

### 1-3. Foreign Debt

Pakistan's foreign debt stocks increased from US\$9.9 billion in 1980 to US\$20.6 billion in 1990.

There had been improvement in terms of the debt service ratio in 1988 and 1989. However, the ratio got slightly worse in 1990.

#### Total Debt Stocks

	1980	1985	1986	1987	1988	1989	1990
External debt balance (US\$ million)	9,941	13,362	14,904	16,708	16,996	18,509	20,683
Ratio to GNP (%)	42.5	43.6	47.7	51.2	45.1	46.9	52.1
Debt service ratio (%)	16.9	24.2	25.3	26.7	24.6	23.2	23.7

Source: World Debt Table, 1991-92

### 1-4. Public Finance

Despite improvements in recent years, the budget deficit remained to be considerable and the expenditure continues to exceed revenue. This situation is perpetuated, in part, by an insufficient tax collection base and weak expenditure management. Structural improvement in such areas is becoming a priority.

Shifts in budget deficit are as outlined below.

#### DEFICIT OF PUBLIC FINANCE

	1984/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
							estimate	estimate
Ratio to GDP (%)	7.8	8.1	8.2	8.5	7.4	6.7	5.8	5.0
Ratio to expenditure (%)	31.4	30.9	30.6	31.9	28.2	26.6	23.7	19.4

Source: Economic Survey, 1990/91

Between 30 and 40% of the budget deficit is financed by overseas borrowing and the remainder domestically. Banks only supply a small proportion of the locally procured funds, most of the remainder being supplied through the issuance of bonds. However, the accumulation of domestic borrowing is a major factor behind the increasing inflexibility of budget outlays and rising prices.

The single largest budget outlay in fiscal 1990/91 was defense (25.8%), slightly exceeding development outlays (25.6%). Interest payments followed at 20% of the total. While as proportions, the expenditure on defense and subsidies have remained almost unchanged, interest repayments are taking an increasing proportion of the budget outlays. The defense expenditure and interest repayments together comprise over half the country's current expenditure, and account for around 40% of the total outlay. This serves as a major contributing factor to increasing budget inflexibility.

As in other developing countries, the most serious budget-related problems in Pakistan are those that have to do with tax structure and tax collection systems. Looking at the make-up of the tax income, all of the major tax items are collected in the form of indirect taxes. Direct taxes are worth only one-fifth of indirect taxes. In fiscal 1990/91 total revenue amounted to 180 billion rupees, of which direct taxes accounted for no more than 20.8 billion rupees, or 11.5%. Indirect taxes, on the other hand, amounted to 121 billion rupees, or 70% of total revenue. At over 40%, the contribution of customs tariffs to the total indirect-tax revenue is high. Moreover, when import surcharges and Iqra surcharges imposed at the time of import are treated as customs tariffs, that proportion increases even further. A consequence of this is that tax revenue is greatly influenced by the size of imports and tariff rates, contributing to rigidity in tax revenues.

#### **1-5. Prices**

Throughout the 1980s, consumer and wholesale prices rose at the relatively low average annual rates of 6.6% and 7.1% respectively. In fiscal 1990/91, however, those rates rose steeply to 12.3% and 11.7% respectively. The increase was occasioned by a combination of a 42% jump in the petrochemical-product prices in December 1990 (though this dropped 11% in March), increases in the price of imports brought about by a lowering in the exchange rate, and increases raging from 12% and 17.7% in public-utility charges in April 1991. Because the budget deficit is expected to continue, inflationary pressure can also be expected to remain. The trends in consumer and wholesale prices are as follows.

PRICE TRENDS

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	1982/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91
Increase of consumer price (%)	4.7	7.3	5.7	4.4	3.6	6.3	10.4	6.0	12.7
Increase of wholesale price (%)	5.4	10.0	5.2	4.6	5.0	10.0	9.7	7.3	11.7

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Source: Economic Survey, 1990/91

## Chapter 2 National and Regional Development Policies

### 2-1. Five-year Plans

Pakistan's first five-year plan was implemented in 1955. In that year the West Pakistan Unification bill was first effected, and East Bengal was renamed East Pakistan. Although various setbacks were seen along the way, a total of seven five-years plans, including the present one, have been implemented in almost continuous succession since that time. The fact that the plans were begun at a time of confusion and turmoil not long after its independence in 1947, and have continued to the present day, is commendable in itself.

The five-year plans have been influenced by a number of incidences throughout their 36-year-long history. These include three wars with India, numerous military coups, the establishment of Bangladesh as an independent nation, withdrawal from the British Commonwealth, and two oil crises. Academics from the U.S., the so-called Harvard group, participated in the formulation of the first and second plans.

Plans were fundamentally drafted on principles of capitalism and free economics. In 1977, however, the plan itself was largely ignored, and socialist policies, including nationalization of companies in the key industries including financing, were adopted. In 1977 economic policy underwent another 180 degree turn, with privatization of state-owned enterprises and the relaxation of regulations becoming priorities once again. Successive governments from that time to the present have embraced policies of privatization and deregulation.

In an effort to promote investment, recent policy-makers have followed the advice of the IBRD and IMF and implemented a series of measures for the liberalization of exchange controls and the easing of foreign-investment regulations. These reforms justify expectations of future improvement in Pakistan's investment environment. The IBRD has furnished Pakistan with advice on a number of matters including those relating to policy, natural resources and the environment. Its recommendations on agriculture, energy, infrastructure, revision of social services, and the elimination of poverty, in so far as it relates to structural adjustment and fiscal policy are outlined below.

(1) Increasing government revenue by raising prices in the public sector, user charges and taxation revenue.

(2) Reduction of the budget deficit to 5% of the GDP in 1990

Establishment of regulations for the introduction of a flexible taxation system, increase in the ratio of taxation of GNP, lowering of outlays through reduced subsidies, increasing the current-account surplus, increasing development expenditure, division of responsibility between federal and provincial authorities in a way that encourages greater efforts for increasing revenue by regional governments and the maintenance of an appropriate balance between development expenditure and current-account expenditure.

(3) Implementation of the gradual liberalization of import and the promotion of export.

- (4) Continuing the easing of regulations on the major agricultural product and manufactured product markets, and of regulations by trimming down remaining control and licensing systems pertaining to industrial investment.
- (5) Reform of the financial market through the establishment of a rational system for fixing interest rates, in order to foster a sound banking system.

## 2-2. Regional Development Policies

Regional development policies were first taken up in the 6th five-year plan. In addition to (1) infrastructure development, particularly augmentation of energy bases, (2) basic social services, and (3) employment creation, priority in the allocation of public-sector investment was, for the first time, given to regions with low levels of development. As well as giving priority to the particular sectors in the allocation of expenditure, priority was also given to specific regions in an attempt to reduce regional differences. Priority has been given to Punjab in the south-east, which has a relatively low income, and northern tribal regions in the North-West Frontier Province. A total of 15 billion rupees in priority funds has been allocated to these low-developed regions.

Today, with increasing emphasis being placed on private, rather than public investment, a number of incentives are offered to private companies investing directly in regional areas. As a rule, the lower the level of development of a region the higher the incentives offered. The details of those measures are as follows.

- (1) All enterprises established in any part of Pakistan between December 1, 1990 and June 30, 1995 receive a 3-year tax holiday.
- (2) Companies established in specified rural regions are exempt from the payment of import duties, import surcharges, and sales tax on the import of machinery of a sort not manufactured in Pakistan. In addition, firms established in those regions between December 1, 1990 and June 30, 1995 receive a five year tax holiday. License fees for machinery imported into those regions are reduced from the usual rate of 6% to 2%.
- (3) Companies established in the below-mentioned backward regions are exempt from the payment of import duties, import surcharges and sales tax on the import of machinery of a sort not manufactured in Pakistan. In addition, companies established in these areas between December 1, 1990 and June 30, 1995 are entitled to an 8-year tax holiday.

- Province of Baluchistan, excluding Hun Chowki
- NWFP
- FATA

- Northern Areas
- Azad Kashmir
- Division of D.G. Khan, Province of Punjab
- Division of Bahawalpur, Province of Punjab
- Division of Sukkur, Province of Sind
- Division of Larkana, Province of Sind

(4) Firms in the industrial estates listed below are exempt from the payment of tariffs on imported machinery of the sort not produced in Pakistan.

- Hub Tehsil, Province of Baluchistan
- Mianwali, Bhakkar, Tehsil, Khushab district, Province of Punjab
- Tharpakar and Dadu (excluding Taluka of Kotri), Province of Sind

### 2-3. Trade and Investment Policy

The principal trade policy of the Pakistani Government is reflected in the export promotion policy. It is providing for exporters such facilities as the export income tax exemption, export financing and bonded and duty-free import of materials and machinery for the production of exports. As for import policy, it is maintaining the import duties at a rather high level, reflected by its import substitution policy. In addition, it is still maintaining many import negative and restricted items. However, the overall trend indicates that the system is on the way toward import liberalization. Revisions and new measures adopted since 1990 concerning trade policy are as follows:

- a. 70 banned items are removed from the import negative list.
- b. The number of restricted import items is reduced to 11.
- c. The income tax on export earnings is exempted by 75% for certain types of garments and other high-added-value products.
- d. Import duties and import surcharge on machinery imported by export-oriented industries are abolished.
- e. Import licenses (I/L) for import liberalization items are to be issued by the L/C-issuing bank, eliminating the need for an import license from the Chief Controller, Imports & Exports. However, the 6% fee on C & F will still be collected.

As for the investment policy, the government has been putting priority on promoting foreign investment in the private sector over the past several years. For this purpose, it has been endeavoring to provide with better investment environment in terms of rules and regulations. The actions taken are 1) giving tax holidays for the target industries and those industries which locate in the remote areas; 2) guarantee of repatriation of principal and dividend by the investors; 3) privatization of the state owned corporations and 4) discontinuance of the arbitrary requisition of the private enterprises. In addition, the government has abolished the government sanction

for the investment, reduced the number of industries which is subject to the government sanction, simplified the concerned procedures and strengthened the investment promotion organizations. Particularly encouraged sectors by the government are the manufacturing industries of feed, fertilizer, textile, food processing, chemicals, machine engineering, metallurgy, electronics, and mining.

The highlight of the investment liberalization is the government announcement of the new industrial package in December 1990. This package of various measures stressed the importance of investment by the private sector for the more expanded industrialization. The actual measures contained in the package include the further improvement of the investment policy through expansion of the preferential measures and deregulation for the foreign investment. Major steps taken are as follows.

- a. Approval of acquisition of equities of the local enterprises and overseas-remittances of dividend by the non-resident Pakistani.
- b. Liberalization of stock purchase by non-resident foreigners by abolishing the government sanction. In the case of manufacturing industries, certificates of acceptance of remittances issued by foreign exchange banks are required.
- c. Foreign controlled manufacturing companies who export 50% or more of their production can borrow for working capital from domestic sources without any limit. Other foreign controlled manufacturing companies including those which do not export and sell in the domestic market can borrow rupee loans equal to their equity without prior permission of SBP.
- d. Acquisition of work permits for foreign managerial staffs and engineers who work in Pakistan were made unnecessary.

# History of Five-year Plan

Period	The 1st. April 1955 ~ June 1960	The 2nd. July 1960 ~ June 1965	The 3rd. July 1965 ~ June 1970	The 4th. July 1970 ~ June 1978	The 5th. July 1978 ~ June 1983	The 6th. July 1983 ~ June 1988	The 7th. July 1988 ~ June 1993
Administration (inauguration)	Pres. Iskander Mirza Pres. Ayub Khan (Oct. 1958)	Pres. Ayub Khan	Pres. Ayub Khan Pres. Yahya Khan (1969)	Pres. Yahya Khan Pres. Z.A. Bhutto (Dec. 1971) Pres. Muhammad Ziaul Haq (July 1977)	Pres. Muhammad Ziaul Haq	Pres. Muhammad Ziaul Haq	Pres. Chuliam Ishaq Khan (Aug. 1988) Pres. Benazir Bhutto (Nov. 1988) Pres. Nawaz Sharif (Nov. 1990)
Affiliation	Participation by a group from Harvard Univ.	Military regime Continued Partici- pation by Harvard Univ.	Military regime	Military-Civilian Military Socialism Nationalization	Military regime Islamization Deregulation	Military regime Islamization Deregulation	Islamization Investment Promotion
Achievement ratio	72.7%	120.1%	82.4%	52.0%	N/A	N/A	N/A
Average GDP growth rate	3.1%	6.8%	6.7%	3.9%	8.6% (target 7%)	6.9% (target 6.5%)	4.7% (First 2year average) (target 6.5%)
Annual average growth rate of manufacturing	N/A	N/A	9.8%	3.5%	6.4%	7.7%	(First 2year average) 3.5%
Annual average export growth rate (\$)	- 1.88	6.67%	2.82%	10.94%	8.05%	7.1%	(First 2year average) 2.0%
Main events and Policy Measures	<ul style="list-style-type: none"> <li>Agricultural slump and food shortage</li> <li>U.S. aid</li> <li>First land reforms</li> <li>Implementation of an export bonus system</li> <li>Public sector dependence on foreign capital: 50.7%</li> <li>Increase in defence outlays</li> <li>Expanding trade deficit</li> <li>Slump in private investment</li> <li>Focus on industries of Cotton spinning and jute spinning</li> </ul>	<ul style="list-style-type: none"> <li>Focus on agricultural development</li> <li>Incentives for private capital</li> <li>Focus on market mechanisms</li> <li>Increasing public sector dependence on foreign capital (64.0%)</li> <li>Increasing gap in investments and savings</li> <li>Import substitution policy</li> </ul>	<ul style="list-style-type: none"> <li>Military conflict with India</li> <li>Agricultural slump caused by abnormal weather</li> <li>Increasing tensions between East and West Pakistan</li> <li>Larger gap between rich and poor</li> </ul>	<ul style="list-style-type: none"> <li>Independence of East Pakistan (1971)</li> <li>First oil crisis</li> <li>32 corporations nationalized based on policy of nationalizing 10 key industries (not including spinning)</li> </ul>	<ul style="list-style-type: none"> <li>Contraction of the government bureaucracy</li> <li>Focus on private investment</li> <li>Political stability under the military regime</li> </ul>	<ul style="list-style-type: none"> <li>Transfer to civil administration in Dec. 1985 (Prime Minister Junejo)</li> <li>Deregulation</li> <li>Focus on market mechanisms, with production left to the private sector and government supervising the infrastructure</li> <li>Defense spending accounts for 4% of national budget</li> </ul>	<ul style="list-style-type: none"> <li>National election held in Nov. 1988</li> <li>Benazir Bhutto becomes prime minister in Dec. 1988</li> <li>Bhutto dismissed in Aug. 1990</li> <li>Provisional government of Ghulam Mustafa Jatoi (three months)</li> </ul>

※1980-81=100 Sources : ①Economic Development Plans in Southern Asian Nations, ed. Ichiro Yanaka  
 ②Economic Survey (Government of Pakistan, Finance Division, Economic Adviser's Wing)  
 ③International Financial Statistics (IMF)



## **Chapter 3 Industry, Trade and Foreign Investment**

### **3-1. Industry**

The promotion of the manufacturing sector has been given the greatest priority since Pakistan's founding. In 1979 the government announced that it would stop the arbitrary take over of private enterprises in order to spur private investment. This was followed in 1984 by the implementation of a long-term plan for industrialization based on: (1) the establishment of heavy industries; (2) improved quality and increased exports of processed agricultural goods; and (3) the creation of job opportunities.

Today, however, the Pakistani economy continues to be heavily dependent on primary industries (agriculture, forestry and fisheries), which accounted for 25.6% (1990/91) of the nation's GDP. Meanwhile, secondary industries such as mining, manufacturing, construction and utilities were responsible for 25.7%. The figure for mining and manufacturing alone was 17.6%. Industrial products accounted for 77% of total exports, while the number of employees in mining and manufacturing amounted to 12.84% of the nation's total. Production in these two sectors doubled during the period from 1980/81 to 1990/91, representing annual growth of 7.24%.

The manufacturing sector has continued to grow, propelled by raw cotton sectors such as spinning, weaving and sewing. In recent years the government has been promoting a shift to heavy and chemical industrial fields such as steel, automobiles, and chemical fertilizers, although the pace of this transition has been slow. In the future, however, it will be the manufacturing sector which can be expected to secure foreign exchange and create jobs in Pakistan, and its importance remains unchanged.

### **3-2. Export and Import**

Pakistan's average annual export growth rate between 1980/81 and 1989/90 was 7% based on the constant value of 1980/81. It was 11.4% based on the current price during the same period. In 1990/91, total exports from Pakistan amounted to 138.3 billion rupees. Exports in order of export amount are cotton yarn, garment, cotton fabric and raw cotton. The top four items of these exports accounted for more than half of the total exports. Rice, which used to be the number one export item in 1980/81, was the fifth item after raw cotton in 1990/91.

The top three export items were rice, raw cotton and cotton cloth five years ago. Ten years ago, the top three were raw cotton, rice and cotton cloth. There had not been much change in export items during the said five years. Over the past five years, however, cotton-related manufactured items, garment in particular, grew very much. Garment export increased 25 times during the past ten years. As a whole, it could be said that much of Pakistani export is greatly dependent on particular items which are apt to be affected by fluctuations in the international market price.

Most exports were destined for Western industrialized nations, with 13.2% of all shipments (in value terms) going to the United States, 9.2% to Japan, 8.0% to Germany, and 6.8% to the United Kingdom. In particular, imports by OECD nations accounted for 61.7% of total Pakistani exports in 1989/90, up 29.2 points from 32.5% in 1980/81.

Meanwhile, exports to the Organization of Islamic Countries (OIC), which includes the Mideast region, previously Pakistan's largest customer, were down to a mere 10.9% in 1989/90 after peaking at 41.7% in 1983/84. Reasons for the rapid decline include the economic slowdown in these countries resulting from falling oil prices coupled with the outbreak of the Iran-Iraq conflict in 1984/85.

Exports to ASEAN countries have grown steadily during the same period, increasing their share from 2.5% to 4.6%. Among the Asian NIEs, exports to the Republic of Korea and Hong Kong are also on the rise.

As for import trends, import value has grown at an average annual pace of 11.1% during the past ten years. 1990/91 imports were valued at 171 billion rupees. The leading import items were oil and petroleum products, followed by machinery, chemical products, transportation equipments, cooking oil, and iron and steel and related products. The ranking was virtually unchanged from ten years, when the leading imports were oil and petroleum products, followed by machinery, transportation equipment, chemical fertilizers, iron and steel and related products, and edible oil. With the exception of oil and petroleum products, 84% of all the main imports were capital goods and industrial raw materials, while consumer goods accounted for only 16% of the total. The leading source for imported goods was Japan, followed by the United States, Germany, Saudi Arabia, the United Kingdom and the United Arab Emirates.

### **3-3. Foreign Direct Investment**

Foreign direct investment in Pakistan increased by 23.4% in 1986 to 13,918.2 million rupees and peaked the following year at 14,027.3 million rupees, dropping off slightly thereafter to 13,469.6 million rupees in 1989 (\$1 = 20.54 rupees).

The United Kingdom was the largest investor in 1989, investing 1,960 million rupees (14.6% of total investment), a healthy increase over the previous year. The other major investors were Switzerland, with 1,513 million rupees, the United Arab Emirates, with 1,467 million rupees, Kuwait, with 1,307 million rupees, the United States with 1,306 million rupees, Germany, with 1,071 million rupees, Saudi Arabia, with 669 million rupees, and Japan, with 339 million rupees.

When broken down by industry, manufacturing recovered from its 1987 decline to post a 3.9% increase in 1989 to 9,354 million rupees, accounting for 61.4% of total investment. Foreign investment in the service industry peaked at 3,986 million rupees in 1987, dropping 9.3% in 1989 to 1,463.8 million rupees. The main reason behind this was a drastic drop in investment in banks, which accounted for most foreign equity in the service

sector. Investment in the mining industry also peaked in 1986 at 1,008 million rupees and in 1989 dropped 26.0% over the previous year to 712 million rupees.

#### MAJOR EXPORT ITEMS

(unit : million Rupee)

1990/91				1985/86		
rank	item	import	proportion (%)	rank	export	proportion (%)
1	cotton yarn	26,675	19.2	4	4,511	9.0
2	garment	18,686	13.4	5	4,214	8.4
3	cotton cloth	15,199	10.9	3	5,083	10.2
4	raw cotton	9,553	6.9	1	8,291	16.7
5	rice	7,846	5.6	2	5,527	11.1
6	synthetic fibre	7,807	5.6	9	802	1.6
7	carpet & rug	4,999	3.6	6	2,693	5.4
8	sporting goods	3,099	2.2	10	787	1.6
9	fish & fish preparations	2,576	1.8	7	1,335	2.7
10	surgical instruments	1,901	1.3	8	842	1.7
others		40,021	28.9		15,507	31.3
total		138,342	100.0		49,592	100.0

(Source) Economic Survey, 1990/91

#### MAJOR IMPORT ITEMS

(unit : million Rupee)

		1991/92	
		import	proportion (%)
1	petroleum & products	37,823	22.1
2	machinery	30,195	17.6
3	chemicals	15,448	9.0
4	transport equipment	11,443	6.7
5	edible oils	9,020	5.3
6	iron & steel	7,100	4.1
others		60,023	35.1
total		171,052	100.0

(Source) Economic Survey, 1990/91

**CUMULATIVE AMOUNT OF FOREIGN DIRECT INVESTMENT BY COUNTRY (1989)**

(unit : million Rupee)

country	amount	proportion(%)	country	amount	proportion(%)
U.K.	1,959.9	14.6	Netherland	237.9	1.8
Switzerland	1,513.1	11.2	Kenya	152.4	1.1
U.A.E.	1,466.7	10.9	Iran	148.4	1.1
Kuwait	1,391.0	10.3	Qatar	147.6	1.1
U.S.A	1,306.8	9.7	Hong Kong	132.4	1.0
Germany	1,070.6	7.9	Sweden	65.4	0.5
Saudi Arabia	669.5	5.0	Inter'l organ.	678.6	5.0
Japan	339.4	2.5	others	2,189.9	16.3
total				13,469.6	100.0

(Source) Foreign Liabilities & Assets and Foreign Investment in Pakistan,  
Bank of Pakistan, 1989

**CUMULATIVE AMOUNT OF FOREIGN DIRECT INVESTMENT BY SECTOR**

(unit : million Rupee)

type of business	year	1985	1986	1987	1988	1989	proportion (%)
agriculture		51.4	64.9	49.9	87.1	131.7	( 1.0)
mining		926.2	1,008.4	949.7	961.3	711.8	( 5.3)
manufacturing		6,871.2	8,115.0	7,687.7	9,004.5	9,354.3	( 69.4)
construction		42.4	40.0	48.5	47.4	55.1	( 0.4)
utility		9.0	7.8	8.6	12.9	12.9	( 0.1)
service		2,484.8	3,565.0	3,958.5	1,339.3	1,463.8	( 10.9)
trade		236.3	385.7	508.2	231.2	850.5	( 6.3)
banking		2,243.3	3,172.7	3,470.8	1,099.1	602.5	( 4.5)
insurance		5.2	6.6	6.5	9.0	10.8	( 0.1)
transportation, warehousing, communication		35.2	43.9	38.7	43.0	81.8	( 0.6)
others		854.5	1,073.2	1,258.7	1,402.4	1,658.2	( 12.3)
total		11,274.7	13,918.2	14,027.3	12,879.9	13,469.6	(100.0)

(Source) Foreign Liabilities & Assets and Foreign Investment in Pakistan,  
Bank of Pakistan, 1989

## Chapter 4 The Industrial Infrastructure

Pakistan's shortage of electrical power is one of the most serious problems faced by the country's infrastructure. Power supply is cut frequently. Large textile mills, which use a great deal of electrical power mostly, have their own generators as a matter of necessity.

Demand for electrical power is said to be growing at an annual rate of about 10%, fueled by the electrification of agricultural villages and increasing household use, resulting in improved living standards. Thermoelectric power plants account for a slightly higher percentage of the total power than hydroelectric facilities. Hydroelectric power generated in 1990/91 totaled 18,245 Gwh, while power from the thermoelectric plants amounted to 22,455 Gwh. Nuclear power plants also generated an estimated 292 Gwh.

WAPDA (The Water and Power Development Authority) supervises hydroelectric power generation, which fluctuates greatly from the wet seasons to the dry. When demand peaks during the dry season, a major imbalance develops in the supply-demand relationship and restrictions must be enforced on the supply of electrical power.

Thermoelectric generation is supervised by the KESC (Karachi Electricity Supply Corporation) which supplies electrical power mainly to the area around Karachi in Sind state. Growing demand in this area, however, has led to predictions of a power shortage starting in 1992/93.

