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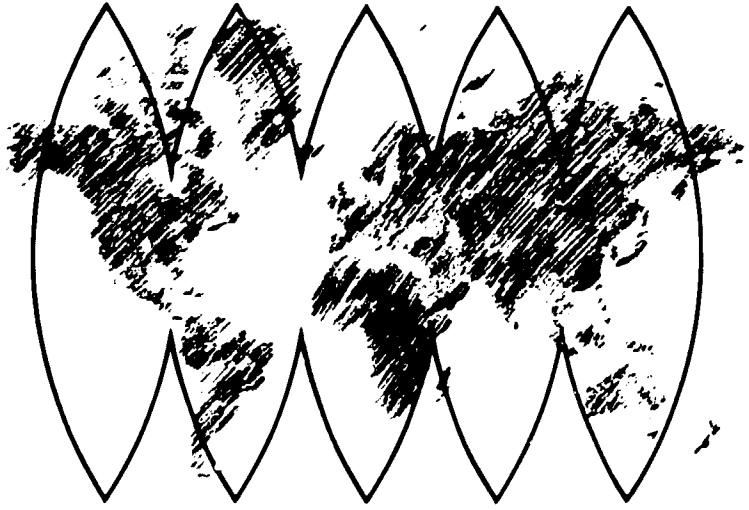

BASIL BLACKWELL · OXFORD · CAMBRIDGE MA

THE ECONOMIC ENVIRONMENT

STRUCTURE AND PERFORMANCE OF MANUFACTURING

INDUSTRY BRANCH PROFILES

INDUSTRIAL POLICIES, STRATEGIES AND INSTITUTIONS

RESOURCES FOR INDUSTRY

INVESTMENT OPPORTUNITIES

PAKISTAN

PAKISTAN

Towards Industrial Liberalization and Revitalization

INDUSTRIAL DEVELOPMENT REVIEW SERIES

Published by Basil Blackwell Ltd for the

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PREFACE

This Industrial Development Review of Pakistan is part of a Sales Series aimed at strengthening the 'country focus' of UNIDO activities. Within the framework of the work programme of the Regional and Country Studies Branch of UNIDO for monitoring the industrialization process of developing countries, the Reviews provide a general survey and brief analysis of each country's industrial development process. The Reviews are intended to provide a service to those within UNIDO and other international agencies concerned with industrial policy, planning, project development and implementation, and to be a ready source of information for governments, investors, industrialists, entrepreneurs, policy-makers, international organizations, aid agencies, academics, and research institutes.

The Reviews have two separate but interrelated objectives: they are designed to facilitate and promote the activities of UNIDO, as well as to serve as an informative and analytical document for the international industrial community. It is known from experience that readily available reference material on the industrial sector in developing countries is eagerly sought. The favourable responses received from regular readers both inside and outside UNIDO have facilitated extension of the scope of the Reviews in successive issues.

As the Reviews are issued as sales publications, the scope and dimension of the series are designed to accommodate the needs of a wide readership in the international industrial community associated with industry, finance, trade, business, research and government. The Reviews also aim at providing a basis for undertaking in-depth analyses of specific aspects of industrial policies, strategies and programmes in the developing countries and at providing a basis for informed discussion of industrial development trends and policies.

The sales publications are intended to strengthen the Organization's relationship with the private sector. By acquiring a wide readership for this series, UNIDO hopes to provide new and pertinent information on the role of industry in developing countries: information that is essential to understanding and accelerating the process of industrialization in the Third World.

This Review comprises five Chapters. Chapter I reviews recent economic trends, and analyses key issues of macroeconomic policy environment and economic prospects. The structure and performance of the manufacturing sector are examined in Chapter II, with a focus on productivity, wages and salaries, investment and financing patterns, manufacturing trade, and regional disparity in industrial development. Analyses of problems and prospects of key manufacturing subsectors contained in Chapter III are followed by an analytical exposition of policy framework for industrial development in Chapter IV. Chapter V presents information on the country's resource endowment for industrial development. The Review also furnishes information on investment environment, the legal framework governing industrial investment, priority product areas, and on industrial investment procedures, incentives and opportunities.

EXPLANATORY NOTES

References to *dollars* ($) are to United States dollars, unless otherwise stated.

Dates divided by a slash (1988/89) indicate a fiscal year or a crop year. Dates divided by a hyphen (1988 – 1989) indicate the full period, including the beginning and the end years.

Tonne(s): Tonne(s) denotes metric tonne(s). This word is used uniformly throughout the text for metric/short/long tonne(s). An element of ambiguity cannot be ruled out in view of data sourced from various documents which did not indicate a precise definition of the word tonne and ton.

In Tables:
Total may not add precisely because of rounding. Two dots (..) indicate that data are not available or not separately reported.

The following *abbreviations* are used in this publication:

BEL	Bankers' Equity Limited
BMR	Balancing, modernization and replacement
BOI	Board of Investment
COI	Committee of Investment
DFI	Development Finance Institution
EC	European Community
FATA	Federally Administered Tribal Areas
GCP	Ghee Corporation of Pakistan
GDP	Gross domestic product
GNP	Gross national product
ICP	Investment Corporation of Pakistan
IDBP	Industrial Development Bank of Pakistan
IICs	Industrial Investment Credits
IMF	International Monetary Fund
IPB	Investment Promotion Board
ISIC	International Standard Industrial Classification
KEPZ	Karachi Export Processing Zone
LIBOR	London Interbank Overnight Rate
LPG	Liquid Petroleum Gas
MVA	Manufacturing value added
NDCF	National Development Finance Corporation
NIT	National Investment Trust
NOC	No objection certificate
NRI	Non-repatriable investment
NWFP	North-West Frontier Province
OECD	Organization for Economic Co-operation and Development
PACO	Pakistan Automobile Corporation
PICIC	Pakistan Industrial Credit and Investment Corporation
PIDC	Pakistan Industrial Development Corporation
PSIC	Pakistan Small Industries Corporation
Rs	Rupees (Pakistan)
SCCP	State Cement Corporation of Pakistan
SEC	State Engineering Corporation
SITE	Sind Industrial and Trading Estates
TFC	Term finance certificate
US	United States
USAID	United States Agency for International Development Assistance

BASIC INDICATORS

BASIC INDICATORS I: MACROECONOMIC INDICATORS

Population (1988/89)	:	107 million
Labour force (1988/89)	:	30.9 million
GDP (1987/88)	:	Rs 618.03 billion (at current prices)
GNP per capita (1987)	:	$350

Growth rate of GDP (Percentage) :

1984/85	1985/86	1986/87	1987/88
9.5	8.0	7.2	5.6
1988/89	**1989/90[a]**		
5.1	5.2		

Distribution of GDP (Percentage) :

	1976/77	1988/89
Agriculture	32.3	23.2
Mining and quarrying	0.9	2.4
Manufacturing	14.9	17.7
Construction	5.5	6.4
Other	46.4	50.3

Exports (1988/89)	:	$4,527 million
Imports (1988/89)	:	$6,945 million
Trade deficit (1988/89)	:	$2,418 million
Balance of payments (1988/89)	:	−$2.0 billion
External debt (1988/89)	:	$14 billion
Debt service ratio (1988/89) (as percentage of export earnings and services)	:	31 per cent

Rate of inflation (Percentage) :

1985/86	1986/87	1987/88	1988/89
4.8	3.9	6.0	10.3

Exchange rate (Rupee equivalents to $1) :

1985/86	1986/87	1987/88	1988/89
17.0	17.6	18.2	21.0

Foreign exchange reserves[b] ($ million) :

1985	1986	1987	1988	1989
807	709	502	395	200

a/ Estimate.
b/ Excluding gold.

BASIC INDICATORS II: KEY INDUSTRIAL INDICATORS

MVA (1986) : $5,073 million

MVA per capita (1986) : $51.2

Manufacturing employment (1988-89) : 3.8 million

Growth of MVA (Percentage) :

1984-85	1985-86	1986-87	1987-88
8.4	7.8	7.4	10.0
1988-89	1989-90[a]		
3.0	7.9		

Composition of MVA (Percentage) :

	1977	1985
Food products	19.7	29.5
Textiles	32.4	17.4
Chemicals	15.5	27.0
Machinery	6.7	9.7
Transport equipment	2.6	3.2
Other	23.1	13.2

Share of manufactured exports in total exports (1988-89) :

	65.0 per cent
Cotton yarn	12.5 per cent
Cotton cloth	9.5 per cent
Textile made-ups	7.4 per cent
Ready-made garments	7.0 per cent
Leather and leather products	8.0 per cent
Carpets and rugs	4.4 per cent
Fish meal	2.6 per cent
Other	13.6 per cent

Gross fixed capital formation in manufacturing (Rs billion in current prices) :

	1984-85	1985-86	1986-87[a]	1987-88[a]
Private sector	28.7	33.3	38.2	42.8
Public sector	42.1	47.6	55.7	58.9

Paid-up capital of companies listed on Karachi Stock Exchange (Rs billion) :

1985-86	1986-87	1987-88	1988-89
14.1	16.4	17.8	20.8

a Estimate.

BASIC INDICATORS III: INTER-COUNTRY COMPARISON OF SELECTED INDICATORS

Indicator	Unit	India	Korea, Republic of	Nepal	**Pakistan**	Sri Lanka
Pope'ation (1988)	Million	815.6	42.0	18.0	106.3	16.6
GDP (1988)	$ million	237,320	171,310	2,860	34,050	6,400
GNP per capita (1988)	$	340	3,600	180	350	420
Average annual growth rate of GDP (1980 – 1988)	Percentage	5.2	9.9	4.7	6.5	4.3
Agriculture (1988)	Per cent of GDP	32	11	56	26	26
Industry (1988)	Per cent of GDP	30	43	17	24	27
Manufacturing (1988)	Per cent of GDP	19	32	6	17	15
Services (1988)	Per cent of GDP	38	46	27	49	47
Gross domestic investment (1988)	Per cent of GDP	24	30	20	18	23
Gross domestic savings (1988)	Per cent of GDP	21	38	10	13	13
Exports of goods and services (1988)	Per cent of GDP	7	41	13	14	26
External debt (1988)	$ million	57,513	37,156	1,164	17,010	5,189
Debt service (1988)	Per cent of exports of goods and services	21.8	9.1	8.5	23.5	17.2
Official development assistance[a]	$ million	2,098	10	399	1,408	599
Growth of MVA (1980 – 1988)	Percentage	8.3	13.5	..	8.1	6.2
MVA (1987)	$ million	43,331	42,286	165	5,001	967
MVA per capita (1987)	$	54	1,004	9	49	59
Share of manufactured goods[b] in total exports (1986)	Percentage	57.6	86.2	58.9	65.5	42.5
Manufactured exports to OECD countries (1988)	$ million	7,069	42,367	173	2,159	824

Sources: World Bank, *Development Report 1990*; UNCTAD; UNIDO data base.
a/ Net disbursement of ODA from all sources.
b/ SITC 5 – 8 less 67 and 68.
c/ 1985.

SUMMARY

The economy of Pakistan is likely to achieve a growth rate of 5.2 per cent in 1989/90, which represents the second consecutive year of a sombre economic climate. Stagnant growth rates in recent years have been due to internal and external economic imbalances, declining inward remittances and slower growth of exports. As the conditionality attached to the three-year stabilization programme induced by the International Monetary Fund and World Bank tends to be restrictionist, the pace of economic expansion is unlikely to accelerate significantly in the medium term. Industrial stagnation in 1988/89 was marked by a sluggish growth rate of 3 per cent, with large-scale manufacturing value added recording just 1 per cent increase. Despite structural deficiencies, ethnic conflicts in Karachi, loadshedding and falling levels of investment, the manufacturing sector grew at 7.9 per cent in 1989/90.

The manufacturing sector in Pakistan accounts for less than one-fifth of GDP and absorbs around 13 per cent of the country's work-force. However, the share of manufactured exports in Pakistan's narrow export basket is high at 65 per cent. With around 30 per cent of MVA in 1985, the food industry emerged as the leading subsector of manufacturing. The long-term decline of the textile industry from 32 per cent in 1977 to 17 per cent in 1985 has been the central feature of structural change in manufacturing value added. This is partly a reflection of the fact that the large cotton cloth units have been fragmented into smaller units. The structure of manufacturing value added is dominated by consumer goods industry. The share of capital goods in MVA increased marginally from 11 per cent in 1977 to 12 per cent in 1985.

Since the advent of the new government* there has been a renewed encouragement of private-sector investment in manufacturing. Policy initiatives in pursuit of de-regulation and liberalization included, *inter alia*, an increase in the investment sanction limit, drastic reduction in the list of specified industries (which require government sanction), reduction of tariffs on a number of raw materials, intermediate and capital goods, and upgrading of an Industrial Incentives Reform Cell into a Tariff Commission in 1989 to make recommendations on fiscal anomalies and effective protection. The new government launched a major privatization programme with a decision to divest part of the public sector shares. Although the private sector is assigned an increasingly important role, the performance of the public sector and its role in key industries remain crucial.

The product range of Pakistan's food industry is fairly diversified, but there remains rich untapped potential for further expansion. Although private enterprises outnumber public sector units in vegetable ghee production, local demand is met largely by the highly subsidized public-sector Ghee Corporation of Pakistan. Given the high cost of production, the private units tend to diversify production from ghee to cooking oil and to a range of other products based on the same raw material. The changing pattern of consumption also stimulates such product diversification.

Pakistan was self-sufficient in sugar production in the early 1980s, but supply shortages led to 80,000 tonnes of sugar imports in 1989. Low productivity in this segment of the food industry is due largely to crude methods of production in the traditional industries which extract only 50 per cent of the cane sugar content. The demand for refined sugar is estimated at 3.2 million tonnes for the year 2000, compared with 2.1 million tonnes in 1989. Expansion and modernization of sugar mills is viable in Pakistan as indigenous components account for 75 per cent of a modern sugar mill. Sanctions are no longer required to establish private sector units involving an investment of Rs 1 billion. This should, in principle, stimulate private investment in the sugar industry.

* References to 'new government' in the text are to the elected government which was in power during December 1988-August 1990.

There appears to be a promising future for Pakistan's non-alcoholic beverages industry in general and for the fruit juice industry in particular. Output of beverages is expected to double in 1990, much of it coming from new enterprises producing fruit juice in paper packs. In the absence of further expansion of the industry, a supply gap of 540 million bottles paper packs of fruit juice is estimated for 1990. The industry's export potential has recently evoked the interest of foreign firms. Pakistan's abundant supply of fruits can also be utilized for the manufacture of baby food to supplement the baby milk products which are currently being imported in substantial quantities in order to keep pace with the rapidly growing demand for milk products.

Although the share of textiles in MVA fell, the industry continues to be of great significance in terms of its contribution to employment and export earnings. The industry currently employs 28 per cent of the industrial labour force and accounts for around 56 per cent of the country's total exports. A substantial quantity of Pakistan's cotton yarn export is destined to Japan and the Republic of Korea, while the United States is an important market for ready-made garments, hosiery and towels. Synthetic textiles are exported mainly to the United Kingdom and Saudi Arabia. While cotton yarn exports continue to retain their popular image in Japan and East Asia, the country's garments industry seems to be losing its competitive edge to potential competitors, namely, China, Japan, Republic of Korea, Taiwan Province of China, India and other countries of South-East Asia, especially Indonesia, Bangladesh and Sri Lanka. The narrow production base, outdated technology, inadequate research and limited product range have led to sickness in many textile enterprises. Rationalization and modernization initiatives would significantly enhance the performance of the industry. Pakistan is endeavouring to develop a long-term textile strategy, with a view to encouraging foreign investment in quality textile products and developing target markets for those products. Possibilities for extensive collaboration with international firms, particularly those based in South-East Asia, could be explored. Export prospects for non-traditional textile items such as table linen, kitchen linen, curtains and upholstery could easily be enhanced with adequate financial assistance and incentives to investors. These non-traditional textile made-ups tend to emerge as a promising segment of Pakistan's textile industry.

There is a case for re-establishing the strong position of Pakistan carpets on the world market. This largely cottage-based industry needs rationalization of the production structure and collaboration with top quality international designers if it is to upgrade product quality and to respond to the preferences of individual buyers. The government has announced a series of rebate and incentive schemes to encourage carpet exporters. These include concessionary credit, duty drawback facilities, free import of wool, tax exemptions, market research assistance, etc.

Despite a significant spurt in the production of fertilizers, Pakistan continues to depend on imports to meet domestic demand. Supply shortage persists in spite of several firms operating at the optimal rate of capacity utilization. This shows the need to create additional capacity for production of phosphatic and nitrogenous fertilizers. Inadequate investment in the fertilizer industry has been due to the low price of fertilizers, high costs of installing new plants, irregular power supply and uncertainty with regard to the availability of gas as a feedstock. The fertilizer industry in Pakistan is likely to be of considerable interest to foreign investors. The government estimates that Pakistan would require 2.3 million nutrient tonnes of urea by the year 2000. This would call for the establishment of 3 major plants over the next decade. In view of Pakistan's ample gas reserves joint ventures may concentrate on the simultaneous development of the energy and fertilizer sectors. Both areas are of top priority for the Government of Pakistan and the main donor agencies.

Domestic production of drugs, medicines and pharmaceuticals meets around 80 per cent of domestic demand. About 70 per cent of the market is dominated by transnational corporations. Foreign firms and locally-owned firms are heavily dependent on imports of raw materials,

semi-finished products and packaging materials. The production of basic drugs by locally-owned firms is negligible. Inept price policy is a major constraint inhibiting the expansion of the pharmaceutical industry. Price fixation and revision may be decentralized and the pricing of final products may be brought in line with market realities, cost of inputs, cost of distribution, and other criteria.

Pakistan is heading towards self-sufficiency in cement production. Most cement plants run on profitable lines, and the public-sector plants do much better than private firms in terms of capacity utilization. The State Cement Corporation of Pakistan has launched a major balancing, modernization and restructuring programme involving an expenditure of $213 million. A joint venture for the expansion of cement production capacity is under way. The World Bank and the Asian Development Bank have offered loans of Rs 260 million for the modernization of one of the old cement plants. New cement varieties have also been developed to make better use of available resources. Wide regional dispersion of the cement industry is strongly advocated in view of the prohibitive transport costs. New discoveries of suitable raw materials and creation of infrastructural facilities in new locations are the prerequisites for the regional dispersion of the industry.

Pakistan's optimism with regard to the future of iron and steel products is reflected in the large number of downstream projects of the Pakistan Steel Mill at Karachi which came on stream in the 1980s. Punjab constitutes a potential market for many intermediate and capital goods as around 80 per cent of the country's smelters and semi-integrated steel plants are located there. The demand for steel in Pakistan is projected at 5 million tonnes by the year 2000. The country's existing capacity can deliver only 1.8 million tonnes of steel. Viable avenues to self-sufficiency include more efficient utilization of installed capacity at Pakistan Steel Mill, expansion of Pakistan Steel Mill's rated capacity to 4 million tonnes, and construction of a direct reduction plant based on Nokkundi iron ore and natural gas. The steel industry is an area where opportunities exist for foreign investors.

There has been a steady upward trend in the production of almost all categories of engineering products in recent years. However, imports of engineering goods currently account for 60 per cent of the total supply. There is no consistent policy package for involving local engineering plants on a subcontracting basis in the major national projects. Under-utilization of capacity in local firms and the prevailing supply gap in engineering goods largely reflect the low quality of locally produced engineering goods which fail to capture the growing demand. Amalgamation of smaller enterprises is advocated particularly in the production of engineering and capital goods to reap the benefits of economies of scale which are essential to increase quality and output. Import penetration of domestic appliances and electrical consumer goods adversely affects local production. High quality and safety standards will need to be achieved by local producers in order to enhance their competitive edge over imports.

Whereas the government's indigenization policy has paid off in some areas of the country's automobile industry, little progress has been made in the indigenization programme of Pak Suzuki Motor Company, a joint venture between Pakistan Automobile Corporation and Suzuki Motor Company Limited of Japan. While the local content target was set at 80 per cent, this joint venture achieved a local content ratio of less than 30 per cent. In jeep assembly only 18 per cent of local content was achieved. The Suzuki Plant pleaded for flexibility in the indigenization programme, and the period of indigenization was extended to 1995 with a reduction on the use of local components. It lends credence to the fact that foreign investors can successfully negotiate with the government for flexibility in policy approach. In mid-1989 Toyota succeeded in obtaining a licence for a new car plant to produce cars with 13.5 per cent local content. The commendable financial success of Pak Suzuki has attracted many foreign car producers to enter into joint ventures in Pakistan. Plans are under way to produce exportable 800 cc and 1000 cc Suzuki cars with financial assistance from the World Bank. A plan to introduce a new range of MAZDA pick-ups and vans is in the offing. The Sind

Engineering Limited has plans to set up new engine assembly plants for MAZDA engines from parts imported in a completely knocked down (CKD) condition.

In contrast to the Seventh Plan strategy of limiting public sector investment to modernization and restructuring initiatives, the government in September 1989 announced an ambitious multimillion public sector investment programme. As many as 16 new public sector projects are to be established and the new projects are expected to become operational by the end of 1993. There are indications that Pakistan will rely heavily on external concessional financing and technical assistance in order to strengthen the supportive role of the public sector as well as to enhance the performance of the private sector in the new course of liberalization and industrial revitalization.

The change of government that occurred in August 1990 is unlikely to lead to a reorientation in economic policy. It may be recalled that the IMF stabilization agreement was negotiated by the parties that are presently in power and was merely ratified by the People's Party. The broad commitment to a liberalization of the policy regime, encouragement of the domestic private sector and of foreign investment, privatization and de-regulation are likely to persist whatever the outcome of the elections, presently scheduled for October 1990. Nevertheless, important changes are envisaged in the institutional structure for the formulation and implementation of industrial policy. According to the present government, during the period December 1988 to August 1990 the administrative system was deliberately restructured to concentrate power in the hands of few. With a view to countering this trend the Board of Investment (BOI), headed by the Prime Minister, has been dissolved and the sanctioning authority of the Investment Promotion Bureau has been fully restored. Other administrative changes may also be expected in the near future.

The impact of the Gulf crisis on Pakistan in mid-1990 has been severe. Pakistan imported 45 per cent of its crude oil requirements from Kuwait during the 1980s. It has not been easy to find alternative sources and the escalation of oil prices is expected to increase the total import bill by at least $60 million during 1990/91. About 100,000 Pakistan nationals have been displaced from Kuwait. Remittances, which have been typically as important as exports as a source of foreign exchange earnings, are thus likely to fall significantly. Pakistan's close relationship with Saudi Arabia is likely to lead to an improvement in the situation, but at least during 1990/91 the country will face a severe deterioration in its balance-of-payments position.

I

THE ECONOMIC ENVIRONMENT

A. RECENT ECONOMIC TRENDS

The economy of Pakistan grew at an annual average rate of around 7 per cent during 1982/83 – 1987/88, with exceptionally high growth rates in the mid-1980s. The year 1988/89 brought a set-back in overall economic performance as the pace of economic expansion faltered to 5.1 per cent against the target of 6.9 per cent. The growth of real GDP is estimated at 5.2 per cent for 1989/90 in the wake of the contractionary economic policies induced by the International Monetary Fund (IMF) and World Bank, as well as the huge budgetary deficit, declining remittances from Pakistanis living abroad and slower growth of export earnings.

Agricultural production grew at 6.1 per cent in 1988/89 compared with 2.7 per cent during 1987/88, with particularly strong growth being recorded in the production of wheat. However, a severe shortage of agricultural supplies persists.

With a real MVA growth rate of just 1 per cent in large-scale manufacturing, industrial growth remained subdued at 3 per cent in 1988/89. While structural deficiencies contribute to industrial stagnation, serious conflicts between ethnic groups in the province of Sind – the most important manufacturing location – are considered the immediate reason for sharp set-backs in a number of industries. According to preliminary estimates, the manufacturing sector rebounded in 1989/90 with a 7.9 per cent increase in MVA.

A decline in the growth of Pakistan's narrow export basket coupled with rising imports and worsening terms of trade led to a widening of the trade deficit from $2.6 billion in 1988 to $2.9 billion in 1989, representing over 6 per cent of GNP. Devaluation of the rupee has not proved effective enough to boost exports. There was also a huge deficit on the current account (close to $2 billion) and on the consolidated budgets of the central and provincial administrations in 1989/90.

The 1989/90 budget – the new government's first* – represents policy continuity as the new government attempts to build upon and only marginally modify the economic policy approach of its predecessor. Modest attempts have been made to broaden the tax base and to remove various tax exemptions. The budget does not levy any tax on agricultural income and like its predecessors retains the many credit and input subsidies. The additional tax burden

* For a critical appraisal of the 1988-89 budget, see M. Nazri Ali, 'Budgetary strategy', *Dawn* (Karachi, June 1989), p. v.

has been restricted to less than 1 per cent of GNP, and the budgetary deficit of around Rs 80,000 million, representing 8.5 per cent of GDP, will have to be financed principally by new external and domestic borrowing.

The share of external resources in total investment financing rose from 24 per cent in 1987/88 to 28 per cent in 1988/89. By 1988/89 total outstanding disbursed debt stood at $14 billion. The country's debt service currently absorbs around 31 per cent of export earnings, compared with 14.7 per cent in 1987/88. The level of foreign exchange reserves in mid-1989 was equivalent to $200 million, sufficient for only two to three weeks of import requirements.

A fall in international reserves is attributed mainly to declining workers' remittances for several consecutive years.* The return of Pakistan workers from the Middle East aggravates the unemployment problem. According to official estimates, around 3.5 per cent of the total labour force of 30.87 million was unemployed in 1988/89. The new entrants and underemployed labour force would easily support a guesstimate of unutilized labour force at 10 per cent. The annual entry of around 1 million newcomers to the labour pool calls for determined efforts to generate more employment opportunities. The sluggishness in large-scale manufacturing occurs at a time when the government faces the challenge of reabsorbing these returnees.

The year 1988/89 saw an acceleration of inflationary pressure.** This was largely due to an expansion of credit to the public sector and rapid growth of import prices due to the accelerated depreciation of the rupee. The new government has been partly successful in moderating inflationary pressure through the pursuit of a conservative monetary policy. But the rate is unlikely to fall significantly from 10.7 per cent to the IMF target of 6 per cent in 1989/90 and 1990/91 unless due consideration is paid to supply-side factors, cost-push inflation through wage hikes in public and private sectors, and the role of import prices in exacerbating inflationary pressure.***

Both investment and savings rates remain low in Pakistan. Over the years the country's capacity to finance its investment domestically has fallen rapidly. By 1987 the ratio of gross domestic savings to GDP in Pakistan had fallen to 11 per cent from 13 per cent in 1965. A sharp fall in the share of gross domestic investment in GDP from 23.2 per cent in 1965 to 15 per cent in 1987 is unlikely to be reversed significantly. Total investment grew at only 3.1 per cent in 1988/89, due largely to the downward revision of public sector development expenditure.

Terms and conditions for concessional assistance have stiffened considerably in recent years. These represented 40 per cent of total government expenditure in 1979/80 and accounted for only about 25 per cent in 1986/87. The new government has been under continuous donor agency pressure to reduce the size of the country's Seventh Five-Year Plan (1988/89 – 1992/93). The International Monetary Fund (IMF) has sought a 12.5 per cent reduction in the public sector development programme during 1989 – 1991.

Despite the essentially short-term nature of a number of measures, the government's medium-term policy programme can be seen as an effort towards economic stabilization. Close adherence to the policy course charted by the IMF and the World Bank has ensured sympathetic – indeed preferential – treatment in 1989/90 by the 'Aid to Pakistan' Paris Consortium, and international support for Pakistan's development effort is, therefore, likely to increase.

* Inward remittances by Pakistanis living abroad fell from $2,279 million in 1986/87 to $2,070 million in 1987/88 and a further fall to $1,880 million was reported for 1989/90.

** The inflation rate was estimated at 10.7 per cent compared with 3.9 per cent and 6.0 per cent in 1986/87 and 1987/88 respectively. Government of Pakistan, *Economic Survey 1988/89* (Islamabad, 1989).

*** See M.I. Laskhar, 'Inflation model that can beat IMF package', *Pakistan and Gulf Economist* (December 9–15, 1989).

MACROECONOMIC TRENDS

Fig. I.A. Growth of gross domestic product (GDP) and manufacturing value added (MVA), 1982/83–1988/89 (Percentage)

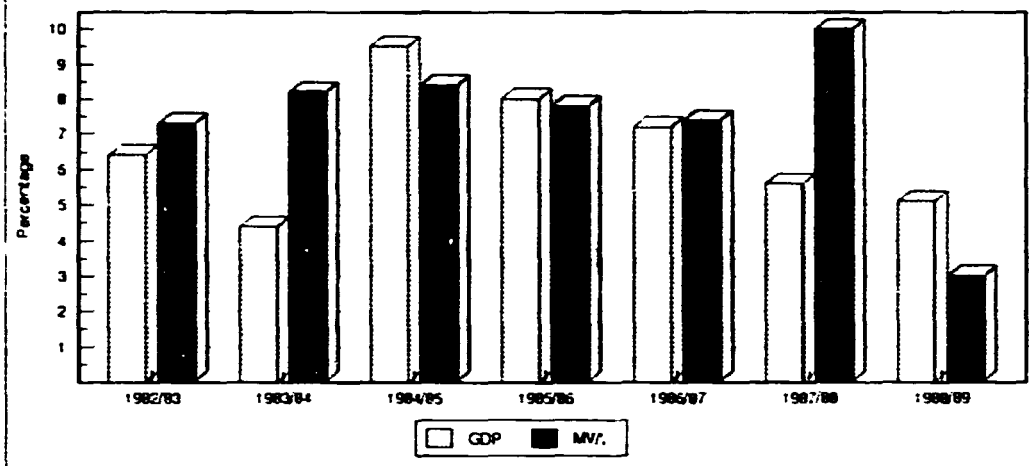


Fig. I.B. Trade balance, 1984/85–1988/89 ($ Billion)

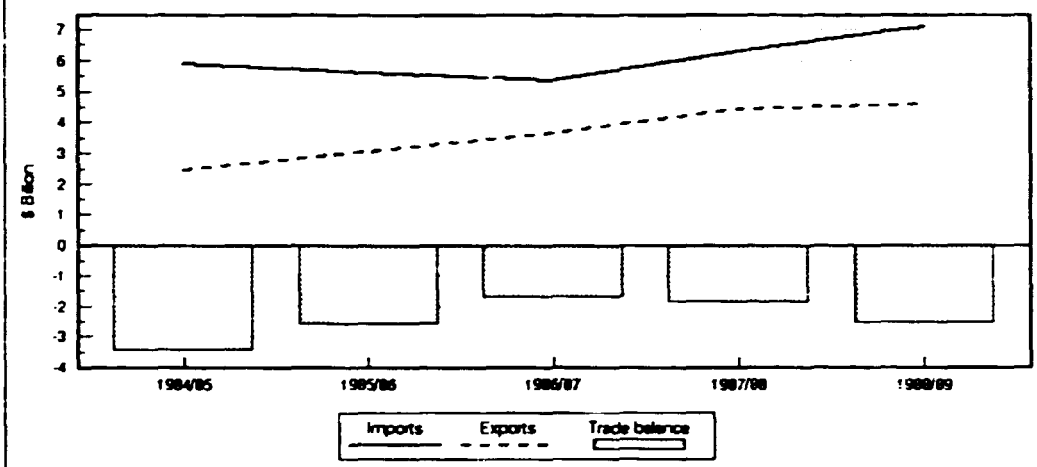
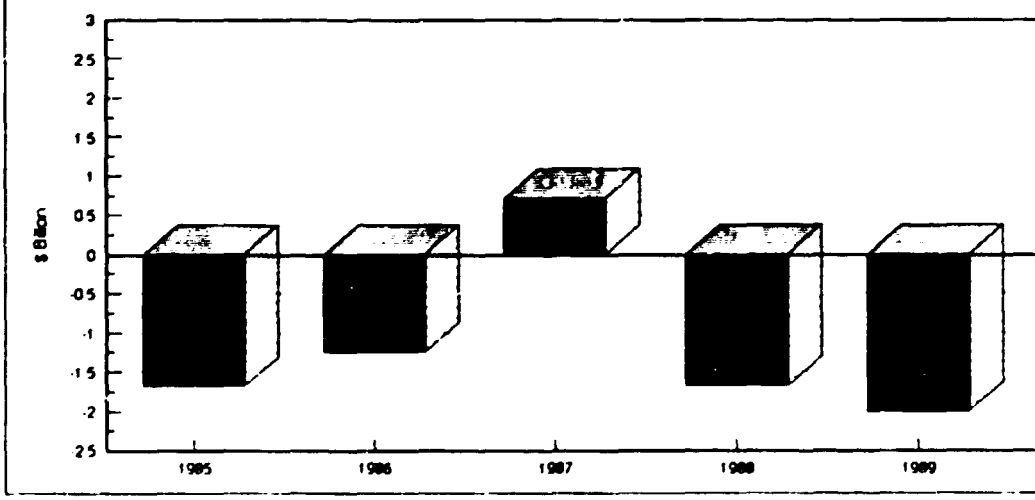


Fig. I.C. Balance of payments, current account, 1985–1989 ($ Billion)



MACROECONOMIC TRENDS

Fig. I.D. Rate of inflation, 1985/86 – 1988/89 (Percentage)

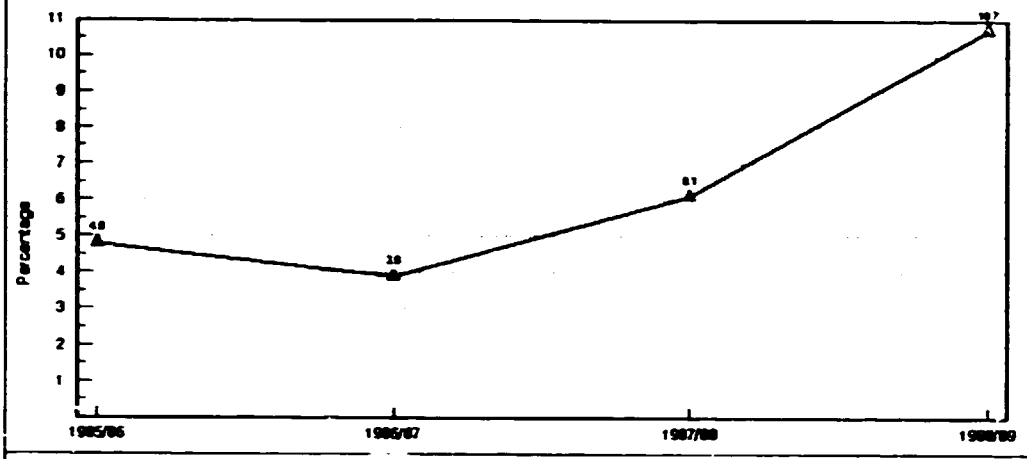


Fig. I.E. Exchange rate, 1985/86 – 1988/89 (Rupees per US $)

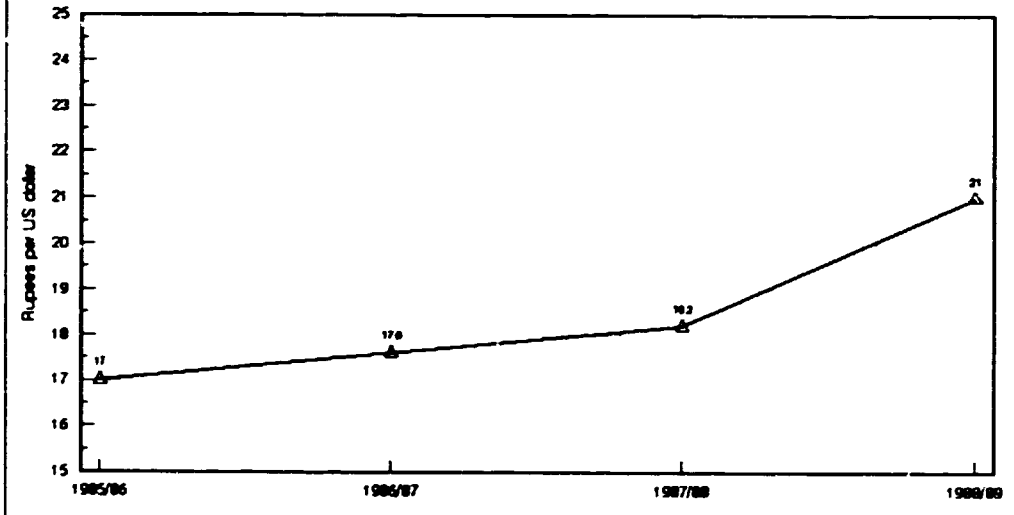
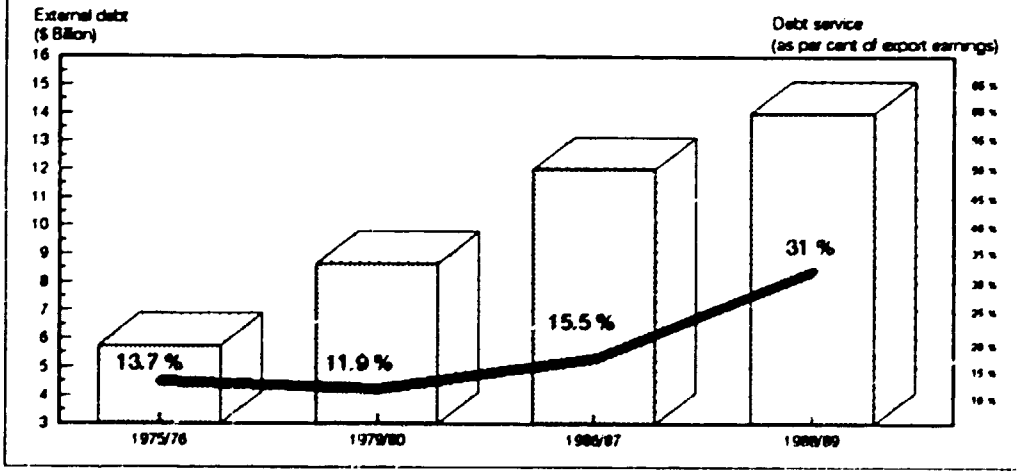


Fig. I.F. External debt ($ Billion) and debt service (Percentage), 1975/76 – 1988/89



MACROECONOMIC TRENDS

Fig. I.G. Government and private consumption, 1982–1988 (Billions of rupees)

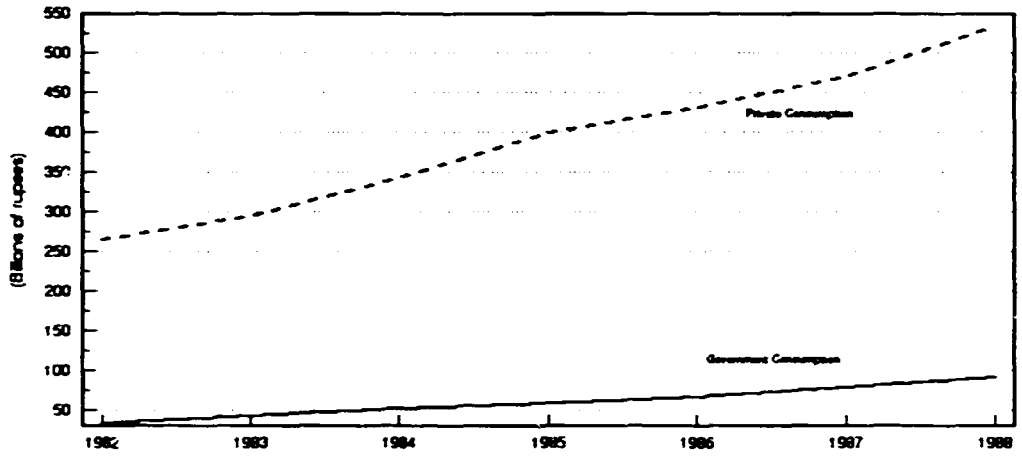


Fig. I.H. Distribution of GDP by sector of origin, 1976/77–1988/89 (selected years)

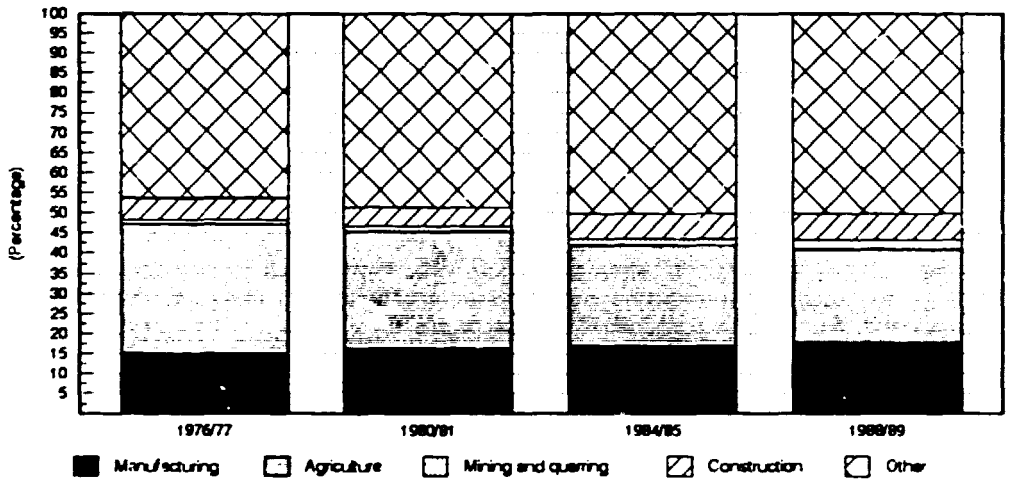
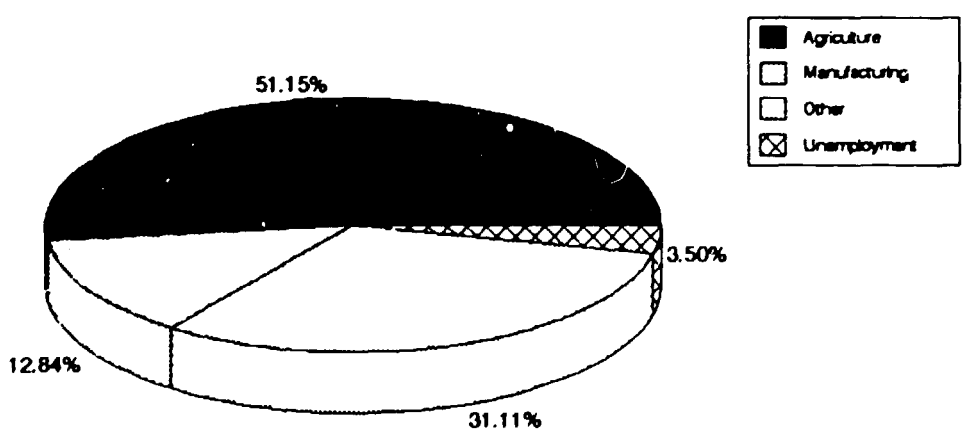


Fig. I.I. Structure of employment, 1988/89



The IMF has conceded to the government's request to tolerate a higher fiscal deficit/GDP ratio for 1989/90 than that stipulated in the previous government's 1988 letter of intent. But unless the crucial structural weaknesses reflected in the large and growing fiscal and current account deficits are seriously addressed within at most the next two fiscal years, international commitment to Pakistan's development may decline.

These weaknesses have developed over four decades during which Pakistan sought to develop through consciously increasing its reliance on foreign concessional assistance. While the rate of foreign assistance disbursement has increased significantly in recent years, the new government endeavours to enhance Pakistan's capacity for efficient utilization of aid resources within a two- to three-year period. Effective and efficient utilization of concessional assistance however requires coming to grips with fundamental weaknesses which have inhibited sustainable economic progress in Pakistan.

B. KEY ISSUES

The IMF conditionality and stabilization imperatives

Pakistan is in the middle of a structural adjustment period (1989 – 1991) which began with the signing of a three-year stabilization agreement with the IMF.* The priority structural reforms** are aimed at: (a) broadening the tax base; (b) improving the current account balance; (c) strengthening the foreign exchange reserves without resorting to commercial borrowing; (d) liberalizing imports; (e) rationalizing investment licensing; (f) de-regulating prices in the agricultural, energy and transport sectors; and (g) reducing public expenditure and subsidies.

The key issue is related to the IMF package-led slow down in growth during the Seventh Five-Year Plan (1988/89 – 1992/93). The government aims at an annual average growth rate of 6 per cent compared with 6.5 per cent as envisaged in the Plan document and around 5.0 per cent proposed by the IMF. The prescriptions of the IMF recipe for economic stabilization do not seem to be compatible with the postulates of a higher growth rate which the government is trying to achieve. Under the influence of stabilization imperatives a 5.2 per cent growth rate is estimated for 1989/90, and the pace of economic expansion is unlikely to accelerate in the next two years. A national consensus is said to exist against this and some imperatives of the stabilization programme have been the subject of intense political controversy.

The government is committed to reducing the size of the fiscal deficit/GDP ratio to 4.8 per cent by 1990/91 and to restricting government development expenditure to about 7 per cent of GDP. The IMF stipulates that a rise in the interest rate on government domestic borrowings from banks would discourage the government from borrowing and thereby partly reduce the budgetary deficit. The government intends to reduce the budgetary deficit to 5.4 per cent of GDP in 1990/91, and the current account deficit to 2.9 per cent in 1991/92 against 2.6 per cent envisaged by the IMF. The main element within the revenue enhancement programme is the introduction of a broad-based general sales tax by July 1990. Sales tax exemptions are being reduced. Total expenditure is to be reduced, mainly through a reduction in government subsidies, federal assistance to provincial administrations and a tightening of the expenditure control system.

* A three-year agreement with the IMF was signed by the previous government in November 1988. The People's Party Government which came to power a fortnight later formally endorsed this agreement and its macroeconomic strategy is broadly in line with the perspectives of the IMF and the World Bank.

** Chapter IV discusses in detail the structural adjustment programmes recommended by the IMF and the World Bank.

The main medium-term objectives pertaining to monetary policy aim at containing the growth of domestic credit and money supply in line with the growth of nominal GDP at the target rate of inflation, and increasing gross official foreign exchange reserves to the equivalent of about seven weeks of imports by 1991, compared with two to three weeks of merchandise imports in mid-1989. While attempting to create a healthier monetary environment, and reducing its own demands on the internal capital market through strengthening the tax base and expenditure cuts, the government is committed to a further liberalization of the credit allocation system and to channel credit to priority sectors. The government would prefer to pursue a more selective approach in channelling resources to priority sectors and projects, particularly in the interests of the underprivileged segments of the society.

In spite of the worsening balance-of-payments situation, the new trade policy for 1989/90 endorses the principle of import liberalization. The so-called 'negative' list of non-importable items has been halved and the tariff structure is to be rationalized. As part of this rationalization exercise, many exemptions currently available are to be phased out by 1991. However, duty drawback arrangements for exporters and exemptions for importers of capital equipment in key industries and industries located in backward areas are to be maintained.

