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INDUSTRIAL REGULATORY POLICY REPORT

VOLUME II

(Market Structure, Firm Behavior
and Performance - Subsector Evidence)

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Europe, Middle East and North Africa Regional Office
and
Industry Development Division
Industry and Energy Department
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MARKET STRUCTURE, FIRM BEHAVIOR AND PERFORMANCE:

SUBSECTOR EVIDENCE

II.1 This report examines the structure of industrial markets and firm behavior, and the influence that the policies described in the previous chapter have had on structure and behavior. The chapter concludes with an evaluation of the extent to which domestic regulatory policies have affected industrial performance, both directly and through their impact on market structure and firm behavior.

II.2 Most of the following discussion is based on evidence from seven subsector studies.[1/] These products together account for 27% of industrial output (based on the 1980/81 CMI, see Annex II.1). The evidence shows that investment sanctioning and protective trade policies have been jointly instrumental in shaping market structure and performance. Although it is difficult to separate the effects of trade, fiscal and regulatory policies on industrial performance in quantitative terms, or to know what market structure and performance would have been in the absence of these policies, we have tried where possible to make some judgment about the relative importance of different policies in explaining performance in the subsectors studied.

A. Internal Market Structure

II.3 The barriers to mobility and growth described in the main report have influenced the internal structure of markets, including characteristics related to firm and plant sizes and changes over time, the extent of market concentration, and the degree vertical and horizontal integration. These are described in the following sections.

Size Distribution of Firms

II.4 The only data available for analyzing the size distribution of firms are from the Census of Manufacturing Industries (CMI). CMI coverage is incomplete; in 1980/81 (the most recent year available) it covered only 3,818 firms, whereas the number of registered limited companies was on the order of 12,000 (Annexes II.2 and II.3). Although the number of operating firms is much less than the number registered (perhaps on the order of a half), a far greater number of firms in operation go unregistered in order to avoid taxation and administrative requirements (probably many tens of thousands, mainly small and "micro" enterprises). Furthermore, the CMI has not been

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1/ Brief studies were prepared on the following products as a background to this report: cement, fertilizers, polyester fibers, cotton textiles, vegetable ghee, automotive products, and bicycles. These studies were prepared to assess the impact that regulatory policies have had on investment, output, pricing and other firm-level indicators. In view of time and resource constraints, the studies were not meant to provide a complete description or analysis of all issues in these subsectors.

carried out in all years, and coverage varies, making comparisons between years difficult (especially prior to the creation of Bangladesh in 1970, when the figures include East Pakistan). The data is analyzed here with the understanding that they represent only a portion of the industrial sector.

II.5 Table II.1 shows the distribution of firm sizes in terms of number of workers per establishment. Since 1970/71 size structure has remained roughly constant, with a slight decline in the proportion of medium-sized firms (in terms of number of workers per firm), and slight increases in the shares of small and large firms. In 1970/71, 72.0% of firms had 50 or fewer workers and in 1980/81, 73.1%. The share of firms with more than 250 workers increased from 8.4% in 1970/71 to 9.4% by 1980/81.

Table II.1

Size Distribution of Firms

No. of Employees	Total No. of Firms (in percent)	
Up to 9	12.3	18.7
10 - 49	59.7	54.4
50 - 249	19.5	17.4
over 250	8.4	9.4
	100.0	100.0

II.6 The importance of large-scale firms in industrial output, investment and employment has risen steadily since 1949 (with the exception of the period 1970-77),[1/] and this sector has played an important role in the rapid rate of growth of the manufacturing sector. Table II.2 shows that the share of large-scale manufacturing firms in GDP increased from 2.2% in 1949/50 to 14.5% in 1985/86, while the contribution of small-scale manufacturing remained at 5.5%.

Table II.2

Manufacturing Share in GDP at Constant 1959/60 Factor Cost
(Percentage)

Year	Small Scale	Large Scale	Total a/
1949/50	5.5	2.2	7.8
1959/60	5.1	6.9	12.0
1976/77	4.4	11.4	15.8
1980/81	4.9	13.0	17.8
1985/86	5.5	14.5	19.9

a/ Details may fail to add to total because of rounding.

Source: Economic Survey of Pakistan, 1985/86

1/ This was a period of nationalization and severe restrictions on large-scale private investment.

II.7 The relatively faster growth of large firms has meant corresponding increases in average firm size, capital intensity, and productivity of labor. The value of output per worker increased by 5.2% between 1970 and 1986, in constant 1959/60 rupees.[1] However, the share of total recorded employment (of persons 10 years old and above) accounted for by the mining and manufacturing sector dropped from 17% in 1969 to 13% in 1985.[2] If manufacturing is to generate an increasing share of employment opportunities as agricultural employment declines, continued output growth will be needed in mostly unregistered small and medium firms, which have been a major source of employment in the past.

Firm and Plant Size

II.8 While the medium- and large-scale sector has grown rapidly, in some subsectors individual firm size and growth have been limited by investment sanctioning policies, including, in particular, restrictions on imported capital goods. In some cases, these policies have led to the construction of plants below minimum efficient size (MES)[3]. The following examples illustrate these policies, their intent, and their impact on the scale and cost of operation.