The amount of freight transported by rail has been declining in recent years in favor of the trucking industry. As a result, road transport now handles more than 80% of all passengers and freight in the country. Domestic airlines account for slightly less than 6% of all passenger travel. Inland water transport, meanwhile, remains undeveloped. More than 90% of all exports and imports pass through Karachi Port and Kashim Port, located on the outskirts of Karachi.

Pakistan has eight national highways with a total length of 6,587 km. It is currently facing the twin problems of inadequate capacity and damage resulting from increased traffic volume and lack of proper maintenance. Route N5, the most heavily traveled of the national highways, links the 1,762 km between Karachi and Torkham. At present, work is under way with assistance from the World Bank to widen a 467 km portion of this road to four lanes and repair the asphalt in another 207 km. The Indus Highway, or N55, running 1,247 km from Kotri to Peshawar, is also being redone with financial assistance from the OECF.

The total length of local roads amounts to 115,800 km, but only 15% of these are paved, and they are lacking in terms of both quantity and quality. The seventh five-year economic plan has therefore set aside a budget for the renovation of 8,500 km. 15,000 km were resurfaced during the sixth five-year plan period.

The rail sector is suffering from a serious lack of engine maintenance. Repair work is now under way with the

help from the World Bank, however, and a locomotive plant is scheduled to be completed in June 1992 with funding from the OECF. This is expected to alleviate the problem of a shortage of locomotives somewhat.

According to the Economic Survey, there were 1,188,000 telephones in Pakistan for a total population of 113,780,000 in 1990/91. It means there is one telephone for every 95 people. Telephone ownership in Pakistan and other Asian countries are shown in the Table below.

**NUMBER OF TELEPHONE PER HUNDRED RESIDENTS (1987)**

Malaysia	Thailand	Indonesia	Sri Lanka	India	Pakistan
9.1	1.9	0.5	0.8	0.6	0.7

Source: U.N. Statistics, 1987

## **PART II STRUCTURE OF THE PAKISTAN'S TEXTILE INDUSTRY**





## **PART II STRUCTURE OF THE PAKISTAN'S TEXTILE INDUSTRY**

### **Chapter 1 Brief History of Textile Industry**

#### **1-1. World Textile Industry**

The cotton industry, the industry at the core of the English industrial revolution, was gradually transformed from a manual industry into a factory-based industry through the mechanization of the processes involved. By the end of the 18th century it had established itself as a modern industry. Cotton products, which could be produced cheaply in large quantities as a result of this mechanization, destroyed the manual industries in the colonies and came to dominate the world market. This was especially so in India where production by traditional manual industries was completely destroyed. Instead, raw materials were supplied to Britain from India, which then imported finished products from Britain. The heights reached by the Lancashire cotton industry in the 19th century was founded on this type of structure under British colonial administration. The rapid reforms in technology which took a hold in the British textile industry during the period of the industrial revolution were later passed on to the European continent and then to the American continent.

Because the textile industry requires neither a high level of technology nor a large amount of capital investment it was an industry well-suited to the early stage of industrialization. Its position as a labour-intensive industry meant that less industrialized countries were, enjoying the merits of being followers, able to make the most of their advantages, that is, their low wages, to develop their own textile industries. This resulted in the rapid rise to prominence of the Japanese and American textile industries at the beginning of the 20th century. Later, after the end of the Second World War, it gave rise to the fast growth of textile industries in developing areas such as Hong Kong, Taiwan, Korea, China, and Pakistan during the 1950s through to the early 1960s. This growth was accompanied by the need for industrial restructuring in developed countries, especially in the United States, where the textile exports slumped and imports from developing countries increased.

In many developing countries a shift began to take place early in the 1950s from a production structure based on manual production to a capital-intensive factory production structure. A look at the number of cotton spinning machines installed around the world reveals that while the number of spindles increased from 126 million in 1960 to 164 million in 1989, the number of spindles found in developing countries increased dramatically during this period from 36 million to 119 million. This represents an increase in the share of the total number of spindles in developing countries from 30% to nearly 73%. There has, however, been an increase in the number of open-end spinning machines, machines that have several times the production capacity of ring spinning machines, mainly in developed countries and in the former Soviet Union and East Germany. As a result, in terms of production capacity the share held by these countries has not declined by very much.

Similarly, a look at the changes which have occurred in the number of cotton-type weaving machines also shows an increase in developing countries and a noticeable decrease in developed countries. Whereas in 1960 there were 1.48 million cotton weaving machines installed in developed countries (58% of total number) and 690,000 in developing countries (27%), the situation had changed markedly by 1989 when there were 316,000 machines (12%) in developed countries and 2,052,000 machines (75%) in developing countries. If anything, these figures show us the astonishing growth of the textile industries in developing countries over the past 30 years.

After the Meiji Restoration (1868) Japan began to introduce textile machinery and technology from Britain. As a result of the slump in the British cotton industry during the First World War, it expanded its export markets for cotton yarn and cotton fabric into Asia, so that by 1933 Japan had taken over from Britain as the largest exporter of cotton yarn and fabric in the world. After the end of the Second World War the Japanese textile industry, which had managed to make a comeback through processed exports of surplus American raw cotton, once again became the leading exporter in the world in 1952. However, the development of textile industries in Asian countries which began to take place from early 50's brought with it a slump in Japanese exports since 1953. This prompted the beginning of structural reforms to the Japanese textile industry, such as the termination of the installation of new and additional equipment in 1956. As exports began to decline once again in the mid 1960s imports of textile products from countries such as Korea, China and Pakistan began to increase.

The decline in the use of natural fibre was offset by rapid growth in the use of synthetic fibre which began in around 1955. As this was happening, a growing number of small and medium-scale businesses involved in the woven fabric and secondary processing sectors either went bankrupt or was acquired by large companies. As the Japanese textile industry as a whole has faced a decline since the end of the 1960s it has been forced to adopt a strategy which has involved upgrading the quality of products, product differentiation, and more recently, relocation of production bases to other countries. It is interesting to note that between 1960 and 1989 the number of ring spinning machines in Japan decreased from 13 million to 8.6 million, and that the number of cotton weaving machines also decreased during this period from 370,000 to 190,000.

From the early 1960s onwards import restrictions were tightened mainly in the US and in western Europe and since the MFA (Multi Fibre Agreement) was established in 1974 as an exception to the GATT there has been an increase in the controlled trade of textiles. Even though Japan did not implement import restrictions in response to this as was done in Europe and the US, the Japanese textile industry has generally maintained a satisfactory performance. Factors cited as having been responsible for its success include: (1) being equipped with flexible systems in all sectors from the upstream sector through to the downstream sector to cope with the trend in the domestic market toward higher quality products; (2) strengthening links between the different sectors; and (3) using technological reforms to bring about effective advances in product differentiation, (4) all of which enabling the development of horizontal division of labour in nearby Asian countries without causing major friction.

## 1-2. Pakistan's Textile Industry

During the time when India was a British colony the region which makes up present-day Pakistan was a place for growing raw cotton while the processing of cotton, such as spinning and weaving, was based in India. As a result, the separation and independence of Pakistan in August 1948 brought with it a shortage in the supply of raw cotton in India, and although Pakistan did not face any problems with the supply of raw cotton, it had virtually no processing equipment. This forced Pakistan to export the majority of its raw cotton.

At the time of independence there were as few as 5-6 spinning factories in Pakistan, and there were just 80,000 spindles and 3,000 weaving machines. The scale of its textile industry was such that it could supply only 8% of the domestic demand derived from its population of 76 million people. For Pakistan, which was one of the leading producers of cotton in the world, the development of a textile industry making full use of its abundant resources of cotton has been a short-cut in its path towards industrialization. With the objectives of achieving domestic self-sufficiency in textile products and obtaining foreign exchange, the Pakistan government set to promote the textile industry as an import substitution industry immediately after independence.

Historical circumstances meant that Pakistan had a little accumulation of industrial capital. It was largely commercial capital which consisted mainly of investment made by immigrants from India. Nonetheless, under rigid protection during the 50s and 60s aimed at developing the industry, the spinning and weaving industries developed rapidly. Its growth was such that by the end of the 50s Pakistan was virtually self-sufficient as far as spinning and weaving were concerned, and reached at the stage to export cotton yarn and cotton fabric.

In the 70s, policies implemented under the Bhutto government, such as the nationalization of industry, the increase in export tariffs, the domestic production of textile machinery and its protection by high tariffs, and the oil shock culminated in a worsening in the slump in exports and caused the textile industry to fall into a depression. Although the Haq government, which introduced a policy of market economy-led industrialization, began to privatize state-owned enterprises in 1977 and implemented positive policies for promoting exports such as the large-scale devaluation of the Pakistan rupee, the textile industry continued to grow at a low rate as import tariffs on textile machinery were maintained high and various kinds of restrictions were placed on the renewal and expansion of spinning and weaving factories.

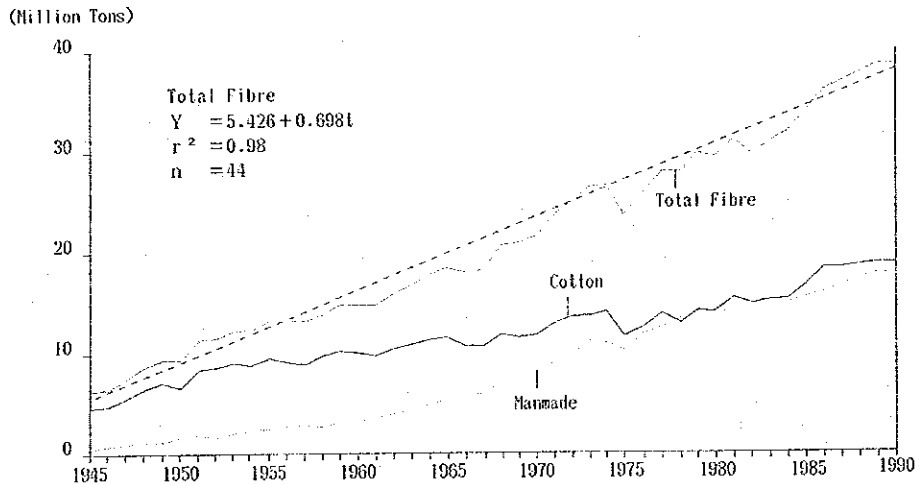
Supported in part by the recovery of the world economy, rapid growth in the textile industry, largely in the spinning and weaving industries, began in the late 80s. As a result of the lowering of the existing tariff rate levied on cotton spinning machine imports from the existing 85% to 50% in 1985 and then to 20% in 1988 and the abolition of restrictions affecting renewal and expansion in the spinning and weaving sectors, the textile industry has experienced rapid growth, mainly in the area of cotton yarn. Backed up by healthy exports the Pakistani textile industry is currently experiencing an unprecedented investment boom.

## Chapter 2 Demand and Supply Pattern of Textile Products

### 2-1. Demand and Supply Trend

In 1990 world production of textile fibre exceeded 38 million tons. A look at the production of all types of textile fibre (man-made fibre and natural fibres) around the world during the 45-year period between 1945 and 1990 shows that a constant high level of growth has been maintained over this considerable period of time. The linear regression of this trend resulted in a equation of  $Y$  (million tons) =  $5.426 + 0.698 t$ . World production of textile fibre has shown a long-term trend of an average annual increase of approximately 700,000 tons (Fig. II-2-1).

Fig. II-2-1 PRODUCTION TREND OF WORLD TEXTILE FIBRE



(Source) SEN-I SOGO KENKYUSHO : "Textile Handbook 1992" (P.167)  
(Original Data from "Fibre Organon")

A look at the trend in production for every four decades since the 1950s shows that the world textile industry has continued to maintain an extremely high rate of growth. It grew at an annual average of 550,000 tons in the 1950s, 660,000 tons in the 1960s, 780,000 tons in the 1970s, and at an annual average rate of about 900,000 tons during the 1980s—a decade when the economy began to pick up. However, a long-term downward trend in the growth rate is apparent when one takes a look at the annual average rates of growth. It was 4.7% in the 1950s, 3.8% 1960s, 3.1% 1970s, and 2.7% 1980s (Table II-2-1).

Production of cotton fibre reached 18.7 million tons in 1990. It has continued to grow at an almost constant rate over the past 45 years. The linear regression  $Y$  (million tons) =  $5.787 + 0.266 t$  shows an annual average increase of 266,000 tons. In contrast to this, with the growth represented by  $Y = -1.430 + 0.413t$ , there was an annual average increase of about 410,000 tons in the production of man-made fibre. With production of man-made fibre at 17.7 million tons in 1990, production scale of man-made fibre was virtually the same as that for

cotton. (Table II-2-1).

There was a particularly sharp increase in the production of synthetic fibre during the 1950s and the 1960s, with an average annual rate of increase of 26% for the 1950s and 21% for the 1960s. Even though the average annual growth rate decreased to 3.6% during the 1980s, production did increase by an average of about 500,000 tons every year. Thus, the production share of synthetic fibre continued to increase. By 1990, synthetic fibre had grown to account for 38.7% of total fibre production, and with the move toward greater production of synthetic fibre by developing countries in the 1990s, production share of synthetic fibre is expected to increase to 40% in a comparatively short period of time. The growth in production of synthetic fibre has inevitably led to a decline in the percentage share held by natural fibre.

However, the rate of increase in synthetic fibre has gradually declined from 8.3% in the 1970s to 3.6% in the 1980s. In addition, a downward trend in production of and demand for cellulosic fibre has also been apparent since the 1980s. In contrast to this, a recovery, albeit a small one, has been seen in the production of natural fibre. (Fig. II-2-1, Table II-2-1)

Although the above shows that there has been an extremely slow change in the demand structure for textile fibre, it is thought that textile consumption as a whole will increase in line with a long-term trend. With regard to cotton fibre in particular, the stable increase in demand experienced in the past shows that fixed growth can be expected in the future in line with the increase in population and the increase in per capita textile consumption.

It is said, however, that the past decade has seen an excess in production capacity both in spinning and weaving in the world cotton industry. If existing equipment all around the world were put into full operation, a conservative estimate of the increase in the supply of cotton yarn and cotton fabric would be 20%. This surplus in equipment and the continued supply of raw cotton at a fixed level show that with regard to textile products there continues to be a buyers market. [\*]

[\*] Morris, David, "The West European Market for Cotton Yarns and Grey Fabric", Textile Outlook International, March 1989, The Economic Intelligence Unit, UK (p.26)

The market for cotton yarn is falling into a slump since August 1991 in conjunction with the slowing down of the world economy. According to the "Report on the World Economy 1991" released by the United Nations on 16 December 1991, the world economy recorded a negative growth rate of 0.3% in 1991 (compared to a positive growth rate of 1.5% in 1990), the first time the world has experienced negative growth since the end of the Second World War. Per capita income also dropped to minus 2.0%, a deterioration of the situation in 1990 (minus 0.3%). The report also said that in terms of volume world trade grew by just 1% over the previous year, a rate which represented the lowest increase for the past ten years. Although the report predicts that on the whole the world economy will grow at a positive rate in 1992, it said that economic growth could not be expected to exceed the increase in population, and that in terms of per capita it would grow at a negative growth rate of

0.25%.

Despite this, cotton spinning equipment experienced a significant increase in 1990, largely in the Asian region. Short fibre spinning machines increased by 4.96 million spindles (17.5%) throughout the world and shuttleless looms also increased by 75,000 (6%). [\*]

[\*] Monthly Report of the Japan Spinners' Association, Sep. 1991

The United States and China have led the increase in demand for fibre over the past decades. Since the oil crisis in 1973 developed countries have adopted a cautious attitude toward increasing equipment. But there has been a considerable increase in synthetic fibre equipment largely for exports in developing countries, particularly in countries in Eastern Asia, which gave rise to a gap between demand and supply. The increase in demand in the United States and China absorbed this increase in production. Although this made it possible to maintain a balance between demand and supply during the 1980s, there is no guarantee that the same sort of balance can be maintained during the 1990s. Given that the production of synthetic fibre seems to expand from NIEs into ASEAN and also into Southwest Asian countries there is concern that the balance in world supply and demand for synthetic fibre may be destroyed. If this happens, differences in competitiveness between one country and another are likely to appear, and it will become necessary to show caution with respect to increasing equipment. The same may also be applied to the cotton industry.

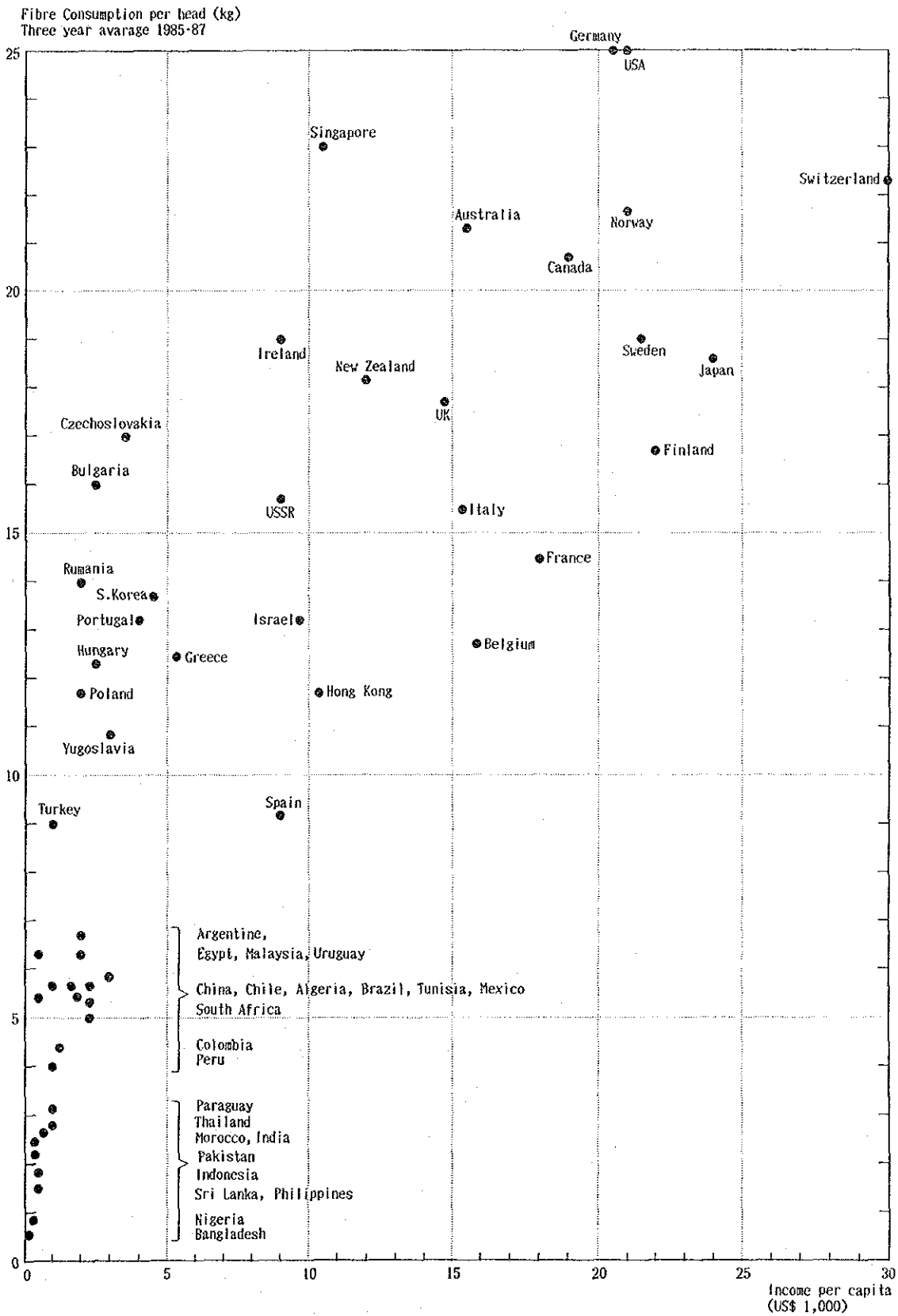
## 2-2. Projection of Textile Consumption

### 2-2-1. Outlook of World Demand for Textile Fibre

Although a suitable method for predicting demand for particular goods has yet to be established, it is well known that textile consumption per capita changes in proportion to the level of income. Therefore, total fibre consumption more than likely increases in line with the increase in national income and the increase in population.

Per capita consumption of textile fibre ranges from 0.7 kg (Bangladesh) to 6.3 kg (Egypt) among nations whose national per capita income is less than US\$1,000, from 2.8 kg (Thailand) to 17 kg (Czechoslovakia) in countries where this is \$1,000 - 5,000, from 9.1 kg (Spain) to 23 kg (Singapore) among nations with a per capita income of around \$10,000 and from 14.5 kg (France) to 25.1 kg (the United States and Germany) in countries where this is around or above \$20,000. There is a tendency of correlation between textile consumption and income increase, although there are considerably wide differences among nations of the same group -- the higher the income, the smaller the difference, however. Per capita consumption of textile fibre rises in line with income increases and the rate of increase of consumption is larger than that of income increase. It demonstrates that the income elasticity coefficient of textile fibre consumption is generally high. (Fig. II-2-2)

Fig. II-2-2 FIBRE CONSUMPTION AND INCOME FOR SELECTED COUNTRIES (1985-87)



(Source) FAO : World Apparel Fibre Consumption Survey, 1989  
IBRD : The World Bank Atlas, 1988

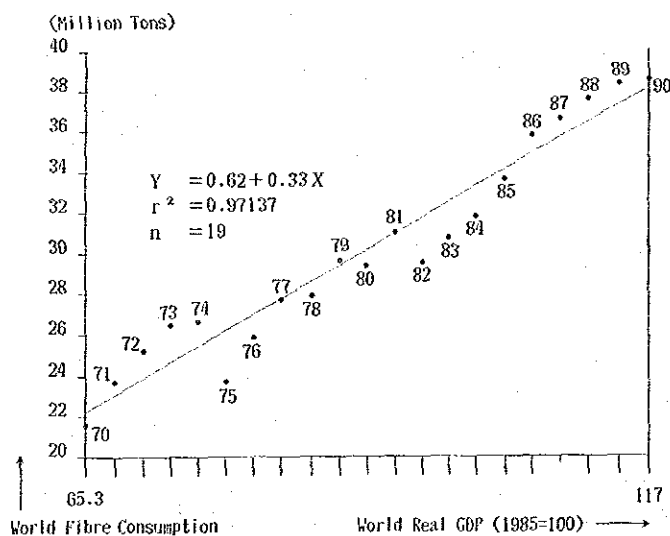
A Japanese family income and expenditure survey also shows that the ratio of expenditure on apparel per household or the elasticity coefficient against disposable income in 1986 stood as high as 1.42, above the 1.29 in 1970 and 1.41 in 1980. There were no major changes in this rising trend after the beginning of the 1970s. Rather, it accelerated in line with the increases in income.

Moreover, the income elasticity of apparel expenditure by quintile annual income family groups (1986) is 1.23 for the lowest income group and 1.76 for the highest. Thus where income is larger, the ratio of expenditure on apparel is higher. From the above, it may be concluded that in long term the consumption of fibre is likely to increase faster than income improvement.

It is needless to verify that textile fibre consumption increases with growth in population. We will therefore go on to measure the degree of correlation between textile fibre production and real global GDP between 1970 and 1990. A strong correlation can be confirmed through the equation of  $Y$  (1 million tons) =  $0.62 + 0.33 X$ , and the determination coefficient  $r^2 = 0.97$ , correlation coefficient  $r = 0.9855$  resulted.