Proceeding further with import liberalization measures becomes increasingly difficult as the balance-of-payments situation deteriorates. Significant pressure exists within the country to restrict imports of edible oil, fertilizers and certain categories of engineering products. Pakistan's chronic trade imbalance can be corrected only when due attention is paid to the reduction in the import intensity of the country's manufacturing activities.

The government is required to initiate an increase in the level of indirect taxes as well as the range of commodities subject to indirect taxes. The government is also committed to increase user charges on utilities such as telephone, telegraph, electricity and gas. The IMF has proposed the withdrawal of subsidy on potash fertilizers and a rise in the procurement prices of cotton, sugar cane and oil-seeds.

Although the manufacturing sector rebounded in 1989/90, a sustained pace of industrial expansion is likely to be affected by both a rise in costs of raw materials and a slackening of demand due to higher indirect taxation. The problem is further exacerbated by the squeeze on public development expenditure. The IMF policy of withdrawing subsidized credit to selected industries may well result in a slowing down of exports. The availability of cheap credit to export industries was believed to be one of the reasons for a 14 per cent annual average growth of exports during 1984 – 1988.

The problems related to the practical implementation of the stabilization programme will need to be addressed in order to sustain a healthy pace of economic expansion. Cutting deficits alone will not enhance the country's debt servicing capability. An alternative policy package to achieve the laudable objectives of reducing budgetary and balance-of-payments deficits will need to focus on concerted efforts to strengthen Pakistan's natural and human resource base for economic diversification. What Pakistan needs is a temporary moratorium on debt servicing, which constitutes a major item in public expenditure. The money thereby saved (around $1.5 billion per annum) could be utilized to arrest the deterioration in infrastructural facilities and the depletion of natural resources and human skills. This would considerably strengthen the economic base and the country's debt servicing capacity in the foreseeable future.

Pakistan is likely to follow the macroeconomic course charted by the IMF and the World Bank since the major concern of the present government is to increase the commitment of the donor agencies in the 1990s. While the donor agencies provide convincing explanations for their pressure for fiscal and monetary discipline, macroeconomic policy-makers face difficult choices in their attempt to deal with internal and external resource imbalances and to put Pakistan on a firm path of sustainable economic growth.

Slow pace of privatization

The government has launched a privatization programme in manufacturing, which is however yet to get off the ground. While public investment is to be concentrated in power, irrigation, transportation, health and education, private investment is expected to take the lead role in industry and agriculture. Private investment is also encouraged within the energy sector. A five-year national energy development plan outlining the framework for private sector participation in power generation and sales has been formulated. Special schemes are being adopted to attract foreign private investment to the energy sector. In launching a major privatization initiative the government attempts to mobilize around Rs 2 billion during 1989-90 through the sale of public enterprises' shares to the private sector. But the response from the investing public seems to be short of expectations.

The government is hard placed to combine a vigorous privatization policy with a policy which aims at substantially augmenting tax revenue. Extension of the coverage of corporate and sales tax (both of which lower profitability and hence share prices) tends to discourage investment in shares. A long-term private investment perspective needs to be developed in view of a ready list of public firms identified for partial and total divesture

Privatization is being undertaken partly to offset declining budgetary revenue and partly to compensate for government investment shortfalls. It is hoped that liberalizing the economy and opening it up to competitive pressures will encourage private investment. An option open to the government is to commercialize public enterprises. The commercialization of some of the public enterprises has enhanced their financial performance since 1983. While an improvement in the performance of public enterprises may be a catalyst for further industrial progress, progressive expansion of the private sector will depend on a number of far-reaching changes in the industrial investment environment, including an improvement in the law and order situation which has adversely affected industrial development in recent years.

In contrast to the Seventh Plan strategy of strictly limiting public sector investments mainly to 'modernization, balancing and restructuring' projects, an ambitious multi-billion-dollar public sector investment programme was announced by the government in September 1989. As many as 16 new public sector projects are to be established. These projects include cement plants, fertilizer units, mini-steel plants, a refinery, integrated textile mills, a rice mill, and a fruit processing unit. The foreign exchange cost is estimated between 60 to 70 per cent of the total investment. This implies that Pakistan will rely heavily on external financing for the implementation of these projects. Some bilateral funds have been committed. In the absence of substantial multilateral concessional financing, the government will have to launch a major resource mobilization drive. The resource requirements of the new projects have not been budgeted in the current annual development Plan and the government is committed to the IMF to significantly reduce the budgetary deficit. This issue is creating a dilemma for the government which is endeavouring to make these new projects operational by end-1993.

Although the new ambitious public sector programme was partly due to the lack of enthusiasm on the part of the private investors for divesture schemes of the public sector, it tends to send conflicting signals to the private sector about the overall thrust of the new industrialization strategy. Conceptual ambiguities of the new industrial strategy will need to be cleared and the role of the public and private sector clearly defined in order that the pace of privatization may accelerate.

II

STRUCTURE AND PERFORMANCE OF THE MANUFACTURING SECTOR

A. THE ROLE OF MANUFACTURING

The manufacturing sector in Pakistan is the second largest commodity-producing sector after agriculture. Although the share of agriculture in GDP declined over the years, it continues to be the mainstay of the economy. Rapid economic growth for well over two decades has been accompanied by considerable structural change within the Pakistan economy, with the largest increase in the share of GDP being recorded by the service sector which currently accounts for one-half of GDP.

The share of manufacturing in GDP has risen modestly from 14 per cent in 1965/66 to 17.6 per cent in 1983/84, a figure that has not changed much since then. The country's Seventh Plan envisages an increase in the share of manufacturing in GDP to 20.5 per cent by 1992/93. In the wake of recent industrial stagnation in 1988/89, the manufacturing share of GDP may even have fallen recently (in contrast to the marginal increase reported in Table II.1). Prospects for significant acceleration of growth in manufacturing depend upon revitalization of industrial production and investment.

The contribution of manufacturing to employment fell from 14.2 per cent in 1986/87 to 12.8 per cent in 1987/88, implying an absolute fall in manufacturing employment from 4.1 million to 3.8 million during the same period. The agricultural sector employs over 51 per cent of the labour force, while the service sector accounts for about 31 per cent of the employed labour force in the country. The promotion of labour-intensive small-scale industries and the provision of institutional credit to projects with high employment potentials are expected to set the priority basis for employment creation in manufacturing.

The share of manufacturing in gross fixed capital formation stood at 17.5 per cent in 1987/88, which represented a decline after significant gains in 1983/84 and 1985/86 (see Annex Table A-1). There has been a major structural shift in manufacturing investment in the 1980s. The share of public sector in capital formation in the manufacturing sector fell from 48.7 per cent 1982/83 to 17.3 per cent in 1987/88, while that of the private sector rose significantly. By 1987/88 the private sector accounted for almost 83 per cent of capital formation in manufacturing. Public sector investment has remained concentrated in a relatively small number of key industries in steel, fertilizer and cement production. Fixed capital formation in private sector large-scale manufacturing grew at an annual average of 15 per cent during 1982/83 - 1987/88, compared with a 11.3 per cent increase in aggregate manufacturing

Table II.1. Distribution of GDP by sector of origin, 1976/77 – 1988/89, selected years
(Percentage at current factor cost)

Sector	1976/77	1979/90	1980/81	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89[a]
Agriculture	32.3	30.4	29.0	27.7	24.5	25.0	24.6	23.5	23.3	23.2
Mining and quarrying	0.9	0.8	1.3	1.3	1.4	1.6	2.3	2.2	2.4	2.4
Manufacturing	14.9	15.4	16.4	16.6	17.6	17.0	16.7	17.2	17.5	17.7
Construction	5.5	5.4	4.6	4.4	5.1	6.0	6.0	6.3	6.4	6.4
Other	46.4	48.0	48.7	50.0	51.4	50.4	50.4	50.8	50.4	50.3

Source: Government of Pakistan, Planning and Development Division.
a/ Estimate.

investment. However, these growth rates measured in current prices were not significantly in excess of the wholesale price index during the same period. Thus the real value of manufacturing investment increased slowly in the 1980s.

The economy of Pakistan remains largely oriented towards domestic demand. The share of external trade (exports and imports) in GNP averaged about 28 per cent during 1985 – 1988, with exports accounting for only 12 per cent. Of the country's total exports manufactured exports account for over 65 p· ·cent. However, Pakistan's manufactured export profile remains narrow and highly concentrated on a few products. The overwhelming import substitution bias of most manufacturing branches has not changed, and the growth of domestic demand and import substitution accounts for over 80 per cent of output growth for a vast majority of manufacturing branches.*

B. GROWTH AND STRUCTURAL CHANGE

The manufacturing sector grew at an annual average rate of 5.7 per cent during 1965 – 1980. The growth of manufacturing output accelerated significantly to average almost 9 per cent per annum during 1980 – 1987 concomitant with the rapid growth of GDP. According to UNIDO estimates of inter-branch variations in MVA growth rates, food products, beverages, iron and steel, paper and printing, chemicals and some segments of the engineering industries emerged as growth leaders, but output expansion started from a very low base for several products. Indices of physical production (1977/78 = 100) as illustrated in this Chapter show that vegetable processing, beverages, sugar, paper, paper board and paper chips, urea, paints and varnishes, cement, mild steel, electric motors and the assembly of light commercial vehicles registered relatively high rates of growth during most of the 1980s. According to UNIDO estimates, the growth of MVA remained subdued in petroleum products, non-ferrous metals, non-electrical machinery and professional equipment. Production was virtually stagnant in metal furniture, pottery, glass products, fabricated metal products and rubber, while the textile sector experienced a marked decline.

Table II.2. Production of major manufactures, 1986/87 – 1992/93

Product	1986 87	1987 88	1992 93[a]
Sugar (000) tonnes)	1,285.9	1,770.9	2,150.0
Vegetable ghee (000) tonnes)	608.7	685.5	1,010.0
Cement (000) tonnes)	650.8	7,041.0	10,000.0
Fertilizer (000) tonnes)	2,928.5	2,857.6	3,500.0
Soda ash (000) tonnes)	130.0	134.0	176.0
Caustic soda (000) tonnes)	55.0	58.0	80.0
Mild steel products (000) tonnes)	782.3	869.7	1,130.0
Billets (000) tonnes)	254.0	279.0	870.0
Hot rolled sheet (000) tonnes)	523.0	375.0	900.0
Cotton cloth (million square metres)	237.9	281.0	300.0
Cotton yarn (million kilogrammes)	586.4	685.5	995.0
Paper and board (000) tonnes)	155.0	170.0	311.0

Source: State Bank, *Annual Report 1987/88.*
a/ Seventh Plan target.

* A series of studies during the 1960s and 1970s showed the overwhelming import-substitution bias of most manufacturing branches. For a summary of the studies undertaken, see S.R. Lewis, *Trade and Industrialization in Pakistan*, (Oxford University Press, London, 1980).

FIGURES II. A–L: INDICES OF INDUSTRIAL PRODUCTION, 1977/78–1986/87
(1977/78=100)

Fig. II.A. Vegetable processing

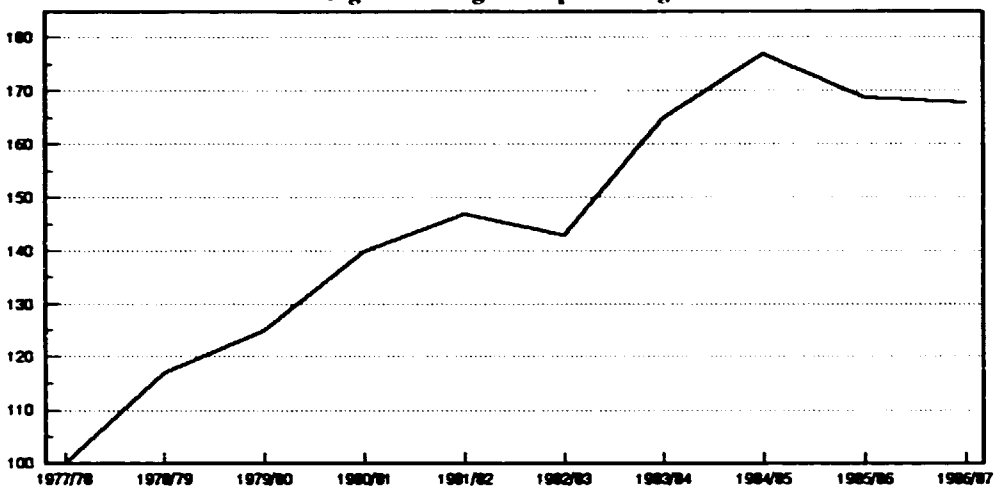


Fig. II.B. Beverages

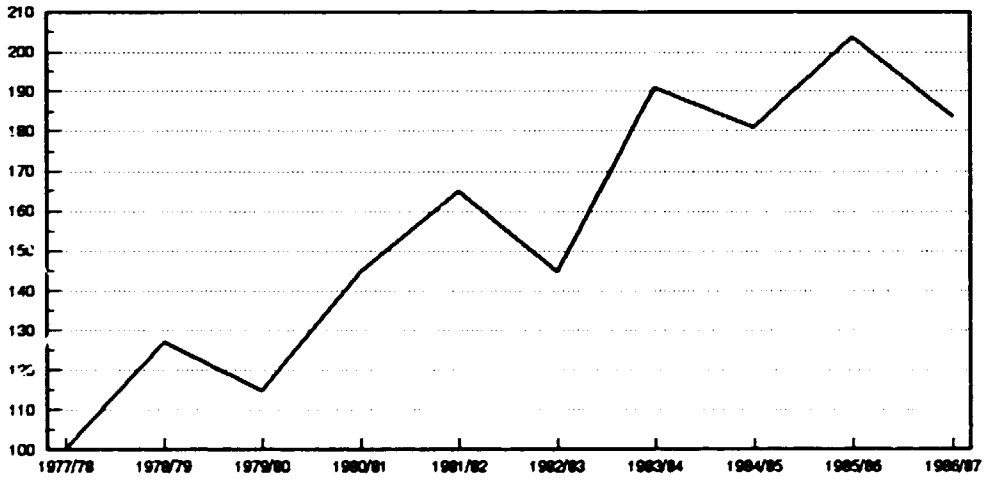


Fig. II.C. Sugar

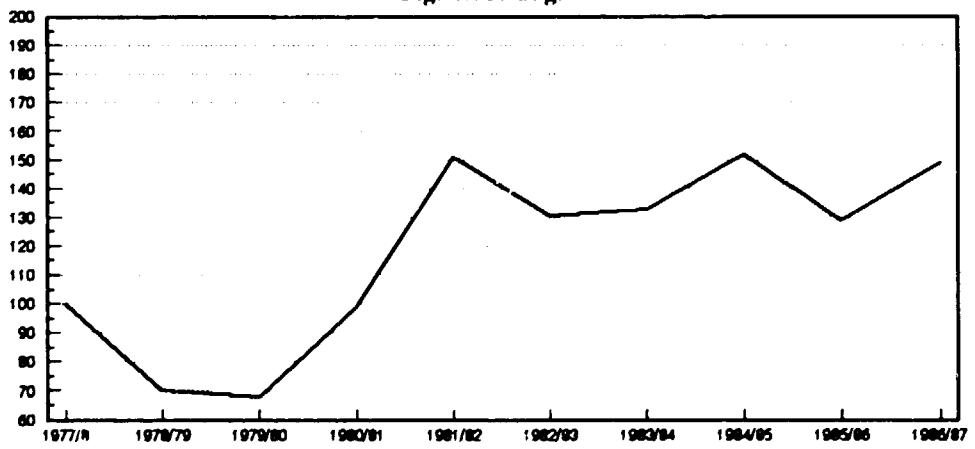


Fig. II.D. Cotton cloth

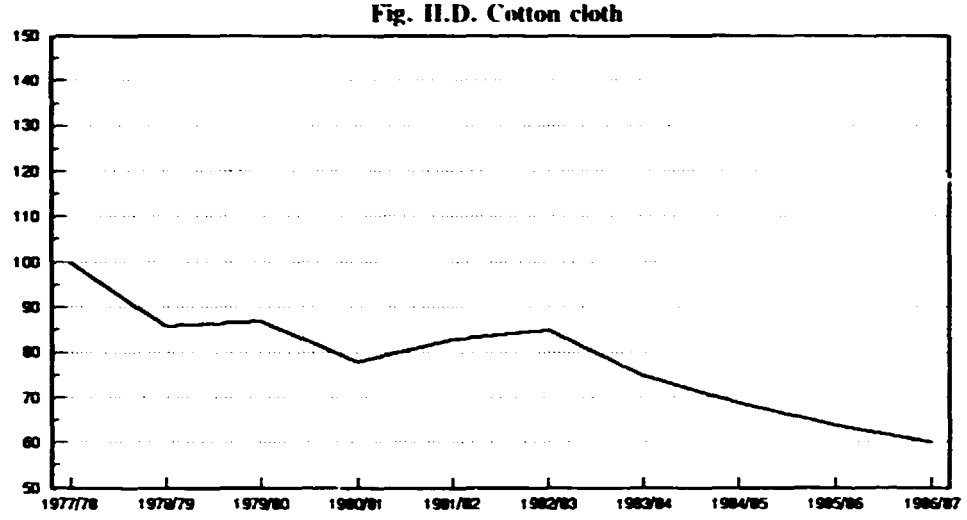


Fig. II.E. Woollen carpets

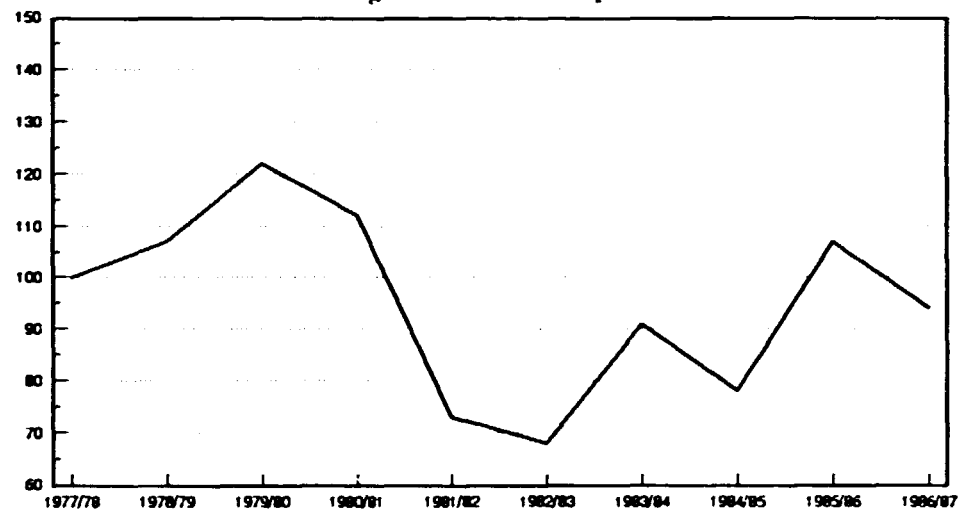


Fig. II.F. Paper, paper board and paper chips

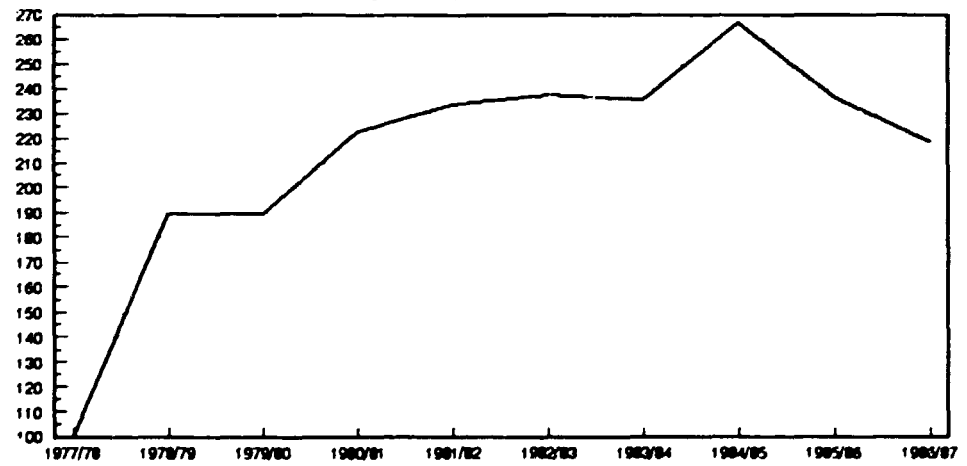


Fig. II.G. Urea

Fig. II.H. Paints and varnishes

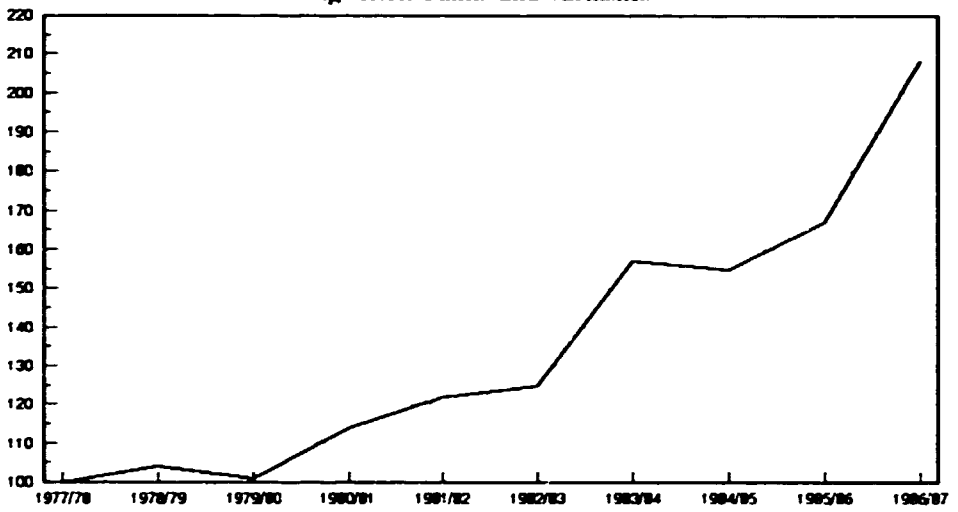


Fig. II.I. Cement

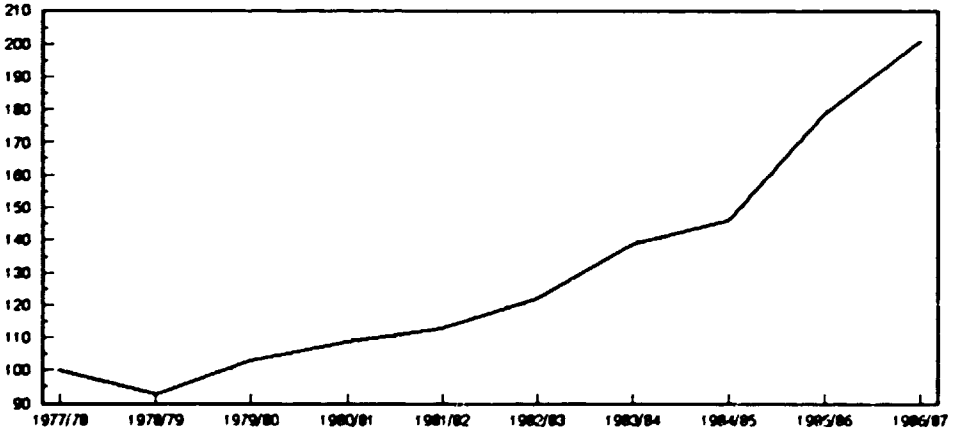


Fig. II.J. Mild steel

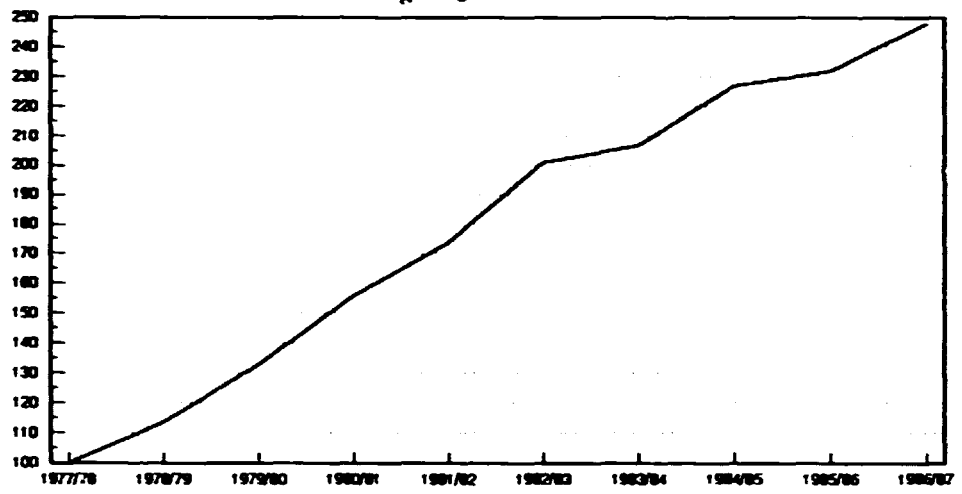


Fig. II.K. Electric motors

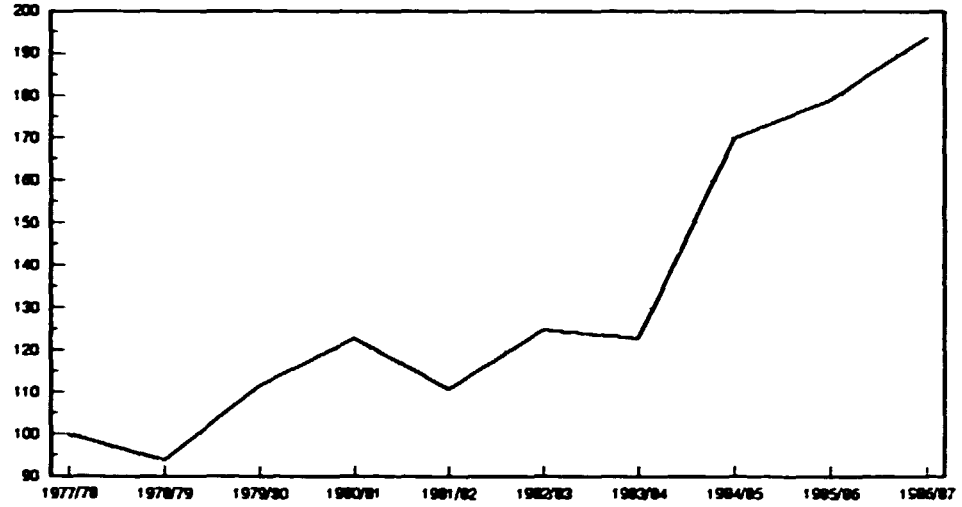


Fig. II.L. Light commercial vehicles

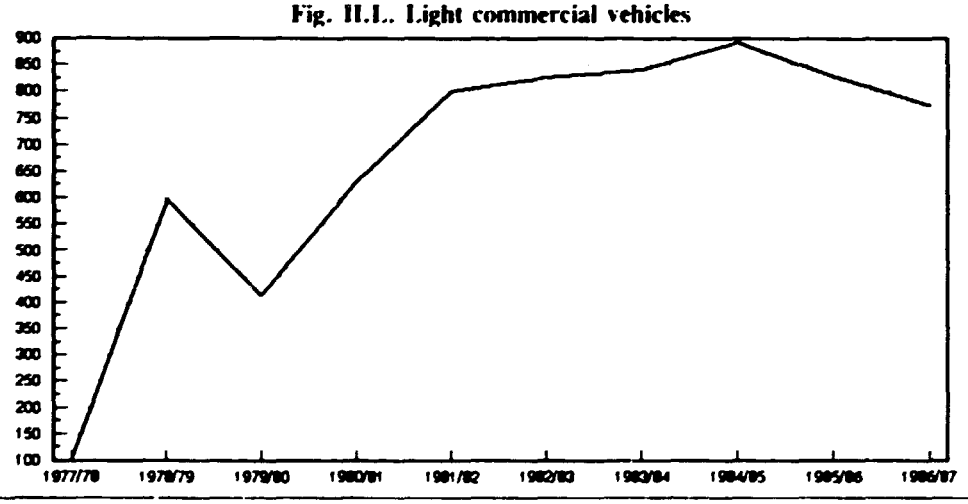


Table II.3. Composition of manufacturing value added, 1977–1985

(Percentage at constant 1980 prices)

Description (ISIC)	1977	1978	1979	1980	1981	1982	1983	1984	1985
Total manufacturing (300)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food products (311)	19.7	22.9	20.0	19.9	26.4	28.8	24.6	27.8	29.5
Beverages (313)	0.7	0.9	1.2	1.1	1.3	1.2	..	..	..
Tobacco (314)	2.6	2.5	2.8	2.9	3.1	2.8	2.9	3.0	2.7
Textiles (321)	32.4	28.2	26.0	25.6	24.6	22.3	24.8	19.2	17.4
Wearing apparel, except footwear (322)	1.2	1.2	1.3	1.3	..	..	..	..	..
Leather products (323)	1.5	1.5	1.6	1.5	..	..	..	..	..
Footwear,except rubber or plastic (324)	1.1	1.1	1.1	1.1	..	..	..	..	..
Wood products, except furniture (331)	0.2	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4
Furniture, except metal (332)	0.2	0.2	0.2	0.2	..	..	..	..	..
Paper and products (341)	0.8	1.2	1.8	1.9	2.1	1.9	1.9	2.0	2.0
Printing and publishing (342)	0.9	1.0	1.1	1.1	1.4	1.2	1.2	1.8	1.7
Industrial chemicals(351)	8.7	8.3	9.5	9.6	12.5	14.1	16.4	16.6	15.5
Other chemicals (352)	6.8	8.1	8.1	8.6	10.9	11.0	10.7	10.6	11.5
Petroleum refineries (353)	2.2	1.9	2.4	2.2	2.3	2.2	2.2	2.2	2.4
Miscellaneous petroleum and coal products (354)	0.5	0.5	0.5	0.5	..	..	..	..	..
Rubber products (355)	0.9	1.0	1.1	1.1	1.3	1.0	1.0	1.0	1.0
Plastic products (356)	..	..	..	0.3	..	..	..	..	..
Pottery, china, earthenware (361)	0.3	0.3	0.3	0.3	..	..	..	..	..
Glass and products (362)	0.0	0.3	0.3	0.3	..	..	..	..	..
Other non-metallic mineral products (369)	2.3	2.0	2.1	2.3	2.5	2.3	2.6	2.9	2.8
Iron and steel (371)	5.3	5.6	5.7	5.6	..	..	..	..	..
Non-ferrous metals (372)	0.1	0.1	0.1	0.1	..	..	..	..	..
Fabricated metal products (381)	1.3	1.3	1.4	1.3	..	..	..	..	..
Machinery except electrical (382)	2.4	2.3	2.5	2.5	2.6	2.4	2.4	2.3	2.2
Machinery electric (383)	4.3	4.3	4.6	4.2	5.7	5.9	5.5	6.7	7.5
Transport equipment (384)	2.6	2.2	3.1	3.1	3.0	2.4	3.4	3.4	3.2
Professional and scientific equipment (385)	0.4	0.4	0.4	0.4	..	..	..	..	..
Other manufactured products (390)	0.5	0.5	0.5	0.5	..	..	..	..	..
Total manufacturing in millions $	3754	4195	3848	4160	3899	4403	4385	4394	4703

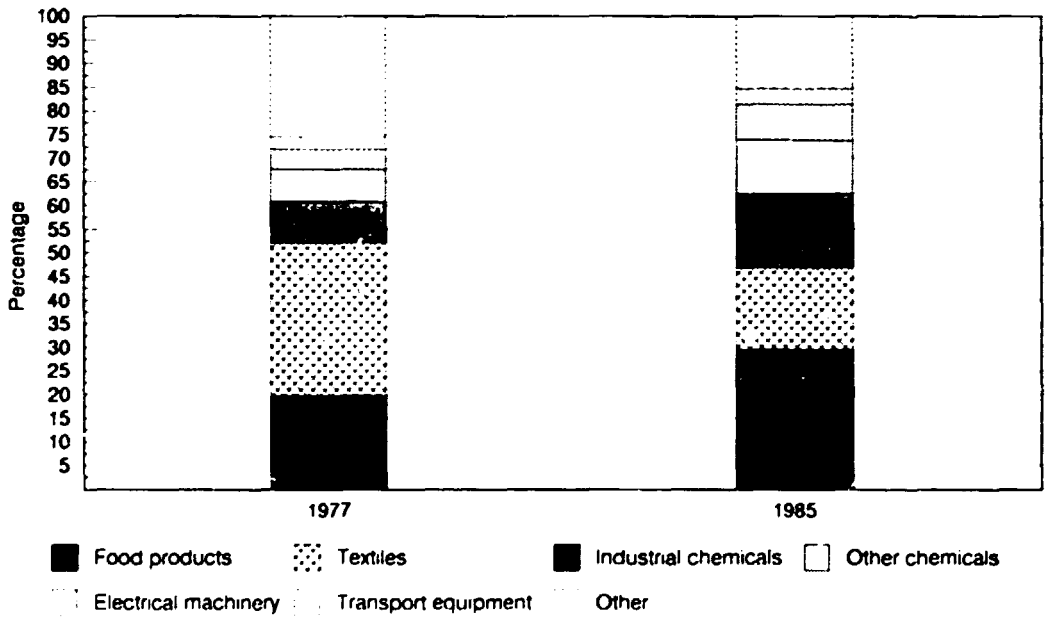
Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the United Nations Statistical Office with estimates by the UNIDO Secretariat.

The physical production of Pakistan's major manufactured products in recent years and envisaged targets for 1992/93 are presented in Table II.2.* Healthy growth has been recorded in the production of sugar, vegetable ghee, cement, mild steel, billets, cotton yarn and paper and paper board in 1987/88, compared with the volume of output in 1986/87. After recording a significant increase in output until 1986/87, fertilizer production fell in 1987/88. According to recent estimates, the sluggish growth rate of around 1.0 per cent in large-scale manufacturing in 1988/89 was due largely to sharp declines in the production of vegetable ghee, cigarettes, chipboard, billets and cotton cloth.**

The decline of the textile sector represented the central feature of structural change that has taken place in Pakistan manufacturing (see Table II.3). This would imply that the growth leaders in intermediate and capital goods segments are yet to create a significant shift in the structure of manufacturing production. The share of textiles in MVA fell for several consecutive years, and by 1985 it accounted for only 17.4 per cent of MVA, compared with 32.4 per cent in 1977 when it was the leading subsector of manufacturing. The declining share of textiles in MVA is largely due to the fragmentation of large cotton cloth units into small units. With almost 30 per cent of MVA in 1985, food products emerged as the leading subsector of manufacturing in Pakistan. Chemicals and electrical machinery branches gained their relative importance in MVA in the 1980s, compared with their respective contribution in the late 1970s.

The limited structural change that has taken place in Pakistan manufacturing is revealed by the low share of capital goods in MVA. In 1985 capital goods accounted for 12 per cent of MVA, representing a marginal increase from 11 per cent in 1977. The manufacturing sector in Pakistan continues to rely heavily on imports of intermediate and capital goods. The high import intensity of manufacturing activities aggravates the country's balance-of-payments crisis.

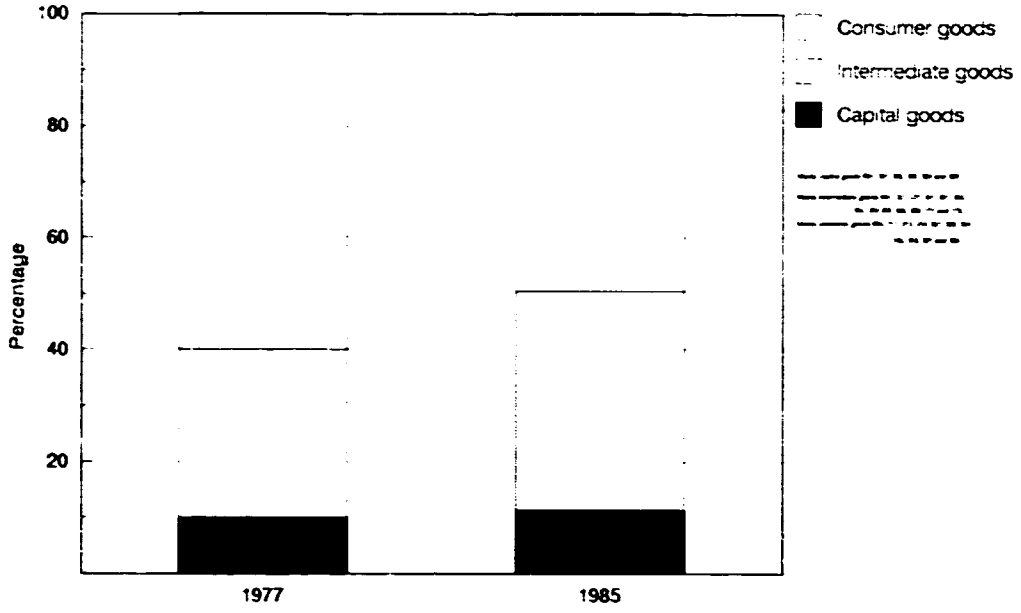
Fig. II.M. Composition of manufacturing value added (MVA), 1977 and 1985 (Percentage)



* This represents production levels of a small number of major large and medium scale enterprises.

** See *Economic Review* (9–10, 1989), p. 24.

Fig. II.N. Composition of manufacturing value added (MVA) by end-use, 1977 and 1985 (Percentage)



There are clear indications that the future thrust of industrial growth will be focused on agro-based industries, steel and engineering industries. Over 30 downstream projects attached to the Soviet aided giant Pakistan Steel Mill are expected to create significant structural change in manufacturing output. In the face of a spurt in steel production in the 1990s, engineering industries may expand rapidly. These industries are, however, likely to remain producers of consumer durables, air-conditioners, refrigerators and washing machines as well as assembly of cars. Thus there is some evidence to suggest that the pattern of industrial production may tend to develop in favour of consumer goods. The desired pattern of structural change in manufacturing in terms of a significant increase in the share of capital and intermediate goods in MVA is a matter of concern to policy-makers who are faced with the challenge of enhancing self-reliant industrial performance in Pakistan.

C. MANUFACTURING EMPLOYMENT

An underlying feature of industrialization in Pakistan is the deteriorating performance of the manufacturing sector in generating new employment opportunities. Although the decade of the 1980s has been a period of relatively high growth in MVA, the growth of manufacturing employment has remained insignificant. This partly represents more an increase in capital intensity than labour absorption during the period of accelerated expansion. A confluence of other factors also explains the tardy growth of manufacturing employment in Pakistan. The low rate of both public and private investment has led to a fall in the demand for technical personnel, leading to a large number of educated persons being unemployed. In 1988-89, 11.4 per cent of the total number of engineers was said to be underemployed.

While emigration contributed significantly towards easing the pressure on employment in the past, the return of emigrants poses a new challenge to the government. On the other hand, a certain proportion of educated and trained manpower continue to leave for employment

abroad, and such a drainage creates difficulties for the government and investors. While basic workmanship skills are in fair supply, the changing pattern of production from traditional operations to modern techniques tends to create an increasing demand for specialized skills. In many industrial branches in Pakistan there are severe shortages of personnel imbued with managerial capabilities and specific technical training. There is also an acute shortage of middle-level technicians.

The growth and structure of manufacturing employment as presented in Table II.4 show that employment growth in important traditional labour-intensive branches fell during 1975 – 1986: it fell by 1.65 per cent in textiles, 2.0 per cent in footwear, except rubber or plastic, and 5.5 per cent in non-ferrous metal products. Since the textiles and wearing apparel branches employ around 42 per cent of the manufacturing work-force, these negative growth rates of employment have a strong adverse impact on overall manufacturing employment. Branches which registered significant increases in employment during 1975 – 1986 include wearing apparel (except footwear), plastic products, iron and steel, wood products (except furniture), miscellaneous petroleum and coal products, glass products and beverages. However, together

Table II.4.Growth and structure of manufacturing employment, 1975 – 1986

(Percentage)

Description (ISIC)	Growth of employment in manufacturing 1975 – 1986	Structure of manufacturing employment 1975	1986[a]
Food products (311)	3.58	9.9	12.9
Beverages (313)	5.07	0.7	1.0
Tobacco (314)	2.82	1.7	2.1
Textiles (321)	1.64	50.6	41.1
Wearing apparel, except footwear (322)	14.75	0.2	0.9
Leather products (323)	2.81	0.8	0.9
Footwear, except rubber or plastic (324)	2.03	0.3	0.3
Wood products, except furniture (331)	7.46	0.3	0.5
Furniture, except metal (332)	3.75	0.2	0.3
Paper and products (341)	0.03	1.9	1.6
Printing and publishing (342)	4.52	1.4	2.1
Industrial chemicals (351)	3.33	2.5	3.1
Other chemicals (352)	3.88	3.1	4.2
Petroleum refineries (353)	1.63	0.5	0.6
Misc. petroleum and coal products (354)	6.79	0.1	0.1
Rubber products (355)	0.11	2.2	2.0
Plastic products (356)	11.26	0.3	0.6
Pottery, china, earthenware (361)	5.77	0.3	0.5
Glass and products (362)	3.37	0.5	0.8
Other non-metallic mineral products (369)	1.90	2.6	2.9
Iron and steel (371)	9.64	4.1	7.5
Non ferrous metals (372)	5.51	0.1	0.1
Fabricated metal products (381)	3.17	2.7	1.9
Machinery, except electrical (382)	1.41	3.3	3.3
Machinery, electric (383)	0.60	3.5	3.6
Transport equipment (384)	1.03	4.7	3.9
Professional and scientific equipment (385)	3.55	0.8	0.5
Other manufactured products (390)	1.01	0.7	0.6

Source: Industrial Statistics and Sectoral Surveys Branch, UNIDO

a Provisional figures

these branches accounted for only around 10 per cent of manufacturing employment in 1986. A significant rise in the contribution of iron and steel to manufacturing employment from 4.1 per cent in 1976 to 7.5 per cent in 1986 was partly due to the establishment of a giant steel mill at Karachi and its related downstream activities.

The twin problem of a surplus labour force and the shortage of a skilled work-force with specialized training has not been tackled despite a long-standing commitment to employment generation as a key national objective. The question is whether industrial growth in the 1990s will again create disappointing results on the job front. The approach to manufacturing employment has hitherto been protection of jobs in specific industries and firms as opposed to the generation of additional employment opportunities in those industrial units. Accordingly new initiatives are needed to generate more employment opportunities in existing firms. The required strategies, instruments and institutions cannot occur instantaneously in the absence of a well-defined policy direction for job creation. The National Manpower Commission was set up in October 1987 with a view to developing a comprehensive long-term strategy to counter the growing unemployment problem in Pakistan. The advanced draft of the Commission's Report was submitted to the government in 1989. The Commission has made a number of concrete recommendations in the area of creating rural employment, combating unemployment among the educated, organizing labour market institutions, and streamlining the machinery for manpower planning in Pakistan. The agenda for policy action is being prepared by the government.

The current outlook is such that even if the employment targets in the Seventh Plan are met, unemployment may exceed 10 per cent in the urban sector by 1993. A ten point employment creation programme aims at curbing the high population growth, initiating policies and programmes in those sectors that have demonstrated employment potential, responding positively to changes emanating from the return of Pakistanis from abroad, and undertaking skill development programmes to meet emerging demands. Above all, what is required is an environment where residents with professional skills and entrepreneurial potentials, and returning Pakistanis with newly acquired skills and entrepreneurial abilities, can be induced to participate actively in the country's industrial restructuring process. This calls for institutional support for enterprise start-ups, free entry into production, dismantling prevailing distortions in the economic system, stability of government policies, and progressive human resource development.

Pakistan industry needs improved and expanded facilities for product development and design, training of industrial designers, quality control and laboratory technicians, machine operators, and engineers skilled in installing, maintaining and repairing machinery and equipment (millwrights). Facilities for consulting services, feasibility studies, market information and other industrial services are also insufficient and would need to be expanded to remove a serious obstacle to further expansion of manufacturing in Pakistan. Existing training institutions would need to upgrade and modernize their course contents and training methodologies to secure industry's demand for professional managers and technologists.

The present capacity of the Pakistan training and education machinery is such that, during the period 1988 to 1993, the annual supply of semi-skilled workers is estimated at 39,000 persons. The number of skilled workers undergoing training under the auspices of government institutions, apprenticeship schemes and specialized training programmes conducted by major public sector establishments is expected to increase by about 25,000 per year by the year 1993. Certain large manufacturing firms conduct their own, two- to three-year long apprenticeship programmes to satisfy their own demands. Through informal training systems, some 40,000 skilled and unskilled workers per annum are expected to be forthcoming during the next four or five years. However, the question remains as to the economy's capability to absorb this increasing number of trained people.

A positive development has been the setting up of a liberal credit scheme for small industries through a special credit line from international financial institutions. This scheme specifically aims at creating further employment opportunities. However, to complement this scheme, a national awareness campaign is needed to draw attention to the many products and services produced by the country's small-scale enterprises. Government instruments to increase the local content in domestic manufacturing must be more closely co-ordinated with small-scale industries through subcontracting arrangements. Further emphasis, through policy changes and access to credit, needs to be placed on labour-intensive, export-oriented small-scale industries. Additional support is also required through invigorated vocational training, skill upgrading, and management programmes that are more relevant to the emerging job opportunities.

Towards this end, the Youth Investment Promotion Society has been set up for the education of unemployed youngsters. Notably, this programme encompasses the training of 20,000 persons in small business management. In addition, the Seventh Plan envisages an addition of 92 vocational and technical institutions to the existing ones in order to double the present intake of students. As part of their curriculum, a one-year on-the-job training scheme is also planned for students in engineering and technical institutions. Finally, a human resource development fund totalling Rs 2 million is meant to upgrade the quality of the labour force in collaboration with the private sector and in accordance with the recommendations of the National Manpower Commission.

Industrial branches that are labour-intensive, such as the Pakistan leather products industry, for example, will rely on further expansion of specialization in skills in order to gradually modernize their manufacturing processes. In this, specialized training on a sufficient scale will play a vital role. The leather industry in Pakistan provides especially good opportunities for female employment. Indeed, about 30 per cent of the trainees today at the Leather Products Development Centre in Karachi are women. They are being trained as designers, technicians and sewing machine operators, with a view to enhancing entrepreneurial skills required to set up small-scale businesses. These developments demonstrate the changing attitude towards female participation in manufacturing activities. But the female participation rate will remain low until female education levels improve more rapidly.

Investment in indigenous research and development (R & D) is on a very low level, except within certain segments of the private sector where a fair amount of innovation is taking place. But it is not so much the proportion or the actual amount spent on technical education and research that is of the most critical importance. Rather, the disturbing fact, from an industrialization point of view, is that research undertaken in the laboratories of Pakistan's major national institutes such as the Pakistan Council of Scientific and Industrial Research and the Pakistan Institute of Nuclear Science and Technology is not of a nature to attract immediate industrial application. Clearly, more emphasis on the link between research and industrial application is required, especially within the domain of applied technology. This must be recognized by the private as well as the public sector, and followed through by appropriate changes in incentive and policy structures. Otherwise the indigenous development of Pakistani industry will continue to lag behind its actual potential in terms of human and technological capital for enhancing industrial performance.