II.9 In cement, for instance, roughly a third of plants have installed capacity of 330,000 tons per year, and average plant size in Pakistan is 450,000 tpy, whereas the international average is about 900,000 tpy. Unit production costs for dry-process plants within Pakistan indicate that the minimum efficient size (at which returns to scale become unimportant) is at least 660,000 tpy.[4] Financial incentives, investment sanctioning and price control policies have contributed to the small firm size. Incentives such as a low interest rate are provided for selecting domestic machinery and equipment, and investors consider it to be easier to obtain a sanction for a small (1000 tpy, or 330,000 tpy) plant which can be supplied by the domestic machinery manufacturers.

II.10 Price controls, which provided cement firms with a guaranteed 15-20 percent return on investment regardless of plant size or unit costs, meant that investors could invest in small production scales without fear of losses or reduced profits as a result of competition with lower-cost output

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1/ The value of output per worker in constant 1959/60 rupees in manufacturing and mining was Rs 1,933 in 1969/70, and increased to Rs 4,336 in 1985/86. Source: 1986/87 Economic Survey, p.16.

2/ Economic Survey, 1985/86, Annex p.11.

3/ The concept of minimum efficient size is subject to some difficulties and arbitrariness in application. It is used here to represent a technical judgement of the size at which economies of scale become relatively unimportant. Minimum economic size may differ significantly from minimum efficient (technical) size because of local market conditions.

4/ Some of Pakistan's small cement plants can compete because they are able to keep operating fully written-off machinery. The small size of Pakistan's plants is partly because they are old by world standards and were built when MES was smaller. Recent plant sizes, however, have lagged behind standard world scale.

from larger plants. Assured of the ability to pass on production costs through higher retention prices, smaller plants were built, which were easier to finance.

II.11 In cotton spinning, the average number of working spindles per mill is 15,500, while an estimate of the optimum size of an integrated mill in Pakistan is 25,000 spindles.[1/] In the 1970s, each spinning "unit" was restricted to 12,500 spindles and each unit had to be housed in a separate shed (to minimize labor disturbances). Several firms indicated that, informally, it is still easier to obtain a sanction for a 12,500 spindle unit than a larger one.

II.12 Location policies have strictly limited on-site expansion of output in the textile sector, which is concentrated in Karachi, because of the lack of water and electricity supplies. Even investment in balancing, modernization and replacement (BMR), which could increase output through productivity improvement is not easily approved. In many cases, firms have been required to replace or expand existing operations in new locations outside Karachi, even though this has entailed losses in economies of scope and scale. One integrated textile mill which sought to modernize a dyeing and finishing unit took two years to process. Approval by the provincial authorities was slow because the new, more efficient machinery would have increased output, even though material consumption and water usage would not have increased. Firms such as these would gain from price rationing of scarce infrastructure because their cost savings would enable them to pay the increased charges. Conversely, rationing through location policies is likely to benefit favored firms that do not realize significant cost savings from urban location.

II.13 In the polyester yarn and fiber industry, domestic firms operate at scales well below current world standards (see Annex II.2). The two largest firms have planned capacity of only 25,000 tons per year, about half of what is needed to realize significant scale economies in integrated plants that include polymerization. In fiber production, a four-fold increase from 15 to 60 tons per day requires only twice the investment and reduces unit production costs by nearly half (Annex II.5).

II.14 The situation is somewhat different for polyester yarn producers without polymer plants, since scale economies do not dictate such large plants for producing yarn from chips. Nevertheless, Pakistan's plants are well below a reasonable minimum efficient scale of 12,000 tons per annum, and thus incur relatively high operating and administrative costs per unit of output. Internationally, yarn is produced in much larger firms because it is integrated with the polymerization process.

II.15 Investment sanctioning policy has been a significant determinant of plant size in this industry. The maximum sanctioned production levels have been 6,300 tons for polyester yarn and 12,000 tons for fibre, even though these are well below international standards. The motivation apparently has been to avoid concentration of production and potential monopolistic price

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1/ Source: Gherzi Textile Organization, Zurich, in World Bank, Pakistan: The Textile Industry, 1982.

behavior, even though the latter is unlikely in view of the availability of domestic imported and smuggled substitutes. Furthermore, underestimation of the growth in demand for polyester blends has led to sanctions lagging behind demand for fiber.

II.16 Government policy against expanding state investment in most industries is likely to prevent the incumbent state plant from expanding its capacity, even if this would achieve greater economies of scale. This, in turn, is likely to create informal pressures not to allow private incumbents to expand significantly, to protect the state firm's competitive position within the existing market structure.

II.17 Capacity is fragmented, and firm sizes are small relative to international norms, in the automotive sector. Highly automated mass production assembly techniques impose a high unit cost penalty on low output volumes; some estimates of MES are on the order of 200,000-300,000 units per year for cars and light commercial vehicles. Nevertheless, Pakistan has at least three manufacturers of each type of vehicle except cars. In light commercial vehicles (lcvs), for example, there are four assemblers, with total lcv output of only 12,392 units in 1984/85.

II.18 The trade regime provides significant protection from import competition, which creates potential quasi-rents for domestic producers, stimulates excessive entry, and permits inefficient small firms to operate profitably. In such situations, regulatory policies can be used to control the size and number of entrants. In Pakistan, however, there is no evidence of such coordination between trade and regulatory policies. In fact, investment sanctioning policies, rather than limiting entry or requiring some minimum scale of operation, have reinforced the tendency toward excessive entry and inefficient scale by placing limits on firm size.