It may be said that growth in consumption due to rises in population and in line with income elasticity is reflected in, indeed seen in condensed form, the pattern of consumption increases due to economic growth. It may be concluded, accordingly, that the rate of increase of demand for textile fibre or products corresponds almost exactly with the speed of economic growth. (Fig. II-2-3)

Fig. II-2-3 CORRELATION BETWEEN GDP GROWTH AND FIBRE CONSUMPTION (1970-90)



(Source) SEN-I SOGO KENKYUSHO : "Textile Handbook 1992"  
IMF = "International Financial Statistics, Yearbook 1992"

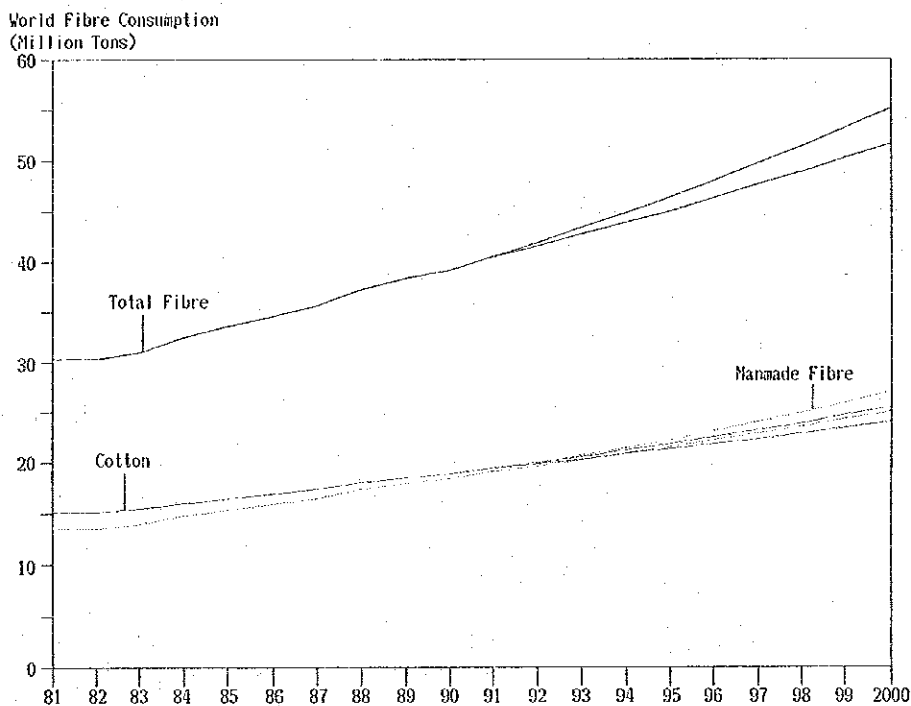


It is believed permissible to rely on the correlation between textile fibre consumption and economic growth forecasts to estimate the future demand for fibre. The correlation between economic growth and textile demand is presumed to include population-increase factors and income elasticity factors. Furthermore, because the correlation between textile consumption and the rate of population increase is closely akin to the correlation of the former with the rate of economic growth, it would be better, from the viewpoint of avoiding multi-collinearity, for population increases not to be considered as explanation variable.

The World Bank, in its World Development Report 1991, predicted world economic growth in the 1990s. The report foresees an annual average growth of 3.5 percent for standard cases and 2.8 percent for lower cases. Calculating the real GDP indexes for standard and lower cases until 2000 on the basis of the World Bank report and applying them to the regression formula mentioned above, we estimated textile fibre consumption.

The result put world textile production at about 46.5 million tons in 1995 and 55 million tons in 2000 for standard cases, and the annual average rate of growth at 3.4 percent. For lower cases, the annual average rate of growth will be 2.8 percent, with production estimated at 44.9 million tons in 1995 and 51.5 million tons in 2000. (Fig. II-2-4)

**Fig. II-2-4 PROJECTION OF WORLD FIBRE CONSUMPTION (1991-2000)**



Note : 1981-90 = Real production, 1991-2000 = Projection

(Source) Calculated by the Study Team based on IBRD's "World Development Report 1991"

With regard to manmade fibre, the annual average rate of growth for standard cases is estimated at 3.9 percent with the production predicted to reach 22.3 million tons in 1995 and 27 million tons in 2000. The man-made fibre output will first surpass that of cotton around 1993. The annual average rate of growth for lower cases is predicted at 3.1 percent, with the production estimated to reach 21.46 million tons in 1995 and 25 million tons in 2000. Predictions for lower cases also foresee that the output of manmade fibre will begin to exceed that of cotton around 1994.

On the other hand, in standard cases the output of cotton fibre is estimated to reach 21.89 million tons in 1995 and 25.54 million tons in 2000, both slightly less than that of manmade fibre, and consumption is predicted to grow at an annual average rate of 3.1 percent. In lower cases, the yearly average rate of growth is estimated to be 2.4 percent and production 21.24 million tons in 1995 and 24.03 million tons in 2000. In lower cases as well, cotton fibre production is predicted to fall below that of manmade fibre.

The ratio of synthetic fibre will be 48 percent in 1995 and 49 percent in 2000 in standard cases. In lower cases, the percentage will be 47.8 percent in 1995 and 48.6 percent in 2000. Although this means a smaller ratio of natural fibre, the absolute amount of natural-fibre demand will not necessarily drop because the fall in the market share will take place along with an overall increase in the fibre demand.

#### 2-2-2. Outlook for Demand for Pakistani Textile Products

Quantitative calculation of future demand for cotton yarn and fabrics from Pakistan is extremely difficult because of the necessity to consider a wide range of variables including rates of economic growth, population increase, domestic investment, consumption trends, import policy, customs-duty policy, international market conditions, changes in export competitiveness and fluctuations in the exchange rate.

Here, for the purposes of our predictions, we will assume that the abovementioned variables will not deviate much on the past and will apply existing estimations of world textile demand.

If the world economy grows at an annual rate of 3.5 percent in accordance with the World Bank's standard scenario, global textile demand will increase at a yearly rate of 3.4 percent as stated above. The lower scenario expects global textile demand to grow at an annual rate of 2.8 percent. If it is applied to Pakistani cotton yarn and fabrics, the estimated demand will be as follows:

	Actual 1990/1991	Standard scenario		Lower scenario	
		1994/1995	1999/2000	1994/1995	1999/2000
Cotton yarn (1,000 tons)	1,056.1	1,207.2	1,426.9	1,179.4	1,354.1
Cotton fabrics (Mill sq. mtrs)	2,854.0	3,262.4	3,856.0	3,187.3	3,659.2

Pakistan's economy is growing at a rate higher than the world average, and its population is also increasing at a higher rate. Thus, fueled by increases in population and income, its domestic demand will grow at a higher rate than global demand. Export demand may also achieve an above-average growth if international demand rises above a certain level, due to the strong export competitiveness of Pakistan's textile industry and the effects of the devaluation of the Pakistani currency. For the longer term, there are grounds for expecting that growth rates of the Pakistan's textile industry will reach 4-5 percent a year, or at least slightly exceed those of the above-mentioned scenario.

Quantitative calculation will be more difficult as to the outlook of export demand for garments. As the family income and expenditure survey of Japan shows, however, income elasticity coefficients of clothing is high and this elasticity increases further with rises in income. There is no doubt that increases in income should be followed by a rise in demand. The central question is how large a portion of the expanding demand Pakistan's garment industry will be able to gain. This can be reduced to the single issue of competitiveness: The future export of garments will solely depend on how far the country can strengthen its international competitiveness.

### 2-3. Regional Trade Flow

In general terms the flow of trade of textile products between one region and another is characterized by the following three factors: (1) the percentage of trade between developed countries continues to be high; (2) imports to developed countries are expanding; and (3) a noticeable increase in exports by the Asian NIEs and other developing countries is apparent.

#### 2-3-1. Flow of Textiles between Regions

According to trade data of GATT a comparison of the flow of textile trade among developed countries, developing economies and eastern trading area in 1980 and 1988 reveals the following characteristics: (1) trade between developed countries continues to account for an overwhelming of world trade; (2) whereas in 1980 exports from developed countries to developing countries were higher than the reverse, this situation had changed around by 1988 when there were more exports from developing countries to developed countries; (3) trade within developing economies is expanding significantly; and (4) there has been a significant increase in exports from eastern trading area. (Fig. II-2-5a, Table II-2-2)

Although trade among developed countries dropped from 50.6% of total textile trade in 1980 to 46.4% in 1988, it continues to account for nearly half of all textile trade. While the share of exports from developed countries to developing countries had declined from 15.2% in 1980 to 10.0% in 1988, the share of exports from developing countries to developed countries has increased marginally from 10% in 1980 to 11.4% in 1988. It may be concluded that in terms of value the relationship between developed countries and developing countries has reversed itself. The development of textile industries in developing countries has brought about an increase in trade between developing countries, with the same trend applying to eastern trading area.

During the period from 1980 through 1988 world textile (yarn and fabric) trade expanded by approximately \$37.0 billion. A look at the contribution rate of each region to the increase in textile trade over this period reveals that exports by developed countries accounted for 41.8% of this increase, exports by developing countries 37.1%, and exports by eastern trading area 21.1%. As for imports, imports to developed countries accounted for a significant contribution rate of 57%. (Table II-2-3)

The table shows the share of intraregional trade within the developed areas is still large. However, the table indicates also that export to developed areas by developing nations has grown remarkably. This trend is particularly notable in the changes in imports of textile products by the EC countries, for instance. Import of cotton yarn by the EC nations from developing countries increased 95 percent from 57,200 tons in 1980 to 111,500 tons in 1987. Despite the quantitative growth, however, the share held by developing nations of textile imports by developed countries in terms of value rose a mere 3.2 percentage points from 24.2 percent to 27.4 percent in the seven years. This is believed to be due to the lower unit prices of developing countries' products as compared with products from industrialized nations. Main suppliers in the developing regions are Brazil, Pakistan and India. Throughout the 1980s, imports of cotton yarn from Africa rose notably. The market share of Africa doubled from 4.4 percent in 1980 to 8.8 percent in 1987. West German imports of cotton yarn from Africa, particularly from Egypt and Zimbabwe, increased considerably. This is because the EC excludes Africa, the Caribbean countries and Pacific nations from the MFA quota system and provides them with customs-free treatment under the Lome Convention.

**IMPORTS OF COTTON YARN INTO FOUR MAJOR EUROPEAN COUNTRIES\***  
**BY REGION OF ORIGIN, 1980-87**

	Unit:1,000 tons					
Imports from:	1980	1983	1984	1985	1986	1987
Other EC countries	42.9	109.2	138.7	128.3	150.2	180.6
Developing countries	57.2	59.0	64.6	66.1	69.4	111.5
All other origins	136.2	117.4	133.8	124.1	109.9	114.4
Total	236.3	285.6	337.1	318.5	329.5	406.5

Notes : \*France, W.Germany, Italy, UK;

Source: "External Trade, Analytical Tables, Nimexe", Statistical Office of the European Communities, Luxembourg

### 2-3-2. Flow of Garments between Regions

Similar GATT data shows that changes in the flow of garment trade consist of the following characteristics: (1) as is the case for textiles, trade between developed countries continues to account for a significant share of total trade; (2) despite this, exports from developing countries to developed countries have increased considerably and are now of a scale which exceeds that of trade among developed countries; and (3) there has been a noticeable increase in exports from eastern trading area. (Fig. II-2-5b, Table II-2-2)

Whereas the share of trade among developed countries decreased from 42.3% in 1980 to 36.7% in 1988, the share held by exports from developing countries to developed countries rose considerably from 31.5% in 1980 to 40.2% in 1988. Viewed in terms of absolute value (for 1988), a comparison shows that while exports between developed countries was worth \$32.9 billion, exports from developing countries to developed countries were worth \$36.0 billion, thus surpassing the former. Developed countries are increasing their dependence on imports while developing countries are strengthening their roles as suppliers to these countries.

Between 1980 and 1988 world garment trade grew by \$48.6 billion. The contribution rate to this increase by exports from developing countries was 51.4%, with imports into developed countries accounting for a large proportion (47.6%) of this increase. Increase in trade by developed countries contributed to the extent of 33.4% of world exports and 89.4% of world imports. These figures show that developed countries comprise an overwhelming share as import markets for textile products. As for eastern European countries, they have shown a reasonable increase as they have a world trade contribution rate of 15.2%. (Table II-2-3)

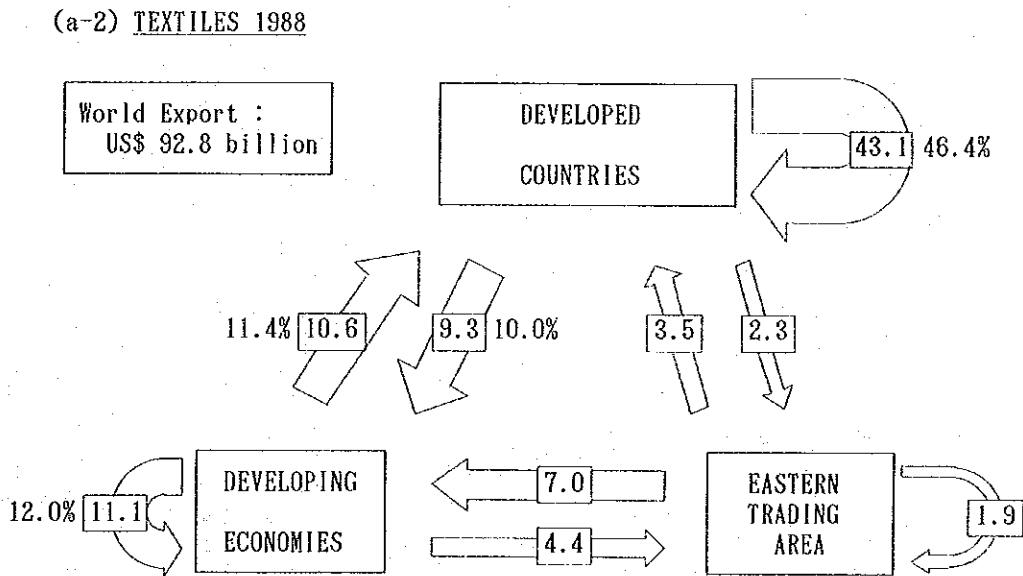
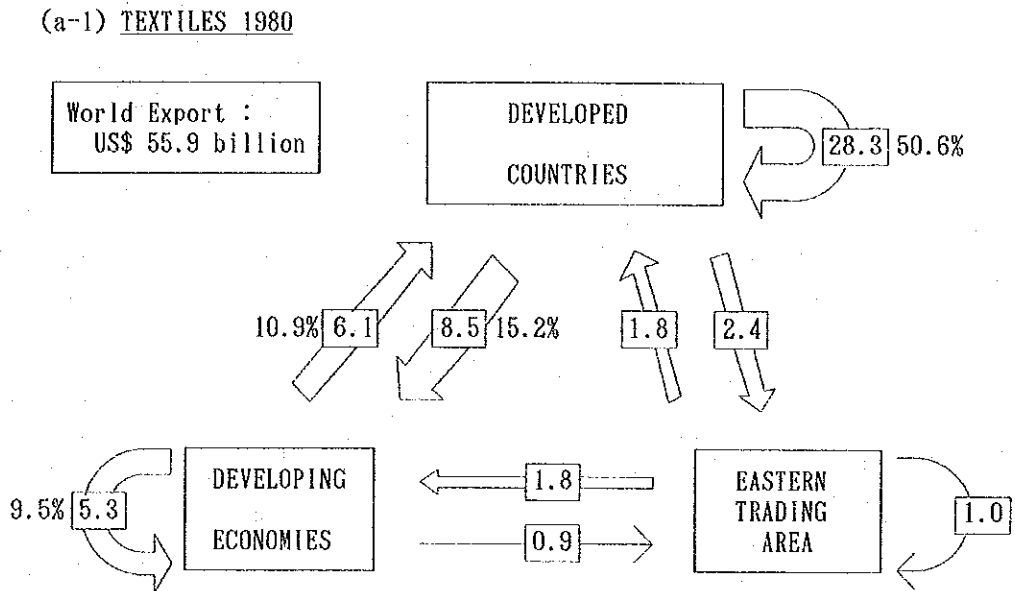
Behind this flow in supply and demand lie factors such as the healthy increase in consumption demand accompanied by the long-term expansion of the world economy, and a change in demand on a worldwide scale as incomes have increased for higher quality goods and for goods with higher added value. There is also the diversification in trade relations by way of investment and consignment processing trade resulted from the globalization of economy and company activities. Recent significant developments include the expansion in textile industries from Asian NIEs to include the ASEAN region and also countries in Southwest Asia, the expansion of trade within the EC, the expansion in trade between the US and Caribbean countries and between Europe and countries in Africa and the Mediterranean region, and the increase in trade relations between China and Hong Kong.

A new development which is worthy of note is the move by the American garment industry to establish business relations in Mexico and the Caribbean region, and similar moves by European industries to go out into Africa and the Mediterranean region. The marked increase in production consigned to the Caribbean region by American garment industry has taken place in order to utilize low cost labour and preferential tariffs and special import quota based on the Caribbean Basin Initiative Textile Programme. This is a new development of overseas sourcing. American garment companies send cut garment components made of American fabric to Caribbean countries where they are sewn, after which the sewn products are then re-imported into the US.

As for the textile industries in EC countries, they too have increased by a significant amount consigned production to African countries for the purpose of utilizing low cost labour and tariff exemptions under the Lome Agreement, and in order to avoid MFA restrictions. Because it is not subject to MFA quota, cases are being seen where Hong Kong capital is being used to shift production bases to the Caribbean and African regions which are exempt from the MFA. Moves such as these are expected to result in the emergence of textile industries in these regions.

Fig. II-2-5a NETWORK OF WORLD TEXTILE TRADE

(Units : US\$ Billion)

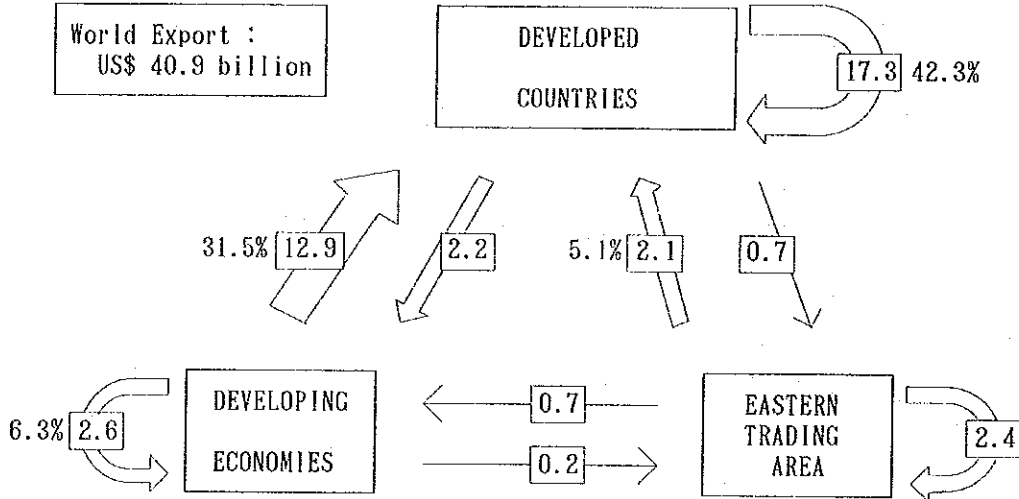


(Source) Table II-2-2

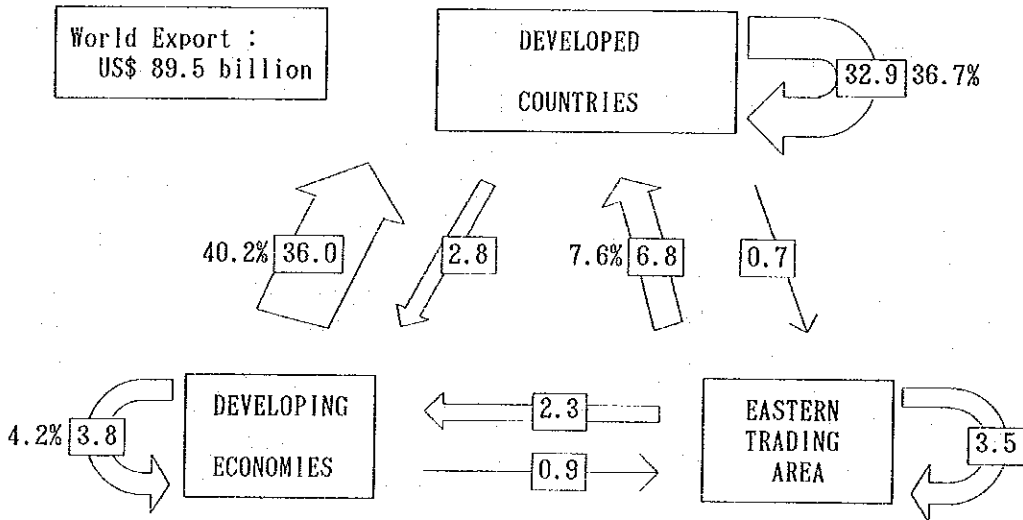
Fig. II-2-5b NETWORK OF WORLD TEXTILE TRADE

(Units : US\$ Billion)

(b-1) CLOTHING 1980



(b-2) CLOTHING 1988



(Source) Table II-2-2



## Chapter 3 Structure of the Textile Industry

### 3-1. Status in the Economy

The proportion of Pakistan's GDP which is comprised by the manufacturing industry sector increased from 15.1% of total GDP for the 80/81 financial year to 17.6% for the 89/90 financial year. In 89/90 service industries accounted for 52% of GDP, followed by agriculture at 26%. Whereas the contribution rate of the agricultural sector in GDP has been decreasing over a long period of time, the manufacturing industry sector's share has been increasing. (Table II-3-1)

Industries related to textiles, such as the raw cotton, spinning and weaving, and sewing industries, which are part of this manufacturing industry sector, accounted for 18.7% of the added value production by manufacturing industries for 85/86, putting it in second place behind the food processing industry (30%). Although the textile industry share of value added production by manufacturing industries had dropped slightly since the 80/81 financial year when it accounted for 19.5% of total value added production, this is thought to reflect the diversification of Pakistan's industries. (Table II-3-2)

A look at the position of the textile industry in relation to Pakistan's exports shows that for 89/90 its products accounted for 64.4%, or US\$ 3.25 billion of the country's total exports worth \$ 5.05 billion. A breakdown of exports of textile products shows that yarn accounted for 17.2% (\$ 867 million), fabric 16.5% (\$ 834 million), home textiles such as carpets, towels, sheets, etc 13.3% (\$ 670 million), and garments 17.4% (\$879 million). Viewed in terms of its share of exports of manufactured goods, textile industry products comprise 84% of such exports. (Table II-3-3)

In 88/89 manufacturing industries provided 12.7% of the total employment, ahead of the commercial sector at 11.9%, and behind the agricultural sector which employed 51.2% of the country's work force. [\*]

[\*] Finance Division: "Economic Survey 1990-91"

Based on a population census conducted in 1981, approximately 26% of the country's total population was involved in some form of paid employment. If it is assumed that total employment was 26% of the estimated total population of 110.36 million in 1990, or approx. 28.7 million people, it may be surmised that 12.7% (about 3.6 million) of the total employed population was employed by manufacturing industries. This estimate of 3.6 million for the manufacturing industry is thought to be fairly accurate, considering that at the time of the writing of this report in 1991, estimates of the number of employees in manufacturing industries are generally said to be around 4.0 million. Although it has not been possible to obtain statistics providing a breakdown of employment by individual manufacturing industry sector, it is estimated that the textile industry employs a work force of approximately 1.5 million workers, which is equal to 37.5% of the total work force (4.0 million) employed by the manufacturing industry.

Looking at production, export and employment indicators, which show that the textile industry accounts for about 19% of value added production by manufacturing industries, 64% of total exports, and about 38% of the total employment in the manufacturing industries, it may be concluded that the textile industry is Pakistan's largest industrial sector.

### 3-2. Production Capacity

Pakistan's spinning and weaving industries may be divided into two main sectors: the mill sector, which comprises of both integrated mills which are engaged in spinning and weaving (some mills having dyeing and finishing processes as well) and factories engaged exclusively in spinning; and the nonmill sector which is comprised of household units involved exclusively in weaving. Added to these types of businesses, there are companies which are engaged in the integrated production of knitwear, and there are dyeing and finishing companies and garment companies.

#### 3-2-1. Spinning Sector

The spinning sector is organized under the All Pakistan Textile Mills Association (APTMA), a national industry association, and is normally referred to either as the "mill sector" or "organized" sector. This sector is made up of integrated mills which perform both spinning and weaving, and specialized mills which are engaged exclusively in spinning.

According to APTMA data, the association had 277 member companies as at June 1991, whose spinning equipment comprised of 5.58 million spindles ring spinning machines and 74,000 rotors open-end machines.