D. LABOUR PRODUCTIVITY, WAGES AND SALARIES

A useful indicator of manufacturing performance is labour productivity. UNIDO estimates of the growth of value added per worker in the subsectors of manufacturing for a selected period are shown in Table II.5. In general productivity growth within the manufacturing sector has been sluggish. Measured on the basis of constant 1980 prices as many as 8 subsectors

Table II.5. Labour productivity, wages and salaries, 1975–1986

Description (ISIC)	Growth of value added per employee (Percentage at 1980 prices)		Wages and salaries per employee (Rupees in current prices)		Share of value added in gross output (Percentage)		Share of wages and salaries in value added (Percentage)	
	1975	1986	1976	1986[d]	1975	1986[d]	1976	1986[d]
Total manufacturing (300)	..		6,280	22,335	34.7	32.2	26.9	20.3
Food products (311)	3.53		7,022	25,172	35.6	29.3	13.1	15.1
Beverages (313)	11.32[a]		6,068	24,739	51.0	57.8	11.0	9.6
Tobacco (314)	1.11		7,404	22,693	69.3	80.5	6.2	3.5
Textiles (321)	4.31		5,036	15,294	34.5	23.5	41.9	34.1
Wearing apparel, except footwear(322)	18.63[b]		9,518	24,430	34.9	30.9	28.7	30.8
Leather products (323)	1.88[b]		4,539	19,178	21.5	30.4	14.4	11.1
Footwear, except rubber or plastic (324)	3.55[b]		5,820	16,911	29.1	23.0	55.7	36.5
Wood products, except furniture (331)	4.11		4,979	18,247	30.6	35.9	36.3	32.0
Furniture, except metal (332)	2.24[b]		6,136	18,110	42.4	41.5	44.9	33.5
Paper and products (341)	12.28		6,933	24,918	37.2	38.1	32.5	30.5
Printing and publishing (342)	5.79[c]		6,678	24,390	46.3	40.0	33.8	44.9
Industrial chemicals (351)	6.91		10,558	41,206	41.8	50.3	22.4	15.7
Other chemicals (352)	5.42		10,579	34,240	34.7	42.4	27.3	19.5
Petroleum refineries (353)	1.41		11,310	47,751	18.4	8.5	5.3	6.8
Miscellaneous petroleum and coal products (354)	3.97[b]		7,850	36,327	28.6	21.6	14.0	8.7
Rubber products (355)	1.75		6,413	23,470	27.8	36.7	46.3	27.5
Plastic products (356)	..		5,922	25,748	44.9	34.5	31.6	28.4
Pottery, china, earthenware (361)	−6.39[b]		5,774	14,494	61.8	45.1	45.5	32.4
Glass and products (362)	−4.71[b]		5,141	19,618	43.4	48.5	49.0	27.3
Other non-metallic mineral products (369)	3.25		8,763	38,022	41.6	60.9	26.3	14.7
Iron and steel (371)	1.16[b]		7,016	26,248	25.9	38.8	36.4	29.6
Non-ferrous metals (372)	−5.19[b]		7,046	18,245	34.6	41.5	47.2	48.1
Fabricated metal products (381)	3.12[b]		6,335	19,612	35.2	40.1	43.8	29.8
Machinery, except electrical (382)	0.17		6,798	24,812	36.5	35.3	32.4	30.2
Machinery, electric (383)	8.34		8,091	24,895	38.1	37.0	37.5	23.6
Transport equipment (384)	6.30		8,647	32,957	22.7	29.2	50.2	42.9
Professional and scientific equipment (385)	14.22[b]		5,113	19,828	52.0	30.2	34.4	50.4
Other manufactured products (390)	7.96[b]		5,157	15,450	41.4	29.4	28.5	39.5

Source: Statistics and Survey Unit, UNIDO. Based on data supplied by the United Nations Statistical Office, with estimates by the UNIDO Secretariat.
Note: Total manufacturing is the sum of the reported ISICs and does not necessarily correspond to ISIC 300 total.
a 1975–1982.
b 1975–1980.
c 1975–1985.
d Provisional figures.

experienced negative growth rates of labour productivity, with a sharp fall of 18.6 per cent in productivity being recorded by wearing apparel during 1975 – 1986. The textile industry suffered a 4.3 per cent fall in labour productivity during 1975 – 1986, while sluggish growth rates in productivity were recorded by tobacco, petroleum refineries, rubber products, iron and steel and non-electrical machinery. It is thus clear that potential productivity gains may be completely negated even in capital-intensive operations in the absence of efficient use of inputs. The growth of labour productivity was significant in beverages, paper and paper products, professional and scientific equipment, electrical machinery and chemicals.

The wage-productivity relationship is generally expected to act as a self-generating mechanism where increases in productivity lead to increasing wages and an increase in wages motivates the work-force to further increase productivity. An examination of such a relationship is constrained by the fact that data on wages and salaries per employee are given in current prices in Table II.5. However, it is interesting to note that beverages and paper and paper products recorded a two-digit growth of value added per employee and almost similar rates of increases in money wages. Concurrently in these two product areas the share of value added in gross output rose and the share of wages and salaries in value added fell during 1976 – 1986. This was largely due to the introduction of modern technology in these two segments of Pakistan manufacturing. However, this trend resulting from an increase in capital intensity cannot be generalized to all subsectors of manufacturing.

As shown in Table II.5, the Pakistan manufacturing sector has become more capital-intensive during 1976 – 1986. This is evidenced by a fall in the share of wages and salaries in value added from 26.9 per cent in 1976 to 20.3 per cent in 1986. But this was not accompanied by significant productivity gains across the subsectors of manufacturing. No significant relationship between labour productivity and capital intensity is seen in textiles, footwear (except rubber or plastic), wood products (except furniture), pottery, china, earthenware, and iron and steel.

Capital intensity seems to have fallen in wearing apparel (except footwear). This partly reflects the industry's continued dependence on traditional labour-intensive production methods. This segment of the country's manufacturing sector suffered the greatest fall in labour productivity over the years. In this subsector the share of value added in gross output fell over the years, reflecting a rise in material cost. The wearing apparel segment also experienced a rise in the share of wages and salaries in value added during 1976 – 1986, which partly reflects overmanning. Thus a drastic fall in labour productivity suffered by wearing apparel can be attributed to high material cost and overmanning.

A rise in material cost for the manufacturing sector as a whole is revealed by a fall in the share of value added in gross output from 34.7 per cent in 1976 to 32.2 per cent in 1986. Investment growth within the manufacturing sector is partly restrained by the rapidly rising material cost; unit material costs have more than doubled during 1981 – 1985. On the other hand, wage rates have been relatively stable.

The point that emerges from the above is that labour productivity gains depend on the efficient use of both labour, capital and other inputs, and that Pakistan manufacturing has not been attuned to seeking steady productivity gains. The search for higher productivity involves a multi-tiered approach. Creating a climate for productivity will need to be considered a prerequisite.

The influence that wage rates could exert on productivity gains may be examined. In Pakistan minimum wages are fixed by the Central Government for enterprises employing 50 or more persons. Although actual wages are higher than the minimum, they are still low, ranging between 'living wage' (minimum required for subsistence) and 'fair wage' (need-based minimum wage which commands minimum comforts). Indexation of wages on an annual basis to the rate of inflation would be warranted in order to enable the workers to cope with

the rising cost of living. Productivity-linked bonuses, individual incentive wage schemes, development of productivity information systems, monitoring of productivity performance on a regular basis and identification of external environmental factors having a bearing on productivity are useful instruments of productivity gains.

E. MANUFACTURING PROFITABILITY

There is considerable variation in the profitability levels of manufacturing enterprises in different subsectors. The most profitable subsectors in the 1980s in terms of gross profit were chemicals, paper and board, woollen, silk and synthetic textiles, and sugar products.* The performance of the textile industry in the 1980s was characterized by high profits of woollen, silk and synthetic textiles and net losses in cotton and other textiles. Besides cotton textiles, low gross and net profit rates were recorded by tobacco and oil and gas refineries. In general, subsectors with relatively high profit rates exhibited strong growth in share values. However, share prices in fuel, energy, and tobacco remained high, despite weak profits, due to the presence of very large and established companies in these subsectors. On the whole, profit rates were moderate in Pakistan manufacturing and the gains in share prices were only marginally in excess of the rate of inflation in the 1980s.

A notable development in the 1980s was that investment in commercialized public sector enterprises was much more rewarding from the point of view of the ordinary shareholders. The average value of an ordinary ten rupee share of a public sector enterprise was 28 per cent higher than that of the average private manufacturing firm in 1986. The total surplus accumulated by the public sector companies represented 61.6 per cent of shareholder's equity whereas the corresponding figure for the private sector was only 36.5 per cent for the 1980–1986 period.

At present there are eight public sector corporations administered by the Ministry of Production. These encompass the production of cement, steel, petroleum, engineering goods, automobiles, fertilizers, and chemicals and ceramics. Since 1973, apart from Pakistan Steel at Karachi, 29 new units have come into commercial operation. The losses of Pakistan Steel have been reduced from Rs 1,292.47 million in 1986/87 to Rs 349.89 million in 1987/88. This steel mill is expected to record a profit in 1989/90. Total pre-tax profits of public sector corporations stood at Rs 1,556.62 million in 1987/88; a profit of Rs 4,295.7 million was reported after tax.

Each public sector corporation has been directed to establish two new factories, and as many as 16 new heavy factories are planned to be set up in the early 1990s. The programme encompasses capital-intensive projects in cement, fertilizers, textiles, a refinery, steel production and a rice mill as well as a fruit-processing unit. Despite a significant fall in public investment in the pattern of industrial investment, these enterprises are expected to play a significant role in enhancing industrial performance in Pakistan.

F. INVESTMENT AND FINANCING PATTERNS

There has been a notable change in the industrial investment pattern, with the leading role being increasingly assigned to the private sector. The share of the public sector in fixed investment in manufacturing currently stands at less than one-fifth, compared with around 50 per cent in the early 1980s. The public sector accounts for 15 per cent of MVA. However, this is likely to increase in the face of a constant increase in the production levels of the Pakistan Steel Mill.

* See *Economic Review*, various annual issues on the performance of top industrial companies.

Of the 73 independent industrial enterprises under the control of the public-sector corporations, 68 units are currently reported to be operating enterprises. Details pertaining to these operating enterprises and their respective public sector corporations are reported in Table II.6.

Consistently good performance has been shown by enterprises owned and managed by public-sector corporations,* except the Pakistan Industrial Development Corporation (PIDC) and the State Engineering Corporation (SEC). The PIDC manages mainly textile and food manufacturing units, while several engineering and mechanical units operate under SEC. These two corporations experienced serious problems affecting capacity utilization and financial profitability. By the mid-1980s around 20 public-sector enterprises suffered substantial losses. Most of them were functioning under PIDC, which was set up primarily to encourage industrialization in backward areas.

In line with the government's intention to reduce the role of the public sector in manufacturing, fresh investment was mostly confined to revitalization and rehabilitation initiatives. However, Pakistan Steel Mill stood as an exception to this trend. Now that the government plans to set up 16 public-sector enterprises, the problem of resource constraint will need to be tackled. As part of the resource mobilization initiative, the policy of divesting a sizeable portion of the public sector's equity is being vigorously pursued by the government. The government has streamlined procedures and de-regulated industrial operations, with a view to achieving a revival of private investment confidence. However, the divesture policies of the government have not been successful and with the offer of minority shares, the private sector does not seem to be enthusiastic in buying assets under the control of public sector. Moreover, restraint on credit to the private sector has also discouraged private investment.

The pattern of private investment as shown in Table II.7 shows that investment in large- and medium-scale industries rose from Rs 3.3 billion in 1980/81 to Rs 13.0 billion in 1988/89. In the mid-1980s private investment rose significantly as a result of government policies and increased credit flows to the private sector. In 1988/89 private investment in current prices grew at 9.5 per cent. When adjusted against the GDP deflator of 9.0 per cent for the year, real growth of private investment is estimated at less than 1 per cent. Public sector has crowded out private investment through higher returns on government financial instruments, and restraints on credit to private sector has led to low private investment.

During 1982 – 1987 the textile sector accounted for 35 per cent of private manufacturing investment within the large-scale sector. Around 20 per cent was invested in food manufacturing while chemicals accounted for 18 per cent. Investment in machinery represented only 5 – 7 per cent of the private sector manufacturing investment.

The share of small-scale industries was 19 per cent of total private investment in 1988/89, compared with 25 per cent in 1980/81. Total investment in small-scale industry averaged Rs 1.8 billion annually during 1980/81 – 1988/89. The leading branches were textiles, food manufacturing, non-electrical machinery, cement production and wood products. In general small-scale manufacturing investment is much more widely distributed than investment undertaken by large- and medium-sized private manufacturers. Whereas a top few branches of manufacturing account for almost 80 per cent of total investment in large- and medium-scale industries, the share of the top four branches in small-scale industry represents around 58 per cent of total investment.

The financing pattern of industrial development in Pakistan is characterized by the predominance of institutional concessional finance as a source of private sector investment. The large- and medium-scale private industries have particularly relied on institutional subsidized credit. During 1982 – 1987 such concessional investment finance averaged Rs 1 – 3

* The good performance of most public sector units is recognized by the World Bank in its report entitled *Pakistan: Economic and Social Development Prospects* (18 February 1986), Report No. 5662-Pak, p. 43.

Table II.6. Operating industrial units under the public sector corporations, 1988

Public Corporation	Operating industrial units
Federal Chemicals and Ceramics Corporation Limited	Antibiotics (Pvt. Ltd.); Ittehad Chemicals; Ittehad Pesticides; Kurram Chemical Company Ltd; National Fibres Ltd; Nowshera Chemicals; Nowshera P.V.C. Company; Pakdyes and Chemicals Ltd; Pakistan PVC Ltd; Ravi Engineering Ltd; Ravi Rayon Ltd; Sind Alkalis Ltd; Swat Elutraition Plant
National Fertilizer Corporation Limited	Lyallpur Chemical & Fertilizer Ltd; National Fertilizer Marketing Ltd; Pak American Fertilizer Ltd; Pak Arab Fertilizer Ltd; Pak China Fertilizer Ltd; Pak Saadi Fertilizer Ltd
Pakistan Automobile Corporation Limited	Baluchistan Wheels Ltd; Bela Engineers Ltd; Bolan Castings Ltd; Domestic Appliances Ltd; Mack Trucks of Pakistan; Millat Tractors Ltd; National Motors Ltd; Naya Daur Motors Ltd; Pak Suzuki Motor Co.Ltd; Republic Motors Ltd; Sind Engineering Ltd; Trailer Development Ltd; Al-Ghazi Tractors Ltd; Hino Pak Motors Ltd
Pakistan Industrial Development Corporation	Cotton Ginning and Pressing; Dir Forest Industries; Harnai Woollen Mills Ltd; Indus Steel Pipes; Larkana Sugar Mills Ltd; Shahdadkot Textile Mills Ltd.
State Cement Corporation of Pakistan	Associated Cement; Dandot Cement Co.Ltd; D.G. Kahn Cement Ltd; General Refractories Ltd; Gharibwal Cement Ltd; Javedan Cement Ltd; Kohat Cement Ltd; Maple Leaf Cement Ltd; Mustehkam Cement Ltd; National Cement Ltd; Thatta Cement Co.Ltd; White Cement Ltd; Zeal Pak Cement Ltd
State Engineering Corporation	Heavy Foundry & Forge; Heavy Mechanical Complex; Karachi Pipe Mills; Metropolitan Steel Corporation; Pakistan Machine Tool Factory; Pakistan Engineering Company; Pakistan Switchgear Ltd; Pioneer Steel Mills; Quality Steel Works; Spinning Machinery Ltd; Textile Winding Machinery Ltd
State Petroleum Refining and Petrochemical Corporation	Enar Petrotech Services Ltd National Petrocarbon Ltd; National Refinery Ltd
Pakistan Steel Mills	

Source: Pakistan & Gulf Economist, (August 6–12, 1988).

Table II.7. Private investment in manufacturing, 1980/81 – 1988/89

(Billions of rupees)

Year	Large and medium scale	Small	Total
1980/81	3.3	1.1	4.4
1981/82	3.3	1.2	4.5
1982/83	4.1	1.3	5.4
1983/84	5.5	1.5	7.0
1984/85	7.3	1.6	9.6
1985/86	9.4	1.7	11.1
1986/87	11.7	2.1	13.8
1987/88	12.2	2.5	14.7
1988/89[a]	13.0	3.1	16.1

Source: *Annual Development Plan, 1988/89*.
a Estimate.

Table II.8. Bank advances[a] to manufacturing enterprises, 1983 – 1988

(Millions of rupees)

Year	Public enterprises	Private sector	Total	As percentage of total advance
1983	8,440.6	20,051.0	28,491.6	35.1
1984	9,552.4	27,514.2	37,066.6	38.1
1985	10,419.6	33,765.2	44,184.8	29.4
1986	12,399.2	36,039.4	48,438.6	36.2
1987	8,477.9	42,777.7	51,255.6	34.3
1988	8,479.2	50,571.5	59,050.7	36.2
Annual average rate of growth (percentage)	1.46	17.33		

Source: Government of Pakistan, *Economic Survey 1988/89*.
a Both commercial and specialized banks.

billion and grew at an annual average rate of over 30 per cent. Almost 70 per cent of this investment was attracted to large- and medium-sized private firms within the textile, chemicals, food-manufacturing and cement branches.

Total bank loans to manufacturing industry averaged Rs 44.7 billion during 1983 – 1988; on average 78.5 per cent of this was lent to private manufacturing firms (see Table II.8). The very high rate of bank borrowing is partly explained by the high financial needs of manufacturing enterprises and the depressed aggregate corporate saving leading to a low self-financing rate. It is believed that at least a part of the bank loan is divested for other purposes. Thus the ability of the banks to effectively monitor the performance of their borrowers is an important determinant of the efficiency of capital utilization. Given the low rate of internal financing and the underdeveloped state of the capital markets improvements in bank finance management are crucial for raising the efficiency of manufacturing investment.

The equity market in Pakistan's capital market has so far played a relatively insignificant role in mobilizing financial resources for industries.* Funds raised in the securities markets account for less than 7 per cent of total fixed investment. Of around 21,185 registered companies

* For an analytical review of the equity market in Pakistan, see Aftab Ahmed Khan, 'Securities market in Pakistan', *Pakistan and Gulf Economist* (November 11 – 17, 1989).

in Pakistan (including 500 foreign companies) only 411 are listed on the Karachi Stock Exchange and 323 on the Lahore Stock Exchange. The market capitalization of the listed companies was around $2.15 billion as of 18 October 1989, which represents only 5.5 per cent of GNP. It is contended that industrial enterprises are not encouraged to list their companies on the stock exchange because government interest rate and institutional credit allocation policies often distort the price structure of equity finance relative to loans. There is no incentive to raise investment capital from the securities market. While going public the government insists that the share should be off loaded at face value. Owners of firms are also concerned about dilution of ownership, and even when a company is listed on the stock exchange most of the shares are not available for public trading.

The number of shares transacted on the Karachi Stock Exchange fell from 3.2 million on 22 February 1989 to 1.2 million as of 22 November 1989. Indices of share prices as reported in Table II.9 show that with the exceptions of the chemicals and engineering branches, manufacturing branches suffered marked declines in share prices in 1989. A sharp decline in share prices occurred in the sugar industry, followed by cement, cotton and other textiles as well as paper and board, while the lowest decline was reported in the communications industry. A revival of share prices depends on a general improvement in investors' confidence. The government endeavours to achieve this task.

Table II.9. Share prices of selected industries on the Karachi Stock Exchange, February 1989 and October 1989

(1980-81 = 100)

Groups Sub-groups	February 22 1989	October 25 1989	Net change
Cotton and other textiles	293.4	285.5	-7.9
Chemicals	328.3	336.2	7.9
Engineering	184.9	193.7	8.8
Sugar and allied	413.7	371.4	-42.3
Paper and board	286.6	279.7	-6.9
Cement	242.1	218.5	-23.6
Fuel and energy	325.1	319.4	-5.7
Transport and communications	169.2	167.8	-1.4

Source: National Bank of Pakistan, *Monthly Economic Letter* (November 1989), Volume 16, No. 11.

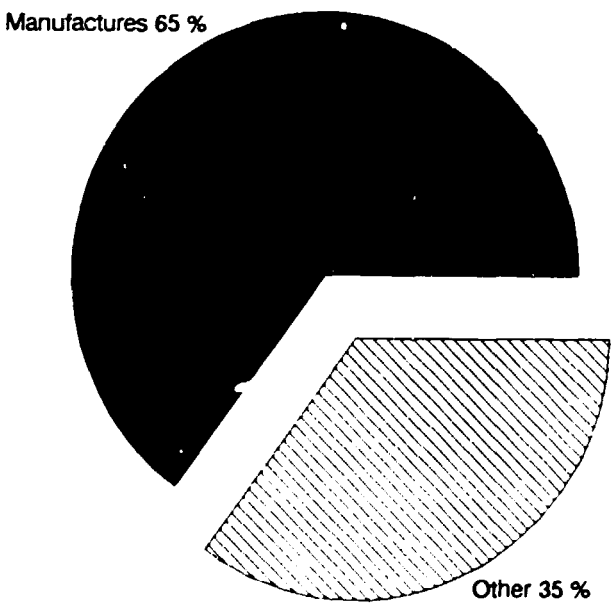
The long-term perspective of capital investment in securities is often compared with alternative saving schemes and the associated tax advantages. The securities find it difficult to compete with some saving schemes. There is also a lack of appropriate financial information regarding the securities. There is a need to present the information in a way intelligible to the ordinary public. Trading on securities often takes place on the basis of privileged information. This calls for widespread education about the securities market. The mass media could be used to inform the public about the advantages of the stock market. An institutional framework could be set up in order to provide up-to-date information on transactions in the securities market, prices, the range of bids and earnings. With a view to developing efficient and significant sources of investment funds through securities market all possible incentives should be extended. These may include an investment allowance of a certain percentage of plant and machinery and an accelerated rate of depreciation during the first year of expansion or diversification. A host of other incentives will induce private companies to go public.

G. MANUFACTURED EXPORTS AND IMPORTS

Pakistan is an exporter of essentially labour-intensive and agricultural raw material-based manufactures. High export concentration is thus attained in cotton, rice, textiles, carpets and leather and leather products. These product categories account for 75 per cent of the country's total exports. Cotton-based manufactures* continue to dominate the country's export profile, with around 54 per cent of total manufactured exports. Fish preparations, carpets, synthetic textiles and surgical instruments also constitute traditional exports, while prominent non-traditional manufactured exports include leather manufactures, vegetable oils as well as textile and leather machinery.

The most rapidly growing manufactured exports in the 1980s have been semi-manufactures and products of the textile industry (see Annex Table A-2). A poor cotton crop and high prices of yarn in the domestic market in certain years led to seasonal downturns in the volume of cotton-based exports in the 1970s and 1980s. Export earnings of cotton yarn rose however significantly from $107 million in 1977/78 to $541.50 million in 1987/88. Despite a fall in the volume of exports in 1987/88, the value of cotton yarn exports increased significantly as a result of a marked improvement in the prices for yarn in 1987/88. There has also been an increase in the value of cotton cloth exports during 1985/86 – 1987/88, partly stimulated by a steady rise in the unit value (from $0.43 to $0.57 per square metre). Tariff barriers imposed by the OECD countries restrict the quantity of exports, but as in 1985 – 1988 the growth in export value may rise as a result of an increase in unit values in view of the wide differential in unit values of Pakistani exports and those of other countries. The major markets for cotton cloth are the EC countries, the United States, Australia, Iran (Islamic Republic of) and the Soviet Union. The emergence of potential competitors is also creating difficulties particularly in the exports of garments.

Fig. II.O. Share of manufactured exports in total exports, 1989



* Cotton-based manufactured exports comprise cloth, yarn, ready-made garments, made-up articles, tents and canvas, knitwear, etc., while non-cotton manufactures consist of tanned leather, carpets and rugs, urea, leather products, surgical instruments, sport goods, art silk and synthetic textiles, engineering and electrical goods, cutlery, cigarettes, chemicals and pharmaceutical products, pig iron, etc.

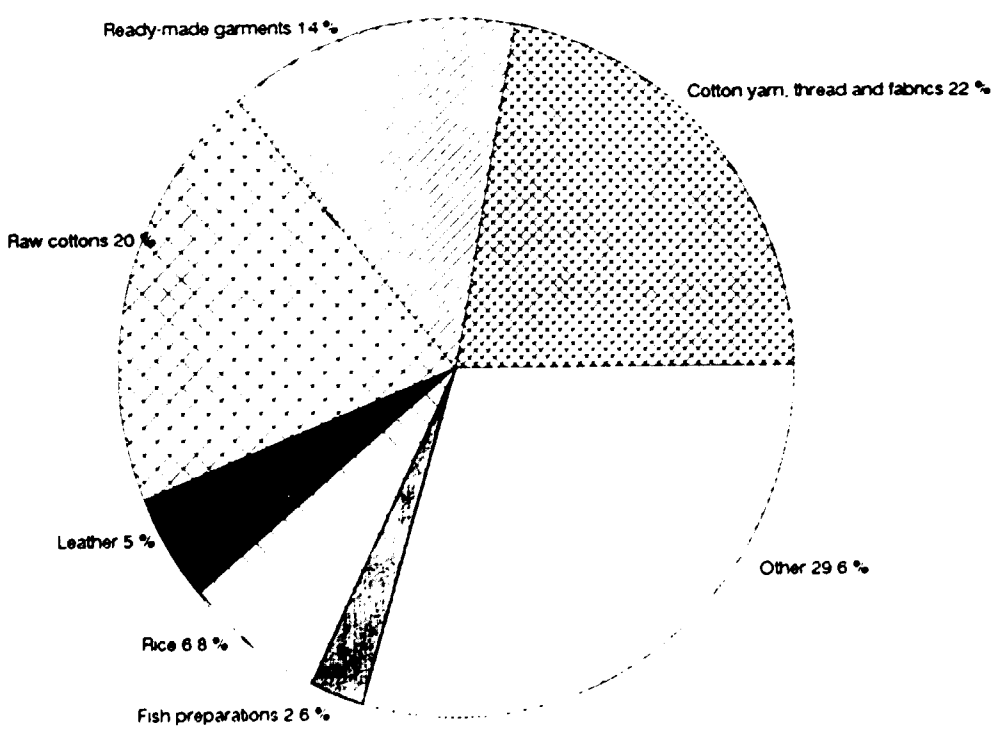
Among the non-cotton-based exports, earnings from carpet exports have increased markedly in dollar terms over the years concomitant with the rapid increase in the world prices for the products of the carpet industry, particularly in 1986 87 and 1987 88. Improved price trends have also stimulated exports of leather products. Pakistan now accounts for 5 per cent of the world's leather exports.

The value of fish meal exports grew significantly for several consecutive years until 1987 88. Glazed rice and basmati rice constitute an important segment of Pakistan's semi-manufactured exports. Export of basmati rice peaked in 1980 81 (see Annex Table A-2) but experienced erratic trends since then.

The slow growth of Pakistan's exports in 1988 89 and 1989 90 is attributed mainly to falling world prices for the country's major exports. Exports of carpets, leather and fish preparations fell sharply in 1988 89. However, there was a significant increase in the export of cotton yarn, cotton cloth, glazed rice and ready-made garments. Exports of other textile made-ups, including towels, hosiery and bed wear and synthetic textile fabrics, also rose significantly in the first half of the fiscal year 1989 90. Leather, carpets and fish preparations are expected to contribute significantly to a rise in the volume of exports in 1989 90.

Manufactured exports are projected to grow at an annual average rate of 8 per cent in real terms during 1989 – 1991. Products that are expected to record strong growth performance include quality ready-made garments, yarn, textile made-up articles, leather products, fish preparations, fruit juices and preserved fruits and vegetables. In some cases the export to

Fig. II.P. Composition of exports, 1988/89 (Percentage)



total production ratio exceeded 5 per cent for the 1985 – 1988 period. These are cotton yarn (46 per cent), footwear (8.5 per cent), nitrogenous fertilizers (15.8 per cent) and residual fuel (28.4 per cent).* High export ratios are also likely to exist in the case of cotton and woollen woven fabrics, carpets and leather products. The high level of export concentration in few product categories will continue, and the domestic demand orientation of most manufacturing is unlikely to change in the foreseeable future.

World prices for cotton-based manufactures may rise in 1990 in the wake of declining cotton output in the United States, China and the Soviet Union, which are the leading cotton producing countries in the world.** Recently the Government of Pakistan called for a temporary halt to overseas sales of raw cotton, with a view to meeting the growing domestic demand from textile mills. This measure is expected to produce a positive supply response of cotton-based manufactures to a possible rise in demand and prices on the world market.

Falling world prices for Pakistan's major exports of manufactures necessitate increased volumes of exports. Although the world price index (1985 = 100) for all food products rose from 130 in 1988 to 134 in 1989, prices for tropical beverages fell from 82 to 75 during the same period. World prices for glazed rice are likely to remain firm after an increase from $302 per tonne in 1988 to $320 per tonne in 1989. However, world prices for fish meal continue to slide down after experiencing a sharp fall from $544 per tonne in 1988 to $406 per tonne in 1989.

Using revealed comparative advantage (RCA) indices*** the following categories of exports have been identified as Pakistan's most competitive exports during 1981 – 1985: preserved fish, glazed rice, waste material from textile fabrics, crude fertilizers, pigments, paint and varnishes, textile yarn and thread, floor covering, woven cotton fabrics, clothing (non-fur), selected scientific equipment, lace and embroidery, woollen fabrics, footwear, toys, sports goods, and textile and leather machinery.

Pakistan's exports to the OECD countries accounted for about 60 per cent of total manufactured export earnings in the mid-1980s, comprising mainly products of the textile industry. The country's exports of manufactures to developing countries include products of the chemical, textile and a few capital goods industries (see Table II.10). Several developing countries – Saudi Arabia, Kuwait, United Arab Emirates, Bangladesh, China, Republic of Korea and Malaysia in particular – have recently emerged as important market destinations. The main markets for Pakistan's non-traditional exports remain in the Middle Eastern and the South-East Asian regions.

Various policy changes have been announced recently to create a better set of export incentives. The private sector can now export basmati rice in 20 kg packets, twice as large as the previous limit of 10 kg packets, and the export tax on this variety of rice has been reduced from Rs 5 per kg to Rs 4 per kg. The previous uniform income tax rebate rate of 55 per cent afforded

* Extracted from UNIDO data base which gives output and export figures for 45 manufactured exports from Pakistan.

** Production in the Soviet Union for 1989/90 is estimated at 11.3 million bales, compared with 12.7 million bales in 1988/89. The United States crop is forecast at 5 million bales less than its output of 17 million bales in 1988/89. In the wake of bad weather in China's southern provinces a poor crop is forecast for 1989/90.

*** This was determined by ranking 134 manufactured exports in terms of the revealed comparative advantage ratio:

$$RCA_{ij} \quad \frac{X_{ij}}{X_{iw}} \frac{X_{j}}{X_{w}}$$

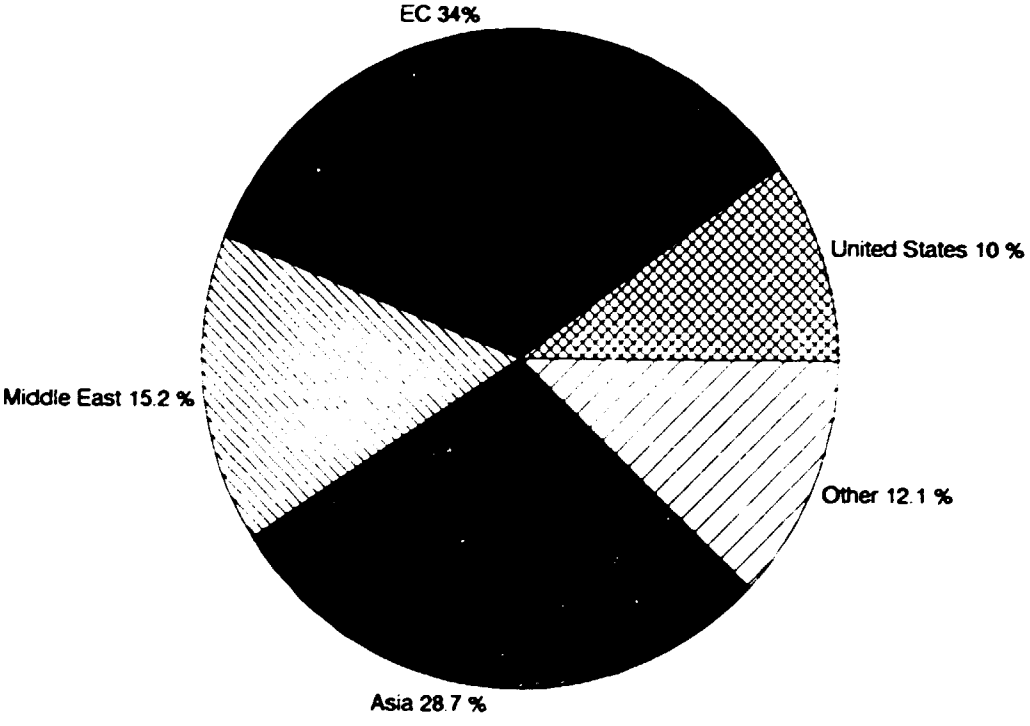
where X_{ij} Export of commodity i in country j
X_{j} Total exports of country j
X_{iw} World export of commodity i
X_{w} World total export

to exporters of manufactures has also been replaced by a graduated system involving three different rates. The government is adopting a range of policy measures in order to accelerate the export drive to both traditional and non-traditional market destinations.

Table II.10. Pakistan's manufactured exports destined to OECD and developing countries, 1986–1988

OECD countries	Developing countries
Wool	Organic chemicals
Textile yarn and thread	Pharmaceutical products
Woven cotton fabrics	Nitrogenous fertilizers
Made-up articles of textiles	Petroleum products
Travel bags	Woven cotton fabrics
Clothing	Leather manufactures
Calf leather	Footwear
Other leather	Pig iron
Leather manufactures	Textile and leather machinery
Leather accessories	Electrical power machinery
Footwear	Textile yarn and thread
Ingots	Woven textile fabrics
	Made-up articles of textiles

Fig. II.Q. Destination of exports, 1986/87, (Percentage)



Imports of industrial raw materials and capital goods accounted for 85.6 per cent of total imports in 1987/88. The share of capital goods in total imports rose from 33.4 per cent in 1977/78 to 36.2 per cent in 1987/88 (see Table II.11). Imports of raw materials rose at an unprecedented rate in 1987/88. Currently raw materials account for around 50 per cent of imports in Pakistan. The high purchasing power of the returnees increases their demand for consumer durables, imports of which rose significantly over the years.

Table II.11. Composition of imports by end-use, 1977/78 and 1987/88
(Millions of rupees)

Item	1977 78	1987 88
Capital goods	9,316 (33.4)	40,350 (36.2)
Consumer goods	5,555 (19.9)	16,027 (14.4)
Raw materials	12,944 (46.5)	55,004 (49.3)
Total	27,815 (100)	111,381 (100)

Source: Federal Bureau of Statistics.
Note: Figure in parentheses denote percentage share.

The prominent role consistently played by non-electrical machinery in the import structure of Pakistan is seen from import data presented in Annex Table A-3. This category has dominated imports at least since the mid-1970s, if crude petroleum and petroleum products are excluded. Transport equipment is second in importance. The strongest decline in imports is found in iron and steel, an import category that had been growing until the early 1980s. This trend in import substitution is the result of the recent expansion of domestic basic metal production capacity.

Fig. II.8. Composition of imports, 1987/88 (Percentage)

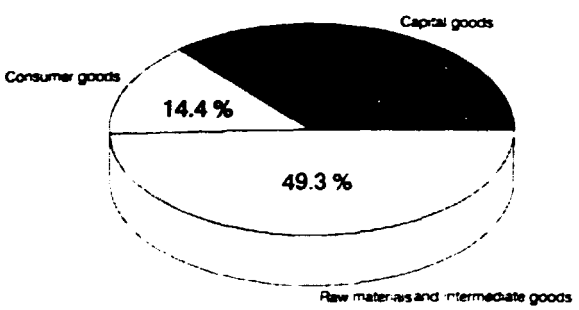
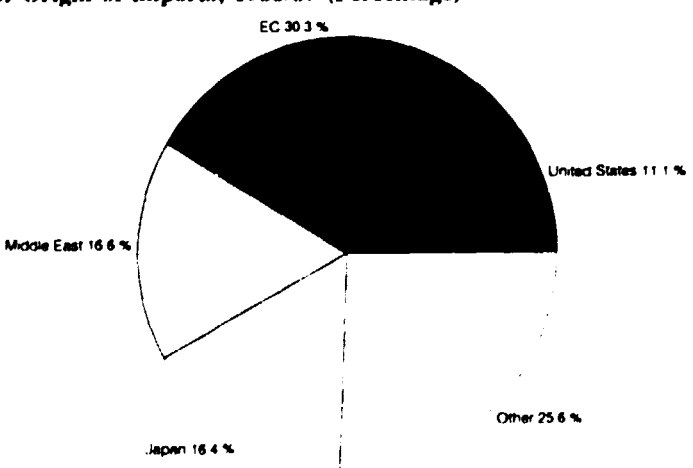


Fig. II.S. Origin of imports, 1986/87 (Percentage)



FIGURES II.T – Y: UNIT VALUE OF SELECTED MANUFACTURED EXPORTS ($ per unit) 1977/78 – 1987/88

Fig. II.T. Basmati rice

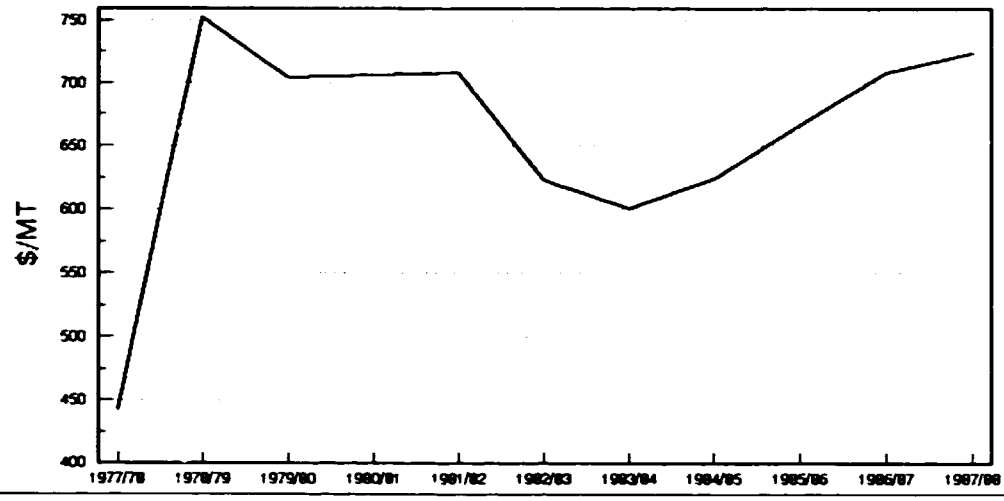


Fig. II.U. Cotton yarn

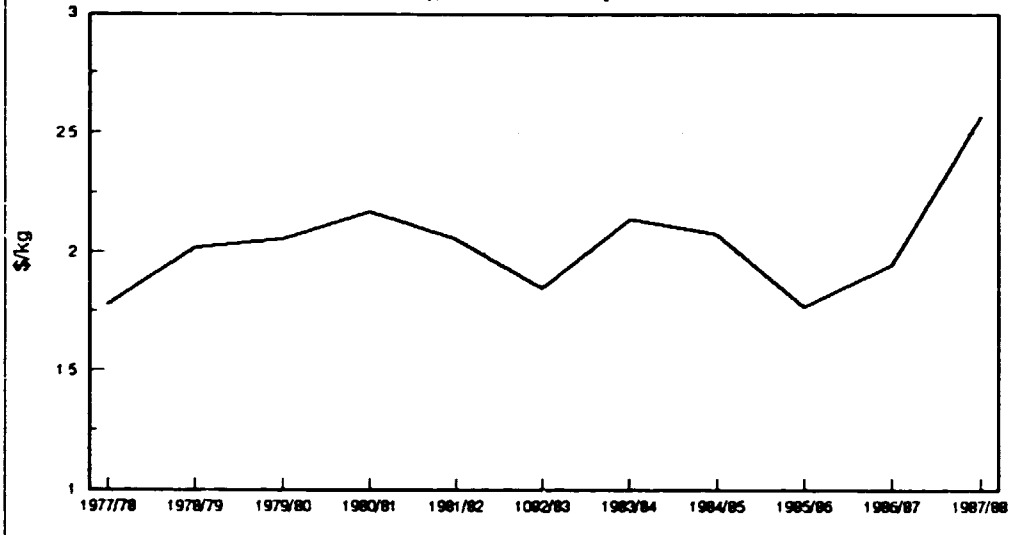


Fig. II.V. Leather

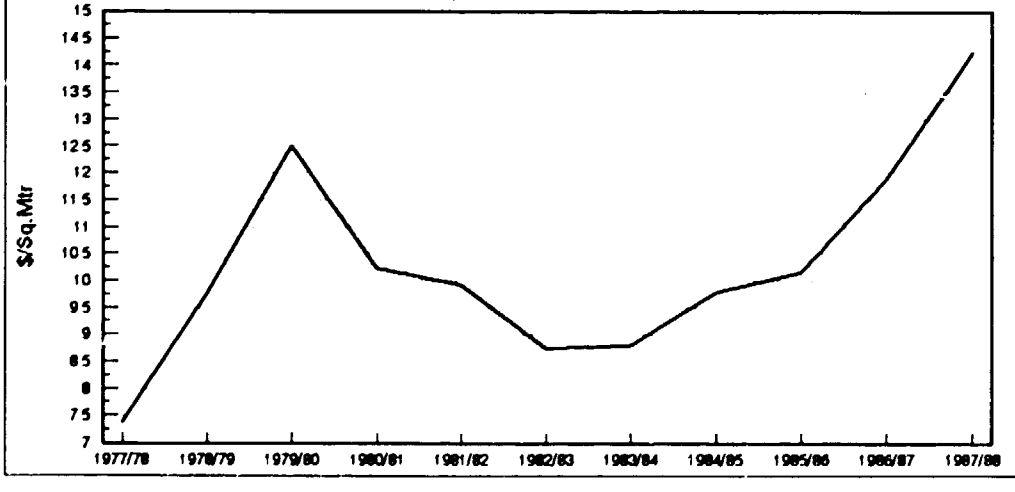


Fig. II.W. Fish meal

Fig. II.X. Garments

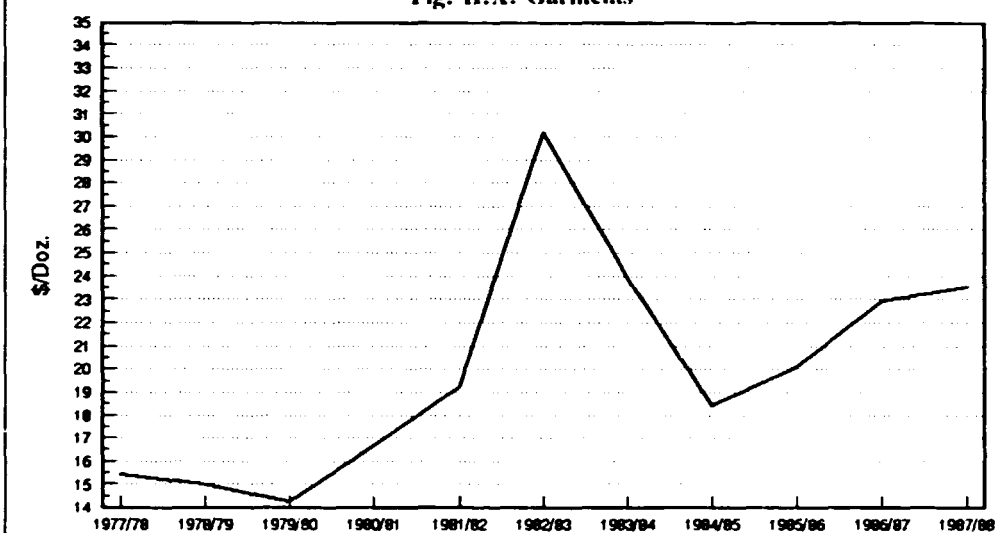
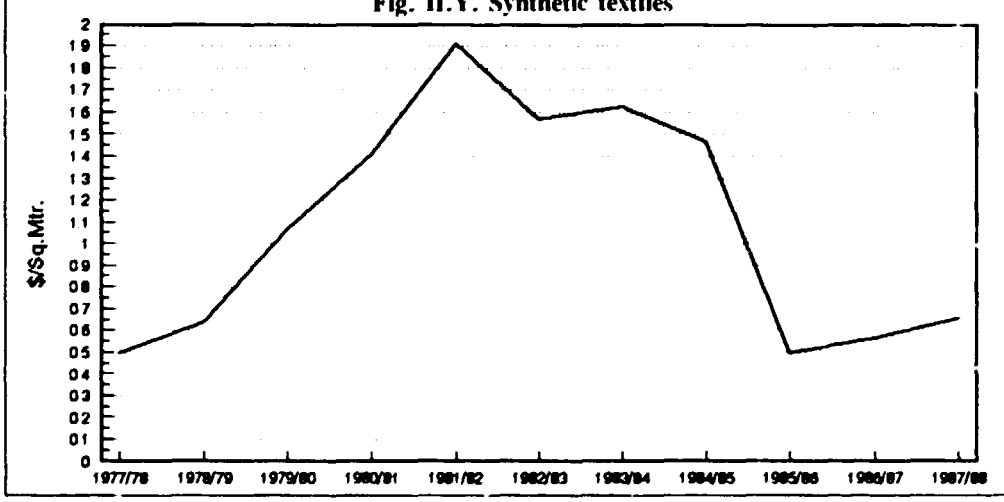


Fig. II.Y. Synthetic textiles



The degree of import dependence in manufactures can be gauged from the share of imports in apparent consumption. According to UNIDO estimates, the share of imports in apparent consumption reached 100 per cent in several categories of wood products, paper and paper products, industrial chemicals, iron and steel and non-ferrous metals during 1982 – 1984. Out of 45 product groups, for which estimates of imports in apparent consumption are available, the share of imports in the apparent consumption of 21 product categories is as high as 100 per cent* (in some categories the share exceeded 100 per cent). The lowest share of imports in apparent consumption is found in food products, with the exception of oils and fats. In the textile industry imports of pure and mixed wool yarn accounted for 46 per cent of total supply during 1982 – 1984.