Market Concentration

II.19 In several industrial markets, in spite of a policy of reducing individual firm size and allocating production among several firms, the degree of market concentration remains fairly high[1/]. Table II.3 shows that four-firm concentration ratios--that is, the share of total output produced by the four largest firms--exceeds 70% in most of the subsectors studied. In bicycles, two firms control 80% of the industry's output, and the remaining firms act as a competitive fringe. Similarly, in vegetable ghee the large public sector Ghee Corporation, comprising 25 individual units or "plants," dominates the market, and small private firms account for small shares of the market. The high levels of concentration are not unusual in an economy of Pakistan's size, where scale requirements are large relative to the small size of the domestic market. In cement, fertilizer, automotive products, and polyester fiber and yarn, returns to scale are substantial, and the concentrated market structure observed would be expected, given domestic demand levels. While industrial regulations have kept firm sizes somewhat below optimal scale this has apparently not served to reduce concentration in a major way.

1/ Industry-wide data are not available.

Table II.3

Four Firm Concentration Ratios[a]
(Percentage)

	1968 (CR4)	1974/75 (CR3)	1985 (CR4)
Spinning	14	na	8
Weaving	20	na	22
Cement	86	69	na
Polyester yarn	na	na	77
Polyester Fiber	na	100	80
Fertilizers (Urea)	100	na	81
Automotive Products [b]			100
Bicycles		92	88
Tractors			90

[a] Sources: 1985: subsector reports.
1974/75: Ahmed, M.A., "Productivity, Prices and Relative Income Shares in Pakistan's Large Scale Manufacturing Sector," 1958-70, unpublished D. Phil. thesis.
1968: White, Lawrence J., "Pakistan's Industrial Families: The Extent, Causes and Effects of Their Economic Power," Journal of Development Studies, 1974.

[b] There are fewer than four firms in each automotive segment--cars, lcvs, buses, trucks--except tractors. In the latter, four firms account for about 90 percent of market share.

Firms and Industry Specialization

II.20 Some problems of specialization are evident at the product level. In the automotive sector, for instance, there is a proliferation of models and firms, and consequent small scales of output per model. There are four two- and three-wheel vehicle manufacturers, and one firm produces six product lines even though its total 1984/85 output was less than 10,000 units. The lack of specialization has delayed the planned indigenization of component manufacture in the automotive sector. The small scales of output and large number of product models have meant short production runs and frequent retoolings in supplier industries such as components and industrial castings, adding to product cost. Given the size of domestic demand and fragmentation of output among different models, Pakistan may never be in a position to support a highly indigenized, efficient, automotive component industry, unless substantial exports emerge. For example, Korean firms make 1.5 million brake systems per year; in Pakistan, domestic demand is about 30,000 units per year, which effectively preempts the possibility to develop a competitive domestic brake industry.

II.21 In the spinning industry, the failure to shift specialization into higher yarn counts and treated yarns has been costly. Annex II.6 shows that, while the share of coarse yarn fell from 53% to 38%, and that of medium counts rose from 34% to 44%, between 1978 and 1985, the share of fine and superfine counts has risen only from 4% to 8%. Greater specialization in the production

of waxed, cone-wound and higher count yarns would allow downstream users to raise the quality and diversity of fabrics. (Annex II.7 shows that, although the share of coarse fabrics has fallen, the share of fine varieties also has declined.) Greater availability of waxed yarns, for instance, would allow increased knitting production. Greater fabric diversity also would allow readymade garment manufacturers to move into new, higher value-added garment categories which are less restricted in terms of export quotas.

II.22 In the textile industry, declining vertical integration at the firm level has led to a lack of flexibility in export diversification. Annex II.8 shows that, while spindle capacity increased from 1.6 million to 4.4 million as the number of mills rose from 71 to 223 between 1962 and 1986, the number of looms in the mill sector declined from 28,000 to 19,000 in the same period. This weaving capacity was taken up by small, decentralized power loom units, which had cost advantages due to their low overhead, cheap labor, and avoidance of taxes and labor benefits. Tax advantages for small units of no more than four looms encouraged this shift, but were not the primary cause. These small units produce cheap, low quality grey cloth which is marketed by middlemen who also provide the yarns on a contract basis, but do not sort either the yarns or the fabric for quality, sizing, number of start-marks per meter, etc. The decentralization of weaving has reduced the industry's ability to control quality and differentiate the product according to client's requirements. This has weakened the ability of export clients to obtain satisfactory product quality and diversity.

II.23 In the polyester industry, the problem is inefficient vertical integration resulting from the highly cascaded tariff structure. Import duties of 60 percent on polyester chips, which are used to produce polyester fiber and yarn, have encouraged several firms to install polymer plants to produce the chips from imported chemicals, which come in duty-free. But Pakistan's firms are too small to purchase chemicals at the discounts available in Europe and the far east, whereas the oversupply of chips on world markets makes them available at low prices. In addition, scale economies are particularly high in polymerization; a 60-ton-per-day plant costs only two-and-a-half times as much as a ten-ton-per-day plant. Since Pakistan's plants cannot produce chips at a cost competitive with international prices, high-cost domestic chip production impairs the ability of polyester fiber and yarn production to compete with imports without high protection.