The number of ring spinning machines has increased by some 1.6 million spindles, or at a rate of 40%, since 80/81. A particularly sharp increase in spinning equipment has been seen since 88/89 when restrictions on the renewal and expansion of spinning equipment were liberalized and import tariffs on machinery were reduced substantially from 50% to 20%. The renewal and expansion of 460,000 spindles resulted in 1988/89. Significant increases in equipment have continued since then, with 420,000 more spindles introduced in 89/90 and a further 310,000 in 90/91. (Table II-3-4)

By 84/85 the rate of operation of ring spinning machines had dropped to 64.6%. This reduction in the operation rate of equipment is reflected in the wide gap which developed between production capacity and yarn production during the period from 76/77 to 84/85. A slump in exports and the ageing of equipment are considered the main factors behind this drop in the operation rate. However, the increase in exports and the renewal of equipment which have taken place since 1986 have been accompanied by a steady recovery in the operation rate, so that by 90/91 it had increased to 86%. As for the operation rate of open-end spinning machines, it has maintained a relatively high level of around 90% during the past few years. (Fig. II-3-2, Table II-3-4)

### 3-2-2. Weaving Sector

#### (1) Mill sector

Roughly 40% of the APTMA's 277 members (about 100 companies) are integrated mills, that is, mills which perform spinning as well, and in some cases processing also. As of the end of the 90/91 financial year these companies owned 15,000 shuttle looms and 1,200 shuttleless looms. (Table II-3-5)

The past 20 years has seen a trend of decrease in the number of shuttle looms. By the end of the 90/91 the number of shuttle looms had decreased by 40% compared to the number in 80/81. Despite the lack of accurate figures on the number of shuttleless looms, it would appear that they have risen sharply in number since around 1988 when the first Japanese-made air jet looms were introduced. Current figures put the number of shuttleless looms at 1,191. Medium-sized weaving mills and towel mills were comparatively quick to introduce shuttleless looms like the sulzer and rapier looms. By contrast, large companies in the mill sector have appeared to be somewhat late off the mark in introducing shuttleless looms.

The number of shuttleless looms introduced in the mill sector is not necessarily clear. According to TIRDC data, the total number is estimated at 2,371 units (in fiscal 1988/89). Since only around 200 units have been introduced into the nonmill sector, this means that most of the shuttleless looms were introduced into the mill sector. Subsequently, various development finance institutions (DFI) provided funds for plans to import a total of 3,000 units, which are now under way.

Compared with a stable high operation rate of new shuttleless looms of more than 90%, the operation rate of shuttle looms has been declining since long time, and had dropped to 46.7% in 90/91. While the spinning sector has been enjoying good times, the weaving sector had a lower rate of capital turnover, less cultivation of overseas markets, many difficulties with production technology, many problems in the area of quality, and the ageing of its equipment resulted in lowering its competitiveness with the nonmill sector. All these factors have led to many mills withdrawing from the weaving sector and shifting emphasis to the spinning sector instead.

#### (2) Nonmill sector

The sector referred to as the nonmill sector is made up of independent weaving mills dominated by small-scale enterprises. There is an organization called All Pakistan Cotton Power Looms Association (APC-PLA) and the rate of affiliation may be said to be comparatively high. But there are few industry statistics available. As well as being referred to as the "nonmill" sector, in contrast to the mill sector, it is also called the "unorganized" or the "power loom" sector.

The number of weaving units belonging to the nonmill sector is roughly estimated at 18,000 and sometimes at 20,000. APC-PLA members number 10,500, their scale of facilities each ranging from nine to 199 looms and

totaling 150,000. Nearly 90 percent of them are locally-made semiautomatic looms and many are old. Automatic looms (cop change) account for 10 percent, numbering 15,000 units. About 200 shuttleless looms have been introduced.

According to APC-PLA, weaving units equipped with one to nine looms each belong to a separate industry association for very small mills, while mills having more than 200 looms are members of APTMA. Generally, the scale of facilities at weaving units in the nonmill sector varies widely within a range of four to 200 looms, with the ratio of very small mills (having no more than four looms) estimated to be considerably high. The profusion of very small mills has resulted from the fact that since the 1960s weaving mills with no more than four looms have been exempted from various obligations under the Labor Law, the burden of contribution to social security funds and the payment of the corporate income tax and the excise duty.

TCO estimates the total number of power looms at around 145,000, not far off 150,000, the number of looms installed by APC-PLA member mills. TCO holds that 135,000 out of the total number of the installed power looms are in operation. APC-PLA estimates the total number of installed looms in Pakistan at 205,000. However, neither of the figures are accurate.

The so-called "modern power loom sector", a new group of weaving mills is appearing. These mills currently are introducing 100 to 200 new shuttleless looms, Sulzer, Rapier and Air Jet.

**Today the nonmill sector accounts for as much as 90 percent of all cotton fabric production, generating the growth of many ancillary industries of small and medium scale. Its total employment creation effect is estimated at between 120,000 and 200,000. In addition to the satisfaction of domestic fabric demand, the sector exports approximately 20 percent of its production. The small-scale output of individual mills means that they are structurally suited to multi-kind, small-lot production and are in a position of playing a role as material suppliers to the garment sector. The problems are superannuated facilities, poor quality and low productivity. Being mostly family-operated small businesses, their finance raising ability is weak and, with a few exceptions, lag far behind in the modernization of facilities.**

Cotton cloth accounts for 70 percent of fabric production in the nonmill sector and mixed fabric the remaining 30 percent. Of total exports, 70 percent are grey goods and 30 percent dyed. According to APC-PLA, 80 percent of output is exported. Exports are made mostly through receipt of orders from commercial exporters, while there are some direct exports.

### 3-2-3. Processing Sector

The data used below have been taken from the Report of the Working Group on Textile for the Sixth and Seventh Five-year Plans, World Bank reports, TIRDC data, and interviews with the All Pakistan Textile Processing Mills Association (APT-PMA)

According to TIRDC data quoted in the Seventh Plan Textile Working Group Report, the number of firms in the dyeing and finishing sector totals about 650 (including 29 dyeing sectors of composite mills), far more than the 200 in 1970. The Sixth Plan Textile Working Group Report, however, says that the number of composite mills with dyeing and finishing sectors totals 45.\* It is not clear which of the two figures is correct. In either case, most of the dyeing and finishing firms are independent processing mills and many of them are concentrated in Faisalabad, Gujranwala and Karachi.

(\*) "Report of Working Group on Textile for the Sixth Five-year Plan," p.74

A World Bank report in 1982 said that as of 1981 dyeing and finishing mills numbered about 165, of which 29 were dyeing sectors of composite mills. The report held that the latter had equipment of relatively coherent functions and only 10 out of the remainder could be categorized into the "mills." Furthermore, the report said many of them including half of the composite mills (dyeing sectors) were in a state of closure.

On the other hand, APT-PMA says its members number 350 firms. It is estimated that there are around 300 dyeing and finishing mills of small and medium scale which do not belong to APT-PMA.

Although there are no detailed statistics about their capacity, the Working Group Report says the actual dyeing and finishing results were as follows:

	1980/81 (Million Sq. Meters)	1987/88 (Million Sq. Meters)	
Bleaching	184	750	(30)
Dyeing	227	300	(20)
Printing	369	600	(36)
Total	780	1,650	(86)

\*Figure in ( ) are results of mill sectors.

The World Bank report mentioned above estimates the total dyeing and finishing capacity at 1,150 million square meters.

The dyeing capacity of the mill sector alone is not clear. As the figures in brackets show, the mill sector accounted for 5 percent of total production in 1987/88.

The fabric output of the mill sector in fiscal 1989/90 totaled 294.8 million square meters. Broken down, bleached cloth accounted for 19.4 million square meters (6.6 percent), dyed and printed cloth 53.6 million square meters (18.2 percent), with the processed fabric totaling 73 million square meters (24.8 percent). The ratio of the processed fabric is lower than the 27.7 percent in fiscal 1980/81.

The table below shows actual results of sanctions and imports of finishing machines from 1978 to 1982. In addition, some firms introduced locally-made copying machines. Statistics of facilities introduction after 1983 could not be obtained.

#### SANCTIONS AND IMPORTS OF FINISHING MACHINES

Machinery	No. of M/C sanctioned	No. of M/C imported	% of Implementation
1. Transfer Printing Machine	50	50	100
2. Flat Bed Printing Machine	15	10	67
3. Rotary Printing Machine	63	40	64
4. Jet Dyeing Machine	239	170	71
5. Heat Setting Machine	144	120	83

Source: Report of the Textile Working Group, 1983

#### 3-2-4. Knitwear Sector

Although the knitwear sector, using locally-produced cotton yarn and comprising small and medium enterprises, occupies an important place in Pakistani industry, no official data are available. The data below have been obtained from interviews with Pakistan Hosiery Manufacturers Association (PHMA) and Pakistan Knitwear & Sweaters Exporters Association (PKSEA), TIRDC data and the Textile Working Group report stated above.

Immediately after independence, Pakistan had only a few firms in the field of knitwear. Currently, the knitwear industry is composed of around 600 enterprises. Eighty of them are major integrated firms with knitting, dyeing and sewing processes. However, small enterprises account for about 60 percent of the production. Knitwear firms are scattered over Karachi, Faisalabad, Gujranwala, Multan, Sialkot, Hyderabad and Peshawar, and are especially concentrated in Karachi and Faisalabad. Facilities in Karachi and Faisalabad are relatively modern.

As an extremely labour intensive industry, the knitwear sector currently employs about 100,000 workers. A total of around 12,000 units of facilities (flat knitting machines and circular knitting machines) are estimated to be installed. TIRDC also estimates the number of currently installed knitting machines at 12,000 units.

PHMA members number about 600, of which 40 are said to be enterprises of integrated type owning in-company knitting sectors. Broken down by province, 300 are located in Sind, 250 in Punjab and seven elsewhere. In addition, the association estimates there are about 500 small household units. Almost all members of PKSEA overlap as members of PHMA.

### 3-2-5. Garment Sector

Few relevant statistics are available concerning the structure of the garment industry either. The Textile Working Group Report estimates there are as many as 1,000 manufacturers scattered around the country. Among them, 550 firms (as of 1992) are members of the Pakistan Cotton Fashion Apparel Manufacturers and Exporters Association (PCFA-MEA). The majority of garment manufacturers are small household units which more or less resemble the carpet sector, a traditional industry, in terms of structure. According to TIRDC, most of these manufacturers are small household units having no more than 50 sewing machines each. PCFA-MEA membership is composed of 250 firms which have 30 to 50 machines and 300 bigger enterprises most of which have 50 to 300 machines (five of them are major companies having 1,500 machines).

Although there is also a lack of data relating to equipment, TIRDC estimates that in around 1983, there were a total of 7,050 sewing machines, of which 2,550 were in the organized sector and the remaining 4,500 in the household unit sector. TIRDC also estimates that as of 1990, there were approximately as many as 230,000 machines in the industry, of which 81,500 were in the organized sector and 150,000 (locally-made machines) in the household unit sector.

According to PCFA-MEA, a total of 29,993 industrial sewing machines were imported from Japan between 1971 and 1982. The association also estimates the number of industrial sewing machines as of 1982 at 30,000. In addition, the number of locally-made machines in the household unit sector is estimated at about 50,000. Import of industrial sewing machines rose sharply to 5,338 units in fiscal 1976/77 when tariff duties were lowered to 20 percent. The imports, however, again slumped to around 2,000 units a year from the next fiscal year when import tariffs and excise duty were raised to a combined total of 68 percent.

## 3-3. Production Structure

### 3-3-1. Overall Outline

In 89/90 production of cotton yarn totalled about 925,000 tons. Of this total, 370,000 tons were exported, while 47,000 tons was consumed within the mill sector. The remaining 500,000 tons or so went to the nonmill sector. In other words, as little as 5% of production was consumed by the weaving division of the mill sector, with 41% exported, and with just half of total production (54%) supplied to the domestic market. (Fig. II-3-1, Table II-3-6)

Fig. II-3-1 STRUCTURE OF PRODUCTION & DISTRIBUTION OF YARN AND FABRIC (1989/90)

Production & Distribution of Yarn  
(Unit: 1,000 Kgs)

EXPORT 377,376 (41%)		Distribution of Fabric (Unit: 1,000 Sq.M.)	
PRODUCTION OF YARN 925,382 (100%)		EXPORT 1,017,868 (37%) (22% of Yarn)	
→ Mill Consumption 47,119 (5%)		LOCAL MARKET 1,716,971 (63%) (37% of Yarn)	
→ Non-mill & Knitting Sector 2,440,000 (89.2%)*		Made-Ups for Export (30%) ^ (11% of Yarn)	
LOCAL SUPPLY 500,387 (54%)		Made-ups for Local Market (70%) (26% of Yarn)	
PRODUCTION OF FABRIC (Unit: 1,000 Sq.M.)		TOTAL PRODUCTION OF FABRIC 2,734,839 (100%)	
→ Mill Sector 294,839 (10.8%)		^ Approx. only 5% of Yarn for Garments:	

(Source) APTMA: "Chairman's Review 1991" (P.44, 50, 51)  
 TCO: Hearing(\*)  
 TIRDC: "Pakistan Textiles Statistics, 1990" (P.6)



While annual production of fabric (includes blended fabric) reached 2,730 million sq. meters for 89/90, about 11% of this was produced by the mill sector, with the remaining 89% having been produced by the nonmill sector. [\*1] Some 37% of fabric was exported, and 63% was sold on the domestic market. About 30% of fabric sold domestically was used as material for garments, knitwear, and other made-ups which were destined for export. The remaining 70% was consumed domestically. [\*2] In other words, roughly 40% of fabric production went to exports, about 20% was used as material for other made-ups also destined for export, and the remaining 40% was consumed domestically. (Fig. II-3-1, Table II-3-9)

[\*1] According to provisional statistics provided by the TCO, 2,854 million sq. meters of fabric were produced in 90/91. 293 million sq. meters (10.3%) were produced in the mill sector, 2,561 million sq. meters (89.7%) in the nonmill sector, and 1,063 million sq. meters (37.3%) were exported.

[\*2] These figures are based on the TIRDC's "Pakistan Textiles Statistics, June 1990" (p.6)

**If this distribution of fabric shown above is viewed in terms yarn, 40% is exported in the form of yarn, 20% is exported in fabric, 10% is exported in garment and other made-ups and 30% is consumed domestically (all figures here are approximate). It is clear from these figures that exports in the form of yarn account for the largest portion of exports, and as a result there is very little linkage between the up-stream and the exporters of finished products.**

Although in the domestic market a portion of fabric is being sold directly to manufactures of finished products, most is sold to brokers (wholesalers). Finished product manufactures are procuring most of their material from wholesalers.

Finished products include wears and household accessories intended for the domestic market, home textiles (bedding accessories, interior accessories, etc) destined for export, and export garments and knitwear. It was not possible, however, to obtain a breakdown of data on the production of these different items.

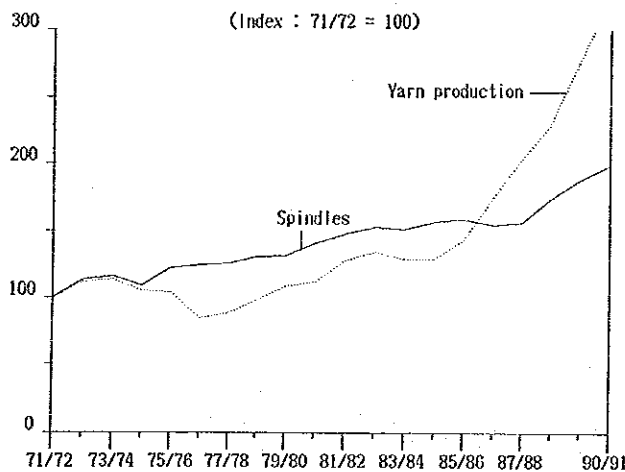
The domestic ready-made garment market has yet to be developed. Items found on the market are restricted to traditional dress for both men and women, men's shirts and trousers, and children's outerwear and underwear. Compared to the population the production and sales of garment is noticeably small. It is usual for the consumer to buy fabric sold at markets and to have the fabric made up by a tailor or dressmaker. The fabric market, therefore, could be considered as the domestic garment market. However, it is said that the increase in incomes and the westernization of the way of living in the cities have brought with them a gradual increase in demand for ready-made garment.

### 3-3-2. Spinning Sector

#### Production of spun yarn

Production of cotton yarn has experienced rapid growth, particularly from 86/87 onwards. By converting the number of spindles and the volume of yarn production into indices (71/72 = 100) and putting this data on a graph, it becomes clear that between the oil crisis in 1973 and about 1985 yarn production had not managed to keep up with the increase in equipment. This tells us that the rate of operation of equipment during this period was low. However, since 86/87 there has been a sharp growth in yarn production, so much so that it has exceeded the increase in equipment. This is attributable to factors such as the increase in exports, the increase in the rate of operation for equipment, and the increase in the number of open-end rotors. (Fig. II-3-2, Table II-3-6)

Fig. II-3-2 INCREASE OF SPINNING CAPACITY AND PRODUCTION OF COTTON YARN



(Source) Table II-3-6

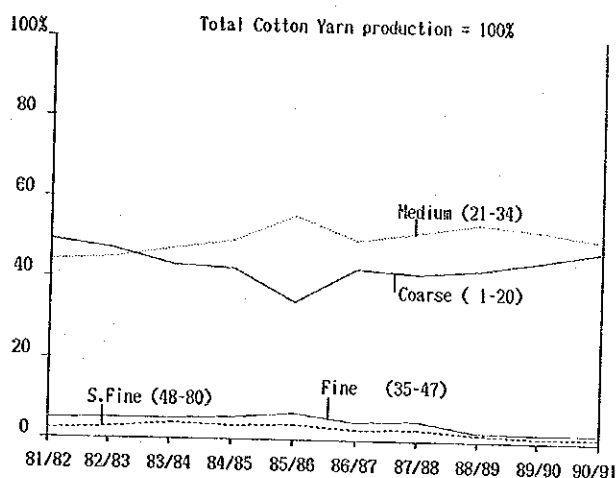
#### Production share by yarn count

The production structure of cotton yarn based on the yarn count has the following characteristics.

- Production continues to centre on the medium and coarse yarn.
- Whereas in 1983 the percentage of production of medium yarn was higher than that for coarse yarn, recently production of medium yarn has tended to slump, with the result that the production share held by coarse yarn has begun to rise again. (This trend becomes even more noticeable if 21 yarn is classified as coarse yarn.)

c. As for fine and super fine yarn, both the volume and share of production of these yarns has declined since peaking in about 1987. (Fig. II-3-3, Table II-3-7)

Fig. II-3-3 COUNT-WISE PRODUCTION SHARE OF COTTON YARN



(Source) Table II-3-7

#### Production share by category of yarn

A look at the production structure based on the type of yarn shows that pure cotton accounts for nearly 90% or so of all production, with the remaining 10% or so comprised of man-made fibre blended yarn. However, the past several years has seen a slight increase in the percentage of blended yarn production.

A look at records for 90/91 (July 90 through to March 91), show that pure cotton accounted for roughly 86%, with man-made fibre yarn accounting for 14% of production. A breakdown of man-made fibre yarn reveals that polyester cotton (P/C) accounted for a large proportion comprising 74% compared to 26% for polyester viscose (P/V). (Table II-3-7)

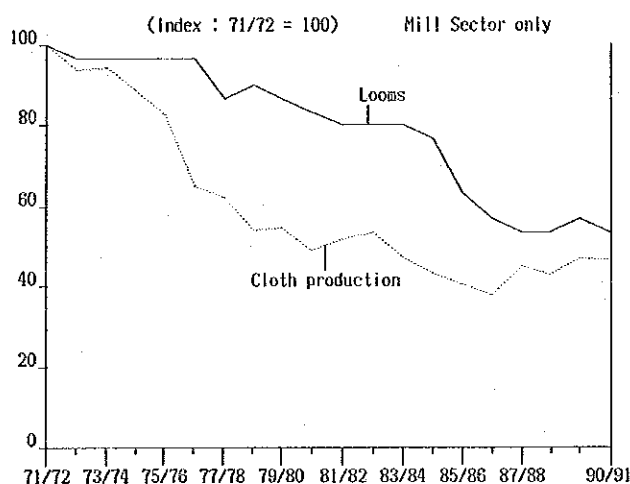
#### 3-3-3. Weaving Sector

##### Cotton fabric production in the mill sector

As we have already seen, the number of looms in the mill sector has decreased dramatically from 30,000 looms in 71/72 to 15,000 looms by 90/91, and the rate of operation for looms has dropped by about 50%. Even though shuttleless looms began to be introduced from about 1988 onwards, they still account for only about 1,200 looms. (Table II-3-5)

By converting the number of looms and the volume of fabric production in the mill sector into indices (71/72 = 100) and putting this data onto a graph, it is possible to see that as well as there having been an obvious reduction in equipment, between around 1974 and 86/87 the decrease in production was even greater than the decrease in the amount of equipment. This is clearly reflecting the slump in exports and the decrease in the operation rate of looms which occurred after the oil crisis in 1973. Still, since 87/88 the introduction of shuttleless looms has put a stop to this decline in equipment, and aided in part by the recovery in exports, production has begun to increase once again. As shown above, there has also been a slight recovery in the equipment operation rate. (Fig. II-3-4, Table II-3-5, Table II-3-8)

**Fig. II-3-4 INCREASE OF WEAVING CAPACITY AND PRODUCTION OF CLOTH**



(Source) Table II-3-8

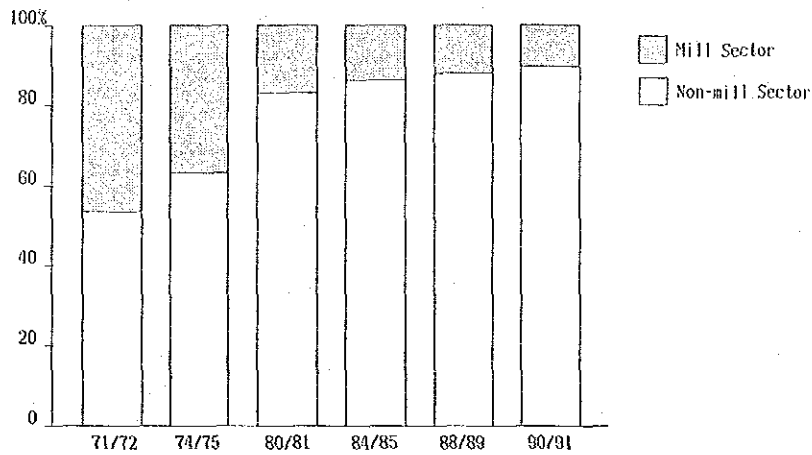
Production share in the mill sector and nonmill sector.

In 1975 there were 29,000 looms in the mill sector. By comparison there were 70,000 power looms in the nonmill sector. The share of total production by the mill sector and nonmill sector were 37% and 63% respectively. [\*4]

[\*4] "Study of the Cotton Textile Industry in Pakistan", Werner International

Though it is not possible to make an accurate comparison, it is said that there are 145,000 looms in the nonmill sector today. On this basis, the nonmill sector has more than twice as many looms as it had in 1975, and its number of looms has increased to 10 times that of the number of looms found in the mill sector. It follows that the mill sector's share of production has dropped to just 10%, and that the production share of the nonmill sector has risen to 90%. (Fig. II-3-5, Table II-3-9)

**Fig. II-3-5 SECTOR-WISE PRODUCTION SHARE OF CLOTH**



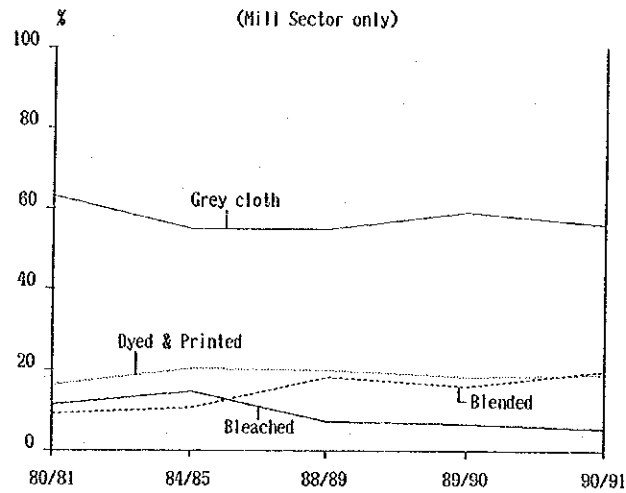
(Source) Table II-3-9, TIRDC

#### Production share by category of fabric

Owing to the absence of this kind of data for the nonmill sector the discussion below relates to just the mill sector.

As for production share of fabrics by categories, grey fabric (unbleached), with a production share of around 55% has tended to account for a large share of production over the past ten years. As will be seen in the following section, the percentage of wet processed fabric (bleaching, dyeing and printing) has decreased. In the case of bleached fabric in particular, there has been a decrease in volume, with the result that there has been a substantial decrease in its share of production. No change of any note has been seen with regard to dyed and printed fabric. The share of blended fabric has been gradually increasing. (Fig. II-3-6, Table II-3-9)

**Fig. II-3-6 CATEGORY-WISE PRODUCTION SHARE OF CLOTH**



(Source) Table II-3-9

#### 3-3-4. Dyeing and Finishing Sector

There are no statistics which tell us what amount of fabric produced by the nonmill sector is bleached or dyed. Thus, the data below refers only to the mill sector.