Recently the government has removed 162 commodities from the Negative List of Imports, deleted 51 commodities from various categories of the Restricted List, and abolished the entire sub-list of items importable by specific industries. This implies that a wider number of items can now be readily imported. The government intends additionally to remove 140 items from the Negative List by 1991/92. It is believed that these reforms will make Pakistan's protective regime more transparent and that gains in efficiency will result from the exposure of industrial enterprises to competitive pressure. Production and investment adjustment will need to be initiated in order to sharpen the competitive edge of products.

H. INDUSTRIAL LOCATION AND REGIONAL DEVELOPMENT

Geographical distribution of industry is uneven in Pakistan. Balanced regional industrialization is therefore a major objective of the industrial strategy of the Federal Government. An array of fiscal concessions and investment incentives granted by the Federal Government favours location of industrial enterprises in backward areas. The provincial governments treat the issue differently. The provinces seek solutions to regional imbalances within the context of their specific needs, and often put forward the formula of provincial autonomy for regional balance in industrialization.

The explicitly stated objective of the Federal Government is the reduction of regional disparity in industrialization without sacrificing growth. Thus efficiency and equity have been the prime concerns for resource allocation under the Federal Government's industrial planning. However, location of private industrial enterprises is essentially an entrepreneurial decision which can easily be influenced by the provincial budgetary policies, subsidies and concessions as well as institutional finance. While some policy parameters of the Federal Government favoured industrialization in backward areas, the strong budgetary position of two industrially more developed provinces (Punjab and Sind) and the established industrial centres in those provinces attracted entrepreneurs whose perception of advantages generally related to resource endowment, availability of raw material, manpower, infrastructural facilities, power, water and the road network. This implies that the scale of industrial activity will expand in industrially more developed regions.

Karachi emerged as the most industrialized region in Pakistan. MVA *per capita* in the rest of Sind Province was also well above the national average, but Karachi had in the mid-1980s 81 per cent and 76 per cent of Sind's fixed manufacturing assets and gross manufacturing production, respectively. In 1980/81, Punjab accounted for 65 per cent of industrial units with assets less than Rs 0.5 million. The North-West Frontier Province (NWFP) is industrially

* These products cover disaggregated ISIC categories: veneer shee... pulp (mechanical), pulp of fibre other than wood, wood pulp (dissolving grades), wood pulp sulphite, w... mu chemicals, titanium oxides, lead oxides, hydrogen peroxides, calcium carbide, vegetable tanning extras... fertilizers, tin plate, railway track material, seamless tubes, refined and unwrought copper, unwrought aluminium, aluminium bars, rods, angles, etc., aluminium tubes and pipes, unwrought zinc, and zinc plates, sheets, strip and foil.

less developed and ranks third, while the Province of Baluchistan remains the industrially least developed region in Pakistan. The high MVA *per capita* in NWFP is due mainly to the presence of the highly profitable tobacco and sugar industries in the province.

Provincial disparity in industrial development had its roots primarily in the relationship between agricultural and industrial production in different regions. Industrialization in Punjab and Sind resulted in strong backward linkages strengthening the markets for the primary products of the regions. The past pattern of industrial development in Punjab was primarily attuned to the agricultural production base near the industrial centres of the province. The emergence of Karachi as a dynamic industrial centre and the lack of industrial development in many parts of Sind was also largely explained by the agricultural situation of Sind Province and Karachi's status as a major port.

In the 1960s and the 1970s industrial expansion took place mainly in the traditional branches of manufacturing. In the 1980s there was a brisk expansion of a limited range of modern chemical, electronics and automotive assembly plants. Karachi became the main seat of foreign manufacturing investment, and its industrial structure was diversified with the establishment of giant industrial units in the chemical, petroleum, non-ferrous and basic metal industries.

The structure of fixed assets and gross manufacturing output as presented in Table II.12 shows marked differences in the degree of industrial diversification in the four provinces. Overall, Sind's industrial structure is more diversified than other provinces. In the industrially less developed North-West Frontier Province food and tobacco dominate the industrial output. In the industrially least developed Province of Baluchistan fabricated metal products accounted for over 50 per cent of gross manufacturing output in 1984/85. Baluchistan is also characterized by the virtual non-existence of several categories of manufacturing (see Table II.12).

Under the Sixth Plan, the North-West Frontier Province inv ed almost as much in industrial infrastructure and industrial projects as Punjab, which was the leader in such investment. During the present Plan, NWFP is by far the largest investor of funds for industrial and industry-related projects. But the high spending is wholly explained by the fact that in NWFP much of the foundation of modern industry has yet to be laid. The marginal, mountainous location remains an obstacle to large-scale industrialization. The same is true for much of Baluchistan which is very thinly populated.

Although provincial disparity and regional concentration in industrial development are likely to remain, a long-term shift away from Karachi is noticeable. Since 1986 Karachi has been plagued by intermittent ethnic violence and serious industrial disruption resulting in investment flight from Karachi to Punjab. The following section will focus on industrial development issue in the four provinces of Pakistan.*

Sind

Sind has a dualistic industrial structure. Over 85 per cent of industrial capacity is concentrated in Karachi district which has a strategic location with easy access to regional markets, the Middle East in particular. In contrast, rural Sind has some of the most industrially undeveloped and backward areas of the country, such as the districts of Sanghar, Jacobabad and Umarkot. Karachi's prominence also reflects the ownership structure of industrial growth in Pakistan. Industry and finance are dominated by a small number of Karachi-based 'family houses' which control the major manufacturing and commercial enterprises. Industrial growth during the past decade has not resulted in a wide diffusion of ownership: ownership concentration has remained high in most manufacturing subsectors. De-regulation and divestment are likely

* For analytical interpretations of major regional imbalance issues, see S. Akbar Zaidi, 'Regional imbalances and national question in Pakistan — some indicators', *Economic and Political Weekly* (February 11, 1989).

Table II.12. Regional distribution of industrial units, 1984/85

(Millions of rupees)

Subsector of manufacturing	Punjab		Sind		Baluchistan		North-West Frontier Province (NWFP)	
	Fixed assets	Gross output	Fixed assets	Gross output	Fixed assets	Gross output	Fixed assets	Gross output
Total	18,584.1	62,398.4	30,845.7	84,678.1	1,517.8	2,207.8	4,149.4	11,160.4
Food	3,234.7	14,654.5	2,297.3	12,570.6			894.7	3,418.6
Beverages	292.3	1,327.0	112.2	390.1	30.4	248.9	36.6	102.7
Tobacco	79.8	2,441.3	141.3	1,908.8			156.6	3,075.5
Textiles	4,984.2	19,086.3	4,863.2	13,982.4			684.5	1,183.5
Wearing apparel	13.2	57.4	207.2	1,495.1	681.9	319.3	683.7	1,183.4
Leather	127.0	1,213.1	170.8	1,747.5			2.4	6.2
Wood products	159.8	178.2	117.5	206.5			317.5	144.9
Paper and printing	665.0	805.7	586.8	1,443.6	87.1	112.5	179.9	619.9
Pharmaceuticals	164.3	656.7	1,281.8	3,791.5	107.2	257.3	22.7	69.3
Industrial chemicals	3,979.1	5,384.1	732.3	3,198.4			407.5	256.0
Other chemicals	152.9	872.2	284.5	2,975.5	121.6	253.7		
Petroleum refining	390.6	4,654.0	2,434.4	16,740.7			39.9	156.0
Non-metallic minerals	1,340.3	2,364.1	1,643.1	3,079.6			1,078.6	1,199.6
Cement	217.6	1,902.6	1,207.3	2,298.4			895.7	1,011.4
Iron and steel	1,224.1	2,756.5	13,085.8	6,439.9			11.0	10.1
Fabricated products	199.3	418.7	186.5	850.6	489.4	1,016.0	0.8	0.9
Non-electrical machinery	610.6	3,981.5	444.0	770.3			3.4	11.3
Electrical machinery	418.7	1,174.1	402.0	2,667.7			195.7	670.2
Transport equipment	154.0	604.2	689.9	4,436.6			117.1	166.0
Scientific equipment	92.1	377.6	7.1	65.6				
Sports goods	32.3	367.2	30.4	172.1				

Source: Government of Pakistan, Federal Bureau of Statistics, *Census of Manufacturing Industry 1984-85* (Karachi 1988).

to benefit the leading business houses – Dawood, Munir, Colony, Ittefaq, Bawany, Barewala, Adamjee, Saigol, and others – as major foreign investment and loan financed projects usually involve negotiations with some of these groups.

The establishment of the Sind Industrial and Trading Estates (SITE) in the suburbs of Karachi together with rapid infrastructural developments attracted private investment soon after independence in 1947. Sister estates were established in other parts of Karachi and in Kotri, Nooriabad and Hyderabad, all in southern Sind. During the 1950s and 1960s several major public manufacturing enterprises were also established in Karachi. These included the Karachi Shipyard, the Pakistan Machine Tool Factory and the PIA engineering workshop. The discovery of vast mineral resources at nearby Sui (in Baluchistan) also acted as major impetus for the rapid industrial development of the Karachi area.

The SITE area in the suburbs of Karachi encompasses 4,400 acres where 1,800 industrial enterprises are located. These industrial units range from large motor assembly plants, multinational pharmaceuticals, engineering and electronic units to small- and medium-scale industries producing a variety of finished goods for local and export markets. It provides direct employment to 200,000 and indirect employment to some 2 million people. The possibility of establishing industrial estates at towns like Sukkur and Larnaka is being explored.

The SITE's Nooriabad Industrial Estate covers an area of 5,000 acres capable of accommodating 3,500 to 4,000 small, medium and large industries. Since 1984, around 1,000 plots have been allotted and about 50 industrial units have gone into production. It is expected that the estate will be able to accommodate 3,000 factory units by the end of 1990. Investors enjoy a five-year tax holiday and import duty exemption on machinery imports. SITE Nooriabad has excellent infrastructural facilities, including ground water supply and an electric power sub-station of the National Grid Distribution System. One gas well is reserved for Nooriabad, and gas supply is to be available shortly. The location of Nooriabad halfway between Karachi and Hyderabad and the proximity of SITE Nooriabad to two sea ports and the railway station at Jhimpur are added advantages. The good infrastructure and location are major reasons for the relatively large number of projects initiated at Nooriabad in recent years. However, political disturbances, both in the interior Sind and in Karachi, may in fact lead to relatively very little investment in this area.

The major objective of establishing the Karachi Export Processing Zone (KEPZ) was to attract foreign investment. However, out of 300 acres only 200 have been developed so far, and only 25 enterprises out of an envisaged total of 75 have gone into production. In early 1989, employment was only one-tenth of the target, and exports were only one-fourth of the annual target of $125 million.

Apart from the present security situation, there are several reasons for KEPZ's low performance. At present, development finance institutions do not allow long-term foreign exchange loans to foreign investors in KEPZ. Resident Pakistanis are allowed only 40 per cent of equity investment in KEPZ projects. An increase in equity participation would pose a problem to the government in view of a consequential reduction in foreign exchange investment in KEPZ. This would also militate against the basic idea of attracting foreign investors to the Zone. The garment industries located in KEPZ have been deprived of their textile quota under the pretext that idle capacity exists in textile industries situated outside KEPZ. Most of the KEPZ firms are garment producers and could contribute significantly to exports. The present policies with regard to the Zone should therefore be reviewed in order to enhance its contribution to industrial development.

The present ethnic unrest has particularly affected the activities of a Punjabi business class, the Chiniotis. In the late 1970s, this group played a key role in reversing the capital flight from Karachi. The Chiniotis had heavy commitments in key industries but its business confidence is badly shaken. The 14 per cent rise in investment sanctioned by the Investment

Promotion Board (IPB), the Pakistan Industrial Credit and Investment Corporation (PICIC) and the Industrial Development Bank of Pakistan (IDBP) in Punjab during 1986–1988 may be contrasted with a 25 per cent drop in Sind. The shift of investment to Punjab is continuing, and the reluctance to invest in modernization has increased the number of sick units.

In spite of the overall decline, there has been new investment in Sind in recent years. As Table II.13 shows, there is a high concentration of projects in Nooriabad, which is also the location for the largest investment projects. This is probably the result of the good infrastructure offered by the local industrial estate. Most new investment is taking place in the chemical/pharmaceutical industries and in electrical goods/electronics, although projects in the latter industry tend to be of a modest size (see Table II.13).

Table II.13. Sind – New industries sanctioned during 1986–1988

Date of sanction	Industry	Total investment (Millions of rupees)
	Karachi [other than non-repatriable investment (NRI)]	
19-4-87	Aircraft tyres	26.700
10-11-87	LPG stoves	3.256
24-3-88	Refrigerators	33.275
	Karachi (NRI)	
10-2-87	Hosiery	565
31-7-86	Modarba	7.500
23-8-87	Fishing	17.000
–	Blood plasma	20.000
24-3-88	Audio magnetic tapes	26.356
	Nooriabad	
15-7-86	Cotton yarn	54.780
12-8-86	Cotton yarn	69.308
18-12-86	Cotton yarn	117.761
24-12-86	Cotton yarn	105.234
25-1-87	Cotton yarn	83.474
18-5-87	Cotton yarn	99.443
21-12-86	Rubber belts	18.000
14-1-87	Chemical	271.320
24-9-86	Disposable syringes	49.915
30-6-87	Polypropylene resin	732.247
28-4-87	Textile machinery	16.250
24-9-86	Electric fans	12.302
12-3-86	Video cassettes	10.701
28-6-87	Video cassettes	18.680
12-1-88	Pharmaceuticals	128.419
29-12-87	Blood plasma	45.578
1-7-87	Agr. pesticides formulation	48.000
29-12-87	Polyester polyol	261.955
24-3-88	Refrigerators	27.500
27-7-87	Radio cassette recorder	8.060
16-12-87	Radio cassette recorder	7.068
26-4-88	Television sets	6.975
	Nooriabad (NRI)	
13-1-87	Special textile	1.875
29-2-87	Special textile	44.000
11-3-87	Video cassettes	5.012
29-3-87	Refrigerators	15.728
22-7-87	Radio cassette recorders	7.970
7-3-87	Television sets	13.825
31-3-88	Television sets	4.390
31-3-88	Radio cassette recorders	8.289
15-7-88	Video cassettes	8.210
27-7-87	Video cassettes	6.520

Table II.13. *(continued)*

Date of sanction	Industry	Total investment (Millions of rupees)
	Kotri	
4-3-87	Cotton yarn	65.550
6-4-87 (Expansion)	Cotton yarn	101.373
	Hyderabad	
29-3-88 (Expansion)	Deep freezers	10.480
	Dhajebi	
17-7-86	Confectionery	11.110
23-7-86	Medicines	11.917
	Kalu Kohar	
10-7-87	Radio cassette recorders	16.450
15-3-87	Video cassettes	15.000
28-12-86	Prefabricated houses	27.800
		13.350 (NRI)
	Khairpur	
17-7-86	Date processing	4.000
	Others	
24-8-86	Liquid sugar	120.800
		12.900 (NRI)

Source: *Pakistan and Gulf Economist*, various issues.

This is partly the result of a series of steps taken by the government to revive manufacturing investment in Sind. A major study has been completed on restructuring sick industrial units but implementation of its recommendations is yet to commence. The scope of operations of the Sind Small Industrial Corporation has also been expanded. Under the Seventh Plan, it is to spend some Rs 67 million in both rural industrialization and self-employment. Along with several SSI infrastructure and training programmes, this should help achieve a wider spread of industrial development. An 'Industrial Relations Centre' has been established at Nooriabad to upgrade technical skills and to act as an industrial employment exchange for local people. These are important functions, given the rapid expansion of investment in Nooriabad in recent years. An Industrial Advisory Cell has been established within the provincial Ministry of Industries. Its principal concern is to act as a conduit for the transmission of industrial loan applications from private investors to the IDBP, PICIC and the National Development Finance Corporation (NDFC). The Cell has also been conducting industrial surveys and developing an information system.

The Industrial Advisory Cell has prepared a number of thorough feasibility studies that have identified several dozen viable investment projects (listed in Table II.14). In contrast to the investment projects listed in Table II.13, there is a predominance of the more traditional industries: food processing, textiles, wood products. The choice of these projects could reflect a cautious assessment of the future of manufacturing in Sind on the part of the Cell. Renewed industrial growth depends crucially on the restoration of investors' confidence in the social and ethnic harmony in Sind.*

* The stagnation of large-scale manufacturing production in 1988/89 is blamed on the political disturbances in Karachi. See Government of Pakistan, *Economic Survey 1988/89*, op. cit., pp. 60–64.

Table II.14. Feasible industrial projects in Sind

Thatta	*Thorparkar*
Flour milling	Room coolers
Wooden furniture	Biscuits
Ready-made garments	Carpets
Brick kiln	Soap
PCC pipes	Wooden furniture
Hosiery products	Hand-made rugs and blankets
Badin	*Sanghar*
Light engineering workshop	Cattle feed
Flour milling	Flour milling
Tomato juice	
Wooden furniture	*Sukkur*
Cotton bags	
	Electric fans
Padu	Desert coolers
	Aluminium utensils
Tanneries	Ready-made garments
Biscuits	
Brick plant	*Larkana*
Light engineering	
Soap	Chip board
Ready-made garments	Fruit processing
Tractor repair	Wooden furniture
Syrup (fruit)	
	Nooralshah
Hyderabad	
	Flour mills
Caustic soda	Fruit processing
Nuts, bolts and screws	
Tyres and tubes	*Khairpur*
Leather board	
Flour mills	Flour mills
Light engineering	Date processing
	Light engineering

Source: Industrial Advisory Cell, Sind Ministry of Industry.

Punjab

Punjab, apart from being Pakistan's most populous province, is rich in natural, particularly agricultural, resources and also possesses a highly adaptable and hard-working labour force. The pace of industrial development has quickened considerably since late 1986. Preliminary estimates show that gross fixed investment increased by 15 per cent in textiles, 12 per cent in chemicals and 10–12 per cent in food manufacturing during 1988/89. Since early 1989 the industrialization strategy of Punjab provincial government has facilitated the rapid growth of private-sector investment.

Industrial structure

The leading manufacturing branches in Punjab in 1984/85* were textiles, food manufacturing, industrial chemicals, petroleum refining, non-electrical machinery, iron and steel, tobacco and non-metallic mineral products (cement). Together these sectors account for over 80 per cent of the value of fixed assets and gross output, which is dominated by the textiles and

* This is the last year for which provincial level estimates are provided by the Federal Bureau of Statistics.

food industries. The industrial chemicals sector is well developed and the share of the non-electrical machinery subsector in gross output is higher in Punjab than in any other province of Pakistan. Punjab's extensive small-scale sector requires support for modernization of equipment, improvement of skills and designs, and entrepreneurship development.

Infrastructural facilities

The growth of infrastructural facilities offered to industries during 1975/76 – 1984/85 as presented in Table II.15 reveals that the number of new electricity connections remained virtually stable throughout the years, and there was a backlog of application for electricity connections by the end of the period. The existing energy gap is conservatively estimated at 2,000 MW. Energy-saving measures have had some effect during 1988 and 1989. A fundamental change in the energy balance requires the construction of the controversial Kalabagh Dam which will have the eventual capacity to generate 3,600 MW of hydroelectricity. The annual increase in the mileage of roads covered by the Punjab Highways Department was slow, with clear growth only after 1980 (see Table II.15). The Directorate of Industries and the Small Industries Corporation has set up industrial estates where facilities are provided. Such estates already exist in Multan, Bahawalpur, Lahore and Sialkot.

Table II.15. Punjab – Infrastructural facilities, 1975/76 – 1984/85

Year	Industrial gas consumption ('000 cubic metres)	New electricity connections given to industrialists ('00 Numbers)	Applications pending (30th June) ('00 Numbers)	Roads maintained in Punjab (km as on 30th June)
1975 76	217,158	42	130	11,046
1976 77	228,202	48	78	11,245
1977 78	207,390	48	73	11,520
1978 79	216,432	53	67	11,655
1979 80	265,270	42	77	11,768
1980 81	276,314	49	88	12,159
1981 82	281,185	47	88	13,718
1982 83	263,422	49	86	15,166
1983 84	..	41	..	..
1984 85	..	49	71	..

Source: Punjab Development Statistics, Power System Statistics, 10th issue.

The fast growth of investment in these estates has only come since 1988. Most manufacturing investment is still heavily concentrated in the districts of Lahore, Faisalabad, Gujranwala and Multan. An 'Industrial Free Zone' has been established at Chunnian encompassing 60,000 acres under the responsibility of the Chunnian Industrial Estate Development Authority, which is a provincial government subsidiary.

Policies, incentives and institutions

The provincial government has developed a wide ranging policy package for stimulating private sector investment. The emphasis is on creating an 'enabling environment' and on a gradual reduction of subsidies – this is made inevitable by the drastic reduction in federal budgetary support to finance the deficit of the Punjab Government. The provincial government, however, remains particularly keen to continue providing subsidized credit to manufacturers. This is a major motive behind the government decision to establish a province-wide Punjab Bank which will provide both commercial and development financing services. Its relationship to the central bank – the State Bank of Pakistan – and the other scheduled banks remains unclear.

Other stimuli include the creation of industrial estates, a phasing out of controls on inputs and products and the provision of other incentives, particularly to investments in backward areas. Presently these areas include: Dera, Ghazi Kahn, Rajanpur, Khushab, Bhakkar, Miarwali, Chakwal, Toba Tek Singh, Veliari, Qila Seikhapura, Hafizabad, Khaniwal and Mian Chunni.

Two important government agencies have been set up to promote industrial development: the Punjab Industrial Development Board (PIDB), established in 1973, and the Punjab Small Industries Corporation (PSIC), constituted in 1972 as an autonomous body. The PIDB is the major holding corporation for public enterprises. The Board seeks to supplement the effort of private-sector investment by setting up projects which do not readily attract private capital. It has managed vegetable ghee, sugar, rice milling and textile units. In recent times, it has followed an active policy of divestment both to other public enterprises and to the private sector. Companies managed by PIDB have an average debt-equity ratio of about 70 per cent. The Board itself usually holds 51 per cent of the equity stock. Total investment expenditure by the PIDB on completed projects was estimated at about Rs 3,000 million by the end of 1988. Credit lines to PIDB have been extended by financiers from the United Kingdom and Japan. China has also provided a limited amount of hard currency loans. New projects envisaged are for the production of fibreglass, television tubes and paper products. Pakistan's biggest paper mill, Kamalia, is being established by the PIDB. The cost of currently envisaged projects is estimated at Rs 4,629 million, with a foreign exchange component of Rs 2,699 million. It is proposed to finance new projects through cash resources available with PIDB, divesture receipts, cash generation by the operating mills, etc.

The PSIC is the main agent for the promotion of small-scale industry. Apart from providing advisory services for the development of entrepreneurial talent, it focuses on an estate development programme with full infrastructural facilities and common centres for facilitating transfer of technology. Such estates are found at Sialkot, Gujrat, Gujranwala, Lahore, Bahawalpur, Deska, Faisalabad, Jhelum, Sahiwal and Sargodha, and mini-industrial estates at Sahiwal and Gujar Khan. New industrial estates are planned for Jhelum, Faisalabad, Chakwal, Gujar Khan and Sahiwal. In 1988, about 2,500 fully-developed factory sites were made available on these estates, which are expected to create job opportunities for 30,000 persons.

Prospects

Prospects in Punjab are particularly good for agriculture-based industrial products with the major exception of the textile industry which has more sick units in Punjab than anywhere else in the country. Food manufacturing, leather products, paper milling and carpets constitute promising product areas. There is also considerable potential for the expansion of the engineering industries – local, untrained engineering talent is abundant and the province possesses the most diversified and versatile repair and maintenance industry (including spare parts production) in the sub-continent. There are some major constraints on the development of these sectors: the shortage of regular energy supplies, inadequate on-the-job training facilities to continuously upgrade production skills and diffuse production technology within the work-force, and the lack of market transparency and marketing strategies. Investment packages which combine elements that overcome these constraints can be highly rewarding in present-day Punjab. Such investment packages would usually involve co-operation between domestic private enterprises, public-sector institutions and multilateral financial and technical assistance agencies.

North-West Frontier Province (NWFP)

There has been a marked deceleration of industrial growth in NWFP. Several enterprises were closed down in the food and beverages, chemicals and iron and steel subsectors. The

main reason for this disturbing trend has been the escalating costs of transportation which make the products of NWFP uncompetitive compared with those of Karachi and Punjab. Some of the raw materials for the production of edible oil and ghee are imported through the port at Karachi. A few Pakhtun (local ethnic group) industrialists are linked to this industry.

Much of the demand for consumer and intermediate goods in NWFP was hitherto met mostly by Punjab. An upsurge of small industries in NWFP has been due to the emergence of the local Pakhtun as industrialists to supply goods previously provided by Punjab. A competition for markets between Punjabi businessmen and Pakhtun is beginning to emerge in NWFP.

Of the 3 million Afghan refugees, 80 per cent are said to be in NWFP. The refugees could constitute a potential market for basic needs, given the huge cash aid granted to them. A large number of unskilled workers have gone from NWFP to the Middle East. Their inward remittances have been quite substantial and have strengthened the industrial base in the province. However, the development of a strong industrial base largely depends on the provision of infrastructural facilities to industrial investment aspirants. A potential source of industrial investment could easily stem from the returnees from the Middle East. There is a need to develop a commercial, entrepreneurial mentality in the minds of the returnees in order to convert their savings into industrial assets in NWFP.

Baluchistan

Baluchistan's share of the country's fixed manufacturing assets is only 2.7 per cent and that of the gross value of manufacturing production is around 2 per cent. Such a low level of industrial development in the country's largest province, which encompasses 35 per cent of Pakistan's total land area but only 4 per cent of the population, led to the grim reality of very low MVA *per capita*. The MVA *per capita* of Baluchistan in the early 1980s was Rs 273, compared with the national average of Rs 1,205. This province has been left behind in the process of industrial development.

The little industry that exists in the province is concentrated in Hub near Karachi, and nearly all industrial units are owned by people living in Karachi. The mainstay of the people is agriculture which is in need of modernization. Natural gas is the main source of income. However, the province gets only a royalty of one-tenth of the foreign exchange saved by the Federal Government. The province would have achieved significant strides in the development of energy-intensive heavy industries if it had been able to use its own gas reserves. The province also lost a source of revenue when Hub was declared 'tax-free'. A number of mines are owned by Sardaars who preferred to stay in Karachi rather than Baluchistan, ignoring the possible industrial development of Baluchistan.

There have been some improvements in the creation of infrastructural facilities in Baluchistan, and the backward areas have slowly been incorporated into the boundaries of relatively developed areas. Given the vastness of the area and the thinly scattered population in the province, a regional spread of industries that does not sacrifice efficiency needs to be investigated in the context of returns to scale. There is an urgent need to introduce changes in the agricultural system that prevails in Baluchistan. The system of land ownership and the pattern of agricultural production will need to be changed in order to enhance agricultural productivity. These changes and the exploitation of mineral resources could ultimately determine the economic base for industrial expansion.

III

INDUSTRY BRANCH PROFILES: RETROSPECTS AND PROSPECTS*

A. FOOD INDUSTRY: UNTAPPED POTENTIAL AND OPPORTUNITIES

Food products, including beverages, account for around one-third of both gross industrial output value and MVA in Pakistan. Vegetable ghee and cooking oil, sugar and non-alcoholic soft drinks constitute the major segments of food industry. Processed fruit products have become increasingly important in the country's export profile. Although the product range of Pakistan's food industry is fairly diversified, there remains rich untapped potential for further expansion of the food industry.

Vegetable ghee and cooking oil: towards diversification

There are about 80 vegetable ghee and cooking oil manufacturing enterprises in Pakistan, 25 being in the public sector. The installed capacity is currently estimated at 927,000 tonnes per annum, of which 504,000 tonnes is in the public sector. Although private firms outnumber public sector units, local demand is largely met by the Ghee Corporation of Pakistan (GCP), the main public-sector holding corporation.

The total ghee production of GCP units was about 65,000 tonnes per month in 1987, compared with only 20,000 tonnes in the private sector. The GCP units continue to sell their products at lower prices because of the heavy subsidy granted by the government and are run at any cost in order to meet local demand. The ghee industry in the private sector is suffering an annual loss of Rs 800 million.** In 1987, 30 private vegetable ghee manufacturing units were closed down due to the escalating cost of production. Raw materials such as cotton seed oil have become much more expensive, a sales tax has been introduced on tin-plate (used for containers) and the import surcharge has been raised.

The private units are now concentrating largely on the production of cooking oil because of the changing pattern of consumption (cooking oil is considered a healthier product than ghee). It is technically easy to switch production from vegetable ghee to cooking oil. As

*This chapter focuses on the retrospects and prospects of selected manufacturing subsectors for which adequate information was available at UNIDO headquarters at the time of preparing the Review.

** Statement by the chairman of Pakistan Vegetable Ghee and Cooking Oil Manufacturers Associations. See *Economic Review* (Karachi, December 1988), p. 77.

the GCP has a major stake in vegetable ghee production, it has discouraged product diversification. It is, however, likely that the shift towards cooking oil will continue in the face of a major divestment of the public sector shares in this branch of manufacturing.

Despite a noticeable shift from vegetable ghee to cooking oil in the private sector, total production of vegetable ghee increased significantly in 1987/88 (see Annex Table A-4), partly as a result of recent sales price decontrol. The rising trend in the volume of production continued in 1988/89, with an output of 715,000 tonnes, and further increases are estimated for the 1990s.

The rated capacity and actual production of selected ghee companies (see Table III.1) show that many firms performed well in capacity utilization. In five out of 15 firms the capacity utilization rate exceeded 100 per cent of the installed capacity in 1987 88, probably by introducing extra shifts. With a few exceptions, capacity utilization in other companies was satisfactory.

Table III.1. Capacity utilization in selected ghee companies, 1987/88

(Tonnes and percentage)

Companies	Rated capacity (Tonnes)	Actual production (Tonnes)	Capacity utilization (Percentage)
Associated	35,000	46,553	133
Burma Oil	30,000	22,766	76
Extraction	15,000	..	..
Fatima	24,000	25,517	106
Fazal Vegetables	18,000	18,320	102
Kakakhel	29,000	26,068	90
Kohinoor Oil	27,200	21,757	80
Lever Brothers	34,000	41,108	121
Morafco Industries	19,000	13,881	73
Maqbool Co	11,500	9,214	80
Punjab Oil	30,000	27,625	92
Sh. Fazal	28,000	18,501	66
Suraj Ghee	24,000	21,456	89
Universal	24,000	17,462	73
Wazir Ali	30,000	41,642	139

Source: *Economic Review* (Karachi, December 1988).

The demand for vegetable ghee is projected at 1,000,925 tonnes for 1989 90, growing at 11 per cent per annum. There is likely to be a production shortfall of 172,000 tonnes. If existing units are stimulated to increase production through price and non-price incentives, this shortage can be avoided. Given the high cost of production and the heavy subsidy on the products of GCP, private sector units will need to diversify the product range to more profitable avenues.

The larger enterprises presumably have the know-how and means not only to survive, but also to diversify the product range. These enterprises are also involved in other food-processing activities and in the production of chemical-based consumer goods such as soap and detergents, which to an extent are based on the same raw materials. They, therefore, are likely to take the lead in the restructuring of Pakistan's ghee industry.

Sugar: from strides to doldrums

Pakistan's sugar industry encompasses a traditional small-scale sector producing *gur* and *shakkar* (lump and brown sugar) and a large-scale sector using modern production methods. The latter has grown rapidly since the mid-1960s, with the number of mills doubling to 45.

The main reasons for the failure to meet demand were due not only to an unexpectedly fast growth in consumption, but also to policy-related obstacles to the modern sector, and to the low productivity in agriculture.

Pakistan was self-sufficient in sugar production in the early 1980s. *Per capita* sugar consumption levels have grown rapidly and prices have escalated. Annual consumption of sugar rose from 5 kg in 1970 to 18 kg per head in 1989.* The refined sugar output of 1.9 million tonnes in 1989 was short of an estimated demand for 2.1 million tonnes. Around 80,000 tonnes have already been imported. The high international prices of $496 per tonne coupled with a 20 per cent subsidy and distribution cost caused a heavy burden on the foreign exchange reserves and government spending in 1989.

Pakistan is the world's sixth largest sugar-cane producer but yields are only 35 to 40 tonnes per hectare – among the lowest in the world.** Although cane production peaked in 1981/82, with 36.6 million tonnes, only 14.5 million found its way to the modern mills (see Annex Table A-5). The tonnage of cane crushed by modern mills in 1987/88 was 54 per cent of the total crop which came close to the 1981/82 record. The peaks in the cane crops are related to price increases for cane producers: both the 1981/82 and the 1987/88 production peaks follow the setting of higher prices in the previous year. In the past, however, the price of sugar produced by the modern mills was controlled and there was excise duty to be paid. The traditional industries were exempt from these measures. As a consequence, a large part of the crop was used to make the more profitable *gur* and *shakkar*. Sind was the only province where the modern mills dominated the cane market, probably because of their relatively strong position in that province, and the weakness of the traditional sector.

The sales price of sugar was decontrolled in 1983/84, resulting in expanding production, although there was a brief recession in 1985/86. New incentives, such as a two-year reduction in excise duty for new mills, also helped to boost production. In the last production season, however, these incentives were withdrawn and the customs duty on imported sugar was abolished to compensate for rising world prices. The surcharge on cane to be paid by modern mills since 1987/88 probably exercised a negative influence as well. Although production of sugar continued to grow in 1988/89, it could not keep pace with the rising demand. Both the government and the sugar mills have established research institutes to enhance yields but research results are not disseminated regularly to growers.

The productivity of this branch of the food industry is also lowered as a consequence of the crude production methods in the traditional sector. *Gur/shakkar* producers extract only about 50 per cent of the cane's sugar content; the mills extract 80 per cent, and in recent years the extraction rate in many of the large mills has increased. Given the large share of the cane supply which is processed by the small scale sector, its production methods represent a serious loss.

Sugar manufacturers reacted adversely to the Central Government's decision to abolish customs duty of Rs 4 per kilogram on imported sugar to compensate for rising international prices, and to remove two major incentives granted to the producers: exemption of excise duty on sugar produced in excess of the factory's average production; and a 50 per cent excise duty rebate for the first two years of production at new factories. These concessions had in the past enhanced the profit of sugar mills. The manufacturers are trying to convince the government of the ill effects of these measures leading to a fall in sugar output. The government is of the opinion that the shortfall is artificial and stocks are being withheld for speculative gains.

According to the National Commission on Agriculture, by the year 2000 demand for refined sugar will be to the tune of 3.2 million tonnes. Measures may need to be taken to fill the

* This is still among the lowest in the world, compared with 50 kg in developed countries.

** 'Sugar Industry', *Economic Review* (Karachi, May 1989), pp. 119–120.

sugar supply gap. Expansion of the modern mills is possible as foreign exchange costs are relatively modest since currently about 75 per cent of sugar mill machinery utilized is locally manufactured. Expanding the capacity of existing mills to close the gap would cost about Rs 100 million in terms of capital expenditure (in 1986 prices). Sanctions are no longer required for the establishment of private sector units involving an investment of less than Rs 1 billion. This should, in principle, stimulate the expansion of private sector investment in the sugar industry since an average modern sugar mill can be established for less than one-third of this amount.

The policy environment for the modern mills could be improved in several respects. The government's policies for the traditional sector could also be revised. While there are important socio-economic gains in support of the small-scale sector, it is clear, in the present case, that the traditional sector is not an efficient user of cane. It is also realized that the increase in refined sugar consumption will in the medium- and long-term lead to market losses for traditional products. Measures may thus be needed to make the traditional sector more efficient.

The two main by-products of sugar production are bagasse (the fibrous residue of sugar-cane) and molasses (a thick syrup separated from sugar). Bagasse can be used to generate electricity and or to produce fibreboard and paper. The former is already taking place on a large scale. In fact, the sugar factories have a power surplus, and arrangements to feed this power into the national electricity grid may be considered.

Pakistan's molasses production is roughly half the amount of sugar produced, and is almost wholly exported at low prices. The material could be used to produce more industrial alcohol – which only happens on a very modest scale. This again could, among other measures, reduce the need to import high-octane blending compounds for car fuel. The product is, moreover, non-polluting. Molasses could also be subjected to a desugarizing process to yield liquid sugar. This could be used, for example, by the beverages industry, reducing the supplementary sugar imports now needed.

Beverages: filling the supply gap

This subsector of manufacturing in Pakistan encompasses a wide range of non-alcoholic drinks such as aerated water, fruit flavoured drinks, fruit juices, squashes and syrups. There are 104 beverage factories in Pakistan, with a combined installed capacity of around 1,300 million bottles per year.

Almost one-half of the capacity is located in Sind, and most of the remaining capacity in the Punjab. As Annex A-6 shows, growth in this subsector of manufacturing has been rapid in the 1980s, but the supply gap persists.

Aerated water has long been the most important product in this branch of industry. At present, installed capacity is 1,000 million bottles per year. But the demand for fruit juices is rising rapidly. Production is expected to reach 402 million bottles in 1989-90, which means that installed capacity of firms (see Table III.2), most of it located in Punjab, was probably almost fully utilized. Output is expected to grow by more than 100 per cent by 1990, much of it coming from new units producing fruit juice in paper packs, in line with present consumer preferences. Even with this expansion of production, there will be an estimated supply gap of some 540 million bottles, if no further expansion is sanctioned.

The growing consumer preference for more nutritious fruit juice and fruit-based drinks augurs well for the industry's promising future. The production base will need to be expanded as currently the domestic fruit juice industry accounts for only 15.4 per cent of the total market for soft drinks in Pakistan.

The export potential of the fruit juice industry has evoked the interest of foreign firms. In 1988, Merrers Cagill South Asia Ltd. of Singapore established a wholly owned fruit juice

Table III.2. Installed capacity of fruit juice, 1987

Existing enterprise	Location	Capacity (Million bottles)
Benz	Lahore	45.0
Shezan	Lahore	45.0
Tops	Pindi	15.0
Frost	Lahore	18.0
Bambino D.G.	Khan	54.0
Kamran (Frooto)	Karachi	18.0
Fruitka	Karachi	12.0
Monaliza	Karachi	95.0
Fruit Sap	Multan	11.5
Continental (Cherry Berry)	Karachi	18.0
Ambrosia International	Hub	54.0
Malik Food (Best)	Lahore	18.0
Total		403.5
Upcoming units		**Million paper packs**
Sahiwal Fruit	Sahiwal	2.4
Fawad Limited	Multan	2.0
O.K. Fruit Juice	Multan	72.0
Abbasin	Mardan	12.0
Azmat Food	Sheikhupura	22.0
Brooke Bond	Khanewal	12.0
Total		122.4

Source: *Economic Review* (Karachi, August 1987).

producing plant at Sargodh, Punjab, exclusively concerned with exporting to Europe and the Middle East. The plant has planned to utilize the latest technology and to rely upon Cagill's extensive international contacts to develop its market. The plant is to have an ultimate production capacity of 16,500 tonnes per annum. It would consume 10 per cent of the present total production of oranges in Pakistan in the first phase of its establishment. The project is estimated to cost around Rs 1 billion ($4.75 million at present exchange rates) with a foreign exchange component of about 60 per cent. Rs 49 million are to be spent on importing machinery and equipment mainly from Europe.

In spite of the wide range of equipment now made in Pakistan, the engineering industry is evidently not supplying high quality equipment for the soft-drink industry. The new Cagill plant could offer an opportunity to transfer the latest technologies to Pakistan manufacturers in order to produce high quality beverage equipment. Imports of bottle cleaners, refrigeration equipment, water boilers, bottle conveyors and syrup tanks are restricted and enterprises are expected to allocate 70 per cent of equipment expenditures to local purchases.

Milk products: exploring new avenues

Pakistan spends a substantial portion of its foreign exchange on the import of strained milk products. The *per capita* availability of milk increased from 89 litres in 1983 84 to 95 litres in 1986 87. The local production of milk from animals constitutes about 97 per cent of the total milk supply. The remaining 3 per cent is met by imports. Table III.3 shows the value of milk, cream, and baby milk food imports in the 1980s.

Although 97 per cent of Pakistan's consumption of milk products is covered by domestic production, imported milk products constitute one of the more important food import categories.

costing Rs 426 million in foreign exchange in 1986/87. *Per capita* consumption of milk-based baby foods is rising and the supply gap is growing.

With a view to enhancing the production of milk products, two new companies have been granted permission. Milk Pak Ltd., Lahore, will have annual capacity to manufacture 6,000 tonnes of instant milk powder, 2,500 tonnes of infant food based on milk, and 2,100 tonnes of cereal-based foods, leading to a total production capacity of 10,600 tonnes of strained baby food. This is a joint venture with Nestlés of Switzerland. It appears that the Swiss firm has agreed to allow the export of locally produced infant milk and baby foods under its brand name. There are clear signs that the supply of milk-based baby food will be inadequate to meet the growing demand, and there is a need to identify some alternatives.*

Raw materials for the production of alternative products to supplement milk-based baby food are available in abundance in Pakistan. Infant foods based on fruits and vegetables have the same nutritive value as those solid foods that are used as supplements to milk formulations. It is unfortunate that the country's abundant supply of fruits and vegetables has not been used for the production of strained baby foods. Experiments have shown that the nutritive value of vegetable protein mixture is greatly enhanced by mixing it with a small quantity of milk protein. This would create a linkage between vegetable and milk processing. To keep pace with the growing demand for infant foods in Pakistan these new avenues could be explored.

Table III.3. Imports of milk, cream and baby food, 1982/83–1986/87

(Millions of rupees)

Year	Milk and cream	Baby milk food
1982 83	573.00	76.00
1983 84	451.00	64.00
1984 85	461.00	60.00
1985 86	456.00	224.00
1986 87	426.00	163.00

Source: Government of Pakistan, Federal Bureau of Statistics.

Table III.4. Exports of biscuits from Pakistan, 1971/72–1985/86

Year	Quantity (Metric tonnes)	Value (Million rupees)
1971 72	669	2,237
1972 73	535	2,720
1973 74	599	4,250
1974 75	591	5,240
1975 76	351	3,770
1976 77	225	2,353
1977 78	115	1,100
1978 79	132	1,720
1979 80	145	1,866
1980 81	248	3,365
1981 82	233	3,451
1982 83	396	10,409
1983 84	426	12,220
1984 85	259	5,633
1985 86	193	3,578

Source: Government of Pakistan, Federal Bureau of Statistics.

* Alternatives to milk-based baby food are discussed in M.M. Nazri, 'Strained baby food industry in Pakistan', *Pakistan and Gulf Economist* (Islamabad, February 4–10, 1989), pp. 19 and 20.

Biscuit production: upsurge of investment

There has been an upsurge of investment in the modern plant facilities for the manufacture of biscuits, wafers and confectionery items in Pakistan in the last 15 years. Concurrently, biscuit production has risen in consecutive years and by 1985/86 it reached 36,800 million tonnes, compared with 23,400 million tonnes in 1981/82. Today the country is self-sufficient, and a substantial quantity is also exported to Afghanistan, Tunisia, the Middle East countries and the Gulf States. Table III.4 shows that exports rose significantly until 1983/84. A drastic fall in the value of exports in recent years was largely due to lost markets as a result of severe competition.

The demand for biscuits is projected at 64,338 tonnes for 1990/91. Encouraged by the positive consumer response to fine-quality biscuits several companies have embarked upon ambitious plans in collaboration with world-renowned biscuit companies. Several new projects also came on stream. Details pertaining to production capacity and project cost of biscuit firms are presented in Annex Table A-7.

B. TEXTILES: REVERSING THE LONG-TERM DECLINE

The textile industry in Pakistan is of great significance in terms of its contribution to employment and exports. The production of cotton textiles predominates, despite the existence of a large jute industry, an increasingly important carpet industry and synthetic textiles. Although the share of textiles in MVA fell from 32.4 per cent in 1977 to 17.4 per cent in 1985, the industry currently employs 28 per cent of the total labour force and accounts for around 56 per cent of the country's total exports.

The cottage and small-scale segments of the textile industry employ more than double the number of workers employed by the large-scale mills (see Table III.5). In contrast to the industry's significant growth in the 1950s and 1960s, production and exports stagnated in the 1970s and a large part of the industry became 'sick' in the 1980s. In 1988/89 cotton cloth production stood at 123.5 million square metres, compared with the peak level of 625.3 million square metres in 1970/71. The decline in cotton cloth production in large-scale manufacturing has been essentially due to a loss of output to the small-scale sector because of fiscal and labour laws. Despite this decline, market leaders in textiles rank among successful enterprises and retain the highest share of gross fixed capital formation within Pakistan manufacturing.

In the past, textile exports comprised mainly yarn and grey cloth. Over the years there has been significant growth in the exports of synthetic textiles. Garments, made-up articles, hosiery, canvas and tarpaulin have also emerged as important export items. Textile exports rose from $610.52 million in 1978/79 to $2,494.72 million in 1987/88. The export unit value of Pakistan textiles destined for the United States was $0.54 per square metre in 1985/86, compared with $1.65 for the Republic of Korea and $1.51 for India. The relatively low unit value of Pakistan textile exports reflects partly poor quality products targeted for the low-income groups. It also reflects the fact that grey rather than dyed, bleached and printed cloth is exported.

A substantial portion of the country's cotton yarn export is destined for Japan and the Republic of Korea, while the United States is an important market for ready-made garments, hosiery and towels (see Table III.6). Synthetic textiles are exported mainly to the United Kingdom and Saudi Arabia. Saudi Arabia is an important market for tents and canvas.

Table III.5. Overview of the cotton textile industry, 1988

	Number of units	Equipment	Direct employment (Estimates)
A. *Large-scale mill sector*			
1. Spinning	186	4.72 million spindles including rotors	150,000
2. Composite mills	44	16,000 looms	..
3. Finishing	10	..	1,000
4. Garments	50	3,000 sewing machines	5,000
Total			156,000
B. *Cottage small-scale sector*			
1. Power looms	15 – 20,000	100,000 looms	150,000
2. Finishing	150	..	6,000
3. Towels	160	2,500 looms	4,000
4. Garments	2,500	80,000 sewing machines	150,000
5. Hosiery	550	10,000 knitting machines	20,000
Total			330,000

Source: Seventh Plan Working Group Report/T.C.O.

Table III.6. Main markets for Pakistan's textile products, 1987/88

(Millions of dollars)

Export item	Total exports from Pakistan	Main markets	Exports
Cotton yarn	541.02	Japan	315.1
		Republic of Korea	64.7
Cotton fabrics	485.40	United Kingdom	54.2
		United States	44.1
Ready-made garments	349.91	United States	108.9
		Germany, Fed.Rep.of	47.8
Hosiery	134.34	United States	56.5
		Germany, Fed.Rep.of	24.8
Textile made-ups	200.93	United States	41.0
		Germany, Fed.Rep.of	25.8
Towels	117.44	United States	40.5
		Germany, Fed.Rep.of	10.1
Synthetic textiles	198.04	United Kingdom	47.1
		Saudi Arabia	39.6
Tents and canvas	30.33	Saudi Arabia	19.7
		Dubai	1.9

Source: *Pakistan and Gulf Economist* (April 15 – 21, 1989).