Exit Policies and Market Structure

II.24 As indicated in the main report, labor policies constrain firms' ability to shed labor and banking policies tend to inhibit smooth exit of uncompetitive firms. These barriers to restructuring, however, have evidently affected some industries more than others. Table II.4 shows that in most industries the recorded number of firm closures has been small despite a steady increase in the number of new firms each year in most subsectors. This is partly a reflection of rapid industrial growth, supporting opportunities for many new firms. It also reflects the fact that many firms become "dormant" rather than formally exiting.

Table II.4

Number of Firm Closures, by Sector

	1983/84	1984/85	1985/86
Insurance	3	0	1
Cotton Textile	8	-3	5
Woollen	3	2	3
Synthetic & Rayon	0	5	-5
Financial Institutions	4	-5	1
Jute	-1	4	2
Sugar & Allied Industries	-21	-8	-18
Cement	3	0	0
Tobacco	0	1	0
Fuel & Energy	4	21	0
Engineering	85	-5	-48
Auto & Allied Engineering	38	-8	60
Cables & Electrical Goods	13	-3	13
Transport & Communications	-2	5	5
Chemical & Pharmaceutical	2	-16	-59
Paper & Board	9	6	28
Vanaspati & Allied Industries	11	19	13
Construction	29	8	-88
Leather & Tanneries	-1	3	97
Miscellaneous	-55	246	150

Note: Figures represent the number of firms at the beginning of the year plus new registrations minus the number of firms at the beginning of the next year.
Negative numbers represent additions to the recorded number of firms that do not appear in the statistics on new registrations.

II.25 The most dynamic sector (in terms of the rate of entry and exit) has been engineering, with an average of 83 new companies entering each year during the period 1981 to 1986, and up to 85 companies exiting. The leather and tanneries and auto and allied engineering industries have also experienced relatively high volumes of entry and exit. High rates of entry and exit in these industries may reflect low barriers to mobility and the potential to shift resources from slowly growing or declining industries to rapidly growing areas.

II.26 In cotton textiles, however, exit has been incomplete, despite widespread financial problems in the industry. Annex II.9 shows that, out of a total of 223 textile mills, 89 (or 40%) were out of production at the end of 1986. Many of these mills have been closed for years and would require complete replacement of plant and equipment to resume. Yet, they have not been liquidated, and loan arrears continue to mount, as well as liabilities in the form of required wage payments. If these units had been quickly liquidated or taken over by healthy units, their assets might not have deteriorated to the point of only scrap value. At the same time, the perceived existence of excess capacity, counting the capacity in closed mills, led to restrictions on new entry and growth of operating incumbents. As a result, market structure in the textile industry has stagnated, and efforts to modernize production and diversify product lines have been thwarted.

B. The Impact of Regulatory Policies on Firm Behavior

Pricing and Competitive Behavior

II.27 Pricing behavior of private firms is constrained mostly where important public firms use their market power and where explicit price controls exist. In industries such as ghee, automotive products, fertilizers and cement, public sector units, in fact, account for the major share of production and use their market power to influence pricing behavior. Despite liberalization of the price of ghee and the rising cost of inputs, the Ghee Corporation of Pakistan has used its dominant market position to forestall price increases by the private sector. The State Cement Corporation of Pakistan has been slow to allow prices to vary at the plant level, and its 80% share means that full market-responsive pricing has not yet been achieved.

II.28 In some industries, price controls historically have reduced the extent of direct price competition, minimized incentives for cost reduction, and induced black market activities. The price of vegetable ghee in Pakistan has been maintained (first by GOP directly, now by GCP) well below international prices. Both ghee and edible oils are smuggled into Afghanistan and India, where domestic price levels are higher. In the cement industry, shortages in the 1970s and 1980s as a result of sanctioning constraints and price controls, led to a black market within the country. This has been eliminated, however, through more flexible pricing and transport charges by region, which has encouraged shipment of cement from surplus to deficit areas.

II.29 Past price controls on products in highly oligopolistic industries such as cement and fertilizer may have eliminated collusive pricing behavior, but it is not clear that government set prices were successful in eliminating monopoly profits in these industries. At the same time, price controls precluded price competition. At the individual plant level in fertilizer and cement, for instance, taxes and subsidies kept retail prices fixed while maintaining set profit margins through differences in ex-factory prices. In 1984-85 the ex-factory cost of urea ranged from Rs 1,746 to Rs 3,320 per ton while the retail price was the same. In this situation, firms have competed through marketing but not through pricing. Price decontrol has led to more adjustment of prices to market conditions, but the effect has been limited by price restraint exercised by large public firms (ghee, cement) and through government guidelines (fertilizer).

Marketing Behavior

II.30 Some subsectors show little evidence of non-price competition, e.g., through improvements in product quality or product differentiation. Some firms have evidently taken advantage of their market power by maintaining poor product quality rather than raising prices. In the bicycle industry, market power (and price leadership) by the leading firm, combined with informal price controls, have contributed to the production of an inferior product. In the ghee sector, producers have resorted to substandard specifications of edible oil when international oil prices have risen without being reflected in the price set by GOP or GCP. Some ghee producers, however, have been able to command a premium through product differentiation and reputation for quality.