The share of wet processed fabric was 35.7% in 70/71 [\*], 27.7% in 80/81, and 24.5% in 90/91. Thus, although it has sustained slight fluctuations over this period it has been showing a gradual decline over the longer term. (Fig. II-3-5, Table II-3-9)

[\*] Report of the working group, 1983 (p.74)

#### 3-3-5. Knitwear Sector

Though there are no production statistics available, the TIRDC estimates that the annual volume of production for 1990 was somewhere around 180 million pieces. Estimates provided by the PICIC on the production and export of knitwear are shown in the table below.

**PRODUCTION, EXPORT AND CONSUMPTION OF HOSIERIES**

Year	Production (000 kg)	Export (000 kg)	% of Total	Domestic Consumption (000 kg)	% of Total
1976-77	8,455	2,617	31	5,838	69
1977-78	8,036	1,951	24	6,085	76
1978-79	8,700	2,431	28	6,269	72
1979-80	8,100	2,696	32	5,404	68
1980-81	8,636	3,115	36	5,521	64

Source: PICIC Report July, 1982

(Report of the Working Group, 1983: P.77)

**EXPORT OF HOSIERIES IN VALUE**

Year	PHMA (Rs. 000)	Year	PICIC		Rs./kg
			Quantity (000 kg)	Value (Rs. 000)	
1977-78	96,000	1977-78	1,951	96,747	49.59
1978-79	121,000	1978-79	2,431	117,263	48.24
1979-80	190,000	1979-80	2,696	197,841	73.38
1980-81	231,000	1980-81	3,115	229,555	73.69
1981-82	216,000	1981-82	-	-	-

Source: Pakistan Hosiery Manufacturers Association (PHMA)

PICIC Report July, 1982

(Report of the Working Group, 1983: P.78)

**3-3-6. Garment Sector**

It was not possible to obtain statistics relating to the production of garments. The data quoted below has therefore been taken from the report of the working group mentioned earlier. According to the report, annual production stood at about 50 million pieces in 1983. Considering that the TIRDC's "Pakistan Textile Statis-

tics, 1990" puts annual production at around 600 million pieces (as of 1990), it would appear that there has been a sharp increase in production during this interval.

#### PRODUCTION OF READY-MADE GARMENTS

(Million Pieces)

1971/72	1972/73	1973/74	1974/75	1976/77	1977/78	1978/79	1979/80	1980/81
13.1	9.5	20.0	15.6	n.a.	41.6	51.2	42.3	42.3

\*Estimated by TIRDC

Source: Report of the Working Group, 1983 (P.86)

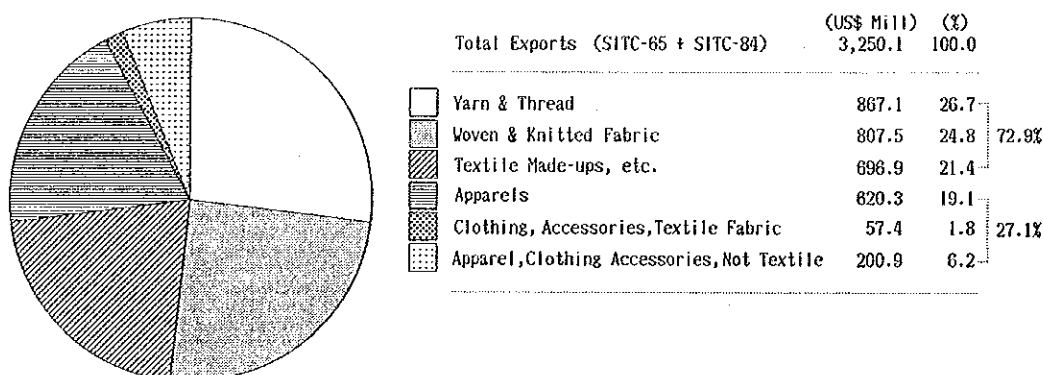
### 3-4. Export Structure

#### 3-4-1. Export Structure of Textile Products

By putting together all the textile products which fall under SITC-65 (yarn & thread, woven fabrics, textile made-ups, carpets, etc.) and SITC-84 (garment & clothing accessories) for 89/90, the value of textile products exported by Pakistan was worth as much as 68,552 million rupees (US\$3,250 million). As has already been seen, textile exports accounted for 64% of Pakistan's total exports. (Table II-3-3)

A breakdown of total textile product exports reveals that classified broadly 73% is textile products of SITC-65, and 27% is garment of SITC-84. (Fig. II-3-7, Table II-3-10)

Fig. II-3-7 EXPORT STRUCTURE OF TEXTILE PRODUCTS (1989/90)



(Source) Table II-3-10



### 3-4-2. Export Structure by Material and Type

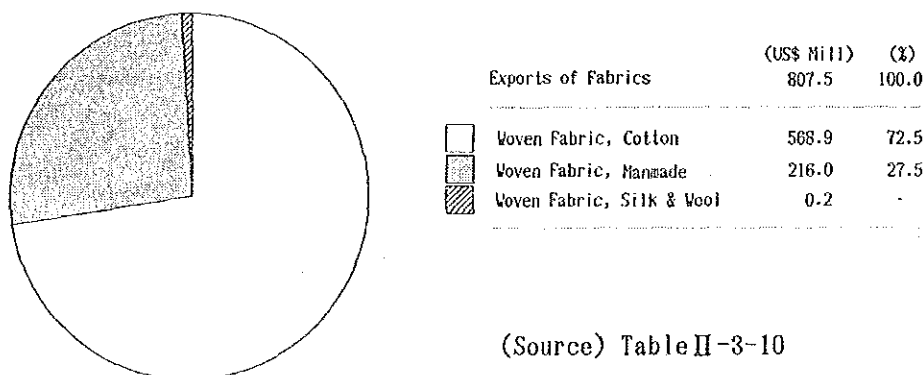
#### (1) Structure of spun yarn by material

A look at structure of spun yarn exports by material show that with a share of 98.3%, cotton yarn accounts for nearly all yarn exports. (Table II-3-10)

#### (2) Structure of fabric exports by material

A breakdown of fabric exports show that cotton fabric comprised 72.5% of exports and man-made fibre fabric (P/C, P/V) 27.5%. Silk and woollen fabric comprised just 1% of the total. (Fig. II-3-8, Table II-3-10)

Fig. II-3-8 EXPORT SHARE OF WOVEN FABRICS BY MATERIALS (1989/90)

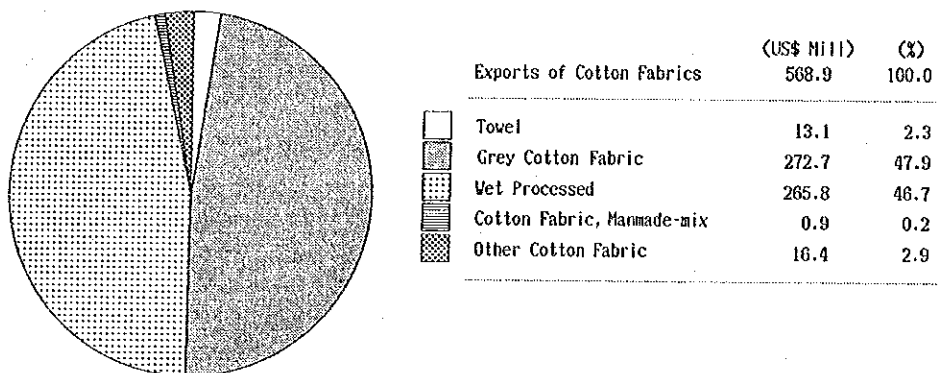


(Source) Table II-3-10

#### (3) Structure of cotton fabric by category

Cotton fabric comprises the bulk of fabric exports. A breakdown into grey fabric and wet processed fabric shows that at 48.9% and 46.7% respectively holding nearly the same share of total exports. Given that the production share of grey fabric is about 60% and that for wet processed fabric is around 25%, a far higher proportion of processed fabric is seen in exports. (Fig. II-3-9, Table II-3-11)

Fig. II-3-9 EXPORT SHARE OF COTTON FABRICS BY CATEGORIES (1989/90)

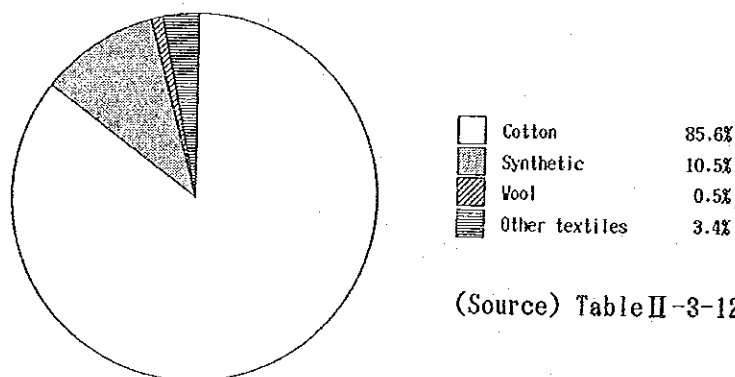


(Source) Table II-3-11

(4) Structure of garment by material and type

A breakdown of garment exports (total of SITC-841, 842, 843, 844, 845) according to the type of material shows that 85.6% made of cotton, 10.5% man-made fibre, and 3.9% other fabrics. (Fig. II-3-10, Table II-3-12)

Fig. II-3-10 EXPORT SHARE OF GARMENTS BY MATERIALS (1989/90)



(Source) Table II-3-12

A somewhat more detailed breakdown by categories reveals that in the case of garment made from woven fabric, 83.3% of men's garment (SITC-841) is made from cotton fabric and 13.2% from synthetic fabric, 80.9% of women's garment (SITC-842) is made from cotton fabric and 15.7% from synthetic fibre fabric. As for the types of material used to make knitted garment, 95.2% of men's garment (SITC-843) is made of cotton, 3.0% synthetic, and 94.4% of women's garment (SITC-844) is made of cotton fabric and 3.6% synthetic. As for other

types of garment, 76.1% is made from cotton, and 14.7% synthetic. More than 80% of fabric garments are made of cotton, and 95% of knitwear made of cotton. Thus, the present situation with regard to export garment is one where it is specialized in cotton products. (Table II-3-12)

It may be noted that 50.4% of export garment is made of woven fabric, 33.3% knitted fabric, and 16.3% a combination of woven and knitted fabric. The share of exports comprised by men's and women's garment are 57% and 26% respectively.

### 3-4-3. Export Structure by Destination

#### (1) Export markets for cotton yarn

A look at exports of cotton yarn (SITC-6513) for 89/90 by destination shows that an overwhelming proportion (74.8%) were destined to Asian countries which have their own textile industries. A further breakdown of exports to Asia shows that 33.3% went to Japan, 14.0% to Hong Kong, 10.6% to Korea, 1.8% to Singapore, and 1.7% to Thailand. Western Europe was the second largest export market, and accounted for 16.7%. Sweden imported 2.4%, Finland 2.3% and West Germany 1.6%. Other main destinations for cotton yarn exports were Turkey at 3.6%, and Bulgaria at 3.4%. (Table II-3-13)

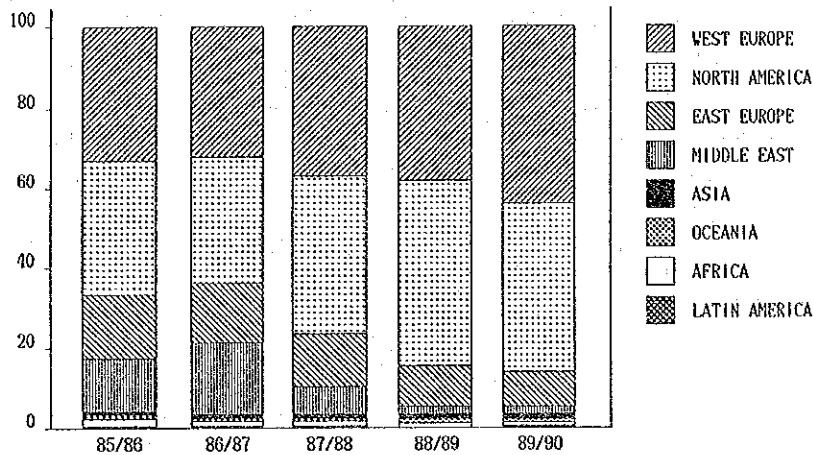
#### (2) Export markets for cotton fabric

As for exports of cotton fabric (SITC-6522, -6533) in 89/90 by destination, western Europe and Asia imported nearly the same percentage of cotton fabric from Pakistan with respective shares of 29.3% and 28.2%. They were followed by North America which imported 11.9%, and Africa which imported 11.3%. The share of exports destined to African countries such as Mauritius has been increasing and this reflects the expansion of the textile industries in these countries. The main countries to which Pakistan exports cotton fabric are Great Britain (10.8%), the US (9.9%), Australia (5.5%), Japan (5.1%), and Bangladesh (4.8%). Other main importers include Sweden, Korea, and West Germany. (Table II-3-14)

#### (3) Export markets for garments/knitwear

Statistics have been collated for the past five years to see the developments in the export of garment and knitwear by destination. (Fig. II-3-11) (Table II-3-15)

Fig. II-3-11 GARMENTS : TREND OF AREA-WISE EXPORT SHARE



(Source) Table II-3-15

Whereas Asia and western Europe are the main export markets for yarn and fabric, the north American and western European markets are the two main markets for garments and knitwear. Furthermore, the shares held by these two markets have increased steadily since about 85/86. The share held by western Europe has increased noticeably from 33.3% of the total in 85/86 to 44.3% in 89/90. The share held by the north American market (US, Canada), which until 88/89 had outranked western Europe as the largest export market, had dropped slightly from 46.5% in 88/89 to 41.9% in 88/89, thus relinquishing to western Europe its position as the largest market.

The eastern European market has continued to slump. A similar trend has also been seen with respect to the Middle East and African markets. Although in absolute terms exports to Asia are smaller than exports to a single country such as Dubai, exports to Asia have increased nearly 10-fold over the past 4 years suggesting large potential.

## Chapter 4 Comparative Advantage of Pakistan's Textile Industry

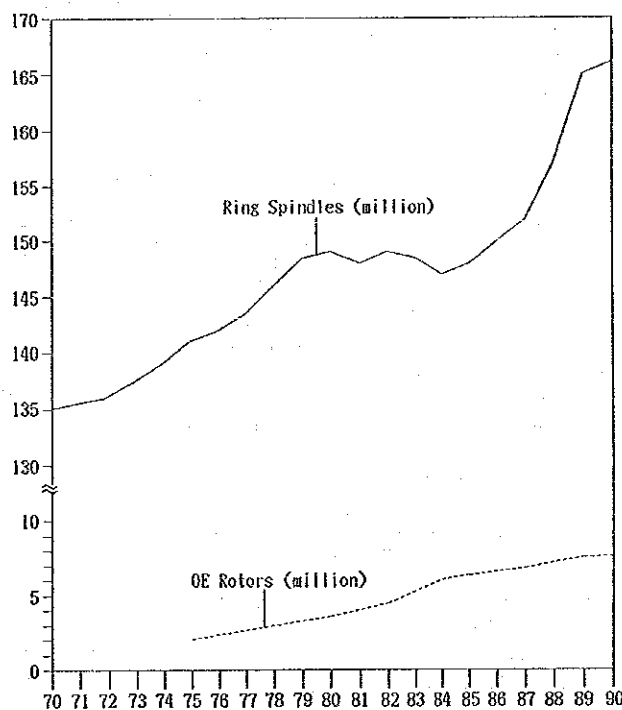
### 4-1. Comparison of Size of Production Facilities

#### (1) Spinning sector

##### (1-1) Long-term trends and regional structure

According to International Textile Manufacturers Federation (ITMF) data, world spinning equipment has been increasing constantly. The number of installed ring spinning machines, in particular, though stagnant in the first half of the 1980s, rose sharply in the second half. The number of open end (OE) spinning machines has showed steady growth since the 1970s. (Fig. II-4-1)

Fig. II-4-1 INCREASE OF WORLD INSTALLED SPINNING EQUIPMENT (1970-90)

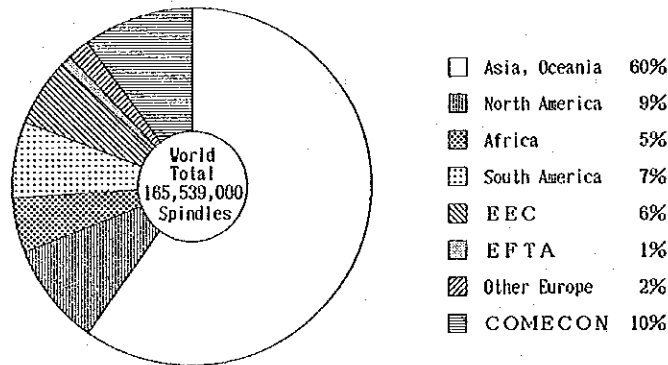


(Source) ITMF

Broken down by area (1990), Asia and Oceania account for 60 percent of total installed ring spinning machines, symbolizing the concentration of textile production in such Asian countries as China, Japan, the Asian NIEs, ASEAN, India and Pakistan. Europe's share, concentrated in the EC, is still large. (Europe includes the Soviet Union, eastern Europe and Turkey.) (Fig. II-4-2a)

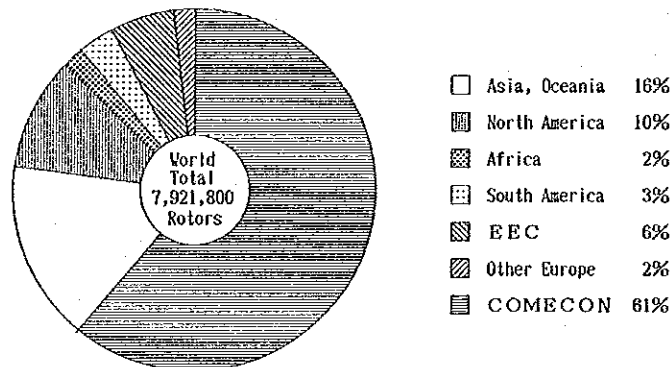
In contrast, Europe (including the Soviet Union, eastern Europe and Turkey) accounts for as much as 69 percent of total installed OE spinning machines, with Asia accounting for 16 percent and North America 10 percent. It may be said that OE spinning machines have been accumulated in comparative abundance in the developed areas. (Fig. II-4-2b)

**Fig. II-4-2a RING SPINNING MACHINES : % SHARE BY THE AREA (1990)**



(Source) ITMF

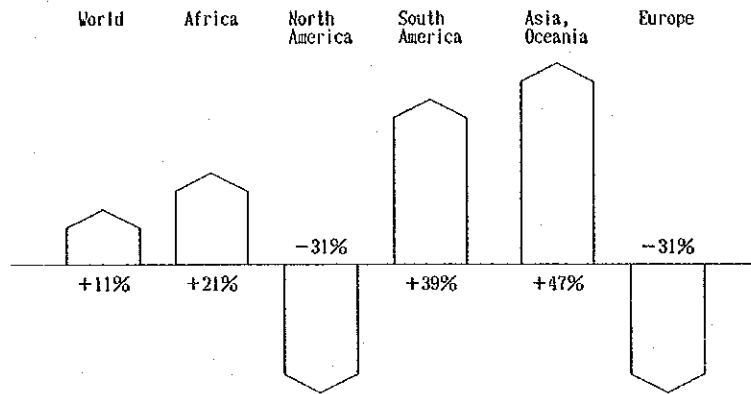
**Fig. II-4-2b OE SPINNING MACHINES : % SHARE BY THE AREA (1990)**



(Source) ITMF

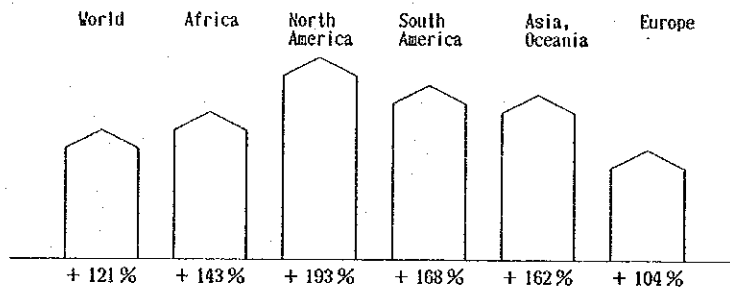
Looking at shifts in installed machine numbers, ring spinners decreased sharply in North America and Europe, while the number of OE machines installed worldwide increased. (Fig. II-4-3a and Fig. II-4-3b)

Fig. II-4-3a INCREASE OF RING SPINNING MACHINES BY THE AREA (1980-90)



(Source) ITMF

Fig. II-4-3b INCREASE OF OE SPINNING MACHINES BY THE AREA (1980-90)



(Source) ITMF

(1-2) Recent trend

Changes have begun to emerge in the trend of sharp increase experienced by ring spinning machines since 1984. The number of spindles in installed ring machines as of the end of 1990 stood at 165.54 million, or a mere 0.2 percent more than a year before.

The number of spindles in ring machines in Asia and Oceania, the region providing most of the impetus for increased installation up till then, accounted for 99.68 million, a 2.2 percent rise from a year ago. The percentage of growth was smaller than 8.6 percent in the preceding year. The ratio of the number of ring machine spindles installed in the area to the global total rose to 60 percent from 59 percent a year before. In Asia, in-

stallation continued to increase in China, India, Indonesia, Thailand, Pakistan and Bangladesh, while decreasing in advanced textile-producing nations such as Japan, Korea, Taiwan and Hong Kong.

The rate of installation increase in South America in 1990 climbed sharply to 24.5 percent from a mere 0.5 percent in 1989. The area's ratio to the global total also increased to 7 percent from 6 percent. (Fig. II-4-2a). Responsible for this was the increase in installation in Brazil, the largest textile manufacturing country in South America, by 39 percent to eight million spindles from 5.75 million. The number of spindles in Africa also rose 4.9 percent over a year before. In contrast, the number of installed spindles and world share fell notably in North America and Europe.

The number of rotors of installed OE spinning machines as of the end of 1990 amounted to 7.92 million. The yearly rate of growth stood at 1.4 percent, much lower than 3.8 percent a year before. Responsible for the low growth was the first drop in many years in the number of installed machines in North America and the EC nations which have been the major regions behind the overall increase in installation of OE machines. On the other hand, the number of installed machines rose 9 percent in Asia, expanding the area's share to 16 percent from 15 percent. South America showed an increase of as much as 39 percent, centring around Brazil, with its share widening to 3 percent from 2 percent a year earlier. (Fig. II-4-2b)

The data show that the regional shift in the textile industry from the developed areas to Asia, South America and Africa was accelerated through the 1980s. Such tendency is clearly indicated in Table II-4-1a and Table II-4-1b as well. The two tables elucidate such trends as a decrease or sluggish growth in ring spinning machines in the developed areas and a sharp increase in Asia in contrast. They also reveal that growth in installed OE machines in India, Indonesia and Egypt was higher than in the developed areas.

### (1-3) Pakistan's position

**Excluding the developed countries for the time being and breaking the industry down by country, China and India may be regarded as the Big Two in number of installed ring spinning machines, with (as of 1990) 38 million and 26.65 million spindles respectively. Brazil (eight million) and Pakistan (5.45 million) are in third and fourth position, closely followed by Indonesia (4.5 million) and Thailand (three million), both of which are installing new machines rapidly. The number of installed ring machines in Indonesia and Thailand rose 121 percent and 159 percent, respectively, between 1980 and 1990. Along with China, the rate of increase of the two countries was well above the rest. Indonesia and Thailand appear in hot pursuit of Pakistan. (Table II-4-1a)**

Broken down by country (and ignoring the developed nations), China (400,000 rotors) also heads the list of numbers of installed OE spinning machines, followed by Taiwan (150,000 rotors), Brazil (150,000 rotors), Turkey (125,000 rotors) and Pakistan (70,000 rotors) in that order. At fifth place, Pakistan is closely pursued by India, Indonesia and Thailand. Indonesia increased the number of installed OE spinning machines 12 times and Thailand 15 times in the decade between 1980 and 1990. (Table II-4-1b)



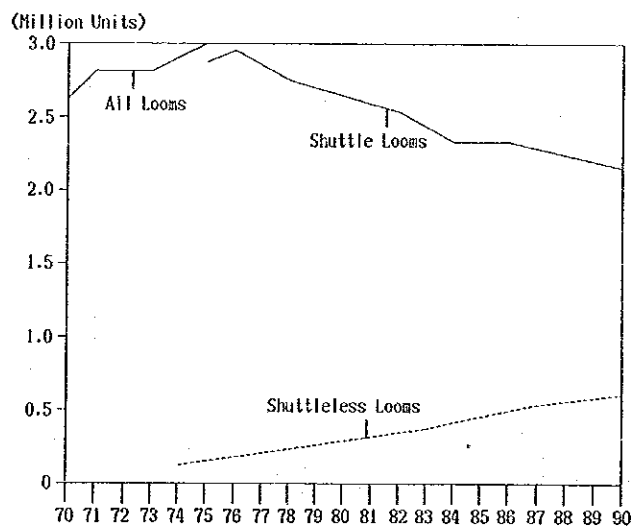
Both Indonesia and Thailand, while installing additional ring spinning machines at an extraordinarily fast pace, increased their installation of OE spinning machines at a still faster rate. The two countries, both without domestic sources of raw cotton materials, are well placed to compete strongly in the spinning of staple fibres, further expanding their scale and raising productivity. Turkey also laid emphasis on the increased installation of OE spinning machines than on ring spinners, boosting the number of installed OE spinning machines approximately ten-fold in the past decade. Pakistan will have to keep a constant watch on spinning trends in Indonesia, Thailand and Turkey.