The textile industry is increasingly exposed to neo-protectionism on the world market. The export of Pakistani textile products is restrained by quota restrictions imposed by the United States, the EEC, Canada, Sweden and Finland within the framework of the Multifibre Agreement (MFA) and bilateral agreements. These non-tariff barriers, however, adversely affect only 27 per cent of textile products in Pakistan. Although a major relaxation of the United States quota for Pakistan textiles announced in late 1989 may lead to higher exports, the narrow production base, outdated technology, inadequate research, limited product range and increasing quality consciousness in importing countries will need to be addressed, with a view to sustaining textile export performance. Non-tariff barriers are generally imposed on the quantity of products. This calls for an improvement in quality in order to sell the restricted quantity at a high price. In this context Pakistan is facing stiff competition from other developing countries. Pakistan's garment industry seems to be losing its competitive edge to potential competitors in textile exports, mainly to China, Japan, Republic of Korea, Taiwan Province, India and other countries of South-East Asia, especially Indonesia, Bangladesh and Sri Lanka. However, cotton yarn exports of Pakistan to Japan and East Asia continue to retain their popular image. Several measures have already been initiated to boost high value textile goods exports.

Pakistan is in the process of developing a long-term textile strategy. The First National Textile Conference* held in April 1989 recommended:

a) establishing a federal textile ministry;

b) abandoning the old MFA negotiating strategy adopted by Pakistan in the past (the major concern of which was achieving a marginal increase in quotas);

c) developing target markets; and

d) encouraging direct foreign investment especially in the quality product areas.

Pakistan will hopefully be able to strike a balance between a domestic demand-oriented, mainly labour-intensive industry producing cheap and durable products for low income groups, and the need to rapidly expand the production of quality textiles and wearing apparel. To achieve the latter, rationalization initiatives need to be implemented. Fashion and design centres need to be developed and possibilities for extensive collaboration with international firms (particularly those based in South-East Asia) could be explored. Although raw cotton exports are a major source of foreign exchange they are mainly destined to countries whose cotton textile exports compete with those of Pakistan.

Cotton yarn

Cotton spinning is Pakistan's single largest industry. Although its growth prior to the mid-1970s was fast, the quality of products was poor, and there was too little investment in modern production methods. A period of contraction followed. The situation was exacerbated by lack of investment capital and increased import duties on spinning machinery. As a consequence of the reduced output of yarn, Pakistan was unable to fully exploit the export potential for textile products existing at the time. From 1985 onwards, liberalization of imports and investment sanctions as well as the reduced restrictions on location have led to strong capacity expansion in the spinning industry. Between 1988 and 1990, more than one million additional spindles were imported for installation.

The improved policy environment is clearly visible in the expansion of production (see Annex Table A-8). There was a 42 per cent increase in yarn production between 1985/86 and 1987/88. The 1988/89 production was forecast at 779,000 tonnes, representing another 13.8 per cent increase during the year. Quality has also been improved, with a shift in production from

* For an analytical review of the problems and prospects of the textile industry in Pakistan, see *Pakistan and Gulf Economist*, "Textile industry special report" (Islamabad, April 15–21, 1989), pp. 26–42.

coarse- to medium-count yarns. Exports virtually doubled between 1984/85 and 1988/89, reaching up to 292,000 tonnes in the latter year, with the proportion of medium-count yarn increasing to 45 per cent in 1987/88. Even so, there is a need for further improvements. The spindles being installed at present run at twice the speed of the old ones and are more cost-efficient. Accelerated replacement would thus help to raise production and lower production costs.

There is an additional reason for increasing quality and lowering cost. The average price of cotton yarn in the world market had fallen to $2.14 per kg by the end of 1988 compared with a unit value of $2.57 per kg for Pakistan cotton yarns in 1987/88. This meant that the price of Pakistan cotton yarn was no lower than the prices prevailing on the world market. The costs of electricity and packing materials are higher than those prevailing in neighbouring countries. The changes that take place in principal market destinations are also posing challenges to Pakistan. The Japanese are investing heavily in the United States with their latest technology with a view to exporting cheap textiles to some Latin American countries for conversion into garments. In the face of global textile restructuring the demand for quality is rising and competition is becoming increasingly severe.

A polyester fibre project is being set up at Hattian in the Sarhad Province at an estimated cost of Rs 2.14 billion ($119 million). An important industrial firm of the country with long experience of the textile industry is sponsoring this project with the participation of two well-known transnational corporations, one from Japan and one from the Republic of Korea. The two transnational corporations will each contribute about 12.5 per cent of the project cost. They will supply raw materials and production technology and the Japanese firm will arrange a foreign loan. Total production capacity is estimated at 52,000 tonnes of polyester fibres, of which 13,000 tonnes will be purchased by the Pakistan partner.

Cotton cloth

In cotton cloth production, the formerly dominant position of the large-scale mill sector has been strongly eroded. From its production peak of 685.3 million square metres in 1970/71, its output has declined to less than 40 per cent of that figure in recent years (see Annex Table A-8). The number of looms was almost halved during the period. The small-scale power loom, which now provides 88 per cent of the cotton cloth output, owes its strong growth to incentives made available in 1968, such as excise tax exemption for units with up to 4 power looms. Under these circumstances it is only logical that there has been very little investment in the large-scale mill sector, and that most equipment is obsolescent, with product quality suffering as a result.

The quantity and quality of cloth produced by the power looms sector has also become a cause for concern. Small enterprises usually do not have the possibility to finance modern equipment and consequently their output mainly consists of grey cloth of inferior quality. Output in the sector declined in 1987/88. Some years ago, the government approved a policy package to modernize the power loom sector, with Rs 25 million being made available annually during 1987 – 1990 for loans to purchase locally produced automatic looms. Part of the export was specifically reserved for products of the sector, and funds for bulk purchase of yarn were also made available. But due to the lack of organization within the sector, and to the strict regulations of the allocation of loans, the response to these incentives has remained limited.

Further growth in the textile sector is likely to be concentrated in factories using shuttleless looms. These are being established independently from the large-scale mills, and are expected to supply 120 million square metres by 1991/92. The daily output of these looms is not only more than six times that of a conventional loom, but the quality of the product is also better, and production costs are lower. They need better quality yarns, and are thus likely to stimulate modernization in the yarn industry.

During the 1980s, the share of exports in total cloth production has usually been around 35 per cent, most of the cloth exports being produced by the small-scale sector. There was a sharp drop in exports in 1987/88, as growing domestic consumption took a larger than average share of the lower total output. Export earnings could probably be increased if the capacity of bleaching, dyeing and finishing operations were expanded. At present, these can only handle an estimated 250 million square metres of cloth, and grey cloth remains the chief export product of the industry.

Clothing and miscellaneous made-ups

Details on garment production are rather scarce, mainly because production has so far been concentrated in small-scale enterprises. Only recently have large units been established. Total production in the late 1980s was estimated to have averaged 600 million units, of which two-thirds were exported. Trade figures show that exports of textile made-ups (garments) grew significantly during 1982/83 – 1987/88 (see Table III.7). By 1986/87, garment exports alone stood at $452 million compared to $40 million in 1977/78. A fall in the exports of woven garments in 1987/88 was offset by a significant rise in knitwear exports, and the overall increase in the exports of garments was still 7.1 per cent. The performance of garment exports during the Sixth Plan (1982/83 – 1987/88) exceeded the target by more than 20 per cent in 1982/83 prices. Garment exports are projected at $1,155 million for 1991/92 and there is an ambitious target of $3.5 billion for garments set for the year 1998/99, based on expectations of strong world market growth in the 1990s.

Some 95 per cent of world exports are absorbed by OECD countries and the USSR. Although the Middle East countries also constitute an important market for Pakistan garments, the country could try to increase its share in these principal world markets, which at the moment stands at only 1 per cent. India and most of the East and South-East Asian countries are strong competitors. Improvements in garment quality and design will be essential to increase exports. But better quality, to a large extent, depends on better quality fabrics and accessories, and new capacity in the weaving, knitting, dyeing, processing and finishing industry. Like garment machinery, its spares and accessories should be exempt from import duty. Duty drawbacks may be revised in order to provide additional incentives. Quota management could be rationalized in order to speed up slow-moving product categories. Bilateral agreements with the United States, which is the largest market for Pakistan garments, were negotiated. As a result, quota restrictions have been removed in late 1989 on a number of items, such as shirts, blouses and play units. Possibilities for counter trade with the USSR should also be explored.

Towels and bed sheets or covers are the two other significant made-up textile items apart from ready-made garments. Production is again concentrated in relatively small establishments using labour-intensive methods of production. Capital costs, moreover, are kept low by the

Table III.7. Exports of textile made-ups (excluding garments), 1982/83 – 1987/88

	Export value (Millions of rupees)		Export index (1982/83 = 100)	
	All made-ups	Towels	All made-ups	Towels
1982/83	1,605	498	100	100
1983/84	1,656	629	103	126
1984/85	1,991	757	124	152
1985/86	3,390	1,090	211	219
1986/87	4,217	1,441	263	289
1987/88	5,599	2,067	249	415

Source: *Pakistan and Gulf Economist* (April 15 – 21, 1989), p. 39.

use of cheap, domestically produced machinery. In recent years labour costs have, however, increased much faster than those in competing countries such as India, Bangladesh and Sri Lanka, and at present minimum wages for weavers in some parts of India are only one-third of those in Pakistan. The quality of Pakistan bed-linen, moreover, is relatively low, and per unit export earnings are therefore low as well. Quality improvement did take place in the towel industry, and it has become a fast growing product. Its share in total exports of non-garment exports rose from 31 per cent in 1982/83 to 37 per cent in 1987/77.

Further growth prospects will depend crucially upon the cost and quality of the product. The ability of Pakistan producers to respond more rapidly to requests for changes in colours and design (compared with their competitors in India and China) should be of great importance in retaining and expanding their market share. The EC, United States, Canada, Norway, Finland and Sweden have lifted quota restraints on towels, but still maintain restrictions on bed-linen. Among the non-quota markets the Pacific basin could be targeted in view of rising income and wage levels in the region. But non-quota markets are limited, and the Middle East has already been well explored by Pakistan exporters.

Non-traditional textile items such as table linen, kitchen linen, curtains and upholstery are areas where export prospects could be explored. There are few quota restrictions on these items. With the exception of the hand-loom industry of India, the existing potential competitors in South Asia have not developed this industry to any significant extent. With adequate financial assistance and incentives to foreign investment, these non-traditional textile made-ups could become major export earners.

Woollen textiles and carpets

As Annex Table A-9 shows, the woollen textiles and carpets industries are relatively small and not as dynamic as the cotton textiles sector. But the carpet industry has become Pakistan's fourth largest foreign exchange earner. Its share of total export earnings equalled 6.1 per cent in 1987/88. Leading carpet exporters in 1989 were Punjab Carpets (Lahore), Imran Brothers (Lahore), Sheikh Carpets (Lahore) and Habib Corporation (Karachi).

During 1982 – 1988, carpet exports grew at an average annual rate of 11 per cent in dollar terms. Due to increasing competition, carpet exports from Pakistan suffered major setbacks in both North American and EC markets recently. The government has reacted by announcing a series of rebate and incentive schemes to encourage carpet exports, including concessionary credit, duty drawback facilities, free import of wool, tax exemptions, market research assistance and organization of carpet exhibitions in order to attract targeted foreign buyers.

The carpet industry employs roughly 150,000 persons and is mainly cottage-based, with 80 per cent of cottage production in rural and semi-rural Punjab districts. In order to produce high quality carpets it would be essential to encourage the establishment of organized factories. Further expansion of the industry requires a rationalization of production structure, leading to a tighter integration of production and marketing functions. There is also a need to increase collaboration with top quality international designers to upgrade product quality, and the industry could also be equipped to respond to the preferences of individual buyers. This would help re-establish the strong position of Pakistan carpets in international markets.

C. CHEMICALS: ACCENT ON IMPORT SUBSTITUTION

The major products of the chemical industry are fertilizers (urea, ammonium nitrate, nitrophosphate), soda ash, sulphuric acid, chlorine, paints and varnishes, polishes and safety matches. As Table III.8 shows, growth of physical production has been fluctuating with no clear production trend in product categories.

Table III.8. Production of major chemical products, 1984/85 – 1988/89

	1984 85	1985 86	1986 87	1987 88	1988 89[a]
Fertilizers (Thousand tonnes)					
Urea	1,814.9	1,820.8	1,892.6	1,985.1	..
Superphosphate	105.8	105.8	107.6	107.8	133.4
Ammonium nitrate	406.4	394.3	413.3	332.7	332.5
Ammonium sulphate	79.0	92.6	91.6	98.3	92.5
Nitrophosphate	308.3	321.4	323.4	333.7	340.1
Others (Thousand tonnes)					
Soda ash	122.1	128.4	130.3	134.1	146.1
Sulphuric acid	77.9	80.4	77.6	78.7	64.8
Caustic soda	46.0	54.8	54.9	61.3	61.0
Chlorine gas	8.4	7.9	7.0	6.0	8.3
Paints	11.1	11.9	12.9	12.3	..
Safety matches[b]	1,765.1	1,899.6	2,129.6	2,490.8	..

Source: *Economic Survey 1988 89*, p. 78 - 79.
a Provisional estimate.
b In million boxes.

Demand for chemical products continues to grow significantly faster than local production. Imports of chemical products have grown at an annual average rate of 24.8 per cent during 1981 – 1985. Currently almost 18 per cent of the country's total expenditure on imports is allocated to chemicals, compared with only 9 per cent in 1981/82. The government endeavours to increase domestic production of chemicals in order to keep pace with the rapidly rising demand. Insufficient private investment has hitherto gone into long-gestation projects in the chemical industry. It is hoped that the new waves of liberalization will attract new investment, especially foreign investment.

A basic chemicals project is being established at Chunnian by Yagub Ali Company. The project is to cost Rs 1.7 billion ($80 million) and has a foreign exchange component of about 50 per cent, mainly provided by Pakistan expatriates resident in the United Kingdom. The plant is being imported from the United Kingdom. An annual production capacity of 8,000 tonnes of caustic soda and 25,000 tonnes of PVC resin is envisaged.

Fertilizer industry: persisting supply shortages despite high capacity utilization

Currently nine firms are engaged in the production of fertilizer. The public sector company, the National Fertilizer Corporation (NFC), operates five fertilizer subsidiaries which account for around 50 per cent of the nitrogen capacity and 100 per cent of the country's phosphorus capacity. Pakistan depends entirely on imports to meet potash requirements.

Despite a significant spurt in the production of fertilizers, Pakistan continues to depend on imports, reaching 210,000 tonnes for nitrogen and 354,000 tonnes for phosphorous in 1986/87. Nitrogen accounts for around 75 per cent of the total fertilizer nutrient, with phosphorus and potash meeting the remaining 23 per cent and 2 per cent, respectively.

Production of chemical fertilizers expanded rapidly until the early 1980s, and a sizeable surplus was even exported in 1983/84, 1984/85 and 1985/86. There was a sudden upsurge in the demand i.e. late 1986, and the rising domestic demand could not be fully met from local production. An increase in demand for urea was attributed to an increase in agricultural commodity support prices, increased irrigation facilities and better availability of bank credit to farmers as well as favourable weather conditions. When bad weather adversely affected

farm operations in 1987, there was a seasonal fall in the consumption of fertilizers. The demand for fertilizers is expected to grow at an annual average rate of 5 per cent during the period 1987/88 – 1992/93.

Supply shortages continue to persist despite very high levels of capacity utilization in fertilizer firms, indicating the need for additional capacity for the production of phosphatic and nitrogenous fertilizers. Annex Table A-10 shows that capacity utilization rates in the production of both nitrogenous and phosphatic fertilizers exceeded 100 per cent in most firms in 1986/87. The government has been encouraging rehabilitation of the existing plants, with a view to conserving energy, reducing costs and maximizing capacity utilization.

In the past, despite price controls new investment in fertilizer plants remained attractive as a minimum return on equity was assured. In May 1986, however, price controls were abolished with the exception of those for phosphatic fertilizer. Producers now expect protection which the government has so far not granted and as a result projects approved three years earlier have not been implemented. Investors still have to face such problems as irregular power supplies and uncertainty with regard to the availability of gas as a feedstock.

The dominant firm in the industry, the public sector company National Fertilizer Corporation (NFC), which operates five subsidiaries, has launched a Rs 818 million expansion and modernization project which is to increase urea production from 1,740 tonnes/day to 2,175 tonnes/day. This project is expected to save $14 million annually in imports, and to cut energy consumption in the urea factory by almost one-fifth. Fanji, Dawood, Hercules and Exxa have also initiated an announced expansion. Finally, to improve domestic raw material supplies for the fertilizer industry, the Sarbad Development Authority has prepared a programme (yet to be executed) to exploit the Kakul/Lagharban phosphate rock deposits. In spite of these improvements, it will be a major task to keep up with expected demand increases in the future.

An issue that also deserves more attention is the achievement of a proper balance in the production of various types of fertilizer. There has not been sufficient research into the fertilizer needs of the various types of soil and cultivation in Pakistan, but it is clear that far more phosphatic and potassic fertilizers would have to be used if maximum results are to be achieved. But in spite of price controls, phosphatic fertilizer is too expensive for the average small farmer, and imports of potassic fertilizer are also costly. While ways need to be found to provide potassic and phosphatic fertilizer at a lower price, agricultural research, extension services and support or land reform schemes would, therefore, be needed as well. In combination, these would not only help the fertilizer industry, but also stimulate agricultural production, and thus – indirectly – the agro-processing subsector.

If new capacity is not developed for the production of phosphatic fertilizer the supply gap will widen to around 730,000 tonnes per annum. It is estimated that if demand for urea grows at 100,000 tonnes per year, Pakistan will need one new urea plant every five years. Lack of new investment in the fertilizer industry is partly due to the low price of fertilizer in Pakistan. A new urea fertilizer plant would cost up to $300 million. Because of the high cost of inputs, a new fertilizer plant can only be viable if the domestic urea price is around Rs 4,500 per tonne against the current level of Rs 2,640. The present situation is also marked by uncertainties for investors in the fertilizer industry as to whether or not they will be able to obtain gas for use as a feedstock. The experience of the operating enterprises is not a happy one as a result of load shedding especially in the northern region.

The fertilizer industry is likely to be of considerable interest to foreign investors. Several private sector projects have been sanctioned in the fertilizer industry during 1989. These include private schemes for about 900,000 tonnes of nitrogenous fertilizer and 400,000 tonnes of urea fertilizer which are expected to come on stream by 1992. The government estimates that Pakistan would require 2.3 million nutrient tonnes of urea by the year 2000. This would call for the establishment of 3 major plants over the next decades. Pakistan has ample gas

reserves. There is thus considerable scope for joint venture projects involving the simultaneous development of the energy and the fertilizer sectors – both areas of top priority for the Government of Pakistan and the main institutional donor agencies.

Pharmaceutical industry: transnationals take the lead

Over 9,000 drugs both for imports and local manufacture are registered in Pakistan. Domestic production meets around 80 per cent of the demand for drugs, medicines and pharmaceutical products. The total value of locally produced pharmaceuticals stood at Rs 4,762 million in 1985/86.

Around 70 per cent of the market for pharmaceuticals is dominated by transnational corporations. Total investment in the pharmaceutical industry in Pakistan is estimated at Rs 2,200 million. The capacity utilization of firms on an average was reported to be 67.5 per cent in 1988. However, the capacity utilization in joint venture companies is higher than that in wholly locally-owned firms. Locally owned firms are heavily dependent on the import of raw materials, semi-finished products and packing materials. The stage at which the domestic pharmaceutical industry is operating is largely formulation and packing of imported ingredients. This probably is also true of the transnationals.

The total paid-up capital of 15 pharmaceutical companies listed on the Karachi Stock Exchange stood at Rs 605.23 million in 1988.* Almost all the companies recorded an increase in sales except Hoechst and Sandoz in 1988 (see Table III.9). Several companies have initiated expansion plans. Amalgamations of some companies are under active consideration in order to improve quality and to reduce production costs. Although many enterprises are endeavouring to expand, pricing policy is still a major constraint** inhibiting the progress of pharmaceutical companies.

There is a need for a dialogue between the government and the drug manufacturers on the rationalization of the pricing system in order to bring it in line with market realities and the cost of imports. The maximum retail prices of drugs are controlled under the Drugs Act

Table III.9. Sales of pharmaceutical companies listed on the Karachi Stock Exchange, 1987 and 1988

(Millions of rupees)

Company	1987	1988	Percentage change
Abbott	341.66	408.75	+19.63
Boots	137.74	260.52	+89.13
Ciba-Geigy	1,162.14	1,202.48	+3.47
Cyanamid	217.40	244.19	+12.32
Ferozsons	46.79	48.08	+2.75
Glaxo	471.21	505.31	+7.23
Hoechst	515.47	513.18	−0.44
Leiner Gelatine	10.18	23.37	+139.39
P. Leiner & Sons	16.75	26.19	+56.35
Parke Davis	185.53	195.22	+5.22
Reckitt & Colman	311.95	393.29	+26.07
Sandoz	581.42	651.61	+12.07
SK & F	169.32	165.12	−2.48
Wellcome	451.68	548.95	+21.53
Wyeth	201.83	238.95	+18.39

Source: *Economic Review* (August 1989), p. 33.

* See *Economic Review*, 'Performance of pharmaceutical companies listed on KSE' (August 1989), p. 33.

** For an analytical review of major constraints, see Iftikhan Ahmed, 'Pharmaceutical industry: problems and issues', *Pakistan Management Review* (1986), Vol. XXVII, No. 2 and 3, pp. 27–31.

enacted in 1976.* Under the provisions of this Act the Registration Board is empowered to approve the maximum retail price. At present, the maximum retail price of an imported drug includes the profit of the seller, an import licence fee, an insurance fee and distribution expenses. The pricing of locally manufactured drugs includes the cost of raw and packing materials as well as the profit of manufacturer and retailer. It should also cover expenses on administration, sales promotion and distribution.

Over-centralization of the drug administration has also made it difficult to resolve certain issues expeditiously. Matters pertaining to renewals of drug manufacturing licences, registration of drugs, price fixation and revision could be decentralized.

Paint manufacturing

Out of more than 2,000 paint manufacturing enterprises in Pakistan 109 are large-scale units in the organized sector. The total production of paints in the organized sector rose from 9,694 tonnes to 12,243 tonnes during 1981/82 and 1987/88, respectively, representing an average annual increase of 4 per cent. Special types of paints are imported, while a small quantity of paints is exported to the Middle East and Afghanistan.

Apart from household use, the main customers for paints are the railways, shipping companies, the defence forces and car, bus and truck companies. There was a significant increase in the demand for paints during 1985/86 – 1986/87. The year 1987/88 was marked by a fall both in production and total demand for paints (see Table III.10).

Table III.10. Paints – key statistics, 1980/81 – 1987/88

(Tonnes)

Year	Production	Imports	Exports	Domestic demand
1980 81	9,652	..	..	..
1981 82	12,013	..	..	..
1982 83	10,051	..	..	..
1983 84	8,513	..	..	..
1984 85	11,152	..	..	..
1985 86	11,951	106	78	12,243
1986 87	12,970	111	113	12,615
1987 88	12,243	372	198	12,417

Source: Government of Pakistan, Federal Bureau of Statistics.

The demand for paints is estimated to grow at an average annual rate of 5 per cent, leading to a demand for 15,845 tonnes by 1992. It seems likely that existing capacity can deal with the increase.

D. CEMENT: MAJOR MODERNIZATION INITIATIVES

In 1989 there were 19 cement plants in operation. The combined capacity of these plants is about 7.5 million tonnes per annum. During the period 1982 – 1989 cement production grew at an average annual rate of 6 per cent per annum. Cement imports have declined from 4.5 million tonnes in 1981/82 to 1.3 million tonnes in 1987/88. Five cement projects have

* Under the provisions of this Act the Registration Board is empowered to approve the maximum retail price. The maximum retail price of an imported drug includes the profit of the seller, an import licence fee, an insurance fee and distribution expenses. The pricing of locally manufactured drugs includes cost of raw and packing materials as well as the profit of manufacturer and retailer. It should also cover expenses on administration, sales promotion and distribution.

been commissioned during 1985 – 1988 – Attock, Cherat, Pakland, Surela and Dadabhery – to increase import substitution. So far only Surela, located at Darwaza (near Quetta) has gone into production. The factory has a rated capacity of 70,000 tonnes per annum.

Most of the cement plants are in the public sector. The State Cement Corporation of Pakistan (SCCP) controls 15 plants and their combined output in 1987/88 was almost 5.7 million tonnes (see Annex Table A-11), almost 90 per cent of the country's total production, which was estimated at 6.5 million tonnes. Judging by capacity utilization rates, the public-sector plants have done better than those in the private sector, where utilization rates averaged 60 per cent during 1986 – 1988. To the extent that information is available, most cement plants seem profitable undertakings. SCCP claims that it has been able to pay consecutively increased dividends 'every year'.

SCCP has commenced a major balancing, modernizing and restructuring (BMR) programme, involving an expenditure of Rs 4,500 million ($213 million), for the modernization of its plants. Total production capacity is to be increased with the aim of making Pakistan self-sufficient in cement by the end of fiscal year 1990. Production capacity is also being expanded by the establishment of a joint venture concern – Attock Cement Pakistan Ltd. This will involve the collaboration of Pakistan private sector enterprises and a French company, Pharon Holdings, with a public sector firm – Heavy Mechanical Complex – which will supply both local and imported machinery. The total investment involved is Rs 1,042,992 million ($495,000) with a foreign exchange component of 34 per cent.

The rehabilitation of several old units is to take place on the basis of proposals by a firm from the Federal Republic of Germany. The World Bank and the Asian Development Bank have offered loans of Rs 260 million for the modernization of one of these plants.

One of the first modernization schemes to be completed – Javedan Cement – was expected to be operational by the end of 1989. The modernization project not only involved the acquisition of new machinery, but also a re-assessment of raw material supplies and steps to improve quality control.

New cement varieties have also been developed to serve domestic demand better and to make better use of available resources. A pozzuolana cement formula, for example, was developed by the Pakistan Council of Scientific and Industrial Research, Lahore, with the specific purpose of enabling the construction of the Kalabagh dam with locally available raw materials. The product, moreover, is better suited for this particular type of construction work than the available slag cement. The cost of production is one-third of that of Portland cement and its use in the dam would save the country around Rs 300 billion.

By 1992 total production capacity of the cement industry is expected to increase at 7 million tonnes annually. Since the transportation of cement is costly, wide regional dispersion of cement plants is essential. At present, a very large proportion of the investment is concentrated in the south of the country. There is, therefore, a strong need to develop production sites in Sarhad province and in Northern Baluchistan, if suitable raw materials can be found in locations where infrastructural (road, power) costs are not prohibitive.

E. IRON AND STEEL: VIABLE AVENUES

Integrated steel production is a recent phenomenon in Pakistan. In 1981, the first steel was produced in the Pakistan Steel Mill at Karachi. The plant was fully commissioned in 1984, and has meanwhile been expanded to a capacity of 2.6 million tonnes. Capacity utilization was expected to reach 80 per cent in 1989. Partly as a result of long delays, construction costs of the mill were high, and the mill made losses during the first few years of operation.

Pakistan Steel Mill is expected to record a net profit of Rs 100 million in 1989/90. This has encouraged the government to proceed with the commissioning of a billet caster with an annual capacity of 400,000 tonnes and capable of providing good quality billets to the engineering sector. Production during 1988/89 was 850,000 tonnes. Total sales are expected to reach Rs 1 billion during 1989/90. The production capacity is planned to be increased to 1.5 million tonnes by 1991.

Apart from Pakistan Steel, a large number of mini-steel mills are involved in the making of steel, usually on the basis of scrap. Their products are of low quality. Around 90 per cent of the smelters, 80 per cent of the semi-integrated mills and 70 per cent of the re-rollers are located in the province of Punjab. Total production value of basic metals was Rs 4.4 billion in 1987/88.

The demand for steel in Pakistan is projected at 5 million tonnes by the year 2000.* Pakistan's existing steelmaking capacity can deliver only 1.8 million tonnes of steel. There is a need to explore viable avenues to achieve self-sufficiency in steel production. These include:

— more efficient utilization of rated capacity at Pakistan Steel;
— expansion of Pakistan Steel's capacity to 4 million tonnes; and
— construction of a direct reduction plant based on Nokkundi iron ore and natural gas.

The steel industry in Pakistan is currently based on imported raw materials. Domestic raw materials would reduce its vulnerability to fluctuations in international market prices and foreign exchange situation. Pakistan possesses reserves of about 450 billion cubic metres of natural gas, and the proven iron ore reserve at Nokkundi is 100 million tonnes. The ore contains on an average 48 per cent iron, which is low, but it can easily be beneficiated to a standard grade concentrate by wet magnetic separation. The concentrate could be blended into the sinter mix of Pakistan Steel. This possibility is currently under investigation. Pellets made from Nokkundi concentrate have been tested for direct reduction operations, with positive results. Punjab would constitute the major market as approximately 80 per cent of the country's smelters and semi-integrated steel plants are located there. The actual implementation of the project would depend on the availability of infrastructural facilities: at present, there is no rail infrastructure in the area.

Pakistan's optimism with regard to the future of iron and steel products is reflected in the large number of downstream projects for Pakistan Steel which have been approved. Annex Table A-12 lists 32 projects approved so far. These range from iron foundries to steel pipe manufacturing, spare parts and precision engineering. By-products will include slag cement and coal tar. The projects have an average investment cost of around Rs 45 million, and in many cases the foreign exchange share is around 50 per cent. The larger projects in terms of investment are in tin-plate production. A number of projects are joint ventures with overseas companies.

So far, seven of the projects have gone into production, with one undergoing trials and another one under construction (See Table III.11). Most of them are modest-sized units producing steel tubes. The largest projects and those demanding technical sophistication (e.g., in the engineering industries) have yet to be completed. In the case of the tin-plate factories, Pakistan Steel's rolling mill capacity will have to be expanded first, to secure a sufficient supply of intermediate inputs. It probably requires a tandem mill which is not financially viable.

The steel industry is an area where opportunities exist for the expansion of foreign investment. For example, the technology for the new billet project was obtained from Voest Alpine of Austria on a non-turnkey basis and the Austrian firm retains a role in technological planning and upgrading. European firms are being solicited to participate on both an equity and a management contract basis in the expansion of Pakistan Steel (based in Karachi) and for the establishment of three steel mills using indigenous iron ore at Kalabagh and Quetta.

* For the details of steel demand forecast in Pakistan, see Sher Afzal Khan, 'The iron and steel industry of Pakistan and prospects for its future development', *Pakistan Steel Journal* (Karachi, January March 1988), pp. 25–37.

Table III.11. Downstream projects of Pakistan Steel, 1989

Name of project	Location	Product/ capacity (Tonnes)	Total cost (Millions of rupees)	Foreign exchange costs (Millions of rupees)	Operational since
Crescent Steel and Allied Products Limited	Nooriabad Dadu Sistt.	Large diameter (8" to 66") welded steel pipes 25,194	165.00	83.00	1986
Steelex (Private) Limited, (Haji Steel)	S.I.T.E. Karachi	Small diameter (1/2" to 6") pipe 12,000	37.57	17.55	1985
Peshawar Pipe Mills Ltd.	Peshawar	C.I. & M.S pipes (1/2" t0 3" dia.) 10,000	17.00	6.59	1985
Jamal Pipe Industries Ltd. Lahore	Lahore	API grade pipe (1/2" to 24" dia.) 20,000	15.00	9.00	1988
General Pipe Industries	Lahore	Steel pipe 15,000	3.95	..	Construction and erection started in January 1988
Amreliwala Hardware Industries Limited	S.I.T.E. Karachi	Small section plant 45,000	60.00	30.00	1986
Abbas Steel Industries (Pvt.) Limited	Landhi Karachi	Wire rod, baling hoops and wire products manufacturing plant 35,000	48.00	23.50	1987
Undok Millsons Foundry	Nooriabad (District Dadu)	G.I. pipe fittings 1,280	17.00	8.50	Trial production started in September 1988
Thatta Cement Javedan Cement	Thatta Monghopir	Slag cement manufacturing plants 300,000/100,000	..	..	1983, 1984

Source: Annex Table A-12.

F. ENGINEERING INDUSTRY: FRESH INCENTIVES TO ENHANCE THE INDIGENOUS BASE

The engineering industry in Pakistan encompasses 1,900 registered enterprises, with an annual production of around Rs 17.5 billion worth of engineering goods. The industry employs around 205,000 persons. Total investment in engineering industries hitherto has been estimated at more than Rs 100 billion. The size structure of engineering firms is presented in Annex Table A-13.

The local production of engineering goods grew sharply over the years since 1970. There has been a steady upward trend in the production of almost all categories of engineering products (see Table III.12).* A striking increase of output was recorded by the electronics and transport equipment industries in 1987/88.

The range of engineering goods now being produced includes diesel engines, cars, agricultural machinery, machine tools, textile machinery, household and industrial sewing machines, radios, household appliances, road rollers, concrete mines, bulldozers, sugar-cane crushing machinery, overhead travelling cranes, pumps, printing and book-binding machinery, office machines, needles, oil expellers and other edible oil extraction plants, flour rice mills, fish trawlers, food processing machinery, cement plants, ice plants and cotton ginning plants.

An important role in the development of engineering industries has been played by The Pakistan Industrial Development Corporation (PIDC), established in the 1950s, and the State Engineering Corporation (SEC), established in 1974.

These public-sector corporations were responsible for the establishment of several large enterprises, such as the Pakistan Machine Tool Factory. Apart from the public sector industrial enterprises, there are a number of large foreign-owned enterprises (in automobiles and electrical equipment, especially) and a large number of relatively small- and medium-sized engineering concerns in Pakistan. More than half of the small- and medium-sized engineering establishments covered by the 1984/85 Census of Manufacturing had asset values below Rs 1 million ($50,000). In the fabricated metal and non-electrical machinery industries, where capital investments are not necessarily high, the majority of firms had asset values below Rs 250,000. Many informal sector enterprises should also be classified under engineering. The 1984/85 Census of Manufacturing reports probably only 1,136 registered enterprises, whereas it may be conservatively estimated that the number of engineering workshops throughout the country would approach 100,000. The overwhelming majority of these are engaged exclusively in the provision of repair and maintenance services.

Table III.12. Local production of engineering goods, 1970/71 – 1987/88, selected years

(Millions of rupees)

Product	1970/71	1981/82	1985/86	1986/87	1987/88
Metal products	254	992	1,768	2,033	2,338
Machinery other than electrical	133	2,048	2,040	2,244	2,468
Electrical machinery	365	3,118	2,860	3,289	3,782
Electronics	200	785	1,090	1,199	2,380
Transport equipment	352	2,623	4,625	5,180	6,600
Total	1,314	9,566	12,383	13,945	17,568

Source: *Pakistan and Gulf Economist* (June 25–July 1, 1988); *Economic Review* (May 1989).

* Basic metals, included in Pakistani engineering industry statistics, have been excluded here.

Concurrent with the rising production trend in engineering goods, imports also rose significantly in the late 1980s (see Table III.13). Imports stood at Rs 23,355 million in 1987 88, compared with Rs 19,225 million in 1985 86, representing an average annual increase of 7 per cent. Currently, imports account for 60 per cent of the total supply. The conspicuous growth in textile machinery imports in 1987 88 was an indication of the modernization efforts in the branch (such as the introduction of shuttleless looms), as discussed previously in this Chapter.

The major industrial financing corporations sanctioned investment projects worth Rs 9.6 billion for the engineering sectors (including basic metals) during the period 1982 – 1987 which is broadly in line with the Sixth Plan estimates. Much of this investment represents money borrowed from the Development Finance Institutions and banks. New investment of privately owned funds within the engineering sector remains small. The self-financing ratio of engineering firms registered at the Karachi Stock Exchange averaged only 10.7 per cent annually over the 1980 – 1986 period against, for example, 47.8 per cent for chemicals. Presently the establishment of a small engineering firm requires a *minimum* capital expenditure of between Rs 200,000 and Rs 300,000. Therefore, entry into the engineering industry is beyond the means of most small entrepreneurs.

In the future, the share of private enterprise is to expand in stages. Investment requirements for the 1988 89 – 1992 93 period have been estimated at Rs 23.1 billion, of which Rs 22.0 billion is to be in the private sector. It is not, however, clear whether these estimates take account of the large amount of excess capacity in the domestic engineering industry: average capacity utilization is only 40 per cent. This is partly a result of the low competitiveness of many Pakistan engineering products, which lack an edge over imports. In such cases, investment may be required to improve quality. The problem is partly a shortage of intermediates, and in this case the expanding volume of production and range of products of Pakistan Steel would go some way to solving capacity utilization problems.

The 1987 – 1990 trade policy imposed an import ban on seven engineering products, namely, sugar machinery, transformer and switch gears of 33 kW, boilers, cranes, diesel generators and centrifugal deep turbine pumps, with a view to encouraging local production. Duties on raw materials required for the manufacture of certain engineering products are being rationalized. It should be stressed that in several cases, such as electrical equipment, this policy will only achieve its purpose if it is combined with product quality improvements.

Table III.13. Imports of engineering goods, 1985/86 – 1987/88

(Millions of rupees)

Description	1985 86	1986 87	1987 88
Power generation machinery (non-electrical)	2,738	2,282	3,641
Agricultural machinery and implements	445	542	657
Textile machinery	1,511	1,707	3,491
Construction and mining machinery	1,779	1,755	1,524
Electrical machinery and apparatus	3,114	3,118	3,688
Railway vehicles	991	1,270	1,140
Road motor vehicles	5,258	5,539	6,969
Aircrafts, ships and boats	2,929	1,982	1,455
Office machines	460	578	790
Total	19,225	18,773	23,355

Source: Government of Pakistan, Federal Bureau of Statistics

The 1989 Industrial Policy Package has granted an income tax holiday for a period of 8 years for all industries to be located in selected industrially backward areas. Customs duty exemptions have been granted to imports of machinery, provided such machinery is not manufactured locally. These incentives are available to industries set up before 30th June 1993. Concessional credits, at an interest rate not exceeding 6 per cent, are also available from financial institutions and banks for the purchase of locally-manufactured machinery.

At present cottage industry subsidies and incentives are limited to enterprises with asset value worth Rs 100,000. This means that no cottage industry type concessions and incentives are presently available to engineering units. For engineering entrepreneurs with a fixed asset value in the Rs 500,000 – 1,000,000 range, more incentives could be made available. More significant is the fact that there exists no consistent policy package for involving local engineering plants on a subcontracting basis in the major national projects. International tenders for work on these projects do not stipulate that local expertise and resources should be utilized for design and manufacturing purposes, and measures could be formulated to exploit these possibilities to speed up development in the engineering industry. There is also considerable scope for stimulating co-operation between transnational corporations and local enterprises to acquire modern technologies. This should be part of a national technology policy.*

Electrical capital goods: a case for amalgamation of small units

A quick glance at Table III.14 strikingly reveals the supply gap in electrical capital goods. The capacity utilization rates in most recognized manufacturing units are far below the installed capacity. The projected demand for 1992/93 indicates the need for optimal use of installed capacity and further development of the industry to keep pace with rising demand.

Utilization rates were lowest in generators, electric motors, power transformers and circuit breakers. In the latter two product categories, the future supply gap is likely to be highest. Even in the mid-1980s, with much lower demand levels, Pakistan had to import that type of equipment.

The number of units in many cases is too small to exploit the economies of scale available in the industry. Their small size may also mean that they have neither a sufficient number of highly qualified technicians nor sufficient capital to install the latest production equipment. This would account for the relatively low quality of much of the domestic output of electrical capital goods. In order to raise quality and output, amalgamation of smaller units may be sought. This would help to achieve economies of scale that could facilitate rationalization of production which is necessary in many product categories.

Domestic appliances and electrical consumer goods: the challenge of import penetration

The gap between the production capacity of the domestic industry and the demand in the Pakistan market is even wider in the case of electrical appliances. As Table III.15 shows, there is excess capacity ... all the listed product groups, and in some cases (refrigerators, air conditioners) imports outstrip domestic production. Utilization rates are below 30 per cent in most product groups. Reportedly, the situation is better in the radio/television industry, where some 80 per cent of the market is supplied by domestically produced goods. Foreign enterprise also accounts for a large share in the domestic output of radios and TV-sets, and these firms planned expansion in 1988/89.

* For an analytical exposition of technology policy issues and constraints facing engineering industries, see 'Engineering industry: time for technology policy', *Pakistan and Gulf Economist* (October 14 – 20, 1989), pp. 26 – 49.

Table III.14. Installed capacity of electrical capital goods industries in 1985/86 and demand forecast for 1992/93

Items	Recognized manufacturing units	Total installed capacity 1985/86	Utilization of capacity (Percentage)	Demand forecast[a] 1992/93
Transformers				
a) Distribution transformers	8	2,800 MVA	50–60	3,950 MVA
b) Power transformers: 66 kV and 132 kV	3	400 MVA	30–40	3,664 MVA
Switchgear and controlgear	6	6,000 panels and boards	50–60	8,185 panels and boards
Conductors	10	40,000 tonnes	40–50	52,615 tonnes
PVC cables	8	30,000 tonnes	40–50	41,900 tonnes
Insulators	2	5,000 tonnes	50–60	6,236 tonnes
11 kV Dropout fuse fittings	7	300,000 units	20–30	..
Electric motors	20	700,000 HP	30–40	880,000 HP
Generators and diesel generating sets	3	100,000 kVA	30–40	136,410 kVA
Electricity meters				
– Single phase	4	755,000 units	60–70	1,676 million
– Three phase	3	114,000 units	70–80	
Miniature circuit breakers single, double, triple pole 40 Amps/500 Volts	1	150,000 units	20–25	292,310 units

Source: *Economic Review* (August 1988).
a/ Based on the demand forecast for the Seventh Five-Year Plan.

Table III.15. Performance of domestic appliances and consumer goods in the organized sector, 1985/86

Items	Number of recognized manufacturing units	Existing installed capacity (Number)	Annual domestic demand (Number)	Imports (Number)	Industry's share in domestic market (Number)	Utilization of capacity (Percentage)
Refrigerators, deep freezers	13	125,000	115,000	90,000	25,000	20
Air conditioners	13	71,000	38,000	28,000	10,000	15
Electric fans	50	1.5[a] million	700,000	20,000	680,000	45
Incandescent lamps	8	97 million	54 million	9 million	45 million	56
Fluorescent lamps	9	13.9 million	5.6 million	1.6 million	4 million	29

Source: *Economic Review* (August 1988).
a Including a 0.5 million installed capacity of unorganized units.

A fairly large proportion of imported electrical appliances is known to enter the country in the personal baggage of people returning from travel abroad. This makes it difficult to control imports. If the domestic industry is to be competitive, it is clear that quality and safety standards will have to be improved.*

Automobiles: accelerated expansion

The automotive industry in Pakistan started with assembly operations in the 1950s and 1960s. In 1973, a public company, the Pakistan Automobile Corporation (PACO), was set up to develop a supporting engineering infrastructure, obtain advanced technology and initiate import-substituting domestic car manufacturing. PACO co-ordinates the activities of 11 affiliated companies and four joint ventures.

The total number of locally assembled vehicles is estimated to rise from 44,211 in 1987/88 to 70,000 in 1992/93. Table III.16 reports the sales of motor vehicles in 1985/86 – 1987/88. The sale of jeeps, trucks and buses has stagnated. The sale of light commercial vehicles in 1987/88 fell for the third consecutive year, while tractors recorded a steady increase in sale for three consecutive years. Capacity utilization in the production of trucks, buses and tractors declined in recent years in contrast to a rapidly rising capacity utilization rate in the production of cars.

The government's indigenization policy has paid off in some areas, while it remains theory in some crucial segments of the automobile industry. A successful deletion programme by Bedford Truck, which had achieved 65 per cent of local content with one of its models over a twenty-year period, failed as the government recently allowed Bedford to scrap the model. On the other hand, the PACO units have developed a network of 450 local vendors for the production of vehicle parts and components at competitive prices. The PACO group has achieved indigenization across different segments of the automobile industry ranging from 20 per cent to 82 per cent. With the aid of assistance rendered by UNIDO, PACO established a Vendor Development and Training Cell to provide technical information and training to prospective vendors for the manufacture of auto parts conforming to international specifications. By the end of 1988 around 400 vendors supplied locally produced components to PACO units. The annual value was Rs 1.2 billion.

Table III.16. Sales of locally assembled motor vehicles, 1985/86 – 198[a]

(Number)

	1985/86	1986/87	88[a]
Trucks	2,245	2,371	2,380
Buses	590	517	525
Light commercial vehicles	12,384	11,306	11,257
Jeeps	2,243	2,164	2,210
Tractors	9,626	10,780	11,780
Cars (Suzuki 800 cc)	15,975	13,783	16,680
Total	43,063	40,921	44,832

Source: Pakistan Automobile Corporation.
a Projection.

* For example, electric fans are often manufactured by small producers who devote very little attention to safety standards. Hence many consumers are prepared to pay twice as much as for an imported fan of a well known brand than for the local product.

Currently there are 200 auto parts-manufacturing units, public and private, in operation in the organized and unorganized sectors. Around 81 per cent of the installed capacity in the production of auto parts is located in Sind, while the remaining 19 per cent is situated in Punjab. The leading units include Allwin Engineering, Baluchistan Wheels, Landhi Engineering and Pak Machine Tool Factory. The latter company, for example, has become a major supplier of transmissions to the domestic market. Pakistan still imported Rs 6,969 million-worth of vehicle parts in 1987/88.

Little progress has been made in the indigenization programme of Pak Suzuki Motor Company, a joint venture between PACO and Suzuki Motor Company Limited (SMC), Japan. The company is producing 800 cc vehicles and recently launched an expansion programme to build a 1,000 cc range car. This joint venture failed to achieve the use of local content above 30 per cent, while the target was set at 80 per cent. In jeep assembly only 18 per cent deletion has been achieved. The Suzuki plant pushed for lower deletion targets, and the period of deletion was extended up to 1995 with reduction in the use of local components. The World Bank has agreed to provide $17.5 million to Pakistan to produce exportable 800 cc and 1000 cc Suzuki cars. The total cost of expanding the Suzuki Company is estimated at Rs 1.4 billion ($65 million). The national Development Finance Corporation (Pakistan's largest DFI) is providing $16 million for this project.

Pak Suzuki achieved a commendable financial success, and its contribution to the exchequer in its six years of operation has been very significant. In the face of Pak Suzuki's high profitability, the other major Japanese car manufacturers, as well as Fiat and Peugeot, have shown an interest in locally manufacturing small cars and a range of pick-ups and vans. In mid-1989 Toyota succeeded in obtaining a licence for a new car plant to produce cars with 13.5 per cent local content, which shows that foreign firms can successfully negotiate with the Government of Pakistan for flexibility in industrial policy.