II.31 In polyester yarn and fiber, producers appear to behave competitively in marketing their products despite high market concentration. While ex-factory yarn prices are higher than international (c.i.f.) prices, they are below the landed cost of equivalent imports, even though there is excess domestic demand: domestic production does not fill the gap between powerloom requirements and permitted imports. Several yarn producers have shown sensitivity to market trends by shifting their production toward finer counts (50 denier) than they anticipated when building their plants. Some are also considering adding machinery to produce twisted and flat yarns (which have higher value than texturized). The two fiber producers compete in each others' markets, rather than dividing up the market according to their respective locations in Karachi and Punjab. Competition between firms in both yarn and fiber is on the basis of both quality and price. One reason for this competitive behavior may be the availability of imports both legal and smuggled (in the case of yarn) and substitutes. Imported viscose and polyester fiber still meet the bulk of fiber requirements, and other synthetic yarns account for nearly a third of total domestic production of yarns other than cotton.

II.32 In fertilizers, large increases in urea production combined with stagnant domestic demand in the early 1980s led to excess supply, resulting in exports and market prices below the official controlled price. As noted, there is also evidence of competition in distribution networks, despite price controls. Prices were de-controlled in May 1986, but an informal price ceiling has been maintained through a ministerial guideline that prices should not rise above Rs 125 per bag. GOP's threat to import fertilizer if necessary to maintain the price provides some competitive pressure. The industry has reacted by limiting the extent of price increases, even though demand conditions might support higher prices. In both polyester and fertilizer, then, the threat of imports has evidently worked to enforce competitive pricing behavior.

Technology Acquisition and Innovation

II.33 The evidence regarding technological behavior is mixed. A number of industries have notably lagged in updating technology. The public sector cement plants have neglected to improve efficiency by modernizing equipment, switching over from wet to dry process technology, or cutting labor costs. In the past, cost-plus pricing allowed all such inefficiencies to be passed on to consumers in the form of higher prices.[1/]

II.34 There is strong evidence of conservative technological behavior in the textile sector. Protection from competing imports and, in the case of spinning, from new entry during the period that sanctions were restricted, slowed the process of modernization and restructuring, reducing firms' speed in responding to changes in demand patterns. It also weakened the ability of

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1/ Pricing policies also affected location decisions in the cement industry. The cost-plus pricing system, combined with freight equalization, made it immaterial where entrepreneurs established plants as far as profitability was concerned. Firms overlooked demand and raw material supply patterns in locating plants, aggravating the concentration of capacity in Southern Pakistan and cement shortages in the North.

downstream users to pressure spinners and weavers to invest in modernization and balancing equipment which would enable them to improve and diversify yarn and fabric quality. The widespread financial sickness in the mill sector diminished the availability of investable reserves to finance upgrading programs. Location policies that preclude output expansions have also dampened the incentive for modernization.

II.35 Textile firms have been slow to specialize in differentiated, narrowly defined market segments. An engineering team studying the textile sector (under the IMG project) observed that, where modern equipment has been installed, corollary improvements in plant layout, quality control and process flow have not been made. Firms' ability to make the necessary capital investments have been constrained by the weak financial health of the sector, which has been aggravated by the difficulty of shedding labor and of exiting so as to free up financial resources.

II.36 Import restrictions on raw materials sometimes induce firms to seek ways to raise productivity and profit per ton of inputs. As explained in the main report, sanction limits determine how much raw material can be imported, not how much can actually be produced. One staple fiber producer has been able to produce above sanctioned outputs by raising technical efficiency. Some yarn producers have shifted their production toward finer counts to obtain a higher-priced output. This initially reduces the quantity of raw materials that can be used because winder capacity is fixed in terms of length rather than weight. This situation provides firms with a case to obtain additional winder capacity under the Balancing, Modernization and Replacement (BMR) policy. They can then restore production to the originally specified quantity of raw materials consumed, but at a higher value product mix. This approach is especially attractive because BMR equipment is eligible for concessional rates of duty. The delays involved in obtaining permission under BMR, however, mean that this process of adjustment to restore full-capacity production takes longer than it would in the absence of restrictions and concessions on capital imports.

Rent-Seeking Behavior

II.37 As a result of frequent, unpredictable policy shifts, and the widespread practice of granting ad hoc temporary exemptions (through Standing Regulatory Orders, or SROs), firms have perceived that there are high returns to lobbying for modifications in policies as opposed to planning and executing projects in accordance with market signals. For example, exemptions from duties on capital goods imported under BMR or for non-industrial locations have led firms to postpone investments while trying to get the necessary approvals. Incumbent integrated polyester firms have to lobby the Government not to issue sanctions for new firms, since they cannot expand freely in order to achieve economies of scale that would make it difficult for new entrants to compete.

II.38 Arbitrariness and variability in government regulatory decisions account for the substantial amount of time devoted by polyester and other producers to lobbying the government. Applications are subject to lengthy delays and queries for additional information. Restrictions on contracts with foreign technicians make negotiation difficult, especially as they are subject to interpretation and change. In an industry, tax advantages to compensate for the high costs of locating investment in an undeveloped area were

reportedly withdrawn after investment had begun. These issues require attention by top-level managers.