(2) Weaving sector

(2-1) Long-term trends and regional structure

Marked drops in the number of installed shuttle looms and equally large increases in the number of shuttleless looms characterize long-term worldwide trends in the weaving sector. (Fig. II-4-4)

Fig. II-4-4 INCREASE OF WORLD INSTALLED WEAVING MACHINES (1970-90)

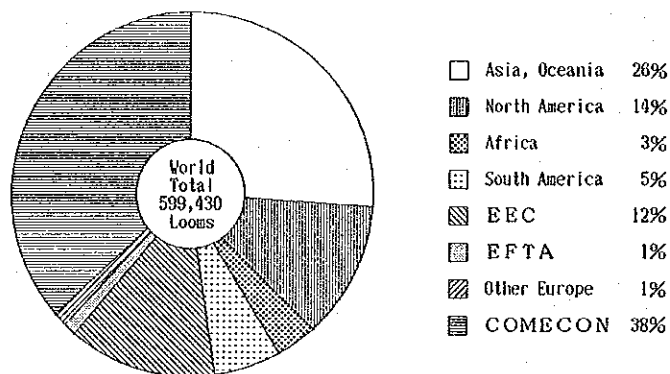


(Source) ITMF

Broken down by area (1990), the Asian region accounted for 69 percent of the installed shuttle looms, leaving very few in the developed areas such as Europe and North America. Conversely, most (52 percent) of shuttleless looms were concentrated in Europe, with Asia (26 percent) and North America (14 percent) also account-

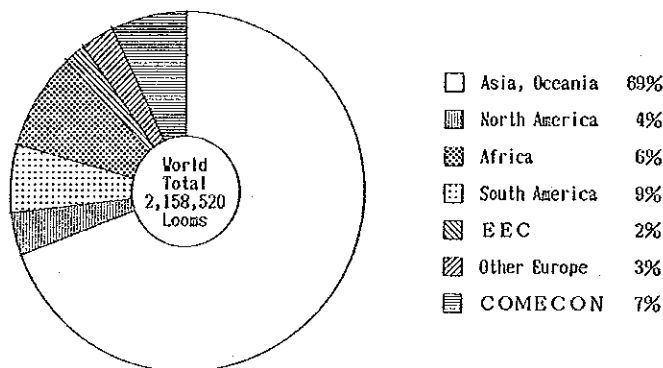
ing for a large percentage. This shows that a switchover from shuttle looms to shuttleless ones is under way globally, particularly in the developed nations. (Fig. II-4-5a, Fig. II-4-5b and Table II-4-2)

Fig. II-4-5a SHUTTLELESS LOOMS : % SHARE BY THE AREA (1990)



(Source) ITMF

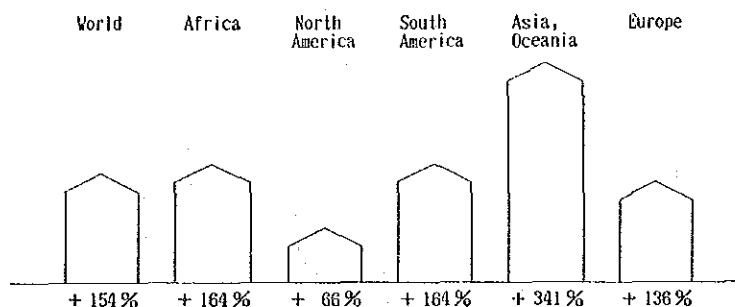
Fig. II-4-5b SHUTTLE LOOMS : % SHARE BY THE AREA (1990)



(Source) ITMF

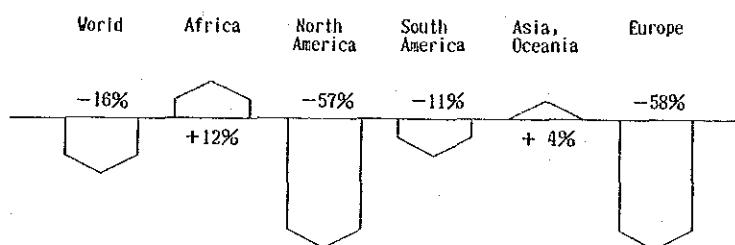
The trend of shifting to shuttleless from shuttle looms is visible in the rate of increase in the number of installed looms as well. In the decade between 1980 and 1990, the rate of increase of installed shuttleless looms was higher than that of shuttle looms in every region of the world. The number of shuttle looms dropped remarkably in North America and Europe, reflecting the decline of the textile industry. The tendency of decreasing shuttle looms was also seen in South America. On the other hand, the number of installed shuttleless looms showed the highest growth rate in Asia, and in South America and Africa also faster increase of shuttleless than shuttle looms were visible. (Fig. II-4-6a and Fig. II-4-6b)

Fig. II-4-6a INCREASE OF SHUTTLELESS LOOMS BY THE AREA (1980-90)



(Source) ITMF

Fig. II-4-6b INCREASE OF SHUTTLE LOOMS BY THE AREA (1980-90)



(Source) ITMF

#### (2-2) Latest trends

In 1990 the number of cotton-type looms installed worldwide registered its first increase in three years, though only small. This was because installation of shuttleless looms offset the decrease in shuttle looms. The number of shuttleless looms grew 9 percent to 599,000, while that of shuttle looms fell 1 percent to 2,159,000, with the total increasing 0.7 percent to 2,758,000.

Broken down by region, shuttleless looms in Asia increased 14 percent to 158,000 units, with the ratio to the world total rising to 26 percent from 25 percent a year before. The number of shuttle looms in Asia remained at 1,499,000, though it dropped in other areas of the world, bringing Asia's share to 69 percent from 68 percent. Shuttle looms were destroyed and more shuttleless looms were installed in Japan, Korea and Pakistan (the mill sector). Shuttle looms decreased by 62 percent in Taiwan as well.

The number of shuttleless looms in South America rose 37 percent to 28,000, with the share climbing to 5 percent from 4 percent. Brazil was the country primarily responsible for the sizable increase, with the number

of shuttleless looms in the country growing 76 percent to 15,000. In North America and Europe, destruction of shuttle looms made headway and the number of shuttleless looms generally either increased only around 1 percent or leveled off. Turkey was an exception, boosting the number of both shuttleless and shuttle looms.

According to an ITMF survey of textile machinery shipments in 1990, shipments of shuttleless looms for Asia grew 20 percent from a year before, while falling 10 percent for both North America and the EC. Major investing countries were the Soviet Union (14,600 units), Korea (12,100 units), Indonesia (5,700 units) and Japan (5,300 units). Thailand also invested actively. Shipment of shuttle looms in 1990 was almost the same as in 1989 at a total of 15,000 units. Three countries: Korea (5,900 units), India (3,000 units) and Indonesia (3,200 units) combined accounted for 80 percent of global shipments of shuttle looms.

#### (2-3) Pakistan's position

Broken down by country, China accounts for a predominant 39.4 percent of the global total of installed shuttle looms at 850,000 units, followed by India (175,000), Japan (146,000), Brazil (135,000), Indonesia (125,000), the Soviet Union (75,000), Thailand (60,000) and Egypt (45,000). Textile industry growth in Indonesia and Thailand, which do not produce raw cotton, has been as remarkable as that in cotton-growing China, India, the Soviet Union and Egypt. (Table II-4-2)

The ITMF data put the number of shuttle looms in Pakistan at 10,000 units, which ranks it 20th in the world. According to Pakistani statistics, however, the country's mill sector alone has 15,000 units. Combined with the looms in the nonmill sector, the country has an equal number of equipment with Brazil or Indonesia, ranking it fourth or fifth in the world in textile weaving.

The Soviet Union heads the list of countries in the number of installed shuttleless looms at an overwhelming 185,000. The other major shuttleless loom-installing nations (area) include the United States, Japan, Korea, Taiwan, China, Brazil and Indonesia. According to the ITMF data, the number of shuttleless looms installed in Pakistan has reached a level a little above Thailand, Egypt and India.

### 4-2. Comparison of Size of Production

#### (1) Spinning sector

Broken down by country, Pakistan ranked fifth after China, the Soviet Union, India, the United States in weight of cotton yarn output in 1989. A decade ago, Pakistan ranked seventh after Brazil and Japan, which stood at the fifth and sixth, respectively, in addition to the four countries above. (Table II-4-3)

However, as of 1990, Pakistan remained below Brazil and Japan in the number of spindles. This is understood to mean that the unit weight of Pakistani products is heavier than that of Brazil and Japan, in other words

there is a predominance of low count yarn. In general, however, the global ranking of countries in terms of equipment number is in line with its output ranking. (Table II-4-1a and Table II-4-1b)

Although detailed analysis was not made in this chapter, remarkable gains in output were registered in the decade from 1980 to 1990 by Indonesia (4.1 times), Pakistan (2.5 times) and Thailand (2.1 times).

#### (2) Weaving sector

In terms of size of output Pakistan's weaving sector ranks 21st in the world, far lower than its spinning sector. This implies that a high percentage of yarn output is exported as it is without being used for weaving in the country. (Table II-4-4)

In output growth in the decade between 1980 and 1990, Indonesia stands out with a remarkable gain of 6.5 times, followed by Taiwan (2.3 times), the Philippines (2.1 times) and Thailand (1.9 times).

### 4-3. Comparison of Size of Export

#### (1) Textiles (spun yarn and woven fabric)

According to GATT statistics on world export competition, in 1989 Hong Kong, China, Taiwan and Korea, excluding developed countries, exceeded Pakistan in terms of textile export value and market share. This suggests that Pakistan should target these Far Eastern countries (territories) in its catching-up efforts. (Table II-4-5a)

On the other hand, Indonesia, Turkey and Thailand still lag behind Pakistan in terms of value of exports but are close to catching up in terms of export growth and market share. Indonesia, in particular, in the nine years between 1980 and 1989 expanded the value of its textile exports to \$828 million from \$46 million and widened its market share by 700 percent. The annual average growth rate of its exports was the highest at 37.9 percent. (Table II-4-5b and Table II-4-5c)

#### (2) Garments

According to the GATT statistics on competition in garment exports as of 1989, Pakistan is surpassed in terms of value of export and market share by Hong Kong, Korea, China, Taiwan, Turkey Thailand, India, Singapore, Indonesia, Macao, Malaysia and Tunisia. (Table II-4-6a)

The three countries Turkey, Indonesia and Thailand in particular have a long lead over Pakistan in the rate of market share expansion and yearly average growth rate of exports, indicating their fast pace of growth. Mauritius and Malaysia also surpass Pakistan in annual average growth rate. (Table II-4-6b and Table II-4-6c)

High rates of share expansion and export growth in the past show Bangladesh, Mauritius, Morocco and Sri Lanka to be closing fast on Pakistan though they lag behind at present in terms of value of exports and market share. In addition, Dominica, Jamaica and Colombia are expected to achieve remarkable growth after 1989. (Table II-4-6b and Table II-4-6c)

#### 4-4. International Structure of Comparative Advantage

Here, the international structure of comparative advantage in the two sectors of textiles (yarn and fabric) (SITC-65) and garments (SITC-84) will be examined using the International Competitiveness Index (ICI).

There are several means of comparing international competitiveness including descriptive analysis and certain kinds of quantitative analyses. ICI has been chosen here because the statistics are comparatively easily available, following long-term structural changes is possible, and visible presentation can be made. The index is also called the Export Specialization Index (ESI) and works as the Index of Inter-Industry Division of Labor. It analyses a country's global trade structure without putting it in a bilateral trade context, the result of which is considered to give its competitiveness. The index is represented in the following formula:

$$Y = \frac{Xa^i - Ma^i}{Xa^i + Ma^i}$$

N.B.:  $Xa^i$  : Total value of export to world of commodity "i" by country "a"

$Ma^i$  : Total value of import from world of commodity "i" by country "a"

The basic concept of ICI originates from Kaname Akamatsu's "Theory of Catching-up Product Cycle" (\*). The theory holds that an industrial product or sub-sector follows the process of generation, growth and degeneration through the four phases stated below.

Phase 1: Import of a commodity begins to cope with demand and gradually increase.

Phase 2: Domestic production (import substitution) of the commodity takes place and imports begin to fall.

Phase 3: As its production increases, export of the commodity begins and finally exceeds imports.

Phase 4: Import increases again and exceeds export.

The theory reasons that the four-phase growth cycle begins from consumer goods and gradually extends to intermediate and capital goods.

(\*) Kojima, K. (1975), "The New World Economic Order and Japan, "Nikkei, (P.150)

Accordingly, changes in ICI also indicate what phase of development an industrial sub-sector of a country is in.

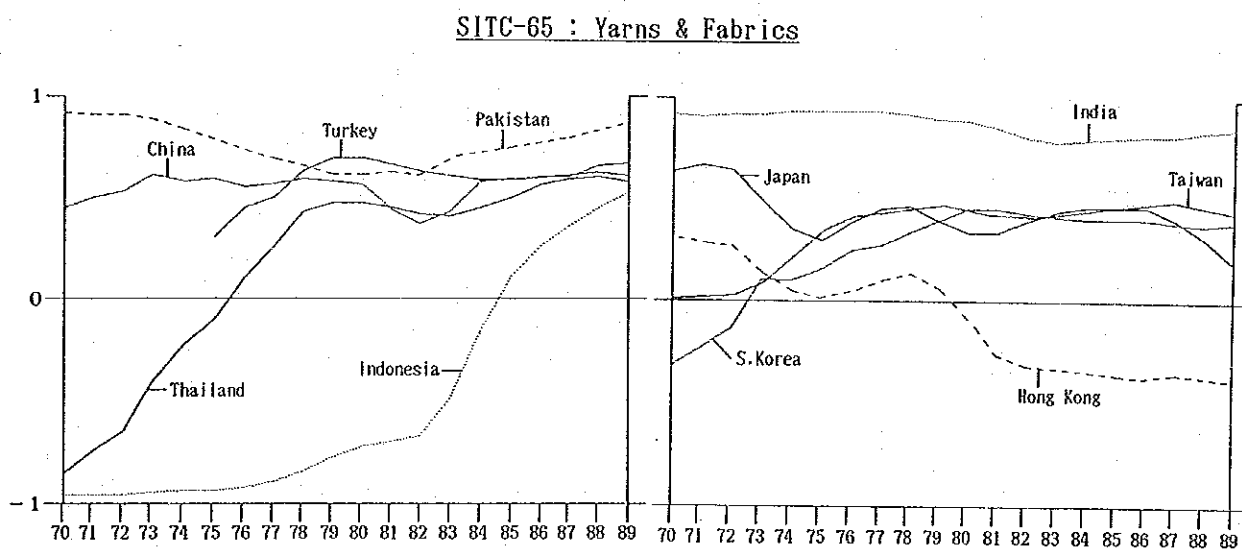
The process wherein import gradually falls and export rises with increases in domestic output is a reflection of the level of international competitiveness achieved. The competitiveness index of a commodity wholly dependent on import is -1. As export increases, the index moves from minus to zero and then becomes positive, gradually approaching the ceiling of +1. The competitiveness index (Y) thus fluctuates between -1 and +1. The nearer to +1 it moves, the stronger is the competitiveness.

Because the concept of ICI is macroeconomic, when it is applied to a certain product or industrial sub-sector, it has the drawback that distortions originating from import restrictions on the commodity concerned due to policy reasons cannot be removed.

(1) Textile sector

The phase of development and structure of competitiveness of the textile industry (SITC-65: yarns and fabrics) in 10 major producing countries are examined using U.N. and OECD trade statistics. The diagram on the left side of Fig. II-4-7a indicates changes in the phase of development and competitiveness of the textile industry in China, Pakistan, Turkey, Thailand and Indonesia, and its counterpart on the right side the same of India, Japan, Hong Kong, Taiwan and South Korea. (Fig. II-4-7a)

Fig. II-4-7a INTERNATIONAL COMPETITIVENESS OF TEXTILE INDUSTRIES OF SELECTED COUNTRIES (1970-89)



(Source) OECD : "Foreign Trade by Commodities",  
UN : "International Trade Statistics"

It is clear from the diagram that the textile industry of Hong Kong has already entered Phase IV and virtually lost competitiveness and that the textile industry of Japan is now in Phase III of import increase and export decrease and, in the near future, is expected to plunge into Phase IV of imports again exceeding exports.

Taiwan and South Korea have managed to stay within Phase II. But their competitiveness curves are leveling off, indicating export and import are balanced and competitiveness has reached its limit. India appeared to have entered Phase III between 1970 and around 1982 but maintained competitiveness subsequently. It will be interesting to observe whether India recovers competitiveness or plunge into Phase III in the future. As far as the diagram shows, its competitiveness is still considerably above China, Thailand and Indonesia, apparently almost the highest in the world. But in view of the fact that import has been restricted due to policy reasons, the competitiveness of India indicated in the diagram should be seen as somewhat over-valued.

The diagram on the left side informs us of the following facts. From the end of the 1960s the textile industry of Thailand rapidly increased its competitiveness, in 1975 it reached Phase II, around 1987 caught up with South Korea and Taiwan, and in 1989 became more competitive than these two countries. Indonesia's textile industry has been rapidly increasing its competitiveness since 1983. Although it reached Phase II nine years later than Thailand, it achieved a level of competitiveness equal to South Korea and Taiwan in 1989. China, Turkey and Pakistan showed a pattern similar to that of India.

**Pakistan's textile industry had a competitiveness equal to India's around 1970. Subsequently, it lowered its competitiveness but began to recover this in the 1980s, reaching India's level again in 1989. As far as textile products are concerned, Pakistan's competitiveness may be said to be at its peak now. As for fabrics, however, import restrictions were continued in the past and remain in place at present. Like India, the Pakistan's competitiveness indicated in the diagram is, thus, not necessarily an accurate reflection of actual conditions.**

According to analyses conducted up to date, the competitiveness of Pakistan's textile industry is especially strong in the mass-production market which, in terms of volume, account for a large proportion of total textile market. But the competitiveness figures based on this analysis do not reflect differences in category and quality with the products of the competing nations. The actual conditions of competition, not only with South Korea and Taiwan but also with China, India, Thailand, Indonesia and Turkey, would have to be examined on the basis of technological evaluation including product category or quality of products.

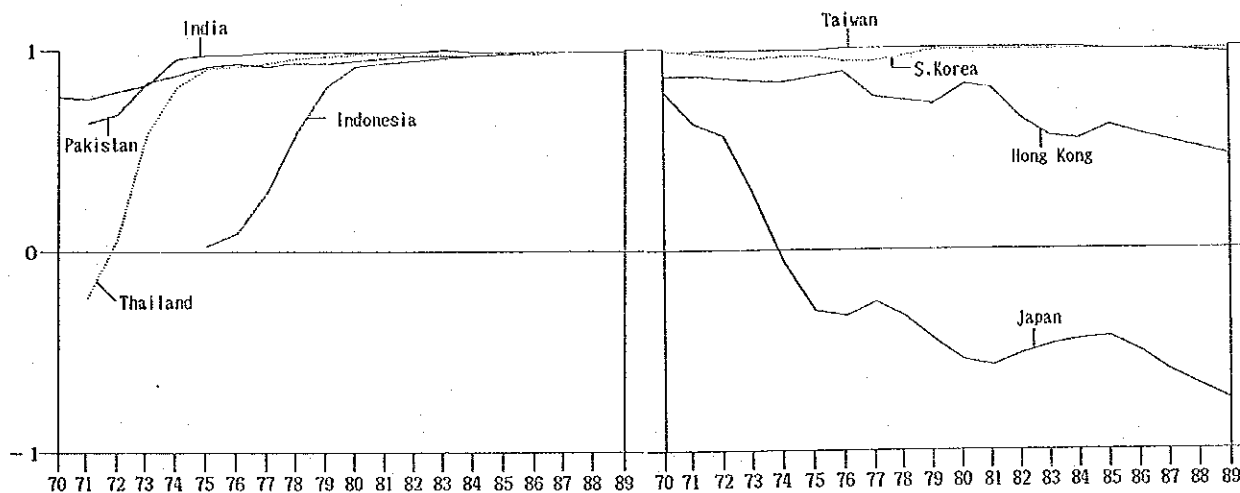
## (2) Garment sector

**Fig. II-4-7b examines the phases of development and structure of competitiveness of the garment industry (SITC-84: Garments) in the eight major producing nations of Asia using U.N. and OECD trade statistics. The diagram on the left side shows the competitiveness curves of India, Pakistan, Thailand and Indonesia, which after reaching a competitiveness of +1 have remained there, and its counterpart on the right side, those of Japan, Hong Kong, South Korea and Taiwan which have already entered or appear to be entering the process of degeneration. (Fig. II-4-7b)**



Fig. II-4-7b INTERNATIONAL COMPETITIVENESS OF TEXTILE INDUSTRIES OF  
SELECTED COUNTRIES (1970-89)

SITC-84 : Garments



(Source) OECD : "Foreign Trade by Commodities",  
UN : "International Trade Statistics"

From the diagram on the right side it can be seen that Japan's garment industry entered Phase IV as early as 1974 and subsequently continued to lose its competitiveness and that Hong Kong is in Phase III, of import increase and export decrease, and may plunge into Phase IV in the near future.

The garment industries of Taiwan and South Korea have maintained competitiveness close to +1 for the past two decades. But they will hand over their preeminence in the mass-production market to Thailand, Indonesia, India and Pakistan and increasingly strengthen their orientation toward products of higher grade. Thailand and Indonesia, which strengthened their competitiveness through efforts to catch up with Hong Kong, Taiwan and South Korea, their products have now achieved a certain degree of differentiation with India and Pakistan. Although the competitiveness indexes of India and Pakistan reached higher levels sooner than Thailand and Indonesia, it does not necessarily mean that the competitiveness of India and Pakistan absolutely exceed that of the latter two.

Here as well, true competitiveness should be examined including differences of product categories, quality, differentiation of market and other elements. The analysis of competitiveness attempted here is not comprehensive, and chiefly aimed at the convenience of visual presentation. It should be regarded only as reference information.