A private plant is being established in Sind to produce components of Toyota cars locally. This project is being sponsored by the Habib Group (one of Pakistan's largest business houses). The plant is to have an annual capacity to manufacture 10,000 Toyota Corolla cars, 6,000 units of Hilex pick-ups, 200 units of Hi-ace vans and 200 land cruiser jeeps. The project is to be implemented in three phases. Toyota of Japan will acquire a 25 per cent equity stake. The project will cost Rs 850 million ($39.8 million) and external loan financing will amount to $12 million.

Sind Engineering Limited (SEL) has plans to set up a new engine assembly plant for MAZDA engines from parts imported in a completely knocked down (CKD) condition. The project – the first of its kind – will be operational in 1990. The total cost of the project is estimated at Rs 5.0 million ($234 thousand) out of which Rs 2.0 million will be spent on the construction of the building. The plant will be run on computerized and scientific lines and Japanese experts will visit SEL to train its workers. Plans are under way to introduce a new range of MAZDA products – B-2200 pick-ups, and 15- as well as 12-seater MAZDA E series vans – within the next six months to optimize the production facilities.

IV

CHANGING INDUSTRIAL STRATEGY, POLICY ISSUES AND INSTITUTIONAL FRAMEWORK

A. INDUSTRIAL STRATEGY AND PLANNING

For well over a decade Pakistan has been following a more liberal industrial policy with renewed encouragement of the private sector. Privatization received a new connotation when the new government, in 1989, launched a major programme to divest a part of public sector shares to the private sector.

Although the private sector has been assigned an increasingly important role, the public sector remains crucial in view of its central role in producing certain key products and the associated downstream industries. Government industrial policy in favour of public sector investment will need to concentrate in areas where private investment has been lacking – such as steel, heavy engineering, fertilizers, petrochemicals, etc. Priority in public sector investment is being accorded to the development of steel-based engineering industries, agro- and mineral-based industries, and agricultural input industries. As a result of inefficiency, public sector investments have come under increasing criticism.

Policy initiatives in pursuit of de-regulation and liberalization during 1982/83–1987/88 included *inter alia*: an increase in the investment sanction limit; drastic reduction in the list of specified industries (which require government sanction); reduction of tariffs on a number of raw materials; intermediate and capital goods; introduction of a three-year liberal trade policy; and upgrading of an Industrial Incentives Reform Cell (IIRC) into a Tariff Commission in 1989 to make recommendations on fiscal anomalies and effective protection.

A series of measures has been introduced to de-regulate industrial operations in the cement, oil-seeds and fertilizer industries. Private investment was permitted in cement production and State-owned enterprises were allowed to vary their prices. Subsidies were substantially reduced and cement imports permitted. A similar package of de-regulation and reform was adopted for the oil-seeds sector and a major divesture programme was initiated by the public ghee corporation.

The new course of de-regulation and liberalization had a mixed impact on private-sector investment during the Sixth Five-Year Plan (1983/84–1987/88). Private investment in small-scale, agro-industries and non-metallic minerals exceeded the Plan target. In textiles, chemicals, pharmaceuticals, rubber and miscellaneous products private investment was in line with the

targets set for the Plan period. However, private investment in petrochemicals and fertilizers fell far short of expectations, while it was only 67 per cent of the Plan target in basic metal and other engineering industries.

The private sector has generally been reluctant to invest in long-gestation capital-intensive industries in the absence of long-term commitments for protection and incentives. Low tariffs on imported capital goods have meant strong competitive pressures from foreign producers. This is one major reason for low private investment in engineering industries. Lack of a secure and inexpensive supply of gas inhibited private investment in the fertilizer industry. The high cost of some of the industrial inputs has made export industries less attractive than import-substituting industries.

During the Seventh Plan period (1988/89 – 1992/93) policies and incentives are being formulated to encourage key industries such as engineering and high technology industries and to stimulate the modernization of agro-processing industries. Emphasis is placed on more efficient export-oriented and sophisticated industries and on fostering the process of industrialization in less-developed areas.

The Seventh Plan envisages a substantial increase in private investment. Of the projected private investment of Rs 87.6 billion, compared with Rs 9 billion for the public sector, Rs 22 billion is earmarked for the engineering goods industry, Rs 19.6 billion for the agro-based and small-scale industries, Rs 24.9 billion for the textile industry and Rs 14 billion for the chemical industry. The remaining Rs 7.1 billion is planned for other industries. It is hoped that the new waves of liberalization and fresh incentives will attract the private sector to key priority sectors where supply shortages persist, e.g., electricity generation, telecommunications and roads. Negotiations are under way to create a $600 million private sector fund in order to promote private investment in electricity generation. This investment fund is likely to be contributed by both bilateral and multilateral agencies.

An increase in the outlay for small-scale industries is expected to enhance their employment potential. The Plan also endeavours to strengthen linkages between small engineering industries and large-scale industries through the encouragement of subcontracting arrangements. The Plan envisages an annual average growth rate of 8.1 per cent in industrial output during 1988/89 – 1992/93. The targeted growth rate is optimistic, particularly for large-scale manufacturing.

The Seventh Five-Year Plan commenced at a time when the IMF/World Bank-induced conditionality was accepted by the government for a three-year period. It is important to examine the prospects for industrial growth in the light of the influence of the IMF and World Bank recommendations on industrial policy in Pakistan.

B. THE INFLUENCE OF THE IMF AND WORLD BANK

Within the context of the December 1988 three-year agreement with the IMF, the Government of Pakistan is formally committed to "consult with the Managing Director of the Fund on the adoption of any measures that may be appropriate ..... or whenever the Managing Director requests such consultation."* The industrial policy outlined in the letter of intent commits the government to the following:

(i) de regulating business decisions;
(ii) limiting the list of specified industries;

* IMF document EBD 88 331, November 1988, reproduced in *Business Recorder* (Karachi, June 14, 1989). The IMF agreement was signed by the previous government, but has been fully endorsed by the new government. The present government is more concerned about preserving its ties with the IMF and the World Bank.

(iii) raising the investment sanctioning limit automatically;*
(iv) phasing out industrial location policies over a three-year period, and provision of infrastructural services at prices that reflect economic costs;
(v) divesting the shares of public sector companies to the private sector;
(vi) instituting a corporate rationalization programme to enhance efficiency in the remaining, i.e., non-divested, public enterprises;
(vii) considering a realistic trade regime as a primary investment or structural adjustment effort;
(viii) enhancing export incentives;
(ix) reducing the level of protection accorded to different industries;
(x) reducing the list of restricted import items as well as those subject to quantitative restrictions;
(xi) achieving a tariff range of 0 to 100 per cent by 1st July 1990; and
(xii) phasing out all tariff exemptions by 1990/91 except duty drawback for exporters, exemptions for import of capital equipment in key industries and reasonable baggage allowances.

In addition to the above industry-specific recommendations, the following prescriptions of the IMF's macroeconomic recipe have a direct impact on industrial development in Pakistan.

(i) an increase in the level of indirect taxation (in the form of a generalized sales tax) by July 1990;
(ii) withdrawal of subsidies on gas, electricity, telephones and fertilizers;
(iii) an increase in producer prices of major crops (wheat, cotton, sugar-cane, rice and oil seeds) and in the prices of petroleum products;
(iv) a 12.5 per cent reduction in the public sector development programme during the agreement period (1989 – 1991); and
(v) restriction on government borrowing and credit allocation to the private sector.

The overall thrust of the IMF/World Bank-induced policy pronouncement is industrial deregulation and privatization. In order to stimulate private industrial investment the World Bank has extended three major industrial investment credits (IICs) to Pakistan. The purpose of these credits has been to restructure the industrial financing system and to further develop the capital market. The present IIC (totalling $148 million) is concerned with increasing the availability of equity finance through the development of the Karachi and Lahore Stock Markets and increasing the competition among major institutions involved in the promotion of industrial finance. During negotiations with the World Bank, the government agreed to facilitate financial institutions' membership of the Karachi Stock Exchange and to implement business diversification programmes by the Pakistan Industrial Credit and Investment Corporation (PICIC) and Industrial Development Bank of Pakistan (IDBP) in order to provide a wide range of financial services.

Phasing out non-tariff barriers

The World Bank** argues that Pakistan's trade regime provides high and extremely uneven levels of protection to various domestic industries, with many commodities benefiting from almost absolute protection. Due to exemptions, baggage allowances and extensive smuggling, some products enjoy lower nominal protection than those implied by the statutory tariff rates. This combination of heavy protection and extensive exemptions and import leakages (formal and informal) has fostered an inconsistent structure of protection with indeterminate and, perhaps, continuously changing effects on the incentives for industrial investment. As a result, socially suboptimal production and investment decisions in terms of production mix,

* The limit was raised from Rs 700 million in 1988 to Rs 1 billion in 1989.

** World Bank, *Pakistan, Growth Through Adjustment* (Washington, D.C., 1988), Report No. 7118 PAK, p.71.

diversification and plant scale are being undertaken while other economic opportunities are foregone. Finally, as a result of the complexity and diverse effects of various elements of the protective structure, it is very difficult for the government to determine the effects of the present import regime and thus administer the protective system in a way that supports Pakistan's economic objectives.

On the basis of this analysis the World Bank argues the case for Pakistan phasing out non-tariff barriers, lowering tariffs, eliminating exemptions and devaluating the rupee in terms of major trading partner currencies. The World Bank has drawn up a two-phase trade reform package for Pakistan:*

Phase one:

(i) replace existing bans and restrictions with tariff protection (except for those regulations instituted for non-economic objectives such as health, safety, religious, and national security purposes), and also remove the remaining value limits on imports of machinery and millwork;
(ii) abolish surcharges (except for Igra)** and raise the customs duty on duty-free items to at least 10 per cent;
(iii) lower prohibitively high tariffs;
(iv) maintain the export promotion measures supporting freer access to imports, and reduce duty exemptions/concessions (with the exception of inputs for export products and the duty-free baggage allowance, whose scope ought to be gradually reduced);
(v) rationalize the tariff structure to remove various anomalies; and
(vi) introduce special excise taxes on consumption of luxury goods.

Phase two:

(i) lower all tariff rates from a maximum ceiling of, say, 120 per cent initially, and gradually reduce these maximum ceilings, in two to three successive years, to about 50–60 per cent; and
(ii) complete the phasing out of non-export related duty exemptions/concessions and the differential treatment of imports.

In the face of a mounting pressure to liberalize the industrial policy and trade regimes, the new government remained fully committed to de-regulation and tariff reform initiatives.

C. THE NEW INDUSTRIAL POLICY PACKAGE

New waves of liberalization

The 'Industrial Policy Package 1989' was formulated with a view to overcoming the inadequacies of the industrial development policies of the past. The sanctioning procedure has been liberalized; projects costing less than Rs 1 billion no longer require sanctioning provided the entire amount is realized from private sources, except for those projects which fall within the specified list or where foreign equity is 50 per cent or more. The list of specified industries necessitating government approval has been reduced from 12 to 7. The sanctioning procedure has been simplified and a time limit of 60 days has been fixed for approval of a project whenever sanction is required. Under the new policy the Ministry of Industries would ensure the supply of infrastructural facilities to the industries within 60 days of approval of a project. Other salient features of the New Industrial Policy Package include an array of incentives and a 'one window' facility to speed up the pace of industrial investment in the country. The Policy Package aims at achieving the following objectives:

* Ibid, pp. 76 and 77.

** Igra is an education tax.

(i) creating employment opportunities through the development of labour-intensive projects;
(ii) reducing regional imbalances in industrial development;
(iii) assigning a pivotal role to small-scale industries; and
(iv) developing key industries such as biotechnology, fibre optics, solar energy equipment, computers and software, electronic equipment and fertilizers.

De-regulation

With a view to removing the difficulties faced by local as well as foreign entrepreneurs in obtaining sanctions for the establishment of industrial enterprises, the Board of Investment (BOI) headed by the Prime Minister and the Committee of Investment (COI) headed by the Minister for Industries were constituted. The present government dissolved the Board of Investment and restored the sanctioning authority of the Investment Promotion Bureau. Under the 1989 New Industrial Policy Package BOI sanction will be required only in the following cases:

(i) industrial units costing over Rs 1,000 million;
(ii) specified industries, namely, arms and ammunition, security, currency printing and mint, high explosives, radioactive substances, alcohol and beverages based on imported concentrates, manufacture of automobiles, tractors, farm machinery and petroleum blending plants; and
(iii) projects where major policy decisions are involved.

The sanctioning procedure has been liberalized, giving maximum liberty to the entrepreneur for the selection and establishment of enterprises. The sponsors can also apply directly to commercial banks and development finance institutions for financial assistance. Those implementing a project requiring no sanction of the government can apply directly to the Chief Controller of Imports and Exports for an import licence or permit for plant and machinery. Obtaining a No Objection Certificate (NOC) from the Provincial Government has also been simplified.

Fresh incentives

A four-year tax holiday has been allowed throughout Pakistan to those key industries which are established up to the end of the Seventh Plan, i.e., 30th June 1993. This income tax holiday is admissible for a period of 8 years for all industries proposed to be located in selected less developed areas. A higher income tax rebate has been granted for higher value added exports. Export earnings from textile garments, leather garments, engineering goods and electronics are eligible for 75 per cent income tax rebate, compared with 50 per cent for other items.

The key industries are exempt from payment of customs duty on imported machinery, provided such machinery is not manufactured locally. The incentives will be admissible to industries set up between 1988/89 and 1992/93. The output of industries set up in selected backward areas is exempt from sales tax for a period of 8 years. Quantitative restrictions and non-tariff barriers on 162 import items have been removed with a view to ensuring an adequate supply of raw materials to domestic producers. The negative list of imports has been reduced significantly. Duty drawback is to be paid within one week.

Overseas Pakistanis are not required to disclose the origin of the funds for investment, and can import second-hand machinery without producing a surveyor's certificate. There is no restriction on the re-sale of the machinery after it has been imported. Overseas Pakistanis are also permitted to invest their savings in new public share offers. Further, non-resident Pakistanis can invest in industrial projects in the Karachi Export Processing Zone (KEPZ) on the basis of regulations for non-repatriable investment.

The indigenization policy

The indigenization policy encourages linkages between large and medium/small industries and the saving of foreign exchange. Duty on raw materials used by engineering industry or by their vendor units is completely waived or substantially reduced. There are no capacity restrictions on industries covered by the deletion programme. The customs duty exemption on raw materials extended to assembly-cum-manufacturing units is also extended to their approved sub-units, to the extent that those manufacturing items come under the deletion policy.

Industrialists are provided with loans at concessional interest in order to encourage the use of locally manufactured machinery. A penalty duty of 100 per cent over and above the existing rate of duty may be levied if any item is not deleted as per the schedule. A separate cell has been set up in the Ministry of Industries with a view to formulating and monitoring the deletion programme of all the automotive, electrical engineering and other industries in the public and private sectors.

The indigenization policy in Pakistan will need to be streamlined with a view to formulating a cohesive strategy conducive to foreign investors as well as achieving the basic objectives. This calls for an in-depth study of factors that continue to impede the country's progress in indigenization.

D. REVIEW AND APPRAISAL OF INDUSTRIAL POLICY

Policy continuity

Since the advent of the present regime the process of liberalization is being speeded up, as the present government remains fully committed to the progressive expansion of the private sector. There has been a sharp reduction in the number of industries reserved for the public sector, and new avenues are open to the private sector. The government also commits itself not to nationalize any industrial unit in the future.

Liberalization, de-regulation and new incentives can foster industrial development when the provincial authorities participate fully in the new course of industrial revitalization. Without a significant increase in the resources of the concerned provincial authorities, who are in charge of providing infrastructural facilities, the practical implementation of new incentives may be difficult. The New Package ensures the supply of infrastructural facilities within 60 days of the approval of an industrial project. This necessitates provincial co-operation to gear the local machinery in charge of these facilities. It is also felt that representations from the Central Board of Revenue, the Customs Department and financial institutions in decision-making bodies would facilitate the smooth implementation of industrial de-regulation policies.

Incompatible fiscal policy

An important feature of the industrial incentive system is the gradual phasing out of exemptions, subsidies, etc. There has been an increase in the tax burden as a large number of industries previously exempted from sales tax are now subject to it. As a result of an increase in the tax burden the corporate saving rate is expected to remain stagnant during the fiscal year 1989/90. A number of major industrial units — in the textile and sugar sectors in particular — staged protracted lock-outs following the extension of sales tax coverage in the 1989/90 budget. Recently there was a partial retraction of sales tax extension measures. The IMF/World Bank-induced fiscal reforms tend to be restrictionist, given a reduction in savings and investment.

Closing down 'sick' industrial units

The government is for the first time in over 40 years committed to permanently closing down 'sick' public sector units. Banks and financial institutions have been instructed to develop financial packages for the liquidation of 'sick' units. The phasing out of the 'sick' units is part of a more comprehensive State withdrawal from manufacturing investment both as owner and regulator.

It is estimated that around 1,000 industries are non-operational. The new government's determination to permanently close down sick units was timely. But liquidation of a company does not necessarily mean the physical destruction of assets. These assets could be used by other industries. There is a need to formulate a comprehensive policy for putting the physical assets of non-operational units to alternative uses. Concessional financial assistance would be needed to facilitate such an exercise.

Foreign investment

Foreign investment has remained concentrated in a small number of subsectors – fertilizers, petroleum, tobacco, food manufacturing and electricals. Further foreign investment has been oriented towards projects where initial fixed capital costs were high or where foreign collaboration was essential due to changing production technologies. There has been little incentive for the creation of linkages with local manufactures. Product technologies, especially in pharmaceuticals, beverages, tobacco and electronics have been jealously guarded and new investment has been low.

There has been continuing dialogue between foreign companies and the government regarding the determination of technical fees and royalties, particularly in projects involving the import of advanced technology. Government guidelines are regarded as inadequate by many foreign companies despite the new waves of liberalization.

The most important constraints on the growth of foreign private manufacturing investment have been the infrastructural bottle-necks. This is true in all regions with the exception of a few major cities. Continuing energy shortages have been particularly inhibiting. The transportation and telecommunications bottle-necks have also been serious constraints. Stimulating foreign investment would involve more than offering attractive incentive packages. Improving the foreign investment climate requires an immediate improvement in the law and order situation, and an increased commitment of financial resources to reduce energy and transportation constraints over the medium run. Moreover, adequate physical infrastructure will have to be provided in areas which have a strong industrialization potential.

New trade policy

In spite of some progress in implementing the reforms suggested by the World Bank, trade performance has not improved. Pakistan's manufactured export performance has been distressingly poor in recent years. A major impediment to the growth of engineering exports has been the widening conflict between the two major public sector engineering companies, Karachi Shipyard and Heavy Mechanical Companies on the one hand and Itefaq Foundries Ltd (the leading private-sector engineering firm) on the other. Itefaq Foundries was unable to produce for most of 1989 because Karachi Shipyard and Pakistan Railways refused to unload and transport raw materials purchased by Itefaq. These problems will need to be addressed with an objective evaluation of political conflicts that hinder industrial performance.

Product groups in which, according to World Bank estimates, the effective exchange rates are most favourable to exporters (e.g. manufactured exports) have not performed better than others. Terms of trade continue to be unfavourable and there are simply few reasons for

believing that eliminating the presumed anti-export basis in the protectionist system will stimulate exports. Low price elasticities of demand for textiles and clothing exports may continue seriously to constrain the growth of Pakistan's exports in the medium run.

*Technology policy**

A serious drawback of past industrialization strategies has been the lack of clearly defined means for absorption and promotion of industrial technology. The frontiers of modern technologies have not been properly assessed. This problem manifests itself in a number of ways, e.g., weak appraisal of modern technology, lack of information on the costs and benefits of alternative technologies, lack of importance attached to the technology issue at the time of implementing projects, and lack of management capability for the smoother transfer of technology.

There is a need to make a comprehensive evaluation of the role of existing technical universities, technology research centres and regulatory agencies related to industrial technology transfer and development. Without closer linkage to these research organizations and in-house R & D efforts industry will hardly be able to modernize and become internationally competitive. The small-scale engineering units have limited access to the latest technology. Institutional arrangements for the transfer, development and dissemination of information on technology to small industries are deemed vital. The Seventh Plan devotes some attention to technology transfer through subcontracting and the new policy package explicitly refers to the introduction of new technologies as a major issue. But the technology policy deserves more attention to enable Pakistan industry to modernize and become more competitive.

Industrial location policy

In order to achieve regional balance in industrial development it is necessary to identify growth opportunities in each province and to create infrastructural facilities after careful assessment of suitable ventures in those areas. Although provincial governments have identified many growth areas, the problem is to select the most logical areas on the basis of economic criteria. A decentralized provincial emphasis would also need to pay attention to economies of scale and the locational requirements of various industries.

Some provincial governments argue the case for the public sector playing a significant role in the most backward areas. If such initiatives are to be subsidized, the pros and cons of such an exercise will need to be analyzed in the light of its long-term implications for striking a regional balance in industrial development.

Capacity utilization

Much of the policy focus hitherto has been on investment planning. An examination of production planning is warranted to identify the determinants of optimal use of existing production facilities. Sizeable capacity in manufacturing remains unutilized mainly because of supply constraints. There exists substantial scope for changes in the supply response of these factors to industrial revival. However, when domestic supplies of industrial inputs fail to meet demand, there is a clear case for making more favourable allocations of foreign exchange for the import of raw materials.

Assistance to input supplies can be especially effective in solving difficulties experienced by small firms in capacity utilization. Input supply constraints could be eased to a large extent through the liberalization of bank credit for raw material purchases. Import of raw materials by small-scale industries could also reduce their competitive disadvantage and make them

* The following section is based on specific recommendations of an Expert Working Group on Industrial Policy and Strategy. See *Economic Review* (Karachi 1988), Vol.XIX, No 5, pp. 27–36

more efficient in utilizing existing capacity. Underutilization of capacity is often related to labour disputes. New incentive schemes with wage remuneration for greater productivity could enhance capacity utilization.

The role of the public sector

The public corporations sponsored by the Federal Government hold assets worth Rs 27.08 billion in manufacturing. Financial allocations for the modernization and expansion of existing enterprises imply a rise in public-sector industrial activity in absolute terms. The expansion should be matched by further rises in performance. As mentioned earlier, commercialization of the public corporate sector has enhanced the financial performance of many enterprises. Nevertheless, bureaucratic practices still impede performance in many instances. A more business-oriented public corporate planning policy could help to further improve the performance of the public sector. There is a need to prepare strategic plans for the public sector and further privatization of public sector industries may have to be contemplated.

Wage increases in public sector enterprises could be related directly to corporate profitability. Public sector projects will need to be treated on a par with private-sector projects in matters related to pricing, project approval, financing and tariff protection. Additional investment will have to be financed from internal reinvestible funds. Internal generation of resources for such a task calls for determined efforts towards restructuring some public-sector enterprises. The new divesture policy has created an uncertain environment for the public-sector enterprises. This affects the operating environment and staff morale. A clearly formulated divestment policy which takes account of all these relevant aspects is therefore needed.

Downstream enterprises

The creation of downstream industries has not been clearly conceptualized. Around 41 per cent of the total industrial investment is earmarked for basic metal, engineering goods, chemicals, petrochemicals, fertilizers and pesticides during the Seventh Plan with a hope that there will be simultaneous development of respective downstream industries. The expected structural change that these industries were to bring about did not occur during the Sixth Plan period.

In the case of petrochemicals, an option open to the Government of Pakistan is to negotiate with large enterprises in Asia to ensure the supply of raw materials at favourable prices in return for equity investment in downstream petrochemical projects in Pakistan. A well-defined indigenization policy for the engineering industries could be formulated to promote downstream activities.

Energy

There is considerable emphasis on private investment in the energy sector now. This policy initiative won the approbation of several multilateral and bilateral agencies. But even if all hydro, thermal, coal, nuclear and conventional resources for generating electricity are employed the supply may not keep pace with the growing needs for industrial and other uses. A need exists to examine other options.

Pakistan is in a privileged position to explore the possibility of using solar energy technology. Modern and advanced methods have recently come to light and a number of countries have developed programmes on solar energy. Such initiatives could form an integral part of industrial planning in Pakistan in order to achieve self-reliance in meeting the country's energy needs. Government research institutions and private organizations may be encouraged to explore the possibilities of alternative sources of energy.

E. INSTITUTIONS FOR INDUSTRIAL FINANCE

A key element within the industrial incentive system has been the provision of low-cost industrial finance. The five national commercial banks (NCBs) in an average typical year account for about 85 to 90 per cent of all advances. The State Bank makes specific credit allocations to the NCBs which cannot be utilized for other purposes. With the development of the Term Finance Certificate (TFC) term lending has become very popular since 1983. In 1987 actual disbursement of term loans to industry amounted to Rs 4 billion, representing about 45 per cent of gross fixed investment. Loan financing is of critical importance in maintaining industrial investment levels.

The following are the key financial institutions:

- The Pakistan Industrial Credit and Investment Corporation (PICIC)
  This is the only privately-owned institution: it is specialized in foreign exchange loans to medium- and large-scale industry.
- The Industrial Development Bank of Pakistan (IDPB)
  Its activities focus on medium- and small-scale industry.
- The National Development Finance Corporation (NDFC)
  This institution provides term financing and working capital.
- Bankers' Equity Limited (BEL)
  Originally an Islamic financial institution. It underwrites equity issues and arranges consortia finance participation by the NCBs.
- The Investment Corporation of Pakistan (ICP)
  Engages in similar financing activities, and operates a number of mutual funds.
- The National Investment Trust (NIT)
  This institution operates mutual funds and unit trust schemes.
- Pak-Kuwait, Pak-Libya, Pak-Saudi
  Joint ventures, providing loans and venture capital.
- Leasing companies
  A number of these have been established since 1985. They cater for small-scale enterprises.

Since the adoption of a tight money policy by the central bank, the Development Finance Institutions (DFIs) have become more cautious. Some, such as the IDBP, have faced serious problems of default. Although BOI's emphasis on speedy decisions have led to a spate of project approvals by NDFC, BEL and PICIC during 1989, these have remained concentrated among a small number of business houses. Continuation of a conservative monetary policy will mean a reduction in the level of industrial credit. This will disproportionately affect small-scale and medium-scale enterprises.

V

RESOURCES FOR INDUSTRIAL DEVELOPMENT

A. AGRICULTURAL RESOURCES

Food and cash crops: enhancing productivity

The major food and cash crops have recently achieved significant productivity growth rates due to the combined effects of favourable weather conditions, introduction of new high yielding varieties, increased availability of fertilizer inputs and pesticide, policy measures facilitating investments in water development and irrigation systems and, in particular, higher procurement and support prices.

Self-sufficiency has now been achieved in respect of all major food crops, with the exception of edible oils. The major food grain crop is wheat with a total production of 12.9 million tonnes in 1987/88, followed by rice with 3.3 million tonnes and maize with 1.1 million tonnes. The two major food crops which reached the highest production growth rates during 1970 – 1989 were cotton, wheat and maize (see Table V.1). In 1988/89 the quantum indices (1969/70 = 100) reached a level of 223 for wheat and 186 for maize compared to an average index value of 179 for total agricultural production. Of the cash crops, the most important are sugar-cane and cotton; 33.7 million tonnes of sugar cane and 1.4 million tonnes of raw cotton were produced in 1988/89. Production growth was highest for cotton.

Pakistan has traditionally been a rice-exporting country. Although rice exports have declined from $242 million in 1983/84 to $231 million in 1987/88, the country ranks among the world's major suppliers. Roughly one-third of exports were of high quality basmati rice and two-thirds were of other varieties. The other major agricultural export is raw cotton, the export of which increased from $136.3 million in 1983/84 to $380.1 million in 1987/88.

An important segment of the agricultural sector is the fruit-producing subsector. The rate of growth of production of citrus, mangoes and guavas has been modest and production levels of the first two have been subject to some fluctuations (see Table V.2). Banana production has increased significantly but the quality of Pakistan bananas is low, and little research has been done to improve upon this.

While export earnings of fruit have increased by more than 250 per cent, the volume of exports increased by only 60 per cent during 1984/85 – 1987/88. The increase in export earnings of fruits has largely been a consequence of improvements in prices, and there has not been a significant breakthrough in major (particularly Middle Eastern) markets. The fruit-processing

industry relies exclusively on the surplus of the fresh fruit markets. There are no major firms with production facilities of their own, and contracting arrangements with fruit producers are very uncommon.* The fruit processors usually work in small-scale establishments and are in no position to exploit economies of scale. They are unable to guarantee deliveries on time and are therefore at a serious disadvantage in the Middle Eastern markets. While the Seventh Plan recognizes the importance of the fruit processing industry as an export revenue generator, a programme to increase the vertical integration of the fruit processing industry has yet to emerge.

The main constraint on the growth of agricultural productivity has been the land tenure system. In order to enhance agricultural productivity and inter-sectoral terms of trade, the government is relying upon the standard IMF package of raising procurement prices and other policies. However, there has been a simultaneous decontrol on the prices of major agricultural inputs – fertilizers, pesticides, seed, power – and the level of agricultural subsidization has gone down significantly. This is likely to have a negative impact on the productivity of small- and medium-sized farms and will possibly increase the concentration of landholdings and agricultural income.

It may therefore be expected that agricultural productivity will grow slowly and remain susceptible to changing weather conditions, and – particularly in Punjab and Sind – to floods which have become more damaging in recent years. Nevertheless supply shortages may not constitute a major constraint for the expansion of the agro-based industrial branches in the medium run.

Fisheries: insufficiently exploited potential

Pakistan has large fish stocks, but most of these have not yet been commercially exploited. Total catch in 1986/87 amounted to 398,000 tonnes with more than 80 per cent coming from marine sources (see Table V.3), prawns and shrimps being the main item. Apart from their importance as a cheap source of protein supply, fish and fish preparations accounted for around 3 per cent of total exports in 1986/87. Their share of GDP, although increasing, has remained below 1 per cent. About 10 per cent of the output is exported. Processing is minimal.

The government is endeavouring to develop the fisheries sector. Loans for the purchase of fishing trawlers are granted on very attractive terms. The rehabilitation of the Karachi fishing harbour and the construction of Korangi fishing harbour are scheduled for completion by 1993. Under the Seventh Plan the Giwadar fisheries harbour-cum-mini-port is to be built

Table V.1. Index value of production of major crops, 1985/86–1988/89

(1970-71 = 100)

	1985-86	1986-87	1987-88	1988-89
Wheat	215	186	196	222
Rice	133	158	147	139
Maize	140	155	157	154
Sugar-cane	120	129	142	145
Total food	181	178	172	189
Cotton	223	242	271	259
Tobacco	69	61	62	62

Source: Government of Pakistan, *Pakistan Economic Survey 1988-89* Statistical Appendix, p. 44.

* The only integrated large-scale fruit processor, Mitchell's of Okara, sold off its farms when it was transferred from British to Pakistani ownership.

Table V.2. Major fruit production and exports, 1984/85–1987/88

(1980 81 = 100) (Thousand tonnes)

	Citrus		Mango		Banana		Guava		Fruit exports	
	Quantity	Index	Quantity	Index	Quantity	Index	Quantity	Index	Quantity	Value Rs million
1984 85	1.373	148	692	127	137	104	288	232	66	243
1985 86	1.434	155	713	130	140	107	313	252	96	483
1986 87	1.467	158	737	135	202	154	319	257	104	543
1987 88	1.411	152	712	130	208	159	335	270	105	646

Source: *Economic Survey 1985–1989*, p.45.

Table V.3. Fish production, 1977/78–1986/87

(Thousand metric tonnes)

Year	Marine	Total	Inland
1977 78	234.8	267.9	33.2
1978 79	257.8	293.0	35.2
1979 80	259.6	300.4	40.8
1980 81	233.0	279.3	46.3
1981 82	261.5	317.8	56.3
1982 83	278.2	337.3	59.1
1983 84	283.1	343.4	60.3
1984 85	308.0	378.6	70.6
1985 86	320.0	391.0	71.0
1986 87	325.0	398.0	73.0

Source: Ministry of Finance; and Allied Bank Limited, *Monthly Agricultural Review* (August 1987).

to provide facilities for the operation of 550 gill-netters. Facilities for handling and storage will also be provided. The construction of another fishing harbour at Pasni is envisaged during 1988–1993.

A shrimp conservation policy will need to be formulated in order to reduce juvenile mortality. Experiments will have to be conducted on brackish water shrimp culture in the Indus Delta. The quality of catch can be enhanced through training for fishermen and quality control measures.

Shrimp constitutes around 80 per cent of total fishery exports. Inedible and small fish are used for the production of fish meal for poultry feed. The Middle East, Japan, the United States and the United Kingdom and other European countries are the main market destinations for Pakistan's fish exports. The volume of fish exports fell from 36.3 million kg in 1984/85 to 35.9 million kg in 1985/86. A further fall to 29.6 million kg was estimated for the year 1986/87. The reasons for the fall in the volume of fish exports are an insufficient number of fish-processing plants and inadequate freezing, cold storage and canning operations.

Exploitation of the country's fish potential can also stimulate the ship-building industry. So far, large mechanized vessels and fishing gear have been imported. Table V.4 shows the number and type of fishing vessels used for inland and marine fishing. Although the number of fishing craft has gradually increased, this increase is not sufficient to exploit the country's fisheries potential, and investment in additional fishing craft capacity could be undertaken.

Table V.4. Inland and marine fishing craft, 1977/78 – 1984/85

	Inland			Marine			
Year	Sail boats	Row boats	Sail-cum mechanized boats	Sail boats	Trawlers	Gill-netters	Mechanized sail boats
1977 78	8,107	..	..	6,166	1,151	882	597
1978 79	8,487	..	..	5,864	1,270	901	1,004
1979 80	8,908	..	..	5,908	1,280	905	1,135
1980 81	7,246	9,145	..	5,859	1,296	909	1,333
1981 82	7,887	2,065	..	5,478	1,315	918	1,946
1982 83	8,018	2,065	..	3,397	765	203	3,631
1983 84	8,300	2,397	5,492	3,242	1,431	1,125	3,790
1984 85	8,840	2,732	..	2,882	1,539	1,183	4,163

Source: Directorate of Marine Fisheries.

Livestock products

Livestock contributed a share of 7.4 per cent to GDP in 1987/88. The livestock sector holds a share of roughly 15 per cent in total export earnings with leather alone accounting for over 8 per cent. The current Five-Year Plan aims at high growth rates for livestock products, which is to be achieved above all by the encouragement of large-scale private farm enterprises. Table V.5 indicates the production of important livestock products.

The Seventh Plan strategy endeavours to enhance the productivity of livestock. The major thrust will be towards breed improvement through cross-breeding, artificial insemination and embryo transfer technology. Research on the utilization of agricultural waste, industrial by-products and crop residues as animal feed will be intensified. The government plans to discourage the export of molasses and to increase its use as animal feed.

Table V.5. Production of livestock products, 1975/76, 1980/81 and 1988/89

Products	Unit	1975/76	1980/81	1988/89
Milk	Million tonnes	8.3	9.2	13.7
Meat (beef mutton)	Million tonnes	0.6	0.8	1.2
Poultry meat	Thousand tonnes	34	52	172
Eggs	Million number	1.2	2.3	4.3
Hides	Million number	4.5	4.9	5.8
Skins	Million number	22.8	26.9	35.2
Wool	Thousand tonnes	30.7	38.9	57.2

Source: Government of Pakistan, Economic Adviser's Wing, Finance Division, *Pakistan Economic Survey, Statistical Supplement 1988/89*.

A major constraint in realizing the potential for increased productivity is the lack of advisory services on improved methods of farm management and nutrition. Constraints that inhibit the development of the meat industry include shortage and poor quality of feed, a disorganized marketing system, the limited use of modern technology and inadequate extension services. The government envisages a programme for computerized determination of least-cost feeds based on the changing costs of ingredients for the benefit of feed mills and poultry producers.

In order to encourage commercial meat production the government has decided to exempt all machinery and equipment for livestock farms, feed lots and feed mills from duty. Private livestock farms with their own feed mills and slaughter houses are being encouraged. The government also plans to encourage disease-free zones for the production of meat for export. Although the private sector has shown interest in commercial meat production in response to the various incentives provided by the government, there are still many constraints hindering the development of the meat industry, e.g., a disorganized marketing system, the limited use of modern technology, and so on.

B. MINERAL RESOURCES

Pakistan is endowed with a wide range of non-fuel minerals. These resources are currently insufficiently exploited partly because there is a lack of detailed geological surveys. Table V.6 presents physical volumes of mineral production.

Investment in mining is accorded priority in the current Five-Year Plan, partly with a view to reducing the high share of imported raw materials required for the operation of the Karachi Steel Mill (mainly metallurgical coal, iron ore and manganese). Among others, more resources will be devoted to the activities of the Geological Survey of Pakistan as a precondition for extending the area and intensity of further explorations. Coal with estimated total reserves of 1 billion tonnes is first-ranking in the Plan's order of priorities, followed by copper, gold and silver and by phosphate and iron ore. The exploitation of considerable copper reserves found at Saindak in Baluchistan is to be implemented soon and may, besides meeting the domestic demand, also contribute to export earnings.*

Table V.6. Production of selected minerals, 1975/76, 1980/81 and 1987/88

Item	Unit	1975 76	1980 81	1987 88
Antimony	Tonnes	360	39	45
Argonite marble	Thousand tonnes	65	114	216
Celestite	Tonnes	957	295	1,052
Chromite	Thousand tonnes	12	1	9
Coal	Thousand tonnes	1,138	1,597	2,727
Dolomite	Tonnes	356	24,244	133,691
Fire clay	Thousand tonnes	41	60	134
Fuller's earth	Thousand tonnes	23	21	17
Gypsum	Thousand tonnes	324	554	404
Lime stone	Thousand tonnes	2,968	3,363	7,610
Magnesite	Tonnes	8,118	397	3,092
Rock salt	Thousand tonnes	427	514	502
Silica salt	Thousand tonnes	43	84	164
Ochres	Tonnes	11,835	445	3,[illegible]30
Sulphur	Thousand tonnes	1,552	403	600
Soap stone	Thousand tonnes	26	28	33
Barite	Thousand tonnes	11	21	13

Source: Government of Pakistan, Economic Adviser's Wing, Finance Division, *Pakistan Economic Survey*, various issues.

* The reservoir of mineral resources in Pakistan can deliver economically viable projects only when adequate infrastructural facilities are created in mining areas on a priority basis. With the aid of appropriate institutional arrangements and facilities the private sector could make a significant contribution to the country's mineral production.

Gypsum

According to an estimate, there are more than 5.5 billion tonnes of high quality gypsum deposits in Pakistan. Some of the major deposits are situated adjacent to existing transportation facilities and consuming centres. So far as the demand is concerned, the salt-affected soils falling within the Canal Command Areas of the Indus plain, which have a surface of about 7.8 million acres, need crushed gypsum at the rate of 2 – 3 tonnes per acre per year for their improvement. Furthermore, nearly 52 per cent (or 4 million acres) of this area is marked by marginal or hazardous-quality subsoil. This will also require large quantities of gypsum. It is therefore expected that the demand will increase considerably in the years to come.

Rock phosphate

The Sarhad Development Authority (SDA) has established the presence of a total of 12.5 million tonnes of deposits with a content of 28 per cent or more of phosphorous pentoxide. The beneficiated rock is suitable for the manufacture of phosphoric acid and nitrophosphate, and pilot plant studies are under way to use this rock for high value-added phosphatic fertilizer. A mine with a capacity of 0.2 million tonnes per year will be developed subject to satisfactory results from the pilot plant tests.

Building stones

Vast reserves of building stone (e.g. marble, onyx, serpentinite and crystalline limestone) exist. The extent of present development and exploitation varies from product to product but, because of the crude methods employed, the rate of extraction is low. During the Seventh Five-Year Plan marble deposits in the Federally Administered Tribal Areas (FATA) will be developed along more scientific lines.

Ceramic minerals

Large deposits of refractory materials including magnesite, chromite, dolomite, fluorite, china clay, fire clay, quartzite, graphite, serpentinite and silica sand are found in the country. With growing requirements to feed metallurgical high-temperature furnace units, most of the materials are expected to be further developed and processed. In addition to an existing capacity near Shah Dheri (Swat), there are 3.5 million tonnes of proven china clay reserves at Nagar Parkar (Sind), which have been found to be suitable for the ceramic industry.

Magnesite and silica sand

The Pakistan Industrial Development Corporation has identified about 11 million tonnes of 'probable' and 3 million tonnes of 'mineable' reserves of magnesite in Kumhar area. Huge quantities of silica sand are available that could provide a base for manufacturing high quality glass products and solar-electronic wafers. During the Seventh Plan, a number of silica sand washing plants will be established for these purposes.

Nephyline syenite

About 6 million tonnes of nephyline syenite have been found at Koga (Mardan). Certain iron-free zones of nephyline syenite have been delineated that can be used as a replacement of feldspar in the glass and ceramics industry. The development and exploitation of this mineral will be carried out further during the Seventh Plan period.

Barite

Extensive deposits of barite are present in Lasbela and Khuzdar (Baluchistan), sufficient to meet domestic demand for barite use in oil drilling, special paints and industrial chemicals.

For these purposes, an open cast mine has been developed as a joint-venture and a modern grinding mill of 24,000 tonnes per year capacity has been constructed in Khuzdar. An additional plant to export the material to the Middle East for use in oil drilling is planned.

Salt

Large salt reserves are found in the country, specially in the Salt Range (Jhelum). Mining is being done at various locations, particularly at Khewra. Other areas have been investigated for development and exploitation. A salt iodizing plant will be established at Khewra.

Sulphur

Some sulphur reserves are available in Pakistan. The Koh-e-Sultan deposits in Chagai (Baluchistan) are being developed by the Baluchistan Development Authority. Further exploration is likely to reveal additional stocks.

Copper

The Saindak Integrated Mineral Development Project formulated by the Resources Development Corporation (RDC), established in 1974 under the Ministry of Petroleum and Natural Resources, was based on the establishment of a metallurgical complex comprising a copper smelter, a sulphuric acid plant and a steel billet mill. Following extensive investigations, the Government of Pakistan approved the project at an estimated cost of Rs 4,080 million with a foreign exchange component of Rs 2,108 million. The project on completion will yield an average annual production of 18,604 tonnes of copper for 16 years. The ore reserves will also yield 1.56 tonnes of gold and 2.3 tonnes of molybdenum.

Iron ores

Iron ore deposits are being explored at Chigendik and Pachinkoh in the Nokkundi area. The Chigendik ore body contains approximately 5 million tonnes of ore with an average iron content of 45 per cent which can be mined by open-pit methods. The Pachinkoh ore body contains approximately 45 million tonnes of ores with an average iron content of 49 per cent most of which (80 per cent) can be obtained through underground methods. These ores can be concentrated to up to 68 per cent iron content and used as feedstock and in pellet-manufacturing plants. According to studies, the pellets are suitable as charge materials for blast furnace operations and in direct-reduction plants to produce direct-reduced iron pellets. The project receives the highest priority in the Seventh Plan.

Precious minerals and stones

There is significant potential for expanding the production of precious stones in Pakistan, especially in the northern parts of the country. The high-class ruby, emerald and aquamarine deposits merit detailed exploration by deep drilling and underground working. Presently, out of thirty showings, two to three ruby deposits are operative in Hunza. Emeralds and aquamarine are being mined in various parts of the northern areas, especially Swat. Detailed exploration and development in all the promising zones, especially Azad Jammu and Kashmir, have been planned.

C. ENERGY RESOURCES

The overall supply of commercial and non-commercial energy can be gauged from Table V.7. Oil and natural gas account for over 50 per cent of total energy supply. The gross supply of commercial energy increased at an annual average rate of 5.6 per cent during 1982/83 – 1987/88. The Table reveals the significant increase in the share of indigenous crude

production during 1982 83 – 1987 88. Imports are expected to fall to 8.6 per cent of the gross supply of commercial energy by the year 1992 93. Non-commercial energy is expected to contribute around 27 per cent of total energy supply in 1992 93. It continues to play an important though diminishing role in overall energy supply.

Pakistan's *per capita* energy consumption is among the lowest in the world. Total energy consumption has grown at an annual rate of 6.6 per cent during 1982 83 – 1987 88; demand within the industrial sector has grown at the rate of 9.4 per cent. The industrial sector is the leading energy consumer. In 1987/88 industrial energy consumption amounted to 6.5 million tonnes of oil equivalent (MTOE) – representing 26 per cent of the total.

During 1988/89 – 1992/93 Pakistan expects to spend Rs 131.9 billion ($7.7 billion) on the energy sector – this is 37.7 per cent of the total public sector investment outlay during the Seventh Plan period. Significant oil finds have reduced the import dependence from 90 per cent in 1980 to about 60 per cent in 1989. Pakistan offers extremely liberal terms to transnational oil corporations - currently nine are operating in Pakistan, with Union Texas having the most conspicuous success.

Unlike the rapid growth of crude oil production – which has created problems since refining capacity is currently only about 60 per cent of extraction levels – all other energy sectors have grown at levels well short of the Plan target. During 1982 83 – 1987/88 gas production increased at an annual rate of 3 per cent and hydroelectricity at the rate of 7 per cent.

Expansion of hydroelectric generation is being delayed due to international and interprovincial conflicts. The installation of a nuclear power station has been delayed because of United States opposition to the development of Pakistan's nuclear development programme. This power station was originally designed for completion by 1991 and was to have a 900 MW capacity. France has expressed an interest in the project.

Pressure has also forestalled the development of the Kalabagh dam with a capacity of 3,600 MW. The disbursement of foreign aid committed to this project is conditional and subject to Pakistan abandoning the proposed nuclear power station. There are no chances of Kalabagh being built while the United States remains uncertain about Pakistan's nuclear plans.

The World Bank is exerting pressure for a major privatization of the energy distribution and generation system. There are very few domestic bidders but several international companies have expressed interest. The bulk of the financial assistance to the energy sector comes from foreign donors. The World Bank and the Asian Development Bank are currently funding a major transmission project to link the north and south of the country.

It is estimated that Pakistan is losing about $500 million annually of value added in manufacturing due to load-shedding, according to a United States Agency for International Development (USAID) Report.* The Report estimated that hydro-season induced load-shedding results in an 18 per cent loss of MVA for small industries, compared with 5.5 per cent for large industries. Commenting on the present energy scenario, the USAID Report says that the effective demand for energy is reduced to about 4,800 MW and that the energy sector is unable to provide reliable supplies of energy to meet this level. There is, in addition, a large unmet demand of industrial and other consumers. According to the Report, Pakistan will need at least 6,000 MW more by 1993, or a doubling of capacity, to meet the growing demand. This will require up to Rs 100 billion of additional investment.

