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Industrial Development and Employment in Iran

John R. Hansen

[Iran's industrial expansion has been unusually successful in providing new jobs at a 13 percent annual rate of increase, about as fast as the growth in output. This is unlikely to continue as the capital requirements per job are rising, but there are ways in which the employment-generating aspects of industry can be strengthened in future.]

Iran's industrial sector has been growing in real terms at roughly 13 percent per year during the past decade, and unlike the experience in many developing countries, industrial employment has grown at about the same rate. In other developing countries the growth of manufacturing output has generally been one-and-one-half to two times higher than the growth of employment in manufacturing. Table 1 shows the growth of employment and production in Iranian industry from 1962/63 to 1967/68 and its distribution among the major types of industrial activity; production is measured by the value added in manufacturing.

The non-durable consumer goods group (food, textiles, clothing, etc.) is still the most important in terms of employment and production, and it has contributed the largest share of the overall growth over the period—72 percent for employment and 59 percent for production. This is also the more labor-intensive part of Iran's industrial sector, as can be seen by the fact that it used 71 percent of the industrial labor force but produced only 64 percent of the industrial value added in 1967/68. Non-durable consumer goods, however, lost some of their relative importance since the rates

Dr. Hansen is with the Industry Division, Economics Department of the World Bank, Washington, D. C.

of increase for intermediate goods and for capital goods—combined here with durable consumer goods—were more rapid in employment as well as in production. Their production has been gorwing by over 16 percent per year, about 3. 5 percent faster than the sector as a whole; although they still account for only one fourth and one tenth of all Iranian industrial activity respectively, these shares are larger than in 1962/63. However, as one would expect, the growth of production is outstripping the growth of employment in these more capital-intensive activities.

Table 1: Changes in Value Added by Manufacture and Employment in Iranian Industry

	1962/63	1967/68	Five Year Increase	Annual Rates of Increase
Value Added (billions of rials)	34. 1	62. 8	28. 7	5. 7
Shares of Subsectors (percentages)				
Non-durable consumer goods	68. 9	64. 0	59. 2	11. 3
Intermediate goods	22. 2	25. 6	29. 0	16. 5
Capital/consumer durable goods	8. 9	10. 3	11. 7	16. 6
TOTAL	100. 0	100. 0	100. 0	13. 0
Employment (thousands of workers)*	249. 7	461. 5	211. 8	42. 4
Shares of Subsectors (percentages)				
Non-durable consumer goods	70. 2	71. 2	72. 3	13. 4
Intermediate goods	22. 0	20. 7	19. 2	11. 7
Capital/consumer durable goods	7. 8	8. 1	8. 5	14. 1
TOTAL	100. 0	100. 0	100. 0	13. 1

*excluding employers, working partners and unpaid family workers.

Some of the factors contributing to Iran's success in generating employment through industrial development include: first, a very large percentage of the firms in Iran are small establishments employing less than 10 people, and these firms, which generally use a limited amount of capital equipment, have accounted for a large majority of the increase in industrial employment. Second, relatively labor-intensive industries including textiles, apparel, and assembly/packaging operations still account for a substantial part of Iran's total industrial activity. Third, the labor laws in Iran make it difficult for firms to dismiss workers who have been employed for more than a limited length of time. Fourth, the Iranian Government has assisted firms threatened with bankruptcy, especially those employing large numbers of workers, to avoid unemployment. Fifth, there is a policy in Iran to spread industrial development into the outlying areas. This policy is designed to encourage the development of new "growth poles." In these centers, new industrial establishments will develop, many of which will be relatively smaller and more labor intensive than the factories in Tehran, thereby extending employment opportunities to more of the nation's people without drawing them into the already crowded capital city.

While these policies have been relatively successful in maintaining employment growth in the past, future development of Iran's manufacturing sector is not likely to create employment at the same rate. Iran's past decade of industrial development has depended heavily on import substitution in the consumer goods field, the traditional area of "easy" import substitution. However, the country is now virtually self-sufficient in consumer non-durables; little more than 10 percent of Iran's imports today are in this category. Consequently, as opportunities for the development of new types of industrial activity in the field of consumer non-durables have almost been exhausted, new firms must increasingly enter the often more capital-intensive fields of intermediate and consumer durable/capital goods production.