#### 4-5. Domestic Inter-industry Structure of Comparative Advantage

This analysis aims to examine the domestic inter-industry structure of comparative advantage in Pakistan. On the basis of the revealed comparative advantage (RCA) theory of B. Balassa (\*), the formula below is used as an index of RCA of commodity "i" of country "a".

$$Y = \frac{X_a^i}{X_a} \div \frac{X_w^i}{X_w}$$

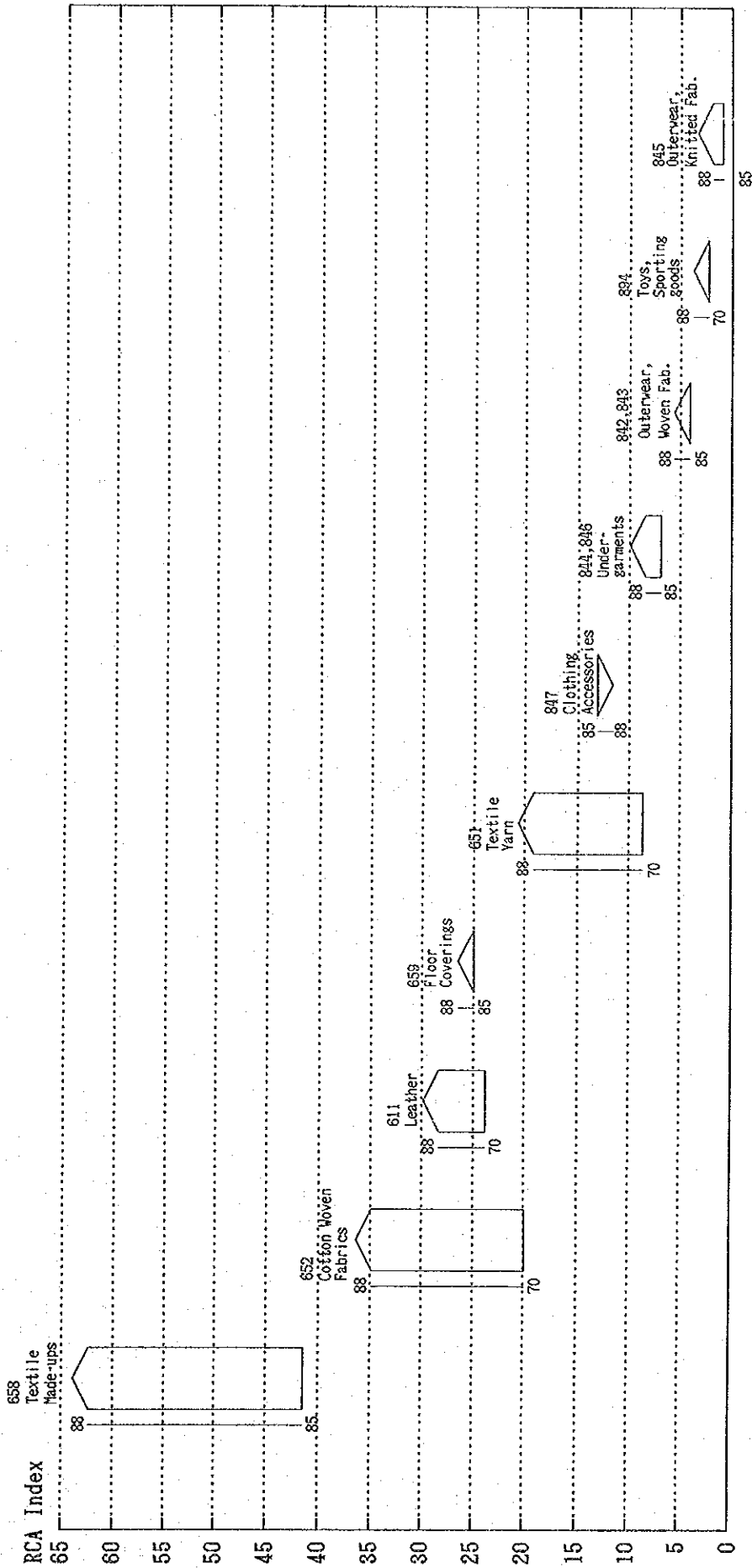
(\*) Balassa, B., "Trade Liberalization and 'Revealed' Comparative Advantage", The Manchester School of Economics and Social Studies, Vol.33, May 1965.

This shows the structure of comparative advantage in the industries of country "a". It indicates which sub-sectors have stronger export competitiveness as well as what sort of structure the industry has. Accordingly, it reflects the degree of industrial development of the country.

The scope of the analysis is limited to industrial manufactured goods (categories 5-8 of SITC).  $X_a^i/X_a$  is the ratio of the export value of the commodity "i" to the total export value of country "a", and  $X_w^i/X_w$  is the export share of commodity "i" in the total export value of the world. Accordingly,  $Y > 1$  means the export share of commodity "i" of country "a" is larger than the ratio (average export share) of commodity "i" to the total export value of the world. Comparison of the Y value (RCA value) will show the structure of comparative advantage among the industrial sub-sectors of country "a".

Pakistan's exports are composed of raw cotton, rice and other primary products, hides and skins and other semimanufactured goods, and industrial products (chiefly textile goods). Fig. II-4-8 shows the structure of comparative advantage based on the RCA values of major items (three-digit categories of SITC) of the export industrial products. Products are arranged from left to right in order of comparative advantage. (Fig. II-4-8)

Fig. II-4-8 COMPARATIVE ADVANTAGE AMONG INDUSTRIAL SUB-SECTORS : PAKISTAN



(Note) 
$$RCA = \frac{X_a^i}{X_a} \div \frac{X_w^i}{X_w}$$

(Source) UN : International Trade Statistics  
Federal Bureau of Statistics : Foreign Trade Statistics of Pakistan

The highest RCA value among industrial sub-sectors of Pakistan is represented by sewn textile products (excepting garments, however)(SITC-658), called "made-ups" in the country. In concrete terms, they are home textile goods such as bed linen. Their RCA value in 1988 was a marked 63.0 against 42.3 in 1985. The sharp rise in comparative advantage across only three years is indicative of the high level of competitiveness of made-ups even within the textile sector, which of itself has strong export competitiveness.

Cotton fabrics (SITC-652) rank next to home textile goods in export competitiveness. Their RCA value rose to 36.0 from 19.7 in the 13 years between 1975 and 1988, indicating strengthening in competitiveness. Cotton fabrics are followed by hides and skins (SITC-611), floor coverings (SITC-659) and then spun yarn (SITC-651) which includes mixed yarn blended with synthetic fibres. The RCA value of spun yarn may rank a little higher if cotton yarn (SITC-6513) alone is counted. The competitiveness of spun yarn, however, does not show as much growth as that of home textile goods and cotton fabrics.

Clothing accessories (SITC-847) come next. But their RCA value dropped to 12.0 in 1988 from 13.0 in 1985, indicating a fall in competitiveness. Underwear (SITC-844 & 846), cloth garments (SITC-842 & 843), toys and sporting goods (SITC-894) and knit garments (SITC-845) rank relatively lower in comparative advantage in Pakistan, though their RCA values exceed the world average.

As mentioned above, **Pakistan's inter-industry structure of comparative advantage leans in favour of home textile goods, cotton fabrics, hides and skins, carpets and other products with comparatively low value added and the competitiveness of garments, toys and sporting goods and other high-value-added industries is relatively weak.**

#### 4-6. Comparative Advantage Factors

##### 4-6-1. Labor Cost

No data are available allowing a comparison of labour productivity in the textile industry broken down by country. Therefore, the data we will introduce here simply compares labour costs.

The latest information of Werner International Managing Consultants shows the labour cost per hour of major textile-producing nations as of the summer of 1990. (Fig. II-4-9 and Table II-4-7)

According to it, wages were the lowest in the 10 nations Sri Lanka, Indonesia, Nigeria, Tanzania, China, Pakistan, Egypt, Kenya, the Philippines and India. The list was the same as a year before. In U.S. dollar terms, hourly wages in 1990 dropped to \$0.37 and \$0.24 from \$0.40 and \$0.26 a year before in China and Sri Lanka, respectively. Hourly wages stood at \$0.39 in Pakistan, almost the same as in China and a little above Indonesia and Sri Lanka.

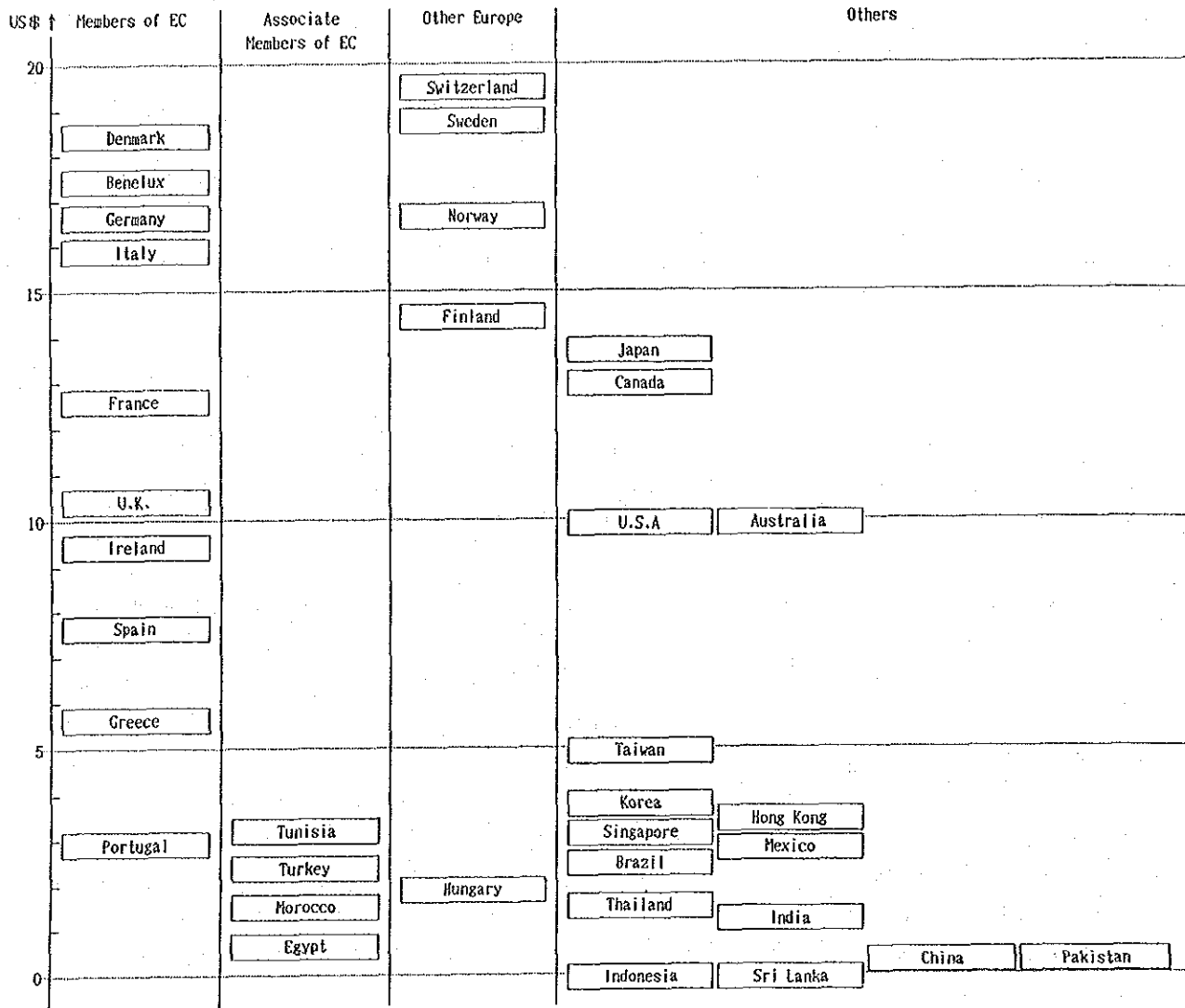
The ratio of labour expenses to production costs however, is as low as 15 - 18 percent in Pakistan and is believed almost the same in India, China, Indonesia and Sri Lanka as well. Accordingly, as far as the competition among these low-wage countries is concerned, a slight difference in the level of labour cost does not affect the competitive conditions very much. This is especially so in the spinning and weaving sectors. However, in the garment industry, which is more labour intensive, differences in labour cost greatly affect the competitiveness.

Of course, nominal labour expenses alone do not determine the competitiveness of the textile industry. The factor of labour productivity must be added to gain a more meaningful understanding of labour expenses. Even still, it expresses just a small part of overall competitiveness of the textile industry. The overall competitiveness depends on quality and prices of raw materials, energy, exchange rates, stock turnover, quality of products, design, delivery and other cost and nonprice factors as well.

In Taiwan, for instance, hourly labour expenses in U.S. dollar terms in 1990 rose 28 percent over a year before, but prices of polyester staples in the past two years fell to the level corresponding to around 65 percent of the level in the United States and 55 percent of the EC. As a result, in the case of mixed polyester and cotton (50%:50%) fabrics, the increase in cost competitiveness due to the lower prices for polyester staples was said to be equivalent to more than 1.5 times the drop in competitiveness due to the rising labour costs.

**The low level of labour costs in Pakistan, however, is an advantageous condition in competing with the ASEAN nations, Turkey and South American countries. It is believed to be one of the major factors responsible for its comparative advantage vis-a-vis these producers.**

Fig. II-4-9 LABOUR COST (1990)



(Source) Werner International 1990

#### 4-6-2. Material Costs

Pakistan is known as one of the leading raw cotton-producing nations in the world. Output of raw cotton in Pakistan in the 1990/91 crop year (August to July) amounted to 1.58 million tons, ranking fifth in the world after China (4.57 million tons), the United States (3.71 million tons), the Soviet Union (2.55 million tons) and India (2.23 million tons). (Table II-4-8)

**Cotton produced in Pakistan in the past centred on short staple types suitable for spinning of low-count yarn. But due to the progress of R&D for species improvement, cotton with a staple length of one inch or more, suitable for middle count yarn, has recently grown to account for nearly 90 percent of output. (Fig. III-1-4)**

Pakistani cotton has now achieved a quality standard sufficient for the spinning of 30 - 40 count yarn. The country's raw materials are thus sufficient to cover the needs of the cotton spinning both quantitatively and qualitatively.

According to Japanese import statistics, Pakistan is one of the least expensive sources of raw cotton. Indian cotton was the lowest in unit price per ton in 1991 at \$1.57, followed by Pakistani cotton (\$1.59), Brazilian cotton (\$1.59), Mexican product (\$1.72) and Australian cotton (\$1.87). Due in part to the problem of data, it is hard to compare domestic prices of raw cotton across various nations, but the low import prices indicate a low level of domestic prices as well.

The field survey has revealed that export duty is levied on raw cotton in Pakistan to control its export with a view to assuring domestic supplies in poor crop years as well. The policy measure in effect acted as an inducement to lower export prices of Pakistani cotton yarns. This issue was one of the major topics discussed at the 1992 general meeting of ITMF.

It may be said that Pakistan's textile industry is blessed with raw materials which satisfy the three conditions of quantity, quality and price. As stated in the preceding paragraphs, the level of labour cost in the country is generally low but slightly above that of Sri Lanka and Indonesia. **The greatest factor in the comparative advantage of Pakistan's textile industry is, therefore, believed to lie in the cost of raw cotton.**

#### 4-6-3. Nonprice Factors

As also confirmed in the U.S. survey, which will be quoted in Chapter 6, the biggest factor responsible for the competitiveness of Pakistani garment products lies in "price" (refer to Chapter 6). Furthermore, those who are concerned with textile industry in Japan also point out that the "price" is a factor for the competitiveness of cotton yarn, fabric and other secondary products from Pakistan. It may be said that the advantage in production costs including labour and raw material expenses supports the overall price competitiveness of Pakistani products.

Pakistani products, however, are generally in a disadvantageous position with regard to the nonprice factors including quality of raw materials and products, dyeing and sewing technology and delivery. A Japanese importer is quoted as saying: "If the prices are the same, I will buy Chinese products". In other words, the statement may indicate China has the comparative advantage in quality and delivery.



## Chapter 5 Textile Industries and Export Promotion Policies in Competing Nations

### 5-1. Textile Industry and Export Promotion Policy in Indonesia

#### 5-1-1. The Indonesian Textile Industry Today

Bolstered by a rapid surge in exports, the Indonesian textile industry has been in an unprecedented boom. With the exception of the petroleum/natural gas sector, textiles has become the country's largest export industry. Exports of textile products began their upward swing around 1984 due to rising wages in the Asian NIES, and on the other hand, the devaluation of the Indonesian rupiah in 1983, and improved product quality. A breakdown of 1990 textile exports by value shows garments with 56%, textiles with 19%, and yarn with 3%. Garments show the most promise for the coming years. Recent foreign investment has also been concentrated in the garment sector.

The dramatic developments which have taken place in terms of facilities, production, and exports in the Indonesian textile industry were discussed in Chapter 4. This section will offer an overview of the industry today centring around the garment sector that could be of reference to the Pakistani industry. The main sources of information used were "The Study on the Garment Industry in Indonesia" and other compilations.\*

\*\*The Study on the Garment Industry in Indonesia" was carried out by a third-party group as part of this study programme.

#### (1) Brief History

The beginnings of the Indonesian textile industry can be traced to the growth of the weaving and knitting industries in the early 1950s. This in turn spawned the yarn spinning sector and led to the development of the fibre and fibre raw material manufacturing industries.

As in Pakistan, the practise of purchasing ready-made clothing did not exist in Indonesia until only recently; instead, it was typical for consumers to purchase the fabric and then either sew the garment on their own or have the work done by a tailor. The only ready-made clothes were the uniforms worn by military and government personnel, and in fact these became the foundation for today's garment industry. Thus the textile industry began with import substitution of consumer goods such as fabrics and knitwear, and this led to the gradual growth of upstream sectors like spinning and synthetic fibres. Finally, expansion of the domestic market for ready-made garments spurred development in the midstream and upstream sectors.

## (2) Industry Structure

As of 1991, there were 161 spinning firms with 3.9 million spindles in ring spinning frames and 37,000 rotors in OE spinning frames. The weaving sector consists of 1,083 plants with approximately 120,000 weaving machines (1989) and annual production capacity of 5,628 million meters. The knitting industry includes 347 factories with 19,000 knitting machines (1989) and annual production capacity of 240,000 tons. Since the introduction of the Capital Investment Law in 1967, the garment industry has experienced rapid growth. During the period from 1980 to 1990 the number of companies in the garment sector jumped from 289 to 710, while the number of industrial sewing machines ballooned from 13,000 to 270,000. Indonesia also has 34 dyeing plants.

## (3) Foreign Investment

With the establishment of the Capital Investment Law in 1967, foreign concerns began to invest in Indonesia as a means of maintaining market share. Japanese companies, beginning with cotton spinning firms and followed by synthetic fibre manufacturers, established numerous joint ventures with local firms, and by the mid-1970s nearly all of the firms which are currently operating had established themselves in Indonesia. Overseas Chinese firms which lacked experience in industrial fields flocked to become partners with the Japanese companies. The last two to three years have seen large investment in Indonesia by apparel and apparel-related firms from Japan, Korea, and Taiwan. Of textile-related new investment projects authorized in 1990, 1991 and 1992, 20 out of 29 for Japan, 19 out of 32 for Korea, and 8 out of 27 for Taiwan involved garment manufacturing. The remaining projects also contained a large number of garment-related operations, such as woven fabrics, knitwear, dyeing and button manufacturing.

## (4) Raw Materials

Although Indonesia must import cotton for use in producing yarn, it has access to an abundant supply of synthetic short and long fibres such as polyester, rayon, and acrylic. In addition, a wide variety of woven and knit fabrics and linings are produced locally for use in garment manufacture. **Despite this, most garment manufacturers rely on foreign sources for 25% to 30% of their materials. Typical import duties are as follows: cotton fabrics, 25% to 40%; wool fabrics, 10% to 30%; felt, 10% to 30%; elastic string, 5% to 15%; lace, 30% to 35%; buttons, 39%; and zippers, 40%.** However, firms are eligible for reductions and exemptions of import duties paid on materials to be used in products for export.

Most of the garment manufactures purchase their fabric directly from fabric plants. For small-lot orders, however, they may turn to local wholesalers or import agents. Small firms often make their purchases through a middleman. Imported materials are used frequently to satisfy buyer specifications and quality requirements.

#### (5) Facility Modernization

**Most garment manufacturers have set to work modernizing their facilities with the main objective being improved quality rather than higher productivity.** The recent trend in modernization is for the introduction of automated equipment. In particular, a great deal of Japanese machinery has been purchased.

#### (6) Industrial Standardization

The Product Quality Control Section, falling under the Production Development Sub-Directorate of the Textile Industry Directorate (TID), Ministry of Industries, is responsible for establishing product standards for textile products.

Garment-related Indonesian Industrial Standards (IIS) lay out specifications for fabric materials, sewing and dimensions.

#### (7) Employee Training

Many garment manufacturers take advantage of technical tie-ups and foreign technical assistance to send their technical staffs abroad for training.

It is also possible through the mediation of the Export Supporting Council (ESC) for firms to accept overseas experts for the training of their employees. This training is mainly technical in nature and covers areas like production management, quality control, and ordinary worker training.

#### (8) Product Planning and Marketing

Virtually all garment manufacturers use designs and specifications provided by their overseas buyers. Brand names are also designated by the buyer. Exports are limited to the buyer, and sales to other customers are prohibited. Overseas marketing is handled entirely by the buyer, and as a result Indonesian garment exporters remain at the stage of "blind trade."

Although several of the larger manufacturers have obtained licenses from foreign manufacturers, they remain exceptional. Unlike the subcontracting-like situation described above, licensed production requires a firm to make numerous decisions in the way of product planning and marketing. In fact, however, even licensed production often involves little more than subcontracting or OEM-like work for overseas firms. In some cases Indonesian firms are allowed to export to the buyer's home country, while in other cases sales must be limited to Indonesia. The latter situation is more common.

One leading manufacturer has obtained licenses from Arrow of the United States, Kenzo of France, Triumph of Germany, Choya of Japan, and Calvin Klein of the U.S. and is producing for each of these labels. Most designs are specified by the buyer, however, and in effect this is just another form of OEM production.

(9) MFA Restrictions and Export Trends

Since 1974 Indonesia has been subject to restrictions under the MFA (Multi-Fibre Agreement) quotas on exports to the United States, Canada, the European Community, Sweden, and Norway. The annual increase in MFA quotas is set at 3% to 7%.

Nevertheless, during the period 1982 to 1990 Indonesian garment exports jumped from 16,000 tons to 113,000 tons, representing an average yearly rise of 25%, while the value of these shipments surged from \$114 million to \$1,620 million for an average yearly increase of 42%. Furthermore, 81% of all 1989 garment exports and 77% of 1990 shipments were destined for quota nations.

GARMENT EXPORTS TO QUOTA AND NON-QUOTA COUNTRIES

(Unit: US\$1,000)

	1989	1990
Quota countries	954,805 (81.5%)	1,247,442 (77.0%)
Non-quota countries	217,407 (18.5%)	372,243 (23.0%)
Total	1,172,212 (100%)	1,619,685 (100%)

Source: "Study on the Garment Industry in Indonesia", 1990

Indonesia's achievement of such high export growth in terms of both volume and value despite the quotas is the result of a variety of factors. These include the diversification of product lines, the development of non-quota items, increased exports of non-quota items, more lenient quota increments for certain items, increased exports to non-quota countries, and increased unit prices due to higher quality.

Leading export destinations among the quota nations were the United States, Germany, and the United Kingdom, while major buyers among the non-quota countries included Saudi Arabia, Japan and Singapore. Leading exports included men's shirts, T-shirts, pullovers, cardigans, blouses, jeans, and jackets.

(10) Exports to the U.S.

The first bilateral MFA agreement with the United States was signed in October 1981, and initially the quota items consisted of only two categories of garments. However, the list of items was gradually expanded, and today virtually all textile products fall under the quotas.

Quota items can be broadly divided into two categories, Group I and Group II. An annual increase of 6% is allowed for Group I products, which include yarn, fabrics, and garments, while Group II items, mainly garments, are permitted an annual increase of 10%.

Indonesia's share of the U.S. import market in 1989 was 3.33% for garments, 2.10% for textiles, and 2.70% for textile products overall. All of these shares are posting steady gains.

(11) Exports to the EC

The Multi-Fibre Agreement on exports to the European Community began with a three-year pact for 1980-82. During the last three years, however, non-quota items accounted for 70 to 77% of all textile product exports to the region, making the impact of the MFA quotas relatively minor. In effect there are few quota items, leaving great room for the expansion of exports. Moreover, Indonesia has until now exported only 60 to 80% of its allotments, and large potential exists for expansion in these areas as well.

COMPOSITION OF EXPORTS OF TEXTILES AND TEXTILE PRODUCTS TO EC  
1987-89

	(Unit: US\$1,000)		
	1987	1988	1989
Total	259,021	379,994	539,469
Quota items	66,580	106,141	121,446
Non-quota items	192,441	273,853	418,023
Non-quota share (%)	74.30	71.88	77.49

Source: "Study on the Garment Industry in Indonesia", 1990

A breakdown of all EC imports of garments and other textile products during 1987-89 (on average) shows that roughly 60% of all imports originated in EC countries, while imports from developing nations accounted for 23.6% of the total. Indonesian shipments were responsible for 0.7% of textile imports and 1.3% of garment

imports, with a total share of 0.8%.

#### (12) Domestic Garment Market

As noted above, Indonesia had no garment market until very recently. With the development of the local garment industry, however, the practise of wearing ready-made clothing began to take root, and as a result imports of garments are actually on the rise. While 1985 imports amounted to a mere 288 tons, by 1990 this figure had risen to 1,576 tons, representing an average yearly increase of 53%. As a result, the local market has become an important factor in the development of the garment industry.

#### (13) Future Potential/Competing Nations

Indonesia has a population of 180 million, making it the fifth most populous nation in the world. Its labour supply rivals that of China, and wage levels are even lower than those of China. Supported by plentiful labour and relatively stable wage levels together with an abundant supply of polyester short staple and long fibres and other raw materials, the Indonesian garment industry is expected to pursue a path of export-led growth.