C. Industrial Performance

Growth and Structural Change

II.39 Industrial performance in Pakistan has generally been quite good. Manufacturing output growth has been impressive. Table II.5 shows that during the 1950's manufacturing output grew at an average annual rate of 7.7% p.a. followed by 9.9% p.a. in the 1960's. From 1970 to 1977, output growth slowed to 3.7%, but it picked up in the latter part of the decade, so that the average growth rate for the 1970's was 5.5%. With reduced regulation and renewed encouragement of private investment since 1977, the growth rate has again accelerated, to 9.6% p.a. between 1977 and 1986.

Table II.5

Manufacturing Output Growth
(average annual rates of growth)

Fiscal years Ending June 30	Small Scale	Large Scale	Total
1950-60	2.30	15.39	7.70
1960-70	2.91	13.31	9.90
1970-77	7.30	2.59	3.74
1970-80	7.93	4.73	5.51
1977-86	9.40	9.67	9.59
1950-86	5.20	10.80	8.00
1960-86	6.30	9.10	8.10
1985-86	9.40	7.82	8.24

Source: Ministry of Production, in Economic Survey of Pakistan, 1985/86.

II.40 Due to the slow rate of growth between 1970 and 1977, the rate of industrial growth in Pakistan from 1972-1984 was roughly comparable to that of other developing countries. Table II.6 shows that between 1972 and 1984, the average annual growth in manufacturing GDP in Pakistan was 12.7% p.a., which was higher than about half the developing countries in the sample.

Table II.6

Average Annual Growth Manufacturing GDP, 1972-84

(percent per annum)

Brazil	11.1	India	9.8	Mexico	11.1
Chile	3.2	Indonesia	20.0	Pakistan	12.7
China	7.9	Korea	21.0	Philippines	12.4
Colombia	13.0	Malaysia	19.9	Thailand	16.8
Egypt	14.9			Turkey	13.0

Source: Annex II.18

II.41 The share of manufacturing in GDP has grown steadily from 7.8% in 1950 (Table II.2) to 20.7% in 1983 (Table II.7). Pakistan has reduced its dependence on agriculture and diversified its economic base. The share of manufacturing in GDP is now roughly the same as for developing countries as a whole, though manufacturing is less important in Pakistan than in some rapidly growing NICs such as Korea and Brazil.

Table II.7: STRUCTURAL CHANGES IN GDP, 1966-83

	Pakistan	India	China	Brazil	S. Korea	Developing Countries	World
Agriculture							
1966	37.1	47.8	37.5	15.9	34.9	28.6	9.4
1978	17.8	38.6	29.8	14.0	20.2	21.4	7.2
1983	28.1	36.1	35.3	13.4	13.9	20.8	6.4
Mining							
1966	0.5	1.0	4.4	0.8	1.9	4.7	2.5
1978	0.5	1.4	5.5	0.7	1.4	6.2	3.5
1983	0.5	3.3	6.7	1.2	1.4	7.8	4.6
Manufacturing							
1966	15.2	14.3	30.3	27.2	18.6	21.1	27.9
1978	16.2	17.0	37.5	27.5	27.8	22.2	25.6
1983	20.7	14.9	32.5	27.2	27.4	20.6	23.0
Construction							
1966	4.3	5.1	3.2	5.4	3.7	4.5	5.8
1978	4.9	5.3	3.7	5.8	7.9	5.9	6.4
1983	5.1	5.7	4.6	4.4	8.4	5.7	5.6
Services							
1966	42.9	31.7	24.5	50.8	41.0	41.1	54.4
1978	60.6	37.7	23.6	52.0	42.7	44.3	57.3
1983	45.6	40.0	20.9	53.8	48.9	45.1	60.3

Source: Industry Development Division database.
Pakistan: Economic Survey.

II.42 The growth of private investment in industry also has been strongly positive since 1977/78, recuperating from the three-year slack period of 1974-1977. Between 1977/78 and 1984/85, private industrial gross fixed capital formation grew at an average annual rate of 15.6% (Table II.8). Most of this was accounted for by investment in medium-and large-scale industry, which grew at an average of 18.2% p.a. during this period.

Table II.8

Gross Fixed Capital Formation in Industry, 1974/75-1984:85 a/

Item				
In Current Prices	1974/75	1977/78	1980/81	1984/85
Private Large and Medium Scale Industries	990.4	1,485.7	3,291.0	7,294.5
Small-Scale Industry	446.5	634.4	1,068.5	1,592.1
Public Industry	1,064.9	6,143.5	4,835.6	3,709.1
(of which Steel Mill)	194.6	(2,845.4)	(2,294.6)	(1,123.8
Total	2,501.8	8,263.6	9,195.1	12,595.1
In Constant 1970 Prices				
Private Large and Medium-Scale Industries	449.1	465.1	759.3	1,503.2
Small Scale Industry	202.1	196.3	242.4	321.4
Public Industry	482.9	1,925.3	1,115.6	764.2
Total	1,134.1	2,587.2	2,117.3	2,588.8
Share of Medium- and Large-Scale Industries In Total Investment, Constant Prices %	40	18	36	58
Share of Private Industry in total %	57	26	47	71

a/ Figures for 1983/84 are revised and for 1984/85 are provisional.

Source: Federal Bureau of Statistics, Pakistan: Economic and Social Development Prospects, February 1986.