* For details, see *Economic Review* (Karachi, 1989), Vol. XX, No. 3, p. 57

Table V.7. Commercial and non-commercial energy supply, 1982/83, 1987/88 and 1992/93

Source of energy	1982/83		1987/88			1992/93[b]		
	MTOE[a]	Percentage share	MTOE	Percentage share	Annual growth rate (Percentage)	MTOE	Percentage share	Annual growth rate (Percentage)
Commercial energy								
Imported crude	4.3	15.2	3.6	10.0	3.5	4.4	8.6	4.1
Imported petroleum, oil and lubricants	1.9	6.7	4.1	11.4	16.6	6.7	13.1	10.3
Indigenous crude	0.6	2.1	2.2	6.1	29.7	3.8	7.4	11.6
Total oil	6.8	24.0	9.9	27.4	7.8	14.9	29.1	8.5
Natural gas production	7.5	26.5	9.1	25.2	3.9	15.2	29.7	10.8
Coal	1.7	6.0	2.3	6.4	6.2	3.6	7.0	9.4
Hydro	2.6	9.2	3.2	8.9	4.2	3.7	7.2	2.9
Nuclear	0.1	0.4	0.1	0.4	0.0	0.1	0.2	0.0
Gross commercial energy	18.7	66.2	24.6	68.2	5.6	37.5	73.3	8.8
Non commercial energy								
Fuel wood	5.2	18.4	6.2	17.1	3.5	7.3	14.3	3.3
Biomass	4.35	15.4	5.3	14.7	4.1	6.4	12.5	3.9
Gross non commercial energy	9.6	33.8	11.5	31.8	3.8	13.7	26.8	3.7
Gross supply[c]	28.3	100.0	36.1	100.0	5.0	51.2	100.0	7.2
Less								
Feedstock (natural gas)	1.1	1.0	1.9	1.4	7.0			
Bunker, export, non energy	1.0	0.8	5.5	0.9	2.4			
Net supply	26.2	34.4	5.6	48.9	7.3			

Source: Government of Pakistan, Planning Commission.
a Million tonnes of oil equivalent
b Projection
c Includes feedstock, non energy uses, bunkers

D. INTERNATIONAL ASSISTANCE FOR INDUSTRIAL DEVELOPMENT

Pakistan continues to rely heavily on external financing and technical assistance for its development initiatives. The economy's aid-intensiveness is evidenced from the fact that over the last five years Pakistan received on an average aid commitments of $2.4 billion annually from multilateral agencies (53.4 per cent) and bilateral donors (46.6 per cent). Total aid committed to Pakistan stood at $3.0 billion in 1990, compared with $3.2 billion in 1989. Grants and credits account for around 70 per cent of all external contributions; most of them are granted on concessional terms at 1 per cent interest rate and between 40 to 50 years maturity. Multilateral assistance outweighs bilateral contributions, a fact explained mainly by the large-scale operations of the World Bank and the Asian Development Bank (AsDB). In 1988, Pakistan was the sixth largest recipient of multilateral aid after India, China, Indonesia, Bangladesh and Egypt.

The majority of World Bank/International Development Association (IDA) funds is directed to energy, irrigation, agriculture and industry. By the end of 1988 World Bank loans and IDA credits to the industrial sector of Pakistan amounted to $547.62 million, representing 15 per cent of the World Bank's cumulative financial assistance to Pakistan, compared with 24 per cent for the energy sector.

The final disbursement of the third fertilizer industry rehabilitation loan totalling $25.4 million was made in April 1988 by the World Bank. The loan was meant for the rehabilitation and rationalization of the fertilizer production facilities of two companies of the National Fertilizer Corporation (NFC), and enhancement of the capacity of the NFC group of companies through an operational, management and training improvement programme.

The third industrial investment credit of the World Bank amounts to $150 million (negotiated in 1989). It is aimed at: financing private industrial projects through an expanded term-lending system; assisting the government in developing a more efficient stock market to increase the resources of equity finance for industry; stimulating competition among participating financial institutions as a means of improving the services to the private sector; and achieving a more market-determined interest rate structure. Technical assistance programmes include training, provision of necessary office equipment and sector studies as well as advisory services required to improve the efficiency of the credit delivery system for industrial finance.

The contribution of the World Bank to the newly established Energy Development Fund is noteworthy. The second energy sector loan amounts to $150 million. The Fund is expected to attract the participation of the private sector in the development of energy. The World Bank envisages the creation of a framework for private sector participation in the energy sector during the Seventh Plan and at achieving a greater private sector participation in the Eighth Plan.

Small-scale industry development continues to be a priority of the government. The World Bank has supported the strategy by providing credit, technical and marketing assistance to small-scale industries and by improving the institutional arrangements. The World Bank endeavours to provide technical and financial assistance to small-scale enterprises for expansion and modernization.

With a $634 million loan from the Asian Development Bank (AsDB), Pakistan became the largest recipient of AsDB loans in 1988. The primary commitment of the AsDB in Pakistan remains with agriculture, energy and industry. The Bank's conditionalities are largely similar to those of other multilateral agencies, namely, de-regulation, promotion of private enterprises, privatization, liberal trade policies and reforms in the taxation system. AsDB's project assistance to the industrial sector in 1988 and 1989 encompassed loans to small-scale industries and to National Development Leasing Corporations for financing the equipment needs of primarily private enterprises. The Asian Development Bank planned a capital assistance of $200 million to establish a credit line for the financing of medium- to large-sized industries in 1989.

The United Nations Development Programme (UNDP) is currently assisting the Government of Pakistan within the framework of its Fourth Country Programme covering the period January 1987 to December 1991. The overall objective of UNDP technical co-operation during the Fourth Country Programme is to improve the effectiveness of the utilization of development resources for the country's investment programmes and to increase the absorptive capacity of the national development infrastructure through technical assistance projects. Emphasis is placed on projects that are aimed at pre-investment activities, such as the preparation of master plans, investment programmes for various subsectors, preparation of feasibility studies, technical support for the implementation of specific investment programmes that include external financing, strengthening institutions and at human resource development. A majority of UNDP projects is directed towards institution building. Around 14 per cent of the projects are related to the industrial sector.

With a UNDP budget of $6.5 million, UNIDO implemented 25 projects in the second half of 1988. There has recently been a shift in UNIDO technical assistance to large-scale industrial projects that are expected to have an indelible impact on the economy and growth rate. This is evidenced by the approval in 1988 of technical assistance inputs to the Hyderabad Leather Footwear Centre, the Pakistan Machine Tool Factory and the Synthetic Fibre Development and Application Department. A $3.4 million budget was earmarked for these projects. The approved technical co-operation projects in 1989 included, *inter alia*, assistance to a plastics technology centre, heat treatable steel, investment costing, industrial training, policy planning, tannery waste treatment and the research and development centre for petroleum and petrochemicals. UNIDO has generated a number of project ideas that are in tune with the country's industrial objectives. The UNIDO pipeline projects include, *inter alia*, assistance to the modernization of central laboratories, integrated development of leather production, industrial data systems, heavy foundry and forge, and the industrial training and consultancy service of the Textile Industry Research and Development Centre.

The Aid to Pakistan Consortium comprises Belgium, Canada, France, the Federal Republic of Germany, Italy, Japan, Netherlands, Norway, the United Kingdom and the United States. Leading non-consortium members include China, Kuwait, Saudi Arabia, Spain, Sweden, Switzerland and the USSR. Outstanding bilateral commitments (including contributions from non-consortium members) to technical assistance to industry stood at $39.8 million in 1989. The United States programme assistance to Pakistan is governed by the March 1986 negotiations which resulted in a commitment to provide $2.3 billion of financial assistance in support of economic policy reforms to improve domestic resource mobilization, stimulate private sector investment and enhance the overall performance of the Pakistan economy. In particular, the programme attempts to address balance-of-payments pressure, weak domestic resource mobilization, imbalance between energy supply and demand, low agricultural productivity, high population growth rate, high inflation, low literacy rates, poor quality of key institutions, lagging areas and problems pertaining to narcotics production and use. Among the bilateral technical assistance to industry, the Netherlands contribution is significant. In 1988 the Netherlands co-financed the third small-scale industries project to support the government's strategy for small-scale industrial development. Netherlands technical assistance to the leather industry in 1989 was focused on the modernization of the Institute for Leather Technology and on the establishment of a Leather Service Centre at Kasur. Technical assistance was also rendered to a metal industries project and to strengthening credit facilities for small-scale industries in Punjab.

Concessional multilateral assistance and bilateral funds will be sought for the implementation of the new ambitious public sector programme as the financial provisions for these projects are not yet clearly spelt out. The need for external assistance is more pronounced in view of the fact that the new public sector projects have not been budgeted for in the current annual plan. It is estimated that the foreign exchange component of the total investment expenditure will be around 60 to 70 per cent.

The new government's adherence to the policy course suggested by the IMF and World Bank has won the approbation of many multilateral agencies and bilateral donors. International support to Pakistan's development efforts is therefore likely to increase. However, external capital and technical assistance has to keep pace with the changing dimensions of requirements. The industrial sector of Pakistan needs substantial international assistance to build up a strong industrial base and to generate a sustainable pace of industrial expansion.

Industrial development in Pakistan is thus crucially dependent on external financing and technical assistance. Technical co-operation inputs will need to focus on the formulation of viable subsector-specific strategies. The specific needs of key manufacturing subsectors are often ignored by the macroeconomic policy orientation advocated by donor organizations and agencies. The conception of subsector-specific policies will need to be formulated on a continuing basis according to the changing dimensions of subsectoral problems and needs, particularly in the key industries of engineering, textiles, fertilizers, leather and fruit processing. Central to a viable strategy is the rapid creation of infrastructural facilities, the absence of which is a major constraint to industrial development. Multilateral organizations and bilateral donors can play a significant role in the creation of a strong infrastructural base, the preparation of feasibility studies, and in attracting foreign investors to promising industrial ventures.

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ANNEXES: INDUSTRIAL STATISTICS AND INVESTMENT INFORMATION

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ANNEX
A

INDUSTRIAL PRODUCTION STATISTICS

Annex Table A-1. Role of manufacturing in gross fixed capital formation, 1982/83–1987/88

(Million rupees in current prices unless otherwise specified)

Sector	1982/83	1983/84	1984/85	1985/86	1986/87[a]	1987/88[b]
Gross fixed capital formation	56,741.8	63,439.0	71,797.1	80,893.2	93,861.5	101,804.5
Manufacturing	10,555.9	12,827.7	12,935.6	16,253.0	16,688.0	17,827.0
Other sectors	46,195.9	50,611.3	58,861.5	64,640.2	77,173.5	83,917.5
Share of manufacturing in gross fixed capital formation (percentage)	18.6	20.2	18.0	20.1	17.8	17.5
Share of private sector manufacturing (percentage)	51.3	55.6	70.0	71.5	80.0	82.7
Share of public sector manufacturing (percentage)	48.7	44.4	30.0	28.5	20.0	17.3
Private sector manufacturing	5,412.5	7,127.3	9,064.6	11,630.5	13,498.3	14,743.4
i) Large-scale	4,068.3	5,655.3	7,469.3	9,784.8	11,445.4	12,199.7
ii) Small-scale	1,344.2	1,472.0	1,595.3	1,845.7	2,052.9	2,543.7
Public sector manufacturing	5,143.4	5,700.4	3,871.0	4,622.5	3,189.7	3,084.0
i) Large-scale	5,116.7	5,685.5	3,817.5	4,565.4	3,161.9	3,047.5
ii) Small-scale	26.7	14.9	53.5	57.1	27.8	36.5

Source: Federal Bureau of Statistics, *Pakistan Statistical Yearbook* (Karachi, 1989).

a Revised.

b Provisional.

Annex Table A-2. Volume and value of Pakistan's exports, 1977/78–1987/88

(value in million US dollars)

	1977 78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
Raw cotton											
Volume (m.Kg)	101.00	55.00	251.00	325.00	231.30	254.92	98.22	262.99	638.51	640.96	502.00
Value	110.10	66.20	335.30	525.60	278.50	306.58	131.44	287.94	513.66	446.79	611.30
Basmati rice											
Volume (000 MT)	280.00	180.00	320.00	410.00	261.81	237.74	405.93	174.06	260.54	187.65	221.80
Value	124.00	135.40	225.50	290.00	185.42	148.24	243.84	108.66	173.59	133.05	160.70
Other rice											
Volume (000 MT)	600.00	830.00	770.00	830.00	689.22	667.10	859.10	544.63	1055.48	1052.74	988.40
Value	119.30	206.00	196.70	275.80	205.25	141.49	178.14	111.50	168.86	161.05	203.20
Cotton yarn											
Volume (m.kg)	60.00	97.90	99.90	95.20	95.60	134.10	101.81	125.86	157.90	259.67	210.90
Value	107.00	197.60	205.90	207.00	196.67	247.51	21[illegible]42	261.93	279.51	506.93	541.50
Cotton cloth											
Volume (m.sq.mtr)	453.50	531.80	545.80	500.90	584.30	605.33	664.38	687.62	[illegible]37.35	693.45	848.60
Value	175.70	215.70	244.20	241.40	279.50	281.59	360.24	305.64	[illegible]4.91	345.23	485.20
Leather											
Volume (m.sq.mtr)	8.70	12.70	10.20	8.80	11.01	10.74	16.64	15.67	17.71	19.98	20.10
Value	64.30	124.00	127.70	90.10	109.21	94.02	146.27	153.28	179.68	237.43	286.50
Carpets											
Volume (m.sq.mtr)	1.90	2.50	2.70	2.50	1.93	2.23	4.69	2.07	2.57	2.73	3.06
Value	118.30	174.80	222.10	226.60	159.10	150.50	172.31	133.87	166.39	199.76	252.58
Fish and preparations											
Volume (m.Kg)	13.40	13.60	13.20	19.70	17.60	16.58	27.63	36.34	35.87	39.95	43.60
Value	34.50	14.70	53.60	56.50	74.87	70.58	74.71	81.15	82.71	112.32	124.20
Guar and products											
Volume (MT)	90.00	110.00	90.00	49.00	56.02	62.83	78.68	66.93	72.88	74.00	51.20
Value	20.50	27.50	33.60	28.99	28.93	22.55	23.88	22.48	27.51	33.85	52.40
Ready-made garments											
Volume (m.Dozen)	1.93	2.54	3.78	4.51	4.87	4.05	6.79	7.19	10.27	15.44	14.84
Value	29.80	38.10	53.90	75.26	94.15	122.42	162.75	132.71	206.39	354.97	349.80
Synthetic Textile Fabrics											
Volume (m.sq.mtr)	31.30	10.30	5.10	90.80	12.30	140.24	66.14	28.60	99.91	277.63	298.10
Value	15.55	6.56	5.45	128.48	23.50	220.12	107.70	41.94	49.69	157.03	197.80
Raw wool											
Volume (m.Kg)	4.90	5.30	4.20	2.70	5.80	7.14	8.24	10.77	9.78	8.57	6.10
Value	7.37	10.10	9.59	5.05	10.62	12.50	12.71	17.22	16.97	18.32	16.92
Others											
Value	384.58	492.94	651.16	806.72	818.68	876.90	936.59	832.68	890.14	974.27	1171.90
Total exports											
Value(c&f)	1311.00	1709.60	2364.70	2957.50	2465.00	2695.00	2768.00	2491.00	3070.00	3681.00	4454.00
Value(fob)				2798	2319	2627	2669	2457	2942	3498	4341.00

Source: Planning and Development Division.

Annex Table A-3. Pakistan's major imports, 1982/83–1986/87

(Millions of rupees)

Item	1982/83	1983/84	1984/85	1985/86	1986/87
Chemicals[a]	3,422.7	4,586.7	5,603.5	6,610.2	8,845.8
Drugs and medicines	1,390.3	1,799.8	1,973.9	2,252.5	2,638.2
Dyes and colours	578.4	612.9	682.2	728.5	1,041.8
Chemical fertilizers	2,116.8	1,538.8	1,789.9	2,079.1	3,247.3
Electrical goods	2,078.6	2,391.1	2,476.8	3,114.4	3,118.1
Machinery, non-electrical	9,312.3	10,828.0	13,437.5	14,955.1	15,634.2
Transport equipment	5,423.6	6,307.2	7,815.8	9,177.9	8,791.1
Paper, board and stationery	1,053.8	1,171.5	1,558.3	1,626.4	1,962.9
Tea	1,675.7	2,566.8	3,506.7	2,175.2	2,648.3
Sugar, refined	14.2	1.1	..	929.7	2,762.6
Art-silk yarn	1,606.6	1,586.4	1,588.8	1,320.7	1,626.0
Iron and steel and manufactures thereof	4,475.2	4,095.7	3,938.8	1,320.7	1,626.0
Non-ferrous metals	647.2	677.4	934.0	861.9	1,143.2
Petroleum and products	20,529.1	19,160.8	21,763.2	16,775.4	13,976.8
Oil vegetables	3,669.8	6,518.5	6,954.3	6,129.3	4,061.9
Grains, pulses and flour	879.8	866.1	2,909.8	5,067.0	1,754.1
Other imports	9,276.7	11,997.9	12,845.3	12,788.0	14,512.2
Total	68,150.8	76,706.7	89,778.2	90,946.3	92,430.8

Source: Government of Pakistan, Federal Bureau of Statistics, *Pakistan Statistical Yearbook 1988* (Karachi 1988), p. 595.

a: Excluding drugs and medicines, dyes and colours and chemical fertilizers.

Annex Table A-4. Production of vegetable ghee, 1981/82 – 1987/88

Year	Production (Tonnes)
1981 82	531,273
1982 83	512,602
1983 84	594,820
1984 85	640,319
1985 86	611,997
1986 87	608,686
1987 88	685,549

Source: *Economic Review*, December 1988.

Annex Table A-5. Key data on sugar production, 1979/80 – 1987/88

Production season	Cane crushed (tonnes)	Sugar produced (tonnes)	Molasses produced (tonnes)	Cane price			Sugar price (Rs/tonne)	Excise duty (Rs/tonne)
				NWFP	Punjab	Sind		
1979 80	5,592,964	544,324	219,509	180 84	187 54	194 27	5,052 00	1,350
1980 81	9,143,840	821,357	367,070	234 43	241 12	247 82	6,001 50	1,350
1981 82	14,491,518	1,268,334	644,669	234 43	241 12	247 82	6,801 50	1,350
1982 83	12,511,397	1,110,576	531,176	234 43	241 12	247 82	6,801 50	2,150
1983 84	13,485,732	1,133,643	689,877	234 43	241 12	247 82	Decontrolled	2,150
1984 85	14,692,506	1,304,972	699,505	234 43	241 12	247 82	Decontrolled	2,150
1985 86	12,059,760	1,102,315	545,946	234 43	241 12	247 82	Decontrolled	2,150
1986 87	14,485,439	1,255,838	666,075	288 01	294 71	301 41	Decontrolled	2,150
1987 88 (Estimate)	17,750,000	1,500,000	682,000	288 01*	294 71*	302 41*	Decontrolled	2,150

Source: *Economic Review*, May 1988.
* Sugar mills pay a surcharge of Rs 30 100 per tonne

Annex Table A-6. Production of beverages, 1980/81 – 1986/87

Year	Value added (Rs million)
1980/81	524
1981/82	761
1982/83	893
1983/84	962
1984/85	1,061
1985 86	..
1986/87	1,399

Source: Government of Pakistan, Federal Bureau of Statistics; UNIDO data base.

Annex Table A-7. New biscuit projects, 1987

(Millions of rupees)

Name of project	Location	Product/capacity	Total cost	Foreign exchange	Remarks
Great Pakistan Food Industries	Hyderabad	Biscuits 1,000 tonnes Wafers 300 tonnes per annum	5.49	..	Proposed to expand by 300 tonnes for wafers
Big Mak Food Ltd. (Subsidiary of Pioneer Alliance)	Kotlakhpat Lahore	Biscuits 1,200 tonnes Wafers 300 tonnes Candies 750 tonnes Toffees 600 tonnes	..	..	Now producing
Diamond Food Industries Limited	Hub Chowki	Biscuits 3,700 tonnes per annum on the basis of 2 shifts per day	50.00	26.00	Under installation
Danish Butter Cookies Ltd.	Nooriabad	Butter cookies	..	14.45	..
Continental Biscuits Ltd.	Sukkur	Biscuits 1,800 tonnes Wafers 1,000 tonnes Wafer sticks 112 tonnes per annum	69.46	28.03	General Biscuits of France holds equity of 26 per cent
Mehtab Industries (Karanchie)	Sahiwal	Biscuits 1,920 tonnes Wafers 600 tonnes per annum	1.82	..	Sanctioned by IDBP in 1984
International Biscuits Ltd. (Dawood Group)	Hub Chowki	Biscuits (Meiji) 1,200 tonnes per annum	13.00	..	Collaboration with Meiji Japan
Karam Industries Limited	Hub Chowki	Biscuits 1,800 tonnes per annum Confectionery 4,530 tonnes	205.95	105.35	IDBP project

Source: IDBP, PICIC and Investment Promotion Bureau.

Annex Table A-8. Production of yarn and cotton cloth, 1977/78 – 1986/87

Year	Total yarn produced (Tonnes)	Total production of cloth (Thousand square metres)
1977/78	297,894	391,347
1978/79	327,789	339,442
1979/80	362,862	342,335
1980/81	374,947	307,882
1981/82	430,154	325,021
1982/83	448,430	335,537
1983/84	431,581	296,596
1984/85	431,731	271,831
1985/86	482,186	253,480
1986/87	586,371	237,879
1987/88	689,000	240,100[a]

Source: Government of Pakistan, Federal Bureau of Statistics.
a Estimate.

Annex Table A-9. Production of woollen textiles, 1977/78 – 1986/87

Year	Number of reporting factories	Woollen fabrics (Thousand square metres)	Woollen blankets (Thousand units)	Woollen carpets (Thousand square meters)
1977/78	14	780	342	545
1978/79	14	1,691	181	587
1979/80	13	1,435	179	669
1980/81	12	1,733	227	615
1981/82	12	1,633	326	403
1982/83	13	1,190	301	371
1983/84	17	1,398	355	501
1984/85	18	1,670	387	427
1985/86	20	1,801	535	584
1986/87	21	1,776	504	516

Source: Government of Pakistan, Federal Bureau of Statistics.

Annex Table A-10. Fertilizer production capacity and capacity utilization, 1986/87

(In thousand tonnes unless otherwise specified)

	Year of start-up	Installed capacity			Output			Capacity utilization (Percentage)	
		Products	Nutrients N[a]	P[b]	Products	Nutrients N[a]	P[b]	N[a]	P[b]
National Fertilizer Corporation of Pakistan (PVT) Ltd., Lahore									
(1) Pak-American Fertilizers Ltd., Daud Khel									
- Am.Sulfate (AS 21%N)	1962[c]	90	19	..	92	19.2	..	101	..
(2) Pak-Arab Fertilizer (Pvt.) Ltd., Multan									
- CAN (26% N)	1958[d]	450	117	..	413	107.5	..	92	..
- Urea (46% N)	1962[e]	93	43	..	88	40.4	..	94	..
- NP (23-23-0)	1979	305	70	70	324	74.4	74.4	106	106
(3) Pak-Saudi Fertilizers Ltd., Mirpur Mathelo									
- Urea (46% N)	1980	557	256	..	600	276.0	..	108	..
(4) Pak-China Fertilizers Ltd., Haripur									
- Urea (46% N)	1982	96	44	..	89	40.9	..	93	..
(5) Lhallpur Chemicals and Fertilizers Ltd.									
- SSP (18%P) Faisalabad	1957	20	..	4	24	..	4.3	..	108
- SSP (18%P) Jaranwala	1967[f]	80	..	14	81	..	14.6	..	104
Sub-total		1,691	549	88	1,714	558.4	93.3	102	106

Annex Table A-10. *(continued)*

	Year of start up	Installed capacity			Output			Capacity utilization	
		Products	Nutrients		Products	Nutrients		(Percentage)	
			N[a]	P[b]		N[a]	P[b]	N[a]	P[b]
Exxon Chemicals (Pak.) Ltd. Daharki									
Urea (46% N)	1968	256	118	..	256	117.9		100	
Dawood Hercules Chemicals Ltd., Chikoki Malhan									
Urea (46% N)	1971	348	160		364	167.4		105	
Fauji Foundation Co., Goth Machi									
Urea (46% N)	1982	570	262		596	274.3		105	
Pakistan Steel Mill, Karachi									
AS (21% N)	1985	17	3.6		10	2.1		58	
TOTAL		2,882.0	1,092.6	88.0	2,937.0	1,120.1	93.3	103	106

Source: Pakistan Fertilizer Statistics, April 1986 and Supplement 1985-86 and 1986-87, January 1988, of National Fertilizer Development Center (NFDC), and National Fertilizer Corporation of Pakistan (Pvt.) Ltd.

a. Nitrogen
b. Phosphorus
c. Expanded in 1968
d. Expanded in 1978
e. Modified in 1978
f. Expanded in 1976

Annex Table A-11. Output and capacity utilization, State Cement Corporation of Pakistan plants, 1980/81 – 1987/88

(Thousand tonnes)

Year	Output	Capacity utilization (percentage)
1980/81	3,539	92.5
1981/82	3,657	88.7
1982/83	3,938	87.9
1983/84	4,503	89.1
1984/85	4,698	91.6
1985/86	4,981	94.6
1986/87	5,402	93.3
1987/88	5,683	97.2

Source: *Economic Review*, May 1989, p. 123.

Annex Table A-12. Downstream projects of Pakistan Steel, 1989

(Millions of rupees)

Name of project	Location	Product/ capacity (Tonnes)	Total cost	Foreign exchange costs	Operational since
Fecto Tinplate (Fecto Group)	Bin Qasim	120,000	900.00	374.00	Project approved by Investment Promotion Bureau
Omega Tinplate Ltd. (Dawood Group)	Nooriabad Dadu	45,000	620.00	398.90	Approved by Investment Promotion Bureau in March 1984
Colour Profile Ltd. (Proposed) (Adamjee Group)	Hub Industrial Estate Lasbella, Baluchistan	15,000	44.30	17.00	The setting up of the project has been agreed by Pakistan Steel in November 1985
Metal Concepts Inc. (USA) (Arif Humayun)	Bin Qasim	Pakistan finished metals 50,000	163.16	96.0	Pakistan Steel has agreed in principle for setting-up of the project at Bin Qasim in September 1986
Eastcoast Engineering (Pvt.) Limited, Karachi	Bin Qasim	Steel furniture and fixtures 4,500	6.76	..	Pakistan Steel has agreed in principle for setting-up the project at Bin Qasim 1986
Crescent Steel and Allied Products Limited	Nooriabad Dadu Sistt.	Large diameter (8" to 66") welded steel pipes 25,194	165.00	83.00	The project nas gone into production from 27-7-1986
Steelex (Private) Limited, (Haji Steel)	S.I.T.E. Karachi	Small diameter (1/2" to 6" pipe) 12,000	37.57	17.55	The project has commenced production in November 1985
Peshawar Pipe Mills Ltd.	Peshawar	C.I. & M.S pipes (1/2" to 3" dia.) 10,000	17.00	6.59	The project went into production in July 1985

Annex Table A-12. (*continued*)

Name of project	Location	Product capacity (Tonnes)	Total cost	Foreign exchange costs	Operational since
Eastcoast Engineering (Pvt.) Limited, Karachi	Bin Qasim	Steel pipe (2" to 8" dia.) 30,000	69.91	10.25	The proposal for setting-up of the project was agreed by Pakistan Steel in December 1986
Sachal Pipe Mills Ltd.	Bin Qasim	Steel pipe (1/2" to 12" nominal dia.) 25,000	49.75	25.00	Pakistan Steel agreed in principle for setting-up of the project at Bin Qasim *vide* letter dated 3-5-1987
Dadu Plate Mill Ltd.	Bin Qasim	Checkered plates 10,000	77.07	24.05	The setting-up of the project has been agreed by Pakistan Steel in 1986
Razzaque Steel Ltd.	S.I.T.E. Karachi	Builders hardware: various type of hinges, door bolts and handles	6.00	..	The proposal for setting-up of the project was approved by Pakistan Steel 31-7-1985
Jamal Pipe Industries Ltd. Lahore	Lahore	API grade pipe (1/2" to 24" dia.) 20,000	15.00	9.00	The commercial production started w.e.f. January 1988
General Pipe Industries	Lahore	Steel pipe 15,000	3.95	..	Construction and erection started in January 1988
Omar Jibran Engineering Ltd. Karachi	Bin Qasim	Pre-engineering building manufacturing, steel parts for machinery, threading of oil country tubulars and automotive components plant	84.54	53.56	The setting-up of the project at Bin Qasim has been by Pakistan Steel

Annex Table A-12. (*continued*)

Name of project	Location	Product/ capacity (Tonnes)	Total cost	Foreign exchange costs	Operational since
SASM Engineering Ltd., Karachi	Bin Qasim	High quality special components and equipment manufacturing plant (mostly the parts for sugar mills)	170.12	50.00	The setting-up of the project at Bin Qasim was agreed by Downstream Committee in 1988
B.T.M. World Trade (Private) Limited	Bin Qasim	Pressing unit for machinery and fabricating body components of cars, scooters, motorcycles, light commercial vehicles and trucks	222.27	116.78	The setting-up of the project at Bin Qasim was agreed in principle in the Downstream Committee in 1987
Multipole Manufacturing Company Limited	Bin Qasim	Tapered steel poles 8,000	113.08	74.15	The project was struck off from the list of Downstream Industries of Pakistan Steel in November 1988
Ayub Associates Abbottabad	Hatar (Haripur)	Galvanized sheets corrugating 25,000	6.10	3.90	The setting-up of the project has been agreed by Pakistan Steel in 1985
Zenith Engineering (Private) Limited Karachi	Bin Qasim	Automobile exhaust system manufacturing plant 20,000	11.55	4.89	The setting-up of the project at Bin Qasim has been agreed by the Downstream Committee in 1988

Annex Table A-12. (*continued*)

Name of project	Location	Product/ capacity (Tonnes)	Total cost	Foreign exchange costs	Operational since
Amreliwala Hardware Industries Limited	S.I.T.E. Karachi	Small section plant 45,000	60.00	30.00	The project has gone into production in June 1986
Castle Engineering Ltd., Lahore	Chunian (Distt. Kasur)	Cold drawn steel bars and shapes manufacturing plant 20,000	20.00	2.50	The setting-up of the project at Bin Qasim has been agreed by Pakistan Steel in December 1986
Abbas Steel Industries (Pvt.) Limited	Landhi Karachi	Wire rod, baling hoops and wire products manufacturing plant 35,000	48.00	23.50	The project has gone into production in October 1987
Undok Millsons Foundry	Nooriabad (District Dadu)	G.I. pipe fittings 1,280	17.00	8.50	The project has been approved by Central Investment Promotion Committee (CIPC). The construction and erection work of the project has been completed and the trial production started in September 1988
Pan Islamic Iron and Steel Co. Limited, Sukkur (Proposed)	Bin Qasim	Cast iron foundry 5,000	8.00	2.00	The setting-up of the project was agreed by Pakistan Steel in December 1986
Chiragh Sun Engineering (Pvt.) Limited	Bin Qasim	Forge, foundry and machine shop 2,000 (Spare parts)	13.34	..	The promotors agreement has been signed between Pakistan Steel and Chiragh Sun in 1987

Annex Table A-12. (*continued*)

Name of project	Location	Product/ capacity (Tonnes)	Total cost	Foreign exchange costs	Operational since
Thatta Cement Javedan Cement	Thatta Monghopir	Slag cement manufacturing plants 300,000/100,000	..	..	The Blast Furnace Granulated Slag allocated by the Ministry of Production for SCCP factories is provided to them for production of slag cement Both the cement plants have been producing slag cement since November 1983 and July 1984 respectively
Pakistan Slag Cement Industries Limited	Bin Qasim	Slag cement manufacturing plant 200,000	250.00	79.14	The setting-up of the project has been agreed by Pakistan Steel in the Downstream Industrial Estate, Bin Qasim based on utilization of blast furnace granulated and boulder slag
Pakistan Insulation (Private) Ltd.	Nooriabad	Slag wool manufacturing plant 5,500	88.45	38.60	Pakistan Insulation (Private) Limited submitted a feasibility report in September 1988
Envicrete Limited	Bin Qasim	Slag block plant 20 million block	96.00	42.00	The setting-up of the project was agreed in January 1986
Ahsan Rashid (Private) Ltd.	Bin Qasim	Coal-tar distillation plant 50,000 (tonnes of anthracene, xylene, naphtalene, tarpitch, etc.)	200.00	54.00	The proposal was discussed in the Downstream Industries Committee meeting held on 1-7-1987
Maks Coaltar & Oil Products Inc. (Bitumen Emulsions)		Pilot plant for coal-tar distillation 3,000/3,500	200.00	54.00	The setting-up of the project at Bin Qasim was agreed by Pakistan Steel in December 1985

Source: *Economic Review* (Karachi, May 1989), pp. 73 - 76.

Annex Table A-13. Size structure of engineering firms, 1984/85

Size of enterprise according to value of fixed assets	Basic metal		Fabricated metals		Non-electrical machinery		Electrical machinery		Transport equipment	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Rs 250,000	47	24.2	130	52.2	198	52.8	68	34.5	52	42.9
250,000 – 500,000	34	17.5	42	16.9	62	16.5	41	20.8	12	9.9
500,000 – 1,000,000	40	20.6	31	12.5	51	13.6	16	8.1	12	9.9
1,000,000 – 2,000,000	30	15.5	14	5.6	26	6.9	18	9.1	12	9.9
2,000,000 – 2,500,000	8	4.1	8	3.2	5	1.3	2	1.0	4	3.3
2,500,000 – 5,000,000	13	6.7	10	4.0	9	2.4	18	9.1	4	3.3
Over 5,000,000	22	11.3	14	5.6	24	6.4	34	17.2	25	20.6

Source: *Census of Manufacturing Industry 1984/85*, p. 26.

ANNEX
B

INDUSTRIAL INVESTMENT INFORMATION

B.I LEGAL FRAMEWORK GOVERNING FOREIGN PRIVATE INVESTMENT

A. The Foreign Private Investment Promotion and Protection Act, 1976

Definitions

In this Act, unless there is anything repugnant in the subject or context,

(a) 'foreign capital' means investment made by a foreigner in an industrial undertaking in Pakistan:

(i) in the form of foreign exchange, imported machinery and equipment; or
(ii) in any other form which the Federal Government may approve for the purpose.

(b) 'foreign private investment' means investment in foreign capital by a person who is not a citizen of Pakistan or by a company incorporated outside Pakistan, but does not include investment by a foreign Government or agency of foreign Government;

(c) 'industrial undertaking' means an industry, undertaking or establishment engaged in the production, distribution or processing of any goods, the providing of services specified in this behalf by the Federal Government or the development and extraction of such mineral resources and products as may be specified in this behalf by the Federal Government.

Words and expressions used but not defined in this Act shall have the same meanings as in the Companies Act, 1913 (VII of 1913).

Field for foreign private investment

The Federal Government may, consistent with the national interest, for the promotion of foreign private investment, authorize such investment in any industrial undertaking,

(a) which does not exist in Pakistan and the establishment whereof, in the opinion of the Federal Government, is desirable; or

(b) which is not being carried on in Pakistan on a scale adequate to the economic and social needs of the country; or

(c) which will contribute to:

(i) the development of capital, technical and managerial resources of Pakistan;
(ii) the discovery, mobilization or better utilization of the national resources;
(iii) the strengthening of the balance of payments of Pakistan;
(iv) increasing employment opportunities in Pakistan; or
(v) the economic development of the country in any other manner.

Approval of foreign private investment

Where the Federal Government sanctions an industrial undertaking having foreign private investment, it may do so subject to such conditions as it may specify in this behalf.

Protection of agreements

Where the Federal Government considers it necessary in the public interest to take over the management of an industrial undertaking having foreign private investment or to acquire the ownership of the shares of citizens of Pakistan in the capital of such industrial undertaking, any agreement approved by the Federal Government relating to such undertakings entered into between a foreign investor or creditor and any person in Pakistan shall not be affected by such taking over or acquisition.

Foreign capital or foreign private investment in an industrial undertaking shall not be acquired except under the due process of law which provides for adequate compensation to be settled in the currency of the country of origin of the capital or investment and specifies the principles on and the manner in which compensation is to be determined and given.

Repatriation facilities

Subject to the provisions of the Foreign Exchange Regulation Act, 1947 (VII of 1947):

(a) a foreign investor in an industrial undertaking established after the 1st day of September, 1954, and approved by the Federal government, may at any time repatriate in the currency of the country from which the investment originated.

  (i) foreign private investment to the extent of original investment;
  (ii) profits earned on such investment; and
  (iii) any additional amount resulting from the re-invested profits or appreciation of capital investment;

(b) a creditor of an industrial undertaking referred to in clause (a) may repatriate foreign currency loans approved by the Federal Government and interest thereof in accordance with the terms and conditions of the said loan.

Provided that nothing in this section shall affect the terms of the permission to make such investment granted to a foreign investor before the commencement of this Act.

Remittances by foreign employees

Foreign nationals employed with the approval of the Federal Government in any industrial undertaking having foreign private investment may take remittances for the maintenance of their dependents in accordance with the rules, regulations or orders issued by the Federal Government or the State Bank of Pakistan.

Tax concession and avoidance of double taxation

The Federal Government may allow such concessions to industrial undertakings having foreign private investment as may be admissible under any law for the time being in force.

Foreign private investment shall not be subject to other or more burdensome taxes on income than those applicable to investment made in similar circumstances by citizens of Pakistan.

Foreign private investment shall be allowed all the tax concessions which may be admissible on the basis of any agreement for avoidance of double taxation which the Government of Pakistan may have entered into with the Government of the country of origin of such investment.

Equal treatment

Industrial undertakings having foreign private investment shall be accorded the same treatment as is accorded to similar industrial undertakings having no such investment in the application of laws, rules and regulations relating to importation and exportation of goods.

Removal of difficulties

If any difficulty arises in giving effect to any provisions of this Act, the Federal Government may make such order, not inconsistent with the provisions of this Act, as may appear to it to be necessary, for the purpose of removing the difficulty.

Provided that no such power shall be exercised after the expiry of one year from the commencement of this Act.

Power to make rules

The Federal Government may, by notification in the official Gazette, make rules for carrying out the purposes of this Act, and such rules may, among other matters, provide for the employment of Pakistan and foreign nationals in industrial undertakings having foreign private investment.

The Act provides for security against expropriation and adequate compensation in case of acquisitions. The Act also guarantees the following:

(i) Remittances of profit and capital;

(ii) remittances of appreciation of capital investment;

(iii) foreign private investment shall not be subjected to more burden of taxes on income than those applicable to investment made in similar circumstances by citizens of Pakistan; and

(iv) relief from double taxation in cases of those countries with which Pakistan has agreement for avoidance of double taxation.

Foreign investment is also entitled to the following facilities:

(i) foreign nationals employed in Pakistan are permitted to send monthly remittances to the country of their domicile up to 50 per cent of net income; and

(ii) foreign nationals on returning from Pakistan are permitted to transfer their savings.

B. The protection of rights in industrial property order, 1979 (President Order No. 5 of 1979)

Interpretation

In this order, 'industrial property' means property, moveable or immoveable, used in the production, manufacture, processing or assembling of any goods or the development and extraction of mineral resources, or both in such production, manufacture, processing or assembling and in such development and extraction, and includes any right, title or interest in such property.

Order to override other laws

This Order shall have effect notwithstanding anything contained in the Constitution or any other law for the time being in force.

Protection of industrial property rights

(i) No person shall be deprived of his industrial property save in accordance with law.

(ii) No industrial property shall be compulsorily acquired or taken possession of save for a public purpose and save by the authority of law which provides for adequate compensation being given therefore within a reasonable time specified therein and either fixes the amount of compensation or specifies the principles on and the manner in which compensation is to be determined and given.

(iii) Any person to whom compensation is to be given under any such law as is referred to in clause (ii) may apply to the Court of competent jurisdiction for a decision as to whether such compensation is adequate or otherwise and for the determination of adequate compensation.

Saving

Nothing in this order shall be deemed to apply to, or to have effect in respect of, any industrial property which was compulsorily acquired or taken possession of before the commencement of this order.

C. Guidelines for the contraction of loans, credits and royalty technical fee agreements in the private sector

A number of steps have been taken by the Government to improve the access of the private sector to foreign currency resources and to facilitate transfer of modern technology. To promote these objectives the Finance Minister announced in his budget speech for 1983/84 that requirements of clearance of the State Bank of Pakistan and the Ministry of Finance to the terms and conditions of foreign credits including suppliers, credit and credits under the Pay As You Earn Scheme will not be required if these conform to certain standard conditions. Agreements for payment of royalties, technical fees and employment of foreign experts could also be entered into without prior clearance of the State Bank of Pakistan or the Ministry of Finance if these conform to the standard terms fixed by the Government. It was stipulated that guidelines will be announced by the Government in this respect. These guidelines are now issued as paras 3 and 4 below. Agreements conforming to these guidelines will not require prior approval of any Government agency. The borrower will, however, be required to furnish one copy of the loan agreement to the Exchange Control Department, State Bank of Pakistan, Karachi and the External Finance Wing, Ministry of Finance, Islamabad for registration. The registration with the State Bank will constitute the authority for the authorized dealer to remit the principal, interest and other charges as specified in the agreement to the creditor. Likewise, the party entering into agreements for transfer of technology involving payment of royalties, technical fees and payments to expatriates, will submit one copy of the agreement to the State Bank of Pakistan, Exchange Control Department, Karachi, for registration. The registration with the State Bank will serve as the authority for payments in foreign exchange as admissible under the Foreign Private Investment (Promotion and Protection) Act, 1976.

It is expected that the foreign loans raised by the private sector will encourage foreign participation in high technology areas and in projects that will break new ground. These loans shall not carry any Government or State Bank guarantee. It would, however, be permissible for commercial banks to issue Bank Guarantees after due scrutiny and with the prior approval of the State Bank as required under the Foreign Exchange Regulation Act.

D. Guidelines for foreign loans and credits

	Rate/limit for which sanction is not required
Rate of interest:	
(a) Interest on loans from banks commercial institutions	Not exceeding 1.5 per cent above LIBOR
(b) Interest on suppliers' credits:	
(i) Foreign credits negotiated through Development Financing Institutions viz. PICIC, IDBP, etc	At the rates negotiated by the institution concerned
(ii) In other cases	Not exceeding 1.5 per cent above LIBOR

The approval of the Government of Pakistan will be required where credit for export is provided at a concessional rate by the banks/financial institutions under the instructions or policy of foreign governments.

	Rate/limit for which sanction is not required
Front end fees/charges for cash loans mentioned at (a) above where applicable:	
(i) Commitment fee	Not exceeding 0.5 per cent per annum
(ii) Management fee	Not exceeding 0.5 per cent of loan amount for syndicate loans only
(iii) Legal expenses:	
(a) Single bank loan	At actual not exceeding $5,000
(b) Syndicated loan	At actual not exceeding $10,000
Down payment:	Subject to maximum of 15 per cent
Repayment period:	
Pay As You Earn Scheme	Not less than 5 years
Other loans	Not less than 7 years

The LIBOR rate will be applicable in cases where loans are obtained from Euro-currencies market. For loans and credits secured from other markets abroad, the margin will apply with reference to the rates prevailing in the respective centre. For example in the case of a Japanese yen loan obtained from the Japanese domestic market, the margin will apply with reference to the Japanese long-term prime rate.

E. Guidelines for agreements for transfer of technology

Royalty

- Definition of royalty:
  A royalty is a fee paid by a local firm to the foreign collaborator in consideration of: 'Licence to use the foreign manufacture's patent/brand name for marketing the product(s)'.

- No royalty would be allowed:
  (a) On consumer goods for the home market; and
  (b) In cases where more than 50 per cent shares are held by the owners of the patent/ trade mark/brand name.

The existing agreement will, however, be continued as per the terms and duration already determined.

- In other cases, the royalty shall be allowed as under:
  (a) Up to 3 per cent on capital goods manufactured for exports;
  (b) Up to 2 per cent on consumer goods manufactured for exports; and
  (c) Up to 1 per cent on capital goods manufactured for the home market.

- Royalties shall be for a period not exceeding 5 years.

- Royalties will be calculated and certified by the applicants' auditors on the basis of ex-factory price less excise duty and sales tax, if any, for home market and F.O.B. price for exports.

Technical fee

— Definition of a technical fee:
It is a fee paid by the local firm to the foreign collaborator in consideration of:

(a) Engineering and technical services including assistance with the manufacturing process, testing and quality control, assistance by way of making available a patented process and/or secret know-how, and rights to avail of the technical/confidential information resulting from continuous technical research and development, etc; and
(b) Technical training of local personnel.

— No technical fee shall be allowed on consumer goods or for a simple conventional process, or on goods which are being produced in the country without foreign technical collaboration.

— A technical fee may either be determined as a lump sum to be paid in instalments or be allowed as under:

(a) Up to 3 per cent on engineering goods and for such basic manufacture which requires sophisticated technology;
(b) Up to 1.5 per cent for product(s) other than (a) on new products only;
(c) The aggregate rate of royalty and technical fee should not exceed 5 per cent;
(d) Technical fees shall not be allowed for more than 5 years; and
(e) Lump-sum technical fees will not exceed 5 per cent of the foreign exchange cost of plant and machinery and will be admissible only for items (a) and (b).

— For basic manufacture, the technical fee will be calculated and certified by the company's auditors on the basis of ex-factory price.

— For assembly/manufacture, the technical fee may be calculated on the F.O.B. price of deleted components or parts of the product(s) which would be manufactured by local licensed firm, or on the ex-factory price of locally produced components or parts of the products(s) whichever is less.

— While calculating the technical fee, the excise duty, sales tax and the value of imported components and parts should be deleted from the ex-factory price. Documentary evidence in support of the above may be called for from the applicant(s).

— In the agreement no provision should be made for any compulsory minimum payment of a royalty/technical fee.

— In case of payment of the technical fee in a lump sum it should be spread over a number of years and should be linked with transfer of technology or services rendered. Further, the supplier of technology should affirm that the price is in line with the agreement made in other countries.

— There should be no requirement for purchase of raw material components from a particular source.

— Agreements should be under the Pakistan Law.

— Arbitration should be held in Pakistan under Pakistan Law.

F. Guidelines for engagement of expatriates

Foreign experts/technicians may be employed without reference to any government agency for rendering such services as supervision of installation, commissioning of the plant and training of personnel. Limits for *per diem* rates are indicated below:

Foreign technicians:

Canada, United States, Western Europe and Japan	Not exceeding $250 per day.

East European countries and China	The rates fixed by the concerned government organization of the respective countries.
All other countries	Not exceeding $175 per day.

General guidelines

Agreements not in conformity with the above, will require prior clearance from the competent authority.

Remittance of principal and interest, etc., in respect of foreign loans and royalty/technical fee shall be made at the official rate of exchange prevailing on the date of remittance.

Requests for exemption from income tax on interest earned on foreign loans will continue to be considered on a case-to-case basis.

These guidelines are subject to revision from time to time as and when required pursuant to changes in the domestic and international capital markets.

G. Industrial property rights

The protection of industrial property has as its object patents, utility models, industrial designs, trade marks, etc.

