are indicated. But they require a firmer analytic foundation that clarifies the factors permissive of capital mobility to the countryside.

Both of the policy focused papers - themselves not really research - suffer by reason of lack of prior research to draw upon. They are forced to reach conclusions on an inadequate knowledge base. They are reviewed here because they do put together what little is known in a sensible and synthetic way. Because of inadequate opportunity to conduct new inquiries, however, they make inadequate reference to broad developing country historical experience and earlier efforts to introduce small enterprise in rural areas. The data analysis in [9], for example, is too partial to sustain the strong recommendations made for a large Bank effort in this area; the observed labor intensity of small scale enterprise is not adequately explained. The review of policy issues in [1] is not rooted in firm intellectual foundations.

These papers have borne fruition in the decision to undertake a more comprehensive research project to redress these deficiencies. It is important that such an investigation go beyond the particular statistical surveys it may conduct to the actual historical policy experience of many individual countries on a comparative basis.

A positive example of what such comparative analysis can yield is the review of public works programs in developing countries [7]. Its analyses of actual experience clarified many of the circumstances conditioning success or failure of such efforts. The research directly informed subsequent Bank issues and policy papers on the same subject. The style of research, and the culmination of the process in Bank relevant documents, are an indication of what should be the norm rather than the exception.

The Bank has also concerned itself with the design of projects to improve the productivity of the small land-holder. One large research project, the Analytics of Rural Change, bears upon such policies. The paper considered here on the rural household [2] is one of a related series that has resulted from the project. Its explicit theoretical and econometric research style contrasts with the papers considered above. It is illustrative of how technique can nonetheless be compatible with substantive interest in the responses of individual economic units to policy interventions.

Inevitably, however, the technique also influences the range of permissible conclusions. Less restrictive, alternative specifications might have yielded different results. Certainly the short-term character of the model makes the calculated impact of price changes suspect. Production functions that are constant in returns to scale and neutral in technological progress are of a special kind. They may be the more questionable in view of the lack of statistical significance of the capital parameter.

The larger issue, however, is that resort to sophisticated econometric technique is imposed by limited, not extensive information. Research such as this, correctly seeking to integrate consumption, production and labor force participation decisions, should be pursued at the Bank using the extensive data available from Bank projects themselves. These afford an opportunity, almost unique, for virtually controlled experimentation. At the moment, only the capital-labor substitution project [6], seems to have exploited this access. It, cut off from a large analytic context, does not do justice to the richness of the possibilities.



### Urban Employment

Much research on employment in the urban sector in recent years has been based upon the distinction between formal and informal labor markets, the former with barriers to entry, the latter subject to competitive market clearing forces. Bank research is no exception.

While there is much to the differentiation, and a whole series of papers exploit it [10], [14], [12], [15] and [16] (the latter three are discussed in the section dealing with rural-urban migration), the distinction can be exaggerated. The informal sector is itself quite heterogeneous, affording increasing employment opportunities in some of its sub-sectors, while contracting in others. Nor are barriers entirely lacking. Information, capital, and quite likely a series of personal contacts are necessary to set up even as a street trader. Empirical studies have confirmed, quite contrary to initial expectations of many, that the informal sector is not peopled dominantly by migrants who have been shunted off and marginalized.

The main point is that Bank research in particular, instead of perfecting and adapting what is a dominant mode of academic analysis, might encourage a fresh look at the heterogeneity of urban employment opportunities. This sense, and the need to introduce a more dynamic view of the mobility among such opportunities, seems to have motivated proposals for further Bank research in urban labor markets [23]. Such a study requires a stronger analytic structure. Here is a fruitful, but still apparently unconsummated opportunity for collaboration between those who have been engaged in more theoretical efforts, and those with good empirical instincts.

An example of such a combination is the synthetic discussion of the informal sector in [14]. It brings to bear the mounting Bank empirical evidence relating to such labor markets. That effort stands in contrast with the review of alternative theories in [10] that has limited concern with application, and does not direct itself to developing countries in a convincing fashion. The structure of wage differentials economies can efficiently tolerate is central to the latitude for income redistribution in the urban sector in developing countries. Unfortunately [10] does not shed much light on the relevant determinants.

Bank research along theoretical lines has not provided new tools, or classifications of labor markets that subsequent empirical research might utilize. Its forte has been its extension of other research and its strength in synthesis. Bank empirical work has been perhaps most productive in identifying the urban poor. Among the studies of that type, [22] is useful in bringing together what has been learned, and specifying the data requirements for accurate statistical mapping of urban employment and poverty. It is also one of the few papers prepared with the country economist reader explicitly in mind. For all of that, its failure to articulate a policy rationale, dilutes some of its impact. It is too comprehensive to serve as a manual, and too specific to raise the basic questions of how trickle-down works through employment creation.