II.43 To gain some perspective on Pakistan's growth performance comparison with that of Korea is of interest. In 1972 the size of GDP and manufacturing GDP in Korea and Pakistan was not dissimilar. Korea had a GDP of $10.6 billion, Pakistan $9.3 billion; Korea's manufacturing GDP was $2.3 billion, Pakistan's was $1.5 billion. Consequently, the importance of manufacturing in GDP was higher in Korea (manufacturing value-added was 22% of GDP in Korea 1972, compared to 16% in Pakistan). GDP per capita was roughly double in Korea in 1972 ($312 vs. $143 in Pakistan).

II.44 By 1984 the differences have become much more pronounced. Korea's GDP in 1984 had grown to $83.2 billion, while Pakistan's was $31.1 billion. Manufacturing GDP rose to $23.7 billion in Korea in 1984, or roughly 12 times the 1972 level, as against $6.3 billion, or about four times the 1972 level, in Pakistan. However, under the liberalized industrial policy environment of the 80s Pakistan's manufacturing GDP, actually grew faster than Korea's. This comparison suggests that Pakistan's potential performance might have been much better in the 70s, although it does not indicate to what extent the differences

are attributable to the countries' different strategies and policies and to what extent they derive from different resource endowments or other factors.

Export Performance

II.45 Despite strong output growth, manufactured export performance has been mixed. The real rate of total export growth in rupee terms has fluctuated widely since 1960, without a significant directional trend (see Figure II.1). The contribution of manufactured goods to total exports has increased gradually from 44% to 49% between 1970 and 1986, in line with the growing importance of manufacturing in GDP. The share of semi-manufactured exports has fallen as the share of manufactured exports has risen indicating a shift toward greater domestic value-added. The share of primary commodities (mainly raw cotton and rice) in exports has remained significant, rising from 33% in 1970 to 35% in 1986. (Annex II.10)

II.46 The composition of exports has become more diversified and the dependence on raw cotton and textile exports has declined in the last 15 years. In 1970, raw cotton and cotton manufactures exports accounted for 74% of total merchandise exports; by 1982/83, their combined share had dropped to 31%. However, in recent years (1982-1986) the diversification of the export base has again narrowed somewhat. By 1985/86, the importance of cotton fiber, yarn and textiles had risen to 36% of total exports, and the contribution of the top five and top ten export commodities to total exports has risen since 1982/83 (Annex II.11).

II.47 In terms of the destination of exports, Annex II.12 shows that the exports are directed roughly equally to developed industrial markets and developing country markets. Until 1985/86, there was virtually no increase in the share of exports to large, rapidly growing industrial markets.

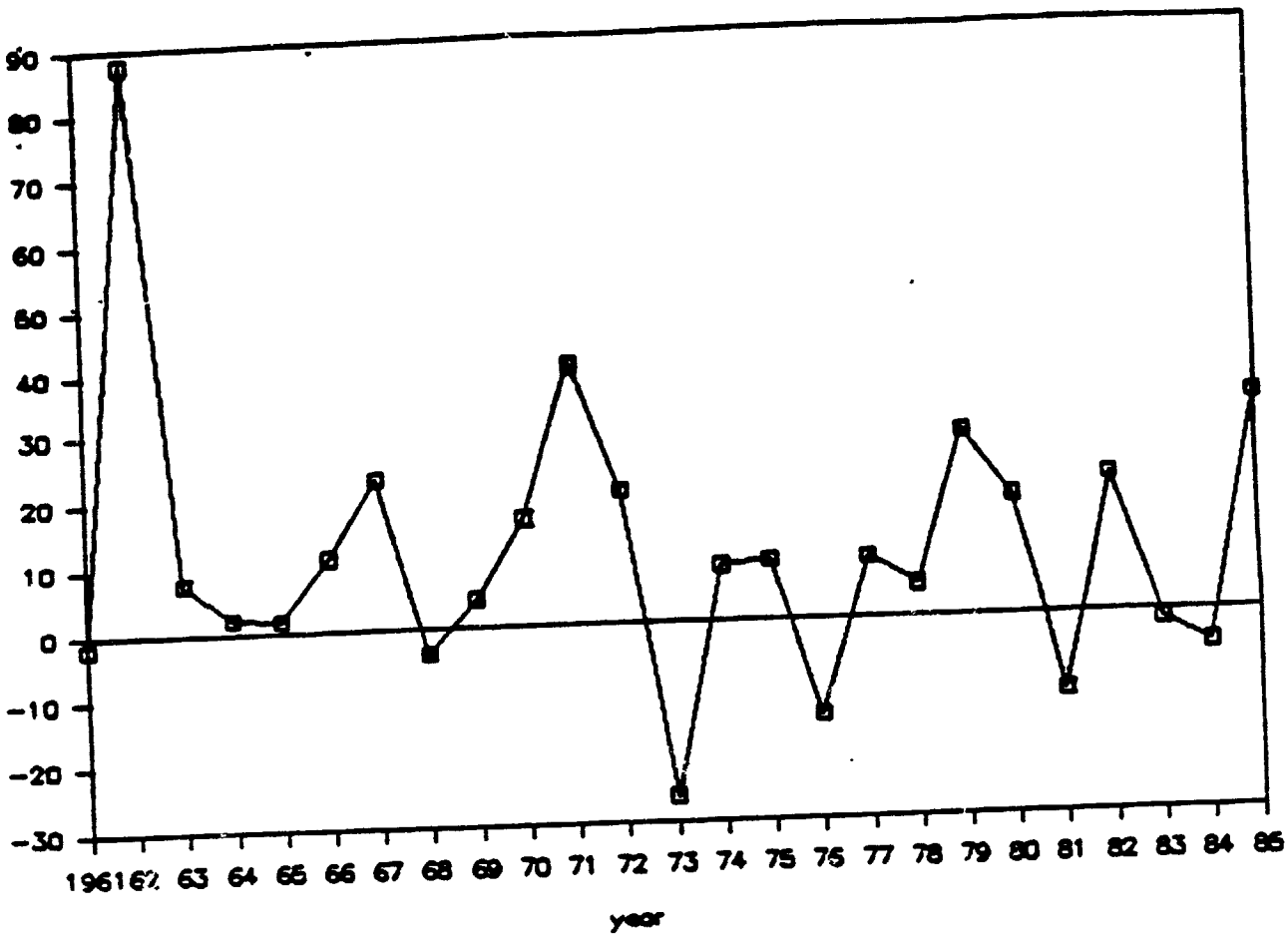
II.48 Textiles are one area of potential for more rapid export growth through diversification. Cotton manufactures are the most important source of export revenues. Pakistan has a natural comparative advantage in cotton textiles, as one of the lowest cost cotton producers in the world. However, due to its inability to improve product quality and diversify into new areas. Pakistan's share of world textile markets has declined. Annex II.13 shows that Pakistan's share of world trade in cotton yarn declined from 28.2% in 1971 to 12% in 1984 while its share in cloth increased only slightly, from 7.1% to 9.5%. Although ready-made garment exports has grown rapidly at 14% p.a. between 1977 and 1986, the base was small and they still contribute only 24% of textile exports. In comparison with other developing countries such as Korea, Hong Kong, and most recently Bangladesh, Pakistan's textile export growth performance has been modest.