The Patent Laws in Pakistan are aimed at providing protection to industrial property. Industrial property rights are protected under the Patents and Designs Act and the Trademarks Act. Grant of Patent confers on the patentee the exclusive privilege of making, selling and using the invention throughout Pakistan for a period of 16 years (extendable according to circumstances) in consideration of his disclosure to the invention at the Patent Office. Today more than 8,000 patents are in force. Copyright of an original or new design is granted for a period of 5 years which is extendable upon applications for 2 further periods of 5 years each. The grant of licence for working a patent or using a design against payment of royalty is permissible.

The protection of rights in industrial property ordinance, 1979 (President's Order No. 5)

This Order specifies that no industrial property would be compulsorily acquired, without authority of law which provides for adequate compensation being given within a reasonable time. The adequacy or otherwise of the compensation so fixed can also be challenged in a court of competent jurisdiction.

H. Issue of capital

The Law

Control over issue of capital in Pakistan is exercised under the Capital Issue (Continuance of Control) Act, 1947. It prohibits issue of capital in Pakistan or a public offer for sale of securities by the Pakistan company or a foreign company without consent of the controller of Capital Issues. Similar restrictions apply if the capital is raised or securities are offered abroad by a company registered in Pakistan. Subscribing to issues not approved by the Controller of Capital Issues is prohibited. Issuing of a prospectus or any other offer for public sale of securities not approved by the Controller of Capital Issues is also prohibited.

The Controller of Capital Issues can impose conditions either at the time of giving permission to the issue of capital or giving recognition or at any other time thereafter and those conditions are binding on a company. Orders issued under these powers from time to time have the force of law.

The Policy

Control on issue of capital is designed to ensure a balanced investment of the country's resources, protect public participation in premature projects, and prevent over-capitalization and undue dependence on loan capital. Permission to issue capital does not, however, represent assurance by the government of the profitability of a project. In cases where the sanction of a government or semi-government agency is required before setting up a project, consent to issue capital is given only when the project is approved by competent authority. For example, (1) insurance companies have to be approved by the Ministry of Commerce, (2) industrial companies have to follow the guidelines laid down by the government for sanction of industrial projects.

Policies are also aimed at broadbasing the corporate ownership, protecting the interest of general shareholders and preventing abuse of power by controlling interests in companies.

Size of company

A private company is allowed to issue capital up to Rs 50 million. If it intends to issue capital beyond this limit, it is required to convert itself into a public company and offer 50 per cent of the total capital to the general public. However, in the case of companies with foreign capital, 50 per cent disinvestment is restricted to the local capital only.

Broadbasing of ownership

Fresh issue

At least 20 per cent of a public offer is reserved for the National Investment Trust (NIT). Any shares not picked up by NIT under this option are required to be offered to the general public. For the balance, applications for shares of the value of Rs 5,000 have a preference (prior accommodation) over application for shares of a value exceeding Rs 5,000.

Right Issues

(i) Public limited companies listed on the Stock Exchange can apply for the issue of right shares to the existing shareholders in accordance with provision of Companies Ordinance, 1984.

(ii) In case of public limited companies not listed on the Stock Exchange, the right shares may be offered to existing shareholders within the exemption limit of Rs 50 million. However, if it is desired to raise any part of the capital from the general public, 50 per cent of the capital at par shall be offered to the general public and NIT and prior approval of the Controller of Capital Issues be obtained to the proposed issue and the prospectus.

Bonus issues

(iii) Companies are allowed to capitalize their free reserves provided that after issue of bonus shares and tax payable thereof, the net free reserves do not fall below 25 per cent of the enhanced share capital. However, non-listed companies cannot capitalize reserves beyond their paid up capital of Rs 50 million.

I. Positive list and prohibited list

Foreign private investment shall be classified as either prohibited or allowed subject to normal restrictions. The following two lists assign the sectors to either of these two categories:

Positive List	*Prohibited List*
(i) Livestock farming	(i) Agricultural land
(ii) Seed farming	(ii) Forestry
(iii) Dairy farming	(iii) Irrigation
(iv) Poultry farming	(iv) Real estate

Positive List	*Prohibited List*
(v) Deep-sea fishing	including land,
(vi) Coastal Fishing	housing and
(vii) Inland fishing	commercial and
(viii) Manufacturing (other than specified list)	office buildings
(ix) Construction	(v) Radioactive minerals
(x) Power generation	(vi) Insurance
(xi) Oil, gas and coal exploration and mining	(vii) Health
(xii) Metals and minerals (other than radioactive)	
(xiii) Tourist services and hotels	
(xiv) Nuclear energy	
(xv) Export-related trading and commerce	
(xvi) Transport and communications	
(xvii) Gas transmission and distribution	
(xviii) Liquid petroleum gas (LPG) import and marketing	
(xix) Power transmission and distribution	
(xx) Banks and financial services	
(xxi) Oil distribution	

Source: Government of Pakistan, Ministry of Industries, *Pakistan Investment Guide* (Islamabad, July 1989).

B.II FISCAL, MONETARY AND OTHER INCENTIVES

Fiscal, monetary, trade and industrial policies have been attuned to bring about desired changes in the industrial sector. Unprecedented and revolutionary incentives have been provided in the new industrial package, as follows:

Income tax holiday

A four-year income tax holiday has been allowed throughout Pakistan to those key industries which are established between 1st July 1988 and 30th June 1993. The tax holiday will be admissible to key industries, *viz* biotechnology, fibre optics, solar energy equipment, computers and software, other electronics equipment and fertilizers.

In order to encourage industrial development of hitherto less developed areas, the income tax holiday stated above has been made admissible for a period of eight years for all industries proposed to be located in NWFP, Baluchistan (except Hub Chowki areas), FATA, northern areas and Azad Kashmir, and four years' tax holiday will be available in the Divisions of Dera Ghazi Khan and Bahawalpur in the Province of Punjab and the Divisions of Sukkur and Larkana in the Province of Sind to all industries set up between 1st July 1988 to 30th June 1993.

Exemption from customs duty

The key industries referred to in (1) above have also been exempted from payment of customs duty on imported machinery, provided that such machinery is not manufactured locally. The incentives will be admissible to industries set up between 1st July 1988 to 30th June 1993.

All industries proposed to be located in NWFP, Baluchistan (except Hub Chowki areas), FATA, northern areas, Azad Kashmir, Divisions of Dhera Ghazi Khan and Bahawalpur in the Province of Punjab and Sukkur and Larkana in the Province of Sind have been exempted from the levy of import surcharges on imported machinery, provided that such machinery is not manufactured locally, and also granted exemption of customs duty and sales tax.

Exemption of sales tax

For a period of eight years, the output of industries set up between 1st July 1988 to 30th June 1993 in NWFP, Baluchistan (except Hub Chowki areas), FATA, northern areas, Azad Kashmir has been exempted from payment of sales tax.

The other measures taken for the promotion of industry in the country are given below:

— To augment job creation, the Agricultural Development Bank of Pakistan and the nationalized banks will set apart Rs 1.2 billion during the next financial year for the establishment of agro-based industries in rural areas.

— To facilitate industrial investment in the private sector, the government has allowed six private sector parties to establish Investment Finance Banks.

— For genuine newcomers who do not own a major industry the following relaxations have been made:

  (i) their projects shall normally be financed at a debt equity ratio of 70:30;
  (ii) the condition of depositing the equity component in cash has been dispensed with.

— Realizing the inaccessibility, lack of infrastructure and seasonal nature of most of the business undertakings in the northern area, the government has decided to provide concessionary finances at a mark-up of 6 per cent per annum to finance mineral exploration projects, hotels, manufacturing of furniture, food processing etc.

— Nowadays, the electronics industry occupies a pivotal position in the process of industrialization. Customs duty exemption and tax holiday have been made available to this industry, if set up in NWFP or Islamabad. This industry was also declared as 'Key Industry' last year. Keeping in view the crucial role of the electronics industry in the industrial development of the country, the government has decided to extend the scope of customs duty and sales tax exemption on imported raw materials and components to the electronic industry set up anywhere in Pakistan.

— Till June 1989, the scope of exemption on the import of plant and machinery for the manufacture of pharmaceutical raw materials in the country was restricted to such pharmaceutical units which made use of the local flora and fauna. In the absence of a basic pharmaceutical industry in the country, pharmaceutical units have not been able to make use of this facility. It has now been decided to extend the scope of this concession to such basic chemicals which can be imported from world-wide sources without any franchise. Besides, exemption on import of pharmaceutical raw materials is proposed to be extended to the manufacture of all medicinal preparations registered as drugs under the Drug Act.

— Customs duty exemption on mining machinery and equipment was withdrawn last year. The government has now decided to restore this concession on such mining equipment and machinery which is not being manufactured in the country.

Income tax structure

Tax credit for investment by companies in industrial undertakings

Tax credit is admissible to a company in respect of the amount invested in the acquisition of share capital of a company which sets up an industrial undertaking, to the extent indicated below:

(a) 30 per cent of the amount invested if the industrial undertaking is located in Baluchistan, Tribal Areas, northern areas or Azad Kashmir;

(b) 15 per cent of the amount invested where the industrial undertaking is located at any other place, excluding the Talukas of Karachi and Hyderabad and Tehsils of Faisalabad and Lahore (Section 106 of Income Tax Ordinance, 1979).

Investment allowances to persons other than companies

An allowance of 33.33 per cent of the total income subject to a maximum of Rs 5,000 is admissible to any person, except a company, in NIT units, specified certificates and debentures and in the acquisition of the share capital of industrial companies other than by purchase from a previous owner (Section 45 of the Income Tax Ordinance, 1979).

Tax credit on investment by companies in shares and debentures and wealth tax exemption

Companies investing in shares or debentures of the Equity Participation Fund are allowed tax credit of 50 per cent of the amount invested in such shares or debentures.

Sales tax exemption on machinery

Machinery or component parts for industrial use are exempt from payment of sales tax if produced/manufactured in Pakistan (SRO 697(I)/77 dated 4–8-1977, amended from time to time).

Sales tax exemption on export of manufactured goods

In order to promote the export of manufactured goods, a general exemption from sales tax is given to all goods exported from Pakistan. In addition, the raw material used in their manufacture is also exempted from sales tax.

Exemption of dividend income

Exemption of dividend income is available as stated below:

(a) in respect of dividend income received from the National Investment (UNIT) Trust or any mutual fund established by the Investment Corporation of Pakistan or from a company listed on the Stock Exchange in Pakistan, other than that specified in sub-clause (b) or sub-clause (c)-

  (i) Where such dividend income does not exceed fifteen thousand rupees: the whole of such income.
  (ii) Where such dividend income exceeds fifteen thousand rupees: fifteen thousand rupees.

(b) in respect of income from dividends declared and paid by any public company registered at any time between the first day of July 1977 and the thirtieth day of June 1982 (both dates inclusive) under the Companies Act, 1913, (VII of 1913), and having its registered office in Pakistan, out of its profits for any income year ending on or before the thirtieth day of June 1982.

(c) in respect of dividend income received from any public company registered under the Companies Act, 1913 (VII of 1913), at any time between the first day of July 1978 and the thirtieth day of June 1982 (hereinafter referred to as the said period), having its registered office in Pakistan and engaged in an industrial undertaking set up in Pakistan at any time within the aforesaid period out of the profits of the undertaking, for a period of five years beginning from the year in which commercial production is commenced.

Bonus shares

The face value of any bonus shares or the amount of any bonus declared, issued or paid by a company to its shareholders with a view to increasing its paid-up capital is exempt in the hands of shareholders.

Exemption to foreign technicians

Salary received by any person who is not a citizen of Pakistan is exempt for a period of eight years from the date of his arrival in Pakistan for services rendered by him during such period as a technician under a contract of service approved by the Commissioner of Income-tax before the commencement of his service or within one year of such commencement.

Tax rebate on income from exports

Rebate is allowed to all commercial and industrial exporters from 25 per cent to 75 per cent of the tax attributable to income from exports of approved items manufactured in Pakistan.

Tax rebate for limited companies

Super tax rebate of five per cent is allowed to industrial undertakings set up between July 1975 and June 1980 provided the cost of fixed assets exclusive of cost of land does not exceed Rs 5.0 million.

The tax rate has been reduced to 50 per cent in the case of private limited companies and 40 per cent in the case of public limited companies.

Depreciation

Depreciation allowance is calculated on the cost of assets at the time of their acquisition in the first year and on the written-down value in subsequent years.

An initial depreciation allowance at a rate of 30 per cent is allowed on ships and at a rate of 25 per cent on other plant and machinery. The rate of initial depreciation allowance on residential buildings for industrial labour is 10 per cent.

In respect of assets most commonly in use, the rates of normal depreciation allowance are as follows:

– Building (not otherwise specified)	5 per cent
– Factory or workshop (excluding godowns, offices and residential quarters)	10 per cent
– Machinery and plant (not otherwise specified)	10 per cent
– Batteries, X-ray and electro-therapeutic apparatus and accessories	20 per cent
– Machinery used in the production and exhibition of cinematograph films	20 per cent
– Motor-vehicles, all sorts	20 per cent
– Moulds used in the manufacture of glass or concrete pipes	30 per cent
– Below-ground installations in mineral oil concerns	100 per cent

Rate of income tax

Individual, unregistered firms or associations of persons are taxed on a graduated scale principle. The effective rate of tax does not exceed 45 per cent of the taxable income. Current rates of tax are as follows:

– Where the taxable income does not exceed Rs 25,000	5 per cent of the taxable income
– Where the taxable income exceeds Rs 25,000 but does not exceed Rs 50,000	Rs 1,250 plus 15 per cent of the amount exceeding Rs 25,000
– Where the taxable income exceeds Rs 50,000 but does not exceed Rs 100,000	Rs 5,000 plus 25 per cent of the amount exceeding Rs 50,000
Where the taxable income exceeds Rs 100,000 but does not exceed Rs 200,000	Rs 17,500 plus 35 per cent of the amount exceeding Rs 100,000
Where the taxable income exceeds Rs 200,000	Rs 52,500 plus 45 per cent of the amount exceeding Rs 200,000

Provided that:

(a) no income tax shall be payable by an assessee where his total income does not exceed Rs 24,000.

(b) where the total income of an assessee exceeds Rs 24,000 but does not exceed Rs 28,000 and it includes any income chargeable under the head 'Salary' (such income being more than fifty per cent of his total income), income tax payable by him shall, before any rebate is allowed for any allowance referred to in clause (d), be taken as Rs 60, and where the total income of such assessee exceeds Rs 28,000 the tax payable by him before any rebate is allowed as aforesaid, shall be an amount equal to the aggregate of Rs 60 and the tax computed at the rate specified in the paragraph as applied to the balance of his taxable income exceeding Rs 4,000.

(c) where the total income of an assessee exceeds Rs 24,000 but does not exceed Rs 25,000, income tax payable by him shall not exceed fifty per cent of the amount by which the total income exceeds Rs 24,000.

(d) notwithstanding anything contained in the Income Tax Ordinance, the rebate for any allowance under section 39, 40, 41, 42, 43, 44A, 46 or 46 shall be computed at the average rate of tax and allowed accordingly.

(e) where the total income includes any income from a share of the income, profits and gains of a firm to which paragraph C of Part II applied.

Super tax

Super tax on the income of banking companies is charged at a rate of 35 per cent on total income excluding the intercorporate dividend received by such public company or any bonus or bonus shares income. In the case of any other company, tax is charged at the rate of 20 per cent in the case of the income of private limited companies and 10 per cent in case of public limited companies, excluding any bonus or bonus shares issued by it. The following rebates are admissible in respect of super tax payable by Pakistan companies other than banking companies:

(i) a rebate of 5 per cent to such company not being a banking company if it is a public company.

(ii) a rebate of 5 per cent to such company not being a company if it is a public company to which clause (iii) does not apply, if its paid-up capital plus free reserves as on the last day of the income year does not exceed Rs 500,000.

(iii) a rebate of 5 per cent on so much of the income, profits and gains of such company, being a public company, as are derived by it from an industrial undertaking if its paid up capital plus free reserves as on the last day of the income year does not exceed Rs 1,000,000.

(iv) a rebate of 5 per cent on so much of the income, profits and gains of such company, as are derived by it from industrial undertaking commencing commercial production at any time between the first day of July 1975 and the thirtieth day of June 1980 (both dates inclusive) if the original cost of fixed assets (excluding the cost of land) owned by the company and used by the undertaking does not exceed Rs 3,000,000, so however, that no rebate under clauses (ii) and (iii) shall be allowed to such company.

(v) a rebate of 10 per cent on so much of the income profits and gains of such company as are derived by it in Pakistan from processing, freezing, preserving and canning of food, vegetables, fruit, gram, meat, fish and poultry and

(vi) a rebate of 15 per cent to such company on so much of the income, profits and gains accruing or arising outside Pakistan.

Inter-corporate dividend tax

Inter-corporate dividends received by a company other than a public company are taxed at the following rates:

(i) where such dividends are received by the public company and are declared and paid by a Pakistan company in respect of the share capital issued, subscribed and paid after the fourteenth day of August 1947.	5 per cent of such amount
(ii) where such dividends are received by a foreign association declared to be a company by the Central Board of Revenue under Clause (16) of Section 2 of the Income Tax Act.	15 per cent of such amount
(iii) in other cases	20 per cent of such amount

Relief from double taxation is also available to the entrepreneurs of those countries with which Pakistan has an agreement for avoidance of double taxation. These countries are: Austria, Bangladesh, Belgium, Canada, China, Denmark, France, Germany, Federal Republic of, Greece, India, Iran (Islamic Republic of), Ireland, Italy, Japan, Lebanon, Libyan Arab Jamahiriya, Malaysia, Malta, Netherlands, Norway, Philippines, Poland, Romania, Saudi Arabia, Sri Lanka, Sweden, Switzerland, Thailand, United Kingdom and the United States.

B.III INVESTMENT PRIORITY AREAS

Agro-based industries

(1) Feeding and fattening ingredients for livestock
(2) By-products of sugar-cane/sugar
(3) Textile weaving
(4) Newsprint and craft paper
(5) Mechanical/chemical pulp
(6) Processing, canning and preservation of fruits and vegetables

Chemicals

(1) Fertilizer
(2) Tannery chemicals
(3) Petroleum derivatives
(4) Basic manufacture of insecticides and pesticides
(5) Basic manufacture of pharmaceuticals and its research products
(6) Terephthalic Acid (TPA)
(7) Mono Ethylene Glycol (MEG)
(8) Dyes/pigments
(9) Coal-tar fractionization/distillation
(10) Fibreglass
(11) Plastic raw materials such as PVC, polyethylene, polypropylene
(12) Methanol
(13) Special glass
(14) High quality ceramics wares
(15) Catalyst manufacturing
(16) Industrial solvents
(17) Synthetic rubber

Mechanical engineering items

(1) Engines and their parts for the automobile industry
(2) Forging/casting of automobile parts
(3) Dies/moulds
(4) Gear boxes
(5) Differential gears
(6) Tie rod ends
(7) Oil fuel pumps
(8) Gauges
(9) Brakes
(10) Steering gears
(11) Wind shields

Metallurgical products

(1) Alloy steel manufacturing
(2) Aluminium alloy manufacturing
(3) Copper alloy manufacturing
(4) Zinc alloy manufacturing
(5) Other non-ferrous alloy manufacturing
(6) Non-ferrous alloys
(7) High pressure hose pipes
(8) Seamless pressure pipes of large diameter

Machinery and equipment

(1) Hydraulic machinery, presses, pumps and other equipment
(2) Computerized machinery for boring and cutting, grinding and other purpose equipment
(3) Injection moulding machines
(4) Pressure die casting machines
(5) Tolls and bits manufacturing
(6) Testing equipment manufacturing
(7) Oil exploring rigs
(8) Textile weaving and spinning machinery
(9) Paper and pulp-making machinery

Electrical/electronics

(1) Capacitors
(2) Resistors
(3) Deflection yokes
(4) Coils
(5) Picture tubes
(6) Diodes
(7) Integrated circuits
(8) Tuners
(9) Heavy electrical equipment
(10) High voltage circuit breakers
(11) Transformers (66 kV and above)
(12) Chips, silicon and solar energy photovoltaic cells
(13) Tungsten filament and cathodes
(14) Compressors
(15) Expansion valves
(16) Overload relays
(17) Copper tubing
(18) Condensers
(19) Thermostats
(20) Electro-medical equipment

(21) Radars, microwave and HP equipment
(22) Generators
(23) Computers
(24) Auto bulbs
(25) VCRs
(26) Video/audio heads
(27) Video/audio tapes

Others

(1) Mineral exploration and processing

B.IV INDUSTRIAL ESTATES

I. Industrial estates where all basic facilities i.e. developed land, power, gas, water and telecommunications are available

Name of industrial estate	*Year of establishment*
(a) Punjab -	
1. Small Industrial Estate	1962/63
2. Lahore Township Scheme	1963
3. Small Industrial Estate	1963/64
4. Small Industrial Estate	1963/64
5. Small Industrial Estate	
6. Industrial Estate	1968
(b) Sind	
7. SITE, Karachi	1947
8. SITE, Hyderabad	1950
9. SITE, Kotri	1962
10. SITE, Sukkur	1963
11. Sukkur	1964/65
(c) NWFP	
12. Small Industrial Estate, Peshawar	1961/62
13. Industrial Estate Jamrud Road, Peshawar	1965/66
14. Small Industrial Estate Mardan	1974/75
(d) Baluchistan	
15. Hub Industrial Trading Estate, Tehsil Hub Distt. Lasbela	1982
16. Small Industrial Estate Tehsil and Distt. Quetta	–

II. Industrial estates where all basic facilities except gas are available

Name of industrial estate	*Year of establishment*
Punjab	
1. Thal Mandi Town Bakkar	1952/53
2. Thal Mandi Town Layyah	1952/53
3. Thal Mandi Town Jauharabad	1952/53

4. Thal Mandi Town Saraj Mohajir	1952 53
5. Small Industrial Estate Kot Lakhpat Lahore	1963 64
6. Small Industrial Estate, G.T.Road, Jehlum	
Sind	
1. SITE , Kotri, Kotri Taluka Dadu Distt.	1962
NWFP	
1. Small Industrial Estate, Abbottabad	1973 74
2. Small Industrial Estate, Khalabat	1973 74
3. Small Industrial Estate, D.I.Khan	1973 74
4. Industrial Estate Hattar, Haripur, Abbottabad	1985 86

B.V IMPORTANT CONTACT POINTS

Postal address	Telegraphic address	Telephone number	Telex number
Ministry of Industries Government of Pakistan Pakistan Sect. Block 'A' Islamabad	INDUSTRIES	827338	5774 MIND PK
Investment Promotion Bureau Kandawala Building M.A. Jinnah Rd. Karachi	IPEEBEE	719968	23137 SUPPLY PK
Office of the Controller of Capital Issues Government of Pakistan Finance Division Islamabad	FINANCE	811962	54202 MFIN PK
Central Board of Revenue Government of Pakistan Finance Division, CDA Block, No. 1, 2, 3 Islamabad	CEBOR	827832 820473	856 CEBOR PK
Office of the Chief Controller of Imports and Exports Government of Pakistan Ministry of Commerce 5-Civic Centre Islamabad	CHIEF IMPEX	820482	
Investment Advisory Centre of Pakistan Ground Floor State Life Building No. 3 Dr. Ziauddin Ahmad Road Karachi	CENTINVEST	512086 88 511552	25101 IACP PK

Postal address	Telegraphic address	Telephone number	Telex number
Pakistan Industrial Credit and Investment Corporation State Life Building No. 1 Post Box No. 5085 I.I. Chundrigar Road Karachi	PICICORP	225391–9	2710 PICIC PK
Industrial Development Bank of Pakistan, Head Office State Life Building No. 2 Wallance Road, P.O. Box 5082 Karachi	INDEBA	228535–39	KR-23722
National Investment Trust 6th Floor National Bank Building I.I. Chundrigar Road Karachi	WETRUST	222056–59	24476 NIT PK
Federation of Pakistan Chamber of Commerce and Industry Sharah-e-Firdousi, Main Clifton Karachi-6	FEDCOMERC	532179–98	25370 FPCC&I
Chamber of Commerce and Industry Aiwan-e-Tijarat Road P.O.Box No. 4158 Karachi-2	CHAMCOMIND	226091–95	23613 KCCI PK
Investment Centre Embassy of Pakistan 35, Lowndes Square London SW1X 9JN United Kingdom	PAREP LONDON	071–235–2044	
State Bank of Pakistan I.I. Chundrigar Road Karachi	PAKMONEY	23141–50	23730 SB PK
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Export Processing Zone Hafeez Centre 330034–5 Sharah-e-Faisal 330005–6 Karachi	EXPOXONE	219765–6	25692 EPZA PK
The Managing Director Bankers Equity Limited 1st Floor State Life Building No.3, Dr. Ziauddin Ahmad Road Karachi	BANQUITY	513683 514017	24646 BEL PK

Postal address	Telegraphic address	Telephone number	Telex number
The Chairman National Development Finance Corporation NSC Building 4th Floor M.T. Khan Road P.O.Box No. 5094 Karachi	TERMFUND	551187 551977–79 551091–92 551168	23842 NDFC PK
The Executive Director Regional Development Finance Corporation Ghousia Plaza, Blue Area P.O. Box 1893 Islamabad	INVESTFUND	820191 821450	5400 RDFC PK
The Managing Director Pak Kuwait Investment Co.Ltd. 7th Floor Sheikh Sultan Trust Building 10 Beaumont Road, GPO Box 10425 Karachi	PAKUWAIT	513261 513280	24396 PKIC PK
The Managing Director Pak-Libya Investment Co.Ltd 1st Floor Sheikh Sultan Trust Building 10 Beaumont Road, GPO Box 10425 Karachi	COINVEST	512045 515950	2439 PKIC PK
The Chief Executive Saudi Pak-Agricultural and Industrial Company Limited 2nd Floor, 44 East, Ali Plaza Blue Area Islamabad	SAPICOIB	821493 821494	5663 SAPIC PK
The Chairman Agricultural Development Bank of Pakistan 1, Faisal Avenue P.O.Box 1400 ADBP Building Islamabad	AGRIFIN	829090–99	5618 ADBP PK
The Managing Director Small Business Finance Corporation National Bank Building Ground Floor, Civic Centre P.O.Box No. 1587 Islamabad	SMALBIZFIN	821639 825823 820328 825652	

B.VI INSTITUTIONS SUPPORTING INDUSTRY

Pakistan Industrial Credit and Investment Corporation (PICIC)

Pakistan Industrial Credit and Investment Corporation Limited (PICIC) was set up in 1957 as a semi-autonomous body for the purpose of promoting private investments in industry. Industrial projects which do not involve foreign private investment are processed and finally sanctioned by PICIC without reference to the government except in specified cases. Its main functions are:

- giving long-term and medium-term loans in foreign and local currency. PICIC's assistance is generally given for acquisition of fixed assets and it does not provide loans for working capital. It also does not provide finance where a refunding operation is contemplated.

- direct participation in shares and in debentures stock.

- underwriting public issues of shares and other securities.

- assisting Pakistan entrepreneurs to obtain suitable foreign investment for their enterprises and conversely assisting foreign investors to locate suitable investment opportunities in Pakistan.

- assisting entrepreneurs in the preparation of investment proposals and acting as a financial adviser to enterprises it has agreed to finance, providing technical and managerial advice or assisting them in obtaining such advice.

PICIC negotiates and borrows foreign currency/loans with the approval of the government from foreign agencies such as the World Bank, Asian Development Bank, etc. The Corporation also arranges for joint financing of projects with foreign financial institutions such as the International Finance Corporation (IFC), Washington D.C., and the Netherlands Financierings Maatschappij Voor Ontwikkelingslanden N.V. (FMO). The Government of Pakistan also places at its disposal credit lines offered by foreign countries for industrial projects in the private sector.

PICIC provides long- and medium-term loans and credit in foreign as well as local currency. Its minimum lending limit is Rs 2.5 million for rupee loans and the equivalent of Rs 1.5 million for foreign currency loans, relaxable to the equivalent of Rs 0.750 million for underdeveloped areas. There is no minimum lending limit for balancing, modernization and replacement of existing units and enterprises which are existing PICIC clients.

Industrial Development Bank of Pakistan (IDBP)

The Industrial Development bank of Pakistan (IDBP) is an organization similar to PICIC with the main difference that it provides medium- and long-term credit to entrepreneurs for the development of small and medium sized industrial projects. The Bank, which has been in existence for twenty-six years, also guarantees loans on behalf of the government and administers the equity participation fund, which provides equity support to industrial projects belonging to the underdeveloped areas of the country and extends financial assistance to small-sized projects, in collaboration with the Small Industries Corporation set up in the province. Financial assistance is also provided for the balancing, modernization and expansion of existing units.

IDBP provides loans to industries both in foreign exchange and local currency. The Bank grants loans within the following maximum limits:

(i) Industrial corporation not incorporated under Companies Act, 1913	Rs 1.5 million with foreign exchange component not exceeding Rs 1 million
(ii) Other concerns (joint stock companies)	million both for foreign exchange and local currencies

The above limits do not apply to mining, cotton, inland transport and such other industry as the Federal Government may direct the Bank to finance beyond that limit, or to any concern in any other industry which the Federal Government, either on its own initiative or on the recommendations of the IDBP Board, may exempt from the limit.

Banker's Equity Limited (BEL)

BEL was established in 1979 to meet the diverse requirements of the industrial financing needed to promote and accelerate industrial development in the private sector. The financing operations of the Bankers Equity Limited have three distinct features. First, it provides financial assistance to large- and medium-size industries' projects and does not accept applications for financial assistance for initial finance falling below Rs 2.5 million. Second, it provides financial assistance under an arrangement of a single package deal as against the multiple system of project financing being followed in the country. Third, it provides financial assistance purely on a profit- and loss-sharing basis within the framework of the Islamic financial system being developed in the country. Bankers Equity is generally flexible in the terms and conditions of its financing and its business operations are solely conducted on the basis of the commercial and economic viability of the projects seeking assistance. The types of financial assistance being provided by the Bankers Equity Limited include direct financing through equity subscription in the nature of co-sponsors' equity and underwriting of public issues of shares, and term financing under profit- and loss-sharing arrangements in the form of purchase of Participation Term Certificates (PTCs), loans for purchase of local machinery and foreign currency loans and guarantees. Bankers Equity Limited, being the first registered Modaraba Company in the country, also makes arrangements for financing through floatation of Modarabas, a newly introduced concept of Islamic finance.

National Development Finance Corporation (NDFC)

The major objective of NDFC is to promote industrial expan[illegible] and economic growth in the country by providing financial and technical assistance, both in foreign currency and local currency, for the establishment of new enterprises as well as for the balancing, modernization and expansion of existing projects in the public and private sectors. It also finances the working capital requirements of projects. All financial assistance by NDFC is provided to limited companies. Existing proprietorship and partnership concerns can also apply for financial assistance. However, before funds are disbursed, they will have to form limited companies.

NDFC is presently involved in all the major sectors such as sugar, cement, energy, engineering, transport, mining, ghee, food, poultry, hotels, health services, etc. NDFC can finance all types of industrial projects.

The foreign currency funds are generally provided by NDFC at the interest rate of 14 per cent with repayment periods ranging between 5 and 10 years. NDFC also provides local currency long-term financing on a non-interest basis in line with State Bank of Pakistan instructions. The modes presently adopted are lease and mark-up at agreed amounts on a monthly basis. Mark-up is based on purchase of assets for the project by NDFC and resale of these to the borrower at mark-up. Local fabricated machinery (LFM) needs of a project are also financed under mark-up arrangements, in accordance with the State Bank of Pakistan's instructions. The profit rates charged by NDFC and other charges and fees levied are almost the same as those charged by the other financial institutions.

Disbursements are made against foreign currency and suppliers' credit facilities through the opening of Letters of Credit (L/Cs). The foreign currency L/Cs are opened against financing from bilateral and multilateral foreign currency resources with NDFC. The local currency L/Cs are opened against finances approved by the State Bank of Pakistan for local manufactured machinery.

For viable projects, NDFC may finance up to 60 per cent of the total project cost. The balance of 40 per cent is required to be met by project sponsors and/or the general public as the case may be. NDFC's financial assistance is generally secured against first charge on the project assets.

Regional Development Finance Corporation (RDFC)

The government in 1985 set up the Regional Development Finance Corporation in 1985 which is jointly owned by NDFC, the nationalized banks and IDBP. The corporation promotes investment in the less developed areas of Pakistan, namely NWFP, Baluchistan, Azad Kashmir State of Jammu and Kashmir, the northern areas and such other areas as may be declared by the Federal Government by notification in the official Gazette as less developed areas. Its major objectives are (i) identification of commercially viable investment opportunities in less developed areas; (ii) preparations of feasibility studies; (iii) providing financial support for new projects or expansion and balancing, modernization and replacement (BMR) of existing units; (iv) locating new investors; and (v) providing support to the mining sector. RDFC's primary aim is promotion of commercially viable projects. In accepting projects of commercially viable projects for assistance, it considers not only the credit standing of borrowers and commercial profitability of projects, but also their relevance to the national economy as well as their impact on the less developed areas of Pakistan. The entrepreneur is free to apply for financial assistance for industries specified in the Industrial Investment Schedule of any other industry permitted by the Government from time to time.

National Investment Trust (NIT)

National Investment (Unit) Trust, the only Mutual Fund in Pakistan, was established in November 1962 under Government auspices for the mobilization of savings for investment in the corporate sector in order to broadbase its holding. It mobilizes funds by sale of Units through its own offices and commercial banks spread throughout the country. The income from the investments is distributed to the Unit holders annually on a prorate basis.

Investment Corporation of Pakistan (ICP)

The Investment Corporation of Pakistan is a statutory body established by the Government to broaden the base of equity investment and to expand opportunities of profitable investment in companies shared by the middle class. The Corporation plays the role of investment bank for the development of a capital market in Pakistan. It underwrites new issues of public limited companies for the purpose of establishment new projects, BMR of existing projects or augmenting their working capital requirements. ICP arranges underwriting consortia of banks and financial institutions for providing rupee loans. Future financing by the Corporation will be in the form of Participation Term Certificates. ICP also opens and maintains investors' accounts on a profit/loss-sharing basis. Under the new scheme, the Corporation allows its account-holders to receive 60 per cent of the profit earned on joint equity investment whereas 40 per cent of the profit will be the share of the Corporation. In the event of loss, the position is reversed. The major share, i.e. 60 per cent of the loss will be borne by the Corporation and only 40 per cent by the account-holders. The Corporation also provides investment counsel to the investors.

ICP also manages closed-end Mutual Funds, with a view to offering the benefit of pooled investment to those who lack the professional skill to manage their own portfolio. Following Islamization of the economy in the country, the operations of ICP Mutual Funds have been made free from the element of interest.

Commercial banking structure

There is a well organized banking system in Pakistan, comprising the State Bank of Pakistan (the central bank of the country), commercial banks, specialized banks and financial institutions and co-operative banks. The State Bank of Pakistan exercises control and regulates the activities of scheduled banks in pursuance of the responsibility assigned to it under its Charter. The commercial banks now also constitute the most important source of institutional credit in the economy. Being the country's largest deposit institutions and the main source of short- and medium-term credit, they form the heart of the financial system.

Effective from 1st January 1974, Pakistan banks were nationalized under the Bank (Nationalization) Act 1974. As a result, the Pakistan commercial banks were re-grouped into five banks as follows:

1. Allied Bank of Pakistan
2. Habib Bank Ltd.
3. Muslim Commercial Bank Ltd.
4. National Bank of Pakistan
5. United Bank Ltd.

These banks function under the overall management and guidance of the Pakistan Banking Council.

At present the following foreign banks are also operating in Pakistan:

1. Bank of America
2. Bank of Tokyo
3. Chartered Bank
4. European Asian Bank
5. Citibank
6. General Bank of Netherlands
7. Grindlays Bank Ltd.
8. Rupali Bank
9. Bank of Credit and Commercial International (Overseas)Ltd.
10. Bank of Oman Ltd.
11. Banque de l'Indochine et de Suez (France)
12. Dubai Bank Ltd.
13. Middle East Bank Ltd.
14. Union Bank of Middle East Ltd.
15. American Express International Banking Corporation

Investment Advisory Centre of Pakistan

Investment Advisory Centre of Pakistan (IACP), a leading industrial and management consultancy organization, was established by the Government of Pakistan in 1963 with the aim of contributing to the successful realization of various schemes by public and private agencies and entrepreneurs. Its scope of operations encompasses activities relating to identification of industries, preparations of feasibilities, arrangement of finances, management services, etc. Over the years it has broadened its activities and now has become an organization of international repute. It has acquired experience in undertaking research on planning, construction, supervision and operational management in many industrial fields both in Pakistan and abroad. It has a distinct honour of serving European, Asian, Middle Eastern and African countries besides prominent international agencies. The studies conducted for domestic and overseas clients have been widely acclaimed at home and abroad as a work of high professionalism.

IACP has highly experienced and qualified professionals from the disciplines of industrial, chemical and mechanical engineering, textiles, agriculture, economics, statistics, marketing, management, finance, operations research, etc. It has one of the finest information retrieval services. The Head Office is located at Karachi with zonal offices in the cities of Gilgit, Lahore, Mirpur (Azad Kashmir), Peshawar, Quetta and Sukkur in addition to a Liaison Office at Islamabad.

This organization has also served over 20 foreign countries in planning and formulation of industrial studies. They regularly prepare Portfolios of Investment Briefs on a number of industries such as agro-based industries, textiles, leather, chemicals, engineering, electrical, electronics, non-metallic minerals and service industries. The Briefs can be obtained at a nominal cost from the office of IACP at State Life Building No. 3, Dr. Zia-ud-Din Ahmad Road, Karachi.

The organization of the IACP is fully equipped with all necessary expertise to prepare bankable studies on all industrial sectors. Such studies can be prepared on specific request from clients.

The areas in which IACP is playing a definite role are:

Economic sectors

Manufacturing
Services, transport and communication
Petroleum, refinery/oil and gas
Chemicals/pharmaceuticals
Export markets development
Agro-based industries

Research applications

Pre-investment and feasibility studies
Socio-economic/benchmark/market development surveys
Management control and manpower planning systems analysis
Project appraisal and technical evaluation
Improvement of technologies/capacities

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ANNEX
C

TOP 75 COMPANIES RANKED ACCORDING TO NET WORTH, 1988

ANNEX C. TOP 75 COMPANIES RANKED ACCORDING TO NET WORTH, 1988

(Million of rupees)

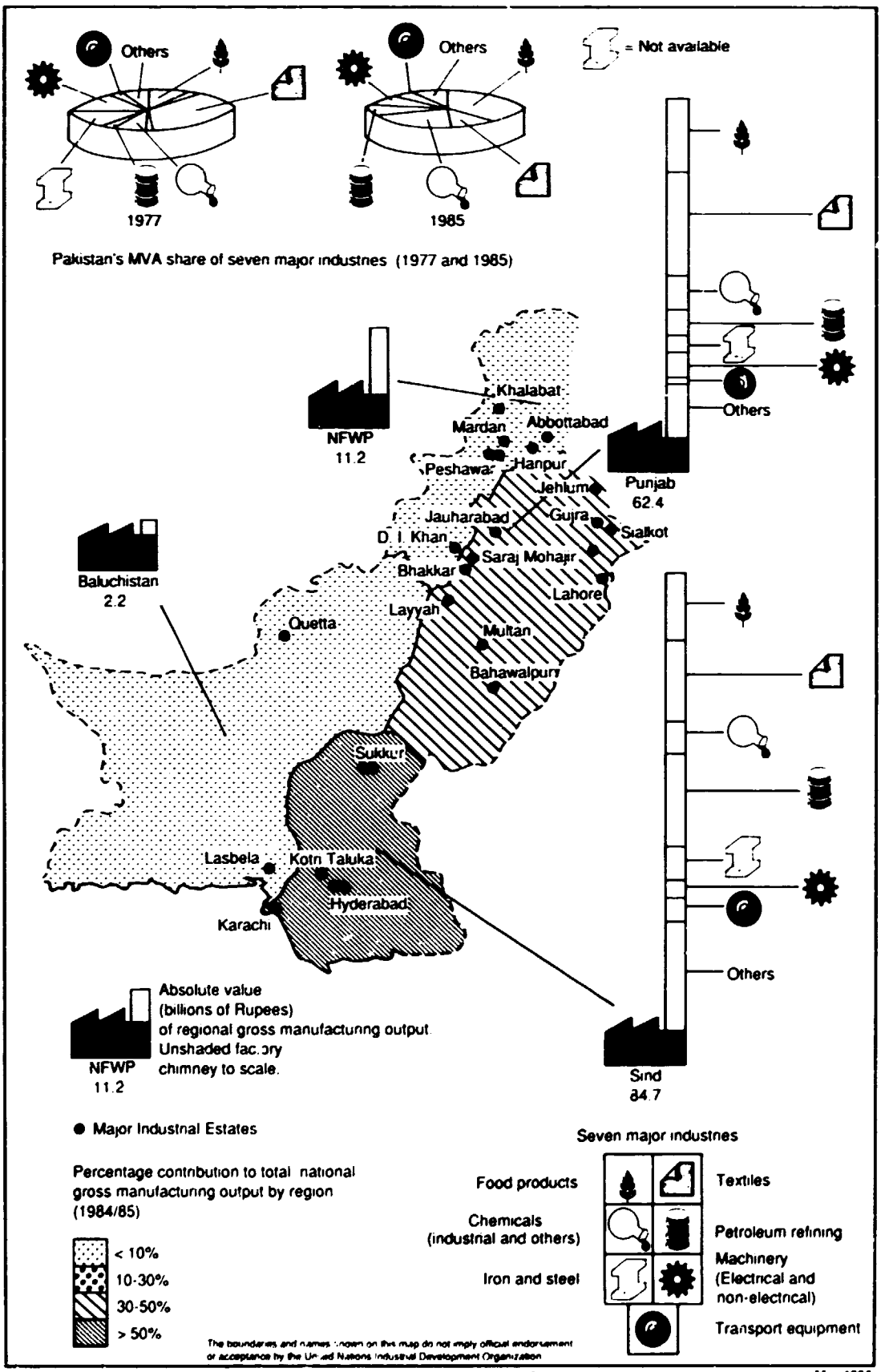
Serial number	Name	Rank in 1987	Net worth in 1988
1.	Pakistan International Airlines Corporation	1	6,967.61
2.	Karachi Electric Supply Corporation	2	3,499.22
3.	Sui Gas Transmission Company Limited	3	974.15
4.	Pakistan State Oil Ltd.	5	912.96
5.	Pakistan Oilfields Ltd.	4	887.64
6.	Sui N. Gas Pipelines Ltd.	6	706.39
7.	National Refinery Ltd.	7	706.07
8.	ICI Pakistan Manufactures Limited	8	631.87
9.	Pakistan Tobacco Company Limited	9	481.68
10.	Glaxo Laboratories (Pakistan) Limited	10	405.54
11.	Lever Brothers Pakistan Limited	21	392.60
12.	Pak Suzuki Motors Company Limited	14	376.35
13.	Pakistan Burmah Shell Limited	11	350.60
14.	Bata Pakistan Limited	13	314.39
15.	Packages Limited	12	309.09
16.	Cherat Cement Company Limited	16	294.04
17.	Dawood Hercules Chemicals Limited	18	287.65
18.	Nishat Mills Limited	39	242.25
19.	Southern Gas Company Limited	17	242.23
20.	Crescent Textile Mills Limited	26	241.04
21.	Exxon Chemical Pakistan Limited	15	234.65
22.	Asbestos Cement Industries Limited	19	229.38
23.	Millat Tractors Limited	20	225.66
24.	Premier Sugar Mills and Dist. Company Limited	22	225.08
25.	Sapphire Textile Mills Limited	27	215.86
26.	Zeal Pak Cement Factory Limited	23	193.40
27.	Al-Noor Sugar Mills Limited	24	191.51
28.	Pakistan Insurance Company Limited	25	183.87
29.	Dewan Textile Mills Limited	36	174.13
30.	Crescent Jute Products Limited	40	171.27
31.	Adamjee Insurance Company Limited	28	165.14

Serial number	Name	Rank in 1987	Net worth in 1988
32.	Habib Sugar Mills Limited	30	157.87
33.	Gulistan Textile Mills Limited	45	156.06
34.	Bawany Sugar Mills Limited	29	156.01
35.	Milkpak Limited	..	149.80
36.	Wellcome Pakistan Limited	37	143.12
37.	Mustekham Cement Limited	35	142.16
38.	Pakistan Papersack Corporation	58	141.84
39.	Shakarganj Mills Limited	32	140.29
40.	Faran Sugar Mills Limited	32	140.67
41.	Dawood Cotton Mills Limited	38	140.21
42.	Rafhan Maize Products Company Limited	33	140.01
43.	Javedan Cement Limited	34	136.89
44.	Dewan Sugar Mills Limited	46	135.57
45.	Pakistan Services Limited	51	133.84
46.	Crescent Sugar Mills and Distillery Limited	..	132.24
47.	Kohinoor Industries Limited	..	128.66
48.	National Development Leasing Corporation	..	128.36
49.	Kohinoor Textile Mills Limited	..	128.10
50.	Reckitt and Colman (Pakistan) Limited	53	127.79
51.	Mehran Sugar Mills Limited	41	127.55
52.	Premier Tobacco Industries Limited	42	126.54
53.	Shahmurad Sugar Mills Limited	43	125.99
54.	Metropolitan Steel Corporation Ltd.	59	125.13
55.	Zahoor Textile Mills Limited	..	122.47
56.	Huffaz Seamless Pipe Industries Ltd.	49	120.15
57.	Mohammad Farooq Textile Mills Ltd.	60	119.37
58.	Philips Electrical Industries of Pakistan Limited	55	119.00
59.	Burewala Textile Mills Limited	..	118.31
60.	Siemens (Pakistan) Engineering Co.Ltd.	..	115.67
61.	Central Cotton Mills	..	115.30
62.	Ravi Rayon Limited	47	114.53
63.	Fazal Cloth Mills Limited	..	111.91
64.	Hinopak	..	111.73

Serial number	Name	Rank in 1987	Net worth in 1988
65.	United Sugar Mills Limited	..	111.18
66.	Lakson Tobacco Company Limited	50	111.17
67.	Pangrio Sugar Mills Limited	48	109.16
68.	Services Pakistan limited	..	107.65
69.	Sindabdgar Sugar Mills Limited	56	107.01
70.	Gharibwal Cement Limited	..	105.63
71.	Abbott Laboratories (Pakistan) Limited	57	104.41
72.	Brooke Bond Pakistan Limited	..	102.43
73.	Gul Ahmed Textile Mills Limited	..	102.19
74.	Fateh Textile Mills Limited	..	98.51
75.	Wyeth Laboratories (Pvt) Limited	..	98.48

Source: *Economic Review*, 'Top 75 companies' (September, 1989).

INDUSTRIAL MAP OF PAKISTAN



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