### Rural-Urban Migration

The papers in this category overlap those that relate more explicitly either to the rural or the urban sector. Most have been theoretical extensions of the imperfection-cum-search models of Harris-Todaro vintage. They thus start from specifications of rural and urban labor markets, and focus on unemployment as the equilibrating variable setting the market determined wage rates in each.

The model, as set out for example in [12], is not without limitations. It gives a role to migrant workers as the marginal urban labor force that is inconsistent with what we know about the selective character of migration and the jobs they actually take. It makes the informal sector a caricature of what it is in reality, where service employees frequently earn higher incomes than those in traditional manufactures. It is couched in terms of simple, one-period probabilities that ignore the dynamics of the search process. The latter, conditioned as it is by the availability of income transfers, attitudes about mobility, and institutional characteristics of labor markets is presented in terms that are much too simple.

The model thus fails to be fully descriptive of rural-urban interactions. At one level, it is entirely neo-classical in its assumptions of maximization and wage, price and quantity adjustments; at another, in the formal sector, it precludes terms of trade or wage changes. Little attention has been paid to the characteristics of decision-making under uncertainty, despite the central role of the probability calculus in the model. Nor does it deal with uncertainty in agriculture where the vagaries of weather, prices, crop disease, etc. are at least as significant as the uncertainties of employment in the urban sector. Subsequent Bank work as in [16], [3] and [21] enter into some of these aspects, but still within the restrictive ground rules of such search models that rationalize unemployment, rather than focus on the mechanisms of employment creation.

The policy instruments in such models are few. Usually they are limited to altering the fixed urban wages, or modifying the shadow wage rate - of which more shortly. A special Bank perception of the problem, directed to the alternative means of coping with massive migration through investment in regional poles, rural public works, special wage subsidies in urban areas, etc. is generally lacking. The Bank research, high in quality and professionalism, blends with that of the field as a whole.

### Education\*

Bank research on this subject has been concerned with a variety of the dimensions of influence of education upon employability and earnings. Two of the papers examined are country specific, [13] and [16]; two focus on the appropriate amount of resources to be allocated to training, [17] and [19].

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\* A separate external panel is reviewing Bank activities in the field of education and training.

The study of Malaysia [13] exploits the income and school-leavers surveys for that country. It is a professional, but self-contained exercise. The emphasis upon a statistical search for significant associations is perhaps carried too far. Regression results that include a variety of associated variables (e.g. race and education) are not likely to be robust, the more so when education is entered as years of schooling independently of its quality; older persons with equivalent schooling may have had far different training. The parallel study of Zaire [16] is subject to these same limitations.

Of more concern, however, is the limited attention to the social returns in both cases. Central to that question are the extent and character of unemployment experienced by the educated, and their social productivity. If their ultimate employment, after a period of waiting financed internally by families, leads them to redundant white collar and civil service work, the social returns obviously fall below the private return. Calculating the latter, in the absence of specifying whether education has a genuine productivity effect per the human capital approach, or whether it only serves a credentialling function, merely confirms an association between education and market wages. This issue was not broached in the two country studies, thus limiting the policy guidance the Bank might extend.

Social returns were the focus in [17] and [19], but within a restrictive framework that fully accepted years of schooling as productivity enhancing. The key addition in [17] is the assumption that education should be directed to those with greatest ability. The latter is presumed to be measured by IQ and to be independent of wealth. Such a policy for educational investment ignores the poor of low measured ability who may be so as a consequence of centuries of poverty and neglect. The results have only a limited policy interest, presuming as they do a prior set of equalizing opportunities that education itself is intended to provide. [19] presents more useful results. It shows that schooling alone - in the absence of complementary investment in health, nutrition, etc. - cannot increment ability (and earnings) significantly.

Both of these papers, while aiming at central policy issues, fall short of the mark owing to their limited empirical content. If the questions are worth pursuing, they should be pursued in depth. In a topic such as education, in which the Bank finances projects, and can influence policy, it is disappointing to find only single efforts, and not a coherent research effort directed toward production of a convincing policy paper. In part that is because these papers have been incidental to the large Bank effort relating to education. But why then devote resources to unrelated, single issues.

#### Shadow Wage Rates

All of the prior discussion bears on the usefulness of the market wage as a measure of social productivity. The latter is what counts for analysis of individual projects. Two papers, [15] and [21], explicitly deal with this question. Most of the others do so implicitly in their characterization of the forces that determine the market wage.