In Iran today, and in most other developing countries, the simple workshop activities producing consumer goods and semi-services—such as carpentry, vehicle repair and garment-making—generally require less than \$5,000 and sometimes less than \$1,000 of fixed capital per job. Job cost in the assembly industries runs from \$10,000 to \$15,000 on the average. The textile industry, once regarded as the classic example of a labor-intensive industry, today requires investments in Iran of \$30,000 to \$40,000 per job. Although a petrochemicals industry based on Iran's rich reserves of oil could ultimately generate thousands of jobs, the cost will be high—probably from \$150,000 to \$300,000 per job.

The pressure to move into more capital-intensive industries because of domestic market saturation might be relieved in part by turning to export markets. However, expansion of employment through development of export-oriented industries will be difficult in Iran, as it is in virtually all developing countries. 1) Most countries of the world, both developing and developed, have erected substantial trade barriers. These make it very difficult for the developing countries such as Iran, which are often comparatively high cost producers in the first place, to compete in foreign markets. 2) Iranian producers must compete in an international market which is often ruled by abnormally low or dumping prices. These prices are in part an inevitable response to the tariff barriers. Many manufacturers in the more developed countries can afford to export their excess production at prices below full cost because of various government subsidies and/or because they can count on sales in their large domestic markets to cover their fixed costs. However, industries in developing countries like Iran must generally recover their full costs of production on export sales, for the domestic market is too small to absorb a sufficient volume of goods to cover fixed costs. 3) Few businessmen in Iran have the knowledge, experience and contacts needed to market their products internationally. Selling abroad requires knowledge of foreign markets and foreign government regulations, establishment of sales and service networks, advertising, and the like, all of which take time to develop. 4) Many of the industrial licensing, financing, foreign exchange and protection policies in Iran often discriminate (though unintentionally) against export-oriented industries and in favor of industries producing for local markets. These policies are presently under intensive review by the government. Therefore, while an export orientation may well be an excellent long-term means of encouraging employment-generating industries in Iran, export industries take a great deal of time and effort to develop and cannot immediately meet the demand for additional industrial employment.

In sum, Iran has successfully shaped her past industrial development so that industrial employment has grown almost as rapidly, a phenomenon rarely found in developing countries. But the pressure of domestic market saturation in the more labor-intensive consumer goods industries means that Iran will need to pursue employment generation on several fronts to maintain its exemplary record in the future. Developing countries around the world could well take note, not only of Iran's past industrial investment pattern, but also of the possible future strategies open to Iran and other developing countries in the battle against unemployment.

Within the industrial sector, when the scope for production in the consumer goods industries has been filled, countries can look for those intermediate and capital goods products which are naturally more labor-intensive, thereby capitalizing on the plentiful supply of labor. Where there are alternative methods of producing a product, those which use relatively more labor would best help meet employment goals. Such methods will of course be attractive to industrialists only to the extent that hiring more workers can be made profitable. This depends in part on the productivity of the labor-intensive methods and the wage rates that employers must pay, which in some cases in Iran have been driven above the marginal productivity. Labor-intensive methods would also be more attractive if employers were allowed to hire and release workers as necessary for efficient plant operation. The unemployment resulting from such layoffs could be made both shorter through retraining programs, and less painfull with unemployment benefits.

However, the selection of methods of production and types of products within the industrial sector should be made with an eye towards the requirements of the international markets, which Iran is rapidly entering. These markets require high quality, efficiently produced goods, so in the drive for more employment policy makers must never lose sight of the need for efficiency in the use of capital and materials. This can mean more production, lower costs, more sales, and consequently more jobs.

Since industry is almost universally the least labor using sector, industry cannot be developed at the expense of the agricultural and service sectors which traditionally depend more heavily on labor. Agriculture is often treated as a stepchild in development strategies by steering the bulk of the country's resources towards the more glamorous industrial sector; but a solid, growing agricultural sector is the backbone of a sound pattern of industrial development. Existing industries in countries like Iran cannot continue their expansion without raising the incomes of the urban and rural poor to expand the domestic markets for industrial products. Agricultural development programs now underway in Iran help the latter; the development of more productive service industries, such as skilled and reliable construction firms, could employ many of the urban poor, giving them the incomes to buy industrial products.

[Excerpted from an unpublished paper summarizing the author's presentation at the Society for International Development World Conference, Ottawa, Canada, May, 1971.]