Based on a survey of textile industries in a number of competing nations, the Indonesian government concluded that the country's leading competitor is China.

### 5-1-2. Export Promotion Policy

#### (1) Export Incentives

Based on the Structural Adjustment Programme, a through review of investment and export incentives was conducted, and tax incentives such as tax holidays and refunds were abolished. Export incentives currently in effect are listed below.

- a. Export financing: Comparatively low-cost financing with an upper limit of 85% of manufacturing cost for export
- b. Reduction or exemption of import duties on machinery and components
- c. Reduction or exemption of import duties and surcharges on raw materials destined for re-export as finished goods

#### (2) Support for Export Promotion Activities

In addition to technical training, ESC provides various types of financial assistance (see below). ESC will subsidize 75% of expenses. In the case of private organizations and industry associations, ESC will bear the entire cost of export promotion activities.

- Aid for participation in international trade fairs and exhibitions
- Financial aid for business trips to develop foreign markets
- Assistance in the preparation of sales promotion aids, such as leaflets, pamphlets and catalogs
- Consulting services related to overseas market development
- Sponsoring of export promotion seminars
- Other

### (3) Quota Management

Taking into consideration the current global trade environment in which trade in textiles and textile products (TPT) is carefully monitored, the government uses the following mechanisms to maintain control over textile product exports:

- A firm wishing to export textiles or textile products (both quota and non-quota items) to MFA nations must be licensed as a Registered Exporter of Textile and Textile Products (ETTPT). This certification is not required when exporting to non-quota nations.
- There are two types of ETTPT license: a permanent license and a provisional license. Firms must first qualify for the provisional license.
- ETTPT status is also divided into producing and non-producing licenses. The latter is for companies having no production facilities. Such firms must sign a consigned production agreement of at least three years with a producing firm not having ETTPT status.
- A permanent ETTPT license is provided only after a firm with a provisional license has met both of the following export performance criteria. Provisional licenses are valid for two years.
  - a. The company has exported at least US\$100,000 in non-quota items to both quota nations and non-quota nations during the past six months; and
  - b. The company has exported US\$400,000 in non-quota items to quota nations within two years of obtaining its provisional license.
- In other words, firms with provisional ETTPT licenses cannot export quota items to quota regions. Provisional licensees who are unable to achieve the above results within two years have their licenses revoked.
- In principle, textile and textile product quotas are allotted to permanent license holders. There are two types of quotas:

- a. Permanent quotas (base level): A percentage of the basic export volume set out in agreements with the importing nation. Allocated to permanent ETTPT holders based on export performance.
  - b. Provisional quotas (flexible): A special quota consisting of carry over and swing resulting from flexibility clauses in the bilateral agreement. Allocated to those companies who have received orders from foreign buyers and have the necessary inventory for immediate shipment. Carry forward privileges are provided only to permanent quota holders.
- The quota allocation to each firm is determined by the Directorate of Industrial and Mining Products, with the decision being notified to the license holder by the Ministry of Trade.
  - The sale, or takeover, of quotas between firms is permitted, but the quotas must be sold on the Indonesian Stock Exchange.

## **5-2. Textile Industry and Export Promotion Policy in Turkey**

### **5-2-1. The Turkish Textile Industry Today**

#### **(1) Outline**

During the 1980s the Turkish textile industry played a central role in promoting the government's export-led structural adjustments. Today, textile-related sectors form the country's largest single export industry. Especially noteworthy is the garment sector, which is the fifth largest exporter in the world (not including the industrialized nations), following Hong Kong, Korea, China and Taiwan.

Since 1989, however, exports have begun to show signs of slacking off, and a drop in export competitiveness is feared. With upcoming integration into the EC, the government is hastening the transition to a market economy with major changes in exchange rate policy, import policy, and export promotion policy. The drop in export competitiveness is thought to be due to these changes.

As garment manufacturers begin to shift their strategies from exports to the domestic market, the emerging trend is towards the development of high-added-value fashion products. The devaluation of the Turkish lira once again accelerated in 1991, brightening prospects for exports. Problems such as the need for modernization and a shortage of technical personnels, however, remain unresolved.

#### **(2) Industry Structure**

The textile industry is the country's largest industrial subsector, accounting for about 30% of all employees in the manufacturing sector and 33% of the nation's exports. However, the industry consists of a large number of



small businesses and lacks an oligopolistic structure. Even the country's largest corporate conglomerate, the Sabanci Group, maintains only a 4% share of total production. This is evidence of the textile industry's great vulnerability to market fluctuations.

### (3) Spinning Sector

Facilities in the spinning sector include 3.8 million spindles in short fibre spinning machines and 95,000 rotors in OE spinning frames (equivalent to 500,000 spindles), resulting in production capacity of 4.3 million spindles, or 5% of total facilities worldwide. In Western Europe the increase in shuttleless weaving machines has brought about rising demand for open-end spinning, casting a shadow over Turkish exports of ring-spun yarns. As a result, the industry has begun to focus its efforts on combed yarn and finer varieties of carded yarn. This in turn is creating a need for imports of long-fibre raw cotton.

### (4) Garment Sector

Since 1980, the garment sector has grown at a faster rate than any other industrial sector. Contributing factors include export-oriented corporate strategies, the utilization of investment incentives, the liberalization of machinery imports and the elimination of import duties on the same.

The export ratio (exports/production) for garment products swelled from 14% in 1978 to 87% in 1989. Export value also increased, from US\$940 million in 1984 to \$1,339 million in 1990. Recently, industry is shifting its focus from the low-priced, mass-produced goods common in the past to high-value-added fashion apparels. This strategy is aimed at avoiding competition with Asian and Far Eastern nations. The garment industry still remains competitive and is a likely candidate for investment from abroad. In coming years it will require an increasing supply of high-quality materials.

### (5) Wages

Hourly wages rose from \$1.20 in 1988 to \$4.50 in 1991, dealing a great blow to the country's traditional competitiveness in terms of labour costs. Companies have responded by laying off employees and replacing them with minimum-wage workers, and a drop in productivity is feared as a result. Meanwhile, EC producers continue to invest in automation, and the Turkish spinning sector is fast losing its ability to compete.

### (6) Export Trends

Because of the limited local market, the Turkish textile industry is heavily dependent on exports. In the 1980s the industry began to focus on high-value-added exports as a means of making optimum use of the MFA quotas to expand exports and stay ahead of the competition with Asia and the Far East. Despite its penetration of the EC, however, the industry has fallen behind its Asian competitors in the U.S. and Japanese markets.

The European Community constitutes Turkey's largest market. Exports to the EC accounted for fully 72% of total textile product exports in 1990. Germany in particular was responsible for 54% of all shipments bound for the EC. Shipments to the United States, on the other hand, accounted for only 8% of total exports. As a result of the large increases in quota ceilings since 1991, however, exports to the United States are expected to grow. Shipments of low-priced goods to Eastern Europe and the former Soviet Union are also expected to rise.

(7) Exports to the U.S.

1990 quotas for exports to the United States were not used up due to a weak dollar and rising domestic demand. Political developments led to a roughly two-fold increase in the 1991 quota ceilings. Information on their usage has yet to be published.

(8) Exports to the EC

1991 and 1992 quotas for exports to the European Community rose by 26.7% and 32.3%, respectively. Furthermore, an inter-item swing of 4% has been allowed since 1991.

5-2-2. Export Promotion Policy

(1) Export Incentives

In February 1985 the Turkish government signed the GATT Subsidy and Compensation Tax Code, prohibiting direct subsidization of exports. The country had already conducted a thorough review of its export incentive programmes in early 1985. A gradual elimination of the export rebate system was announced together with the abolishment of preferential export credits. In April 1989 the former system was completely eliminated.

The main export incentive programmes still in effect are as follows:

- a. Low-interest financing from the Export Credit Bank of Turkey: Eximbank provides export finance at interest rates of 45% to 48% (current market rates remain at 70% to 80%).
- b. Corporate tax deduction: Currently, 16% of export income is deductible. However, this figure is being reduced by 2% a year, and the system is scheduled to be abolished by the mid-1990s in line with Turkey's scheduled integration into the EC.
- c. Import duty exemptions on raw materials and semi-finished products destined for re-export as finished goods: Firms are currently exempted from duties on imported raw materials and semi-finished products to be used in producing finished goods for export.

## (2) Import Liberalization

In 1989 the government liberalized imports of all textile products and raw materials and also rolled back import duties. While agreeing with the move in principle, local textile manufacturers feel that liberalization was carried out too rapidly. The industry holds a similar view on the government's plan to achieve integration into the EC by 1995.

Imports of machinery and equipment have been liberalized, and import duties have been reduced.

## (3) Quota Management

The allotment of export quotas to individual firms is carried out by the Istanbul Textile and Garment Exporters Association (ITKIB) under the supervision of the Finance and Trade Ministries. Approximately 2,000 firms are qualified to receive the allotments, which are based on past export performance. 10% to 15% of the total amount is pooled in a reserve to allow flexible distribution.

Firms must satisfy two conditions to receive the allotments: they must be producers, and they must be of a certain size. The latter criterium dictates that a company must have facilities with at least 10 horsepower and employ at least five workers. Because small operations unable to meet these standards represent an overwhelming majority, however, the government and ITKIB are calling on industry to promote mergers for the expansion of corporate scale up to at least 10 horsepower and 10 employees.

## Chapter 6 International Marketability of Garments

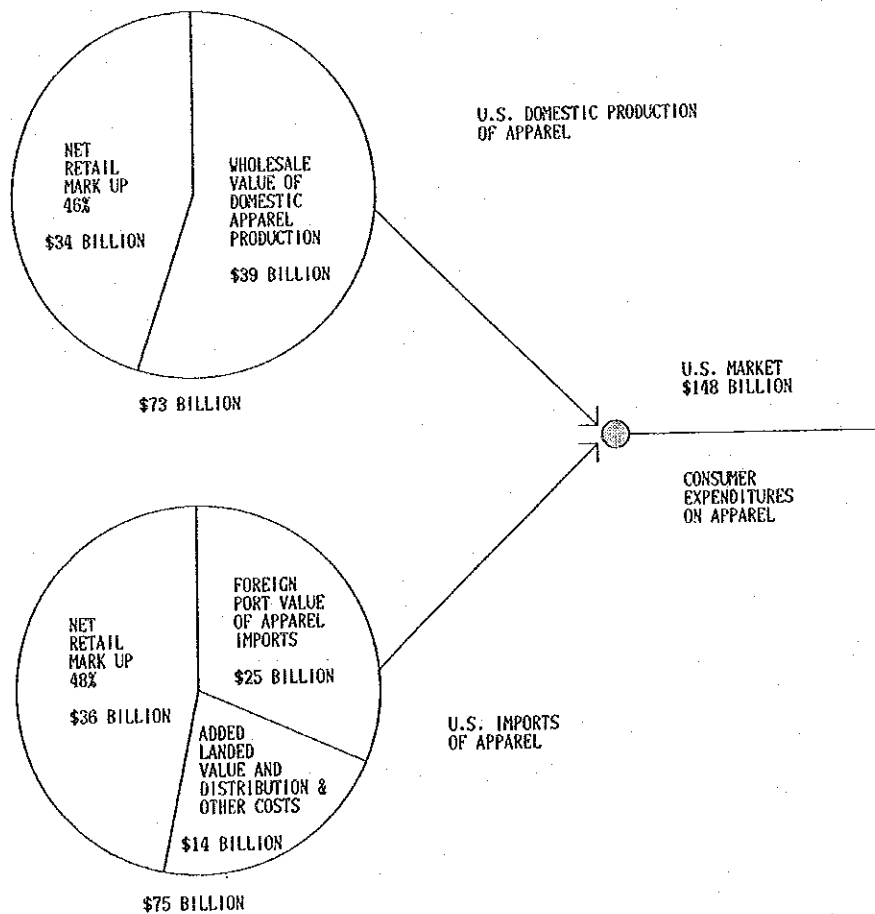
A special study\* was conducted in the U.S., the Pakistan's largest garment export market, in order to ascertain the standing of Pakistani garments in the international market. Using this report as a major information source, here is given a brief review of shifts in competitive relationships in the U.S. market, appreciation of Pakistani products, and how they compare with those from its competing countries.

\*"Cotton Garment Imports to the United States: A Market Analysis Focusing on Southeast Asia, Southwest Asia and the Caribbean", Dec., 1991, Georgia Institute of Technology, Atlanta, U.S.A.

### (1) Market scale

U.S. government data values the U.S. apparel market at \$148 billion on a retail basis (1990), with the domestic production and imported apparel markets accounting for \$73 billion and \$75 billion respectively. (Fig. II-6-1)

Fig. II-6-1 1990 CONSUMER EXPENDITURES IN APPAREL



According to the American Apparel Manufacturers Association (AAMA), apparel imports reached \$21.9 billion in 1990, with cotton apparel accounting for 45% or \$9.8 billion. Cotton apparel is believed to comprise 50% of the retail market.

Clothing for women and children occupy an overwhelming share of the U.S. apparel market, as is evident in the fact that 85% of apparel retail floor space is dedicated to women and children's clothing. Money spent by consumers on women's clothing is twice the equivalent figure for men's clothing.

## (2) Major exporting countries

Imports of cotton garments originate from the following four main regions.

- The Big Four: China, Hong Kong, Taiwan, Korea
- Southeast Asia: Macau, Indonesia, Thailand, Malaysia, Philippines, Singapore
- Southwest Asia: Bangladesh, India, Sri Lanka, Pakistan
- Mexico and the Caribbean: Mexico, Dominica, Haiti, Jamaica, Costa Rica, Honduras

## (3) Major emerging trends

- The shifts in sourcing from traditional sources in the Far East to the Caribbean, for both regulatory and market-driven reasons,
- Turmoil in channels of distribution and new developments like manufacturer's outlet stores, blurring distinctions between retailer and manufacturer, and the weakening of retailers in the distribution chain,
- Slower import growth after 1998, reflecting the slowdown in US consumption as well as the improved competitive position of domestic industries and more restrictive bilateral agreements,
- Rising prices of imported apparel in response to a weaker dollar and as a natural consequence of tighter quotas. Most experts believe imports will continue to grow, despite rationalization of US industry and increasing prices in offshore sources,
- An economic environment characterized by slow income growth, low consumer confidence, recession and less spending for frivolous or poorly constructed goods,
- Both the economic environment and crisis in retailing are promoting not only price-based competition, but time-based and quality-based competition as well, and
- The probability of major changes in the regulatory environment, including a probable 10-year phase out of the MFA, the emergence of trade blocs, and uncertainties in the US relationship with China.

#### (4) Caribbean's surge and its background

Data shows that growth in imports from the Caribbean have been higher than from any other region. Although imports from the Caribbean (includes Mexico) were still slightly below imports from Southwest Asia in 1990 (Fig. II-6-2, end of chapter), in 1991 (Jan.-Jul.) they grew to become second only to the Big Four, outstripping imports from Southeast and Southwest Asia (Fig. II-6-3). Furthermore, imports from the Caribbean have maintained double-digits annual growth, while imports from the other main regions have either levelled off or fallen (Fig. II-6-4).

Behind this trend has been the U.S. government's CBI (Caribbean Basin Initiative) programme. Instituted in 1985, it provided for tariffs on imports from 23 Caribbean and Latin American countries to be waived. While in its first year, textile products were not covered by the programme, in 1986, the following year, the TSUSA 807 programme was incorporated into CBI as a "Special Access" programme.

The "Special Access" programme under the article 807 of the Tariff Schedule (TSUSA 807) provides for the following.

- Piece goods are cut out in the U.S. and the sent to CBI-designated countries for assembly, the most labor-intensive process in garment manufacture.
- The cut fabric is exempt from import duty when entering the CBI countries.
- Assembly may be conducted by local firms or U.S. or other foreign-affiliated firms.
- When the finished products are re-imported into the U.S., tariffs are only leviable on the value added produced in the CBI countries.
- Under the article 807a of the Trade Schedule, garments made from U.S. piece goods are not subject to quotas. (However, on re-import it must be proven that the garment's fabric is U.S.-made, and because of the extreme complexity of such procedures, utilization of the system is not high.)

U.S. garment makers have come to rely heavily on CBI countries as a source of imports, and also from the standpoints of securing profits and maintaining competitiveness. With Jamaica as an exception, over 90% of garments exported to the U.S. from CBI countries are done so under the item 807 programme. Exports to the U.S. from the region grew as a yearly rate of 25% over the five years from 1985 to 1990.

In the early 1980s apparel makers from Hong Kong, Korea and Taiwan began investing in CBI countries with a view to avoiding U.S. quotas. Jamaica attracted the most investment as it is a signatory of the Lome Convention and has easy access to the EC market. Consequently, the ratio of non-807 shipments to its total exports to the U.S. is higher than for other CBI countries.

Few U.S. companies, on the other hand, have invested in CBI countries. Most consign production to local firms (including foreign-affiliated firms) on a contractual basis.

#### (5) Increasing competition and the response of retailer

Increasingly fierce competition has necessitated cost-saving measures at a retail level such as consolidating purchasing offices overseas, strengthening price-orientation, and reorganizing and reducing brand variety. Inventory control has also become key for securing profits. All else being equal, firms with high inventory-turnover rates have higher profit ratios. For this reason, retailers prefer buying from makers with quick response functions, allowing them to shorten their lead times and lift inventory-turnover rates. Meanwhile, mass sales retailers are asking makers for even greater volume-discounts, contributions to advertising costs, and attachment of price tags. Some buyers are even demanding "markdown money" for unsold stock, thus shifting inventories risks to makers.

#### (6) Retail channels

While retail business are becoming increasingly diverse, the distinctions between the different types of businesses are fading. The mass sales outlets K-mart and the Sears, for example, now carry increasingly fashionable garments, closing the gap between them and department stores. Furthermore, it is no longer necessarily the case that products sold at discount shops are of extremely poor quality: There is considerable variation between shops even within the same category.

Nonetheless, the categories used to define the various retail channels remain reasonably valid, and their respective market shares are around 30% for discount stores, over 20% for boutiques and department stores, around 15% for chain stores, 4-6% for mail-order houses, and 8% for other channels.

Apparel makers are common to deploy their own retail outlets. These direct sales outlets boast an abundant selection of high-quality apparel at low prices. Shopping malls made up almost entirely of such direct outlets have also sprang up in shopping districts and in the suburbs.

The recent development of direct sales outlets by makers was spurred in part by a desire to establish "antenna shops" for gauging consumer needs, and also to avoid the aggressive strategies of retailers. Some notorious tactics employed by retailers include deliberate late payments, demanding exorbitant penalties for late deliveries, and insisting on "markdown money" for clothes not sold at full price.

#### (7) Factors for success

##### - Finding a market niche

One common element in the strategies of the successful firms in high wage economies is identifying a segment of the market in which firms compete on the basis of factors other than or in addition to costs. Such factors include quality, style, originality and prestige ("designer" labels). Certainly in the US all manufacturers cannot survive by concentrating on the high quality, high price end. Within medium value-added categories, howev-

er, greater diversity of product can be achieved through smaller batches or shorter production runs, and this creates special quality in the product. American producers may begin to employ this niche or differentiated product strategy, moving away from long production runs of standard goods to shorter production runs of more specialized and diverse products for limited market segment.

- Time-based competition

Department stores and boutiques attempt to offer fashion garments of better quality along with good timing as means of avoiding price competition with discount stores. The time taken from receipt of order to delivery is gaining importance as a competitive factor. Domestic makers are doing all they can to reduce delivery times which are already being thought of in terms of "hours" as opposed to "weeks" or "months". Needless to say, overseas makers are in a position of overwhelming disadvantage vis-a-vis domestic makers in this regard. This, in addition to greater risks and the fact that decisions as to design, colour and volume are more difficult with overseas procurement, buyers are beginning to reconsider domestic procurement.

- Quick Response (QR)

The concept of quick response programmes is to avoid overstocked inventories and enhance time-based competitiveness through cooperation between makers and retailers. Retail sales data gained via a reading of bar codes is sent directly to makers by way of an electronic data exchange system. Makers then formulate production plans in accordance with the consumer trends revealed in the analysis of the data.

Mass sales stores were the first to use QR systems, which are now being employed by an increasing number of department stores as well. It is reported that all stores to use the system have seen their sales increase, while substantially lowering inventories. However, the system has also introduced a number of new problems including the shift of inventory costs from retailer to maker, and increase transportation costs in overseas sourcing due to the need for more frequent orders in smaller volumes. Nevertheless, there is a limit to the progress which may be made in the development of short-cycle products based on the QR system at a stage when makers' production systems are still suited to long-run mass production. For this reason it is believed that the non-price competitiveness the system will afford domestic makers, will not be sufficient to drive off competition from overseas makers. Until domestically manufactured short-run specialty fabric is readily available, both apparel manufacturers and retailers may continue to purchase from foreign suppliers.

- Technological innovations

Although the introduction of automation machinery and CAD systems is essential for the reduction of both delivery times and labour costs, the influx of low-priced garments from China and CBI countries are acting as hindrances to automation investment. On the other hand, mechanization by late-starting countries enables them to catch up with U.S. makers in short time. Korea and Taiwan provide good examples of this. Thus, mechanization and automation will become essential as a strategies for late-starting producers.

- Flexible systems

Retailers now look not only for speed but also flexibility of response in the makers with whom they choose to



do business. Flexibility refers to makers' capacity to change their lines from one style to another at frequent intervals to respond to demands for a wide range of articles in small quantities. Modular production systems have been out-dated by the need for flexibility.

- Transportation time

Erratic changes in consumer tastes mean that many items arrive at the market too late. As was mentioned above, in order for retailers to compete with lower-priced garments it is necessary they keep abreast with the very latest fashion developments. Leading department stores such as Federated and Macy's, for example, make a rule of transporting fashion by air. Although freight costs increase 10-fold over surface delivery, it means retailers can be the first to display new season garments, and attract highly fashion conscious consumers prepared to pay full price, thus avoiding markdowns.

- Decisive factors in reducing delivery periods

The tables below show differences in delivery times by location of production, type of production organization, and type of technology. The table gives the U.S., China, Jamaica and South Korea as locations of production, and indicates the extent to which delivery is shortened through automation.

**ESTIMATES OF SPEED OF RESPONSE  
(NUMBER OF DAYS IN PROCESS AND TRANSIT)**

Integrated production in the U.S.				Production Partnership for sale in the U.S.		
USA-1	USA-2	South Korea	China	China	Jamaica	South Korea
36	10	66	67	89	35	88

USA-1:U.S. production with semi-automated technology

USA-2:U.S. production with robotic technology

(Source) Mody & Wheeler, World Development, Nov. 1987

Deliveries are fastest by U.S. factories conducting robotic production. Jamaica is the overseas source offering the fastest procurement, considerably ahead of China and South Korea. When production cost considerations are also added, production in places close to the U.S. continue to have greatest comparative advantage.

## (8) Assessment of Southwest Asian Products

### - Quality

According to assessments given by mass sales outlets and boutiques, Pakistani products are less tailored (even crude) and there is less attention to detail and poor quality control. Problems are thought to be worse when cotton fabric produced domestically in Pakistan is used.

Purchasers at mass sales outlets point out the following faults in Pakistani garments.

- Pakistani cotton is picked when immature,
- Spinning is not humidity controlled, which is critical in desert-like arid conditions.
- There is not adequate shrinkage control,
- Inferior dyes are used, creating problems with inconsistency and colourfastness.

Indian apparel was described by salespeople as of much better quality than apparel from Pakistan. Sri Lank is described as near the bottom in terms of labour costs, but is described as improving in quality over the past 2-3 years.

### - Price

As a whole, Southwest Asian products tend to be at the low-end markets, and Pakistani products are able to compete well here in terms of price. Its products are between 10 and 15 percent cheaper than comparable products from other countries. In general, garments made in Pakistan have the image of being low-quality and low-priced.

### - Delivery

Delivery of garments from Pakistan are said to be usually "late". One interviewee commented "You have to be careful. There are lots of delivery problems".

### - Sales channels

There is a lingering negative impression, even called "nasty" by one importer, for some people who have been hurt by sourcing in Pakistan in the past. One international sourcing manager commented, "Although Pakistani products have a lot of potential, doing business with Pakistan is difficult. There is not a Western mentality of doing business in Pakistan."

Generally an agent is used, usually from Hong Kong, and the production workers almost become employees of the agent. In fact, there could eventually be a transition to bringing the production unit "in-house", as part of the agent's company, if volume increases sufficiently.

Some import managers have looked at the possibility of sourcing in Pakistan, but found the lack of production capabilities, technology and connections insurmountable. One chain would like to import a proprietary (private label) brand directly without assistance from an importer, thus cutting out more middlemen to offer a