The two papers complicate, instead of simplify, taxonomies of shadow wage rates under different labor market conditions. Bank research should be going in the opposite direction. The Bank requires translation from the ideal to the practical. The merit of taking the informal sector wage as the shadow wage is that it is readily accessible. These papers, and still other Bank research, correctly show the limitations of such a measure when market wages also depend upon migration, can influence efficiency, reflect private returns to education, etc. The challenge is to carry the research one step further to develop feasible alternatives. It is relevant that the research reviewed was incidental to actual application, and emerged from theoretical rather than practical interest. Much more concern with shadow wages is to be found elsewhere in the Bank. It is not obvious that such a division of labor is warranted.

### Conclusion

This brief review has not been intended to single out particular papers for praise, or others for criticism. Virtually all in fact are of high professional quality, as their increasing publication rate attests. Rather the intent has been to expose a style of Bank research upon employment questions, which seems not fully to have satisfied Bank needs, or to have exploited Bank comparative advantage.

Among the factors responsible are: inadequate attention to policy interventions; exclusive focus upon particular data sets; insufficient attention to project design and evaluation; failure to follow through individual efforts to a coherent Bank policy paper, and lack of a coherent focus for research - in part the consequence of the decentralization of the program. It is clear we are imposing different, and higher, standards than research is generally required to satisfy. That is a measure of how far the Bank's research program has come in a relatively few years, and the special needs it must satisfy.

SAMPLE OF PAPERS

- (1) Anderson, D and M. W. Leiserson, "Development Issues in Rural Non-Farm Employment," Report No. 1577, April 15, 1977.
- (2) Barnum, H. N. and L. Squire, "An Econometric Model of Agricultural Household," undated.
- (3) Beenstock, M., "Risk, Unemployment and Rural Urban Migration," May 31, 1977.
- (4) Beenstock, M. and M. W. Leiserson, "Functional Review of the Treatment of Employment in the Bank's Country Economic Work," (Draft) July 1977.
- (5) Berry, A. and R. H. Sabot, "Labor Market Performance in Developing Countries," November 1977.
- (6) Bose, S., "Some Aspects of Unskilled Labor Markets for Civil Construction in India: Observations Based on Field Investigation," WBSWP No. 223, November 1975.
- (7) Burki, S.J., et. al. "Public Works Programs in Developing Countries: A Comparative Analysis," WBSWP No. 224, February 1976.
- (8) Ho, S. P. S., "The Rural Non-Farm Sector in Taiwan," September 1976.
- (9) Industrial Development and Finance Department, "Employment Creation and Small Scale Enterprise Development," March 22, 1977.
- (10) Lal, D. "Theories of Urban Wage Structures in Developing Countries," September 30, 1976.
- (11) Lipton, M., "Migration from Rural Areas of Poor Countries: The Impact on Rural Productivity and Income Distribution," August 1, 1977.
- (12) Mazumdar, D., "The Theory of Urban Underemployment in Less Developed Countries," WBSWP No. 198, February 1975.
- (13) Mazumdar, D., "Education and Employment in Urban Malaysia," August 1975.
- (14) Mazumdar, D., "The Urban Informal Sector," World Development, August 1976.
- (15) Mazumdar, D., "The Rural-Urban Wage Gap, Migration and the Shadow Wage," Oxford Economic Papers, November 1976.
- (16) McCabe, J. L., "Education, Administered Wage Rates and Size Distribution of Income in Urban Zaire," November 1976.
- (17) Pinera, S., and M. Selowsky, "The Economic Cost of the 'Internal' Brain Drain: Its Magnitude in Developing Countries," WBSWP No. 243, September 1976.

- (18) Schuh, G. E., "Out-Migration, Rural Productivity and the Distribution of Income," August 1, 1977.
- (19) Selowsky, M., "A Note on Preschool Age Investment in Human Capital in Developing Countries", Economic Development and Cultural Change, July 1976.
- (20) Stern, N., "On Labor Markets in Less Developed Countries," March 1977.
- (21) Stiglitz, J., "The Structure of Labor Markets and Shadow Prices in LDC's," August 1, 1977.
- (22) Webb, R., "On the Statistical Mapping of Urban Poverty and Employment," WBSWP No. 227, January 1976.
- (23) Webb, R., "Proposal for Research on Urban Labor Markets in Latin America," December 1976.
- (24) Webb, R., "Framework for Research on Urban Labor Markets," December 1976.