Capacity Utilization

II.49 Capacity utilization may be used as one indicator of performance. Nevertheless, excess capacity does not necessarily imply inefficiency, if it is a temporary phenomenon in rapidly growing industries or in markets where dynamic competition leads to a high rate of entry and exit. Annex II.14, shows the level of "actual capacity utilization", defined as actual output as a percentage of rated capacity output, for 3 sectors.

Figure II.1

Real Export Growth Rates, 1961-85



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II.50 In these subsectors, the rate of capacity utilization ranges from a low of 33% for rice milling to a high of 112% of rated capacity for fertilizers. The average rate of capacity utilization (based on this measure) in the subsectors listed was 63%. The subsectors with the highest rates of capacity utilization were fertilizers, petroleum refining, cement, and sugar refining, all process industries and dominated by public sector firms. Investment restrictions have evidently avoided excess capacity in these industries, despite large minimum efficient plant scales relative to the domestic market. The products with the lowest levels of capacity utilization were rice milling, aluminum utensils, radio and television equipment, electric fans, and electrical appliances. These are industries in which entry has been relatively easier. Much of the idle capacity was found in individual plants which were "temporarily" closed -- for periods up to five years -- awaiting financial restructuring or new owner/managers. Thus, one explanation of low capacity utilization, and associated efficiency losses, may be exit policies that inhibit declining firms from transferring their assets. Another explanation may be deliberate installation of excess capacity in the first place, both for strategic reasons -- to discourage potential new entrants by threatening to expand output -- and as a precaution against the possibility of future sanctioning restrictions that would limit a firm's ability to expand. Continued easing of investment sanctioning would reduce the latter reason for building excess capacity, although this needs to be accompanied by policies to facilitate exit and asset transfer.

Product Price and Quality

II.51 Domestic prices of many consumer durable and non-durable goods and capital goods exceed international prices. Annex II.15, tables 1 and 2, compare domestic prices with international prices for a number of consumer products. Domestic prices exceed international prices (C&F Karachi) for most products. In table 1, on average the domestic price is about 35% higher than the international price; in table 2, the divergence on average is 25%. One factor explaining higher domestic prices is protection from competing imports afforded by the trade regime, which allows domestic sellers to maintain prices at a level above that of competing imports. However, in the products in Annex II.15, the domestic prices are below the landed cost of the imported good, inclusive of relevant import duties and taxes. The difference between the domestic price and the landed cost of imported goods may reflect in part the superior quality of the imported product. There is also downward pressure on domestic prices from goods brought in without paying duties, under baggage allowances or through smuggling.

II.52 While duty-free imports provide some degree of price competition, the extent of downward price movement is limited by domestic cost structures which often exceed international production costs. In comparing domestic and international prices, a trade-off exists between product price and quality. For example, in bicycles, the domestic price is only about 60% of the price of a standard light roadster (SLR) sold in the US. However, there is a significant quality difference: the international SLR is lighter, of stronger materials, is more durable and has higher quality fit and finish. Pakistan-made bicycles are roughly comparable in quality with Indian cycles, and ex-factory prices are similar. However, for imported Chinese cycles--which are smuggled, and thus duty-free--customers are willing to pay an extra Rs 600 ($36), almost double the domestic price. The Chinese cycles have superior fit and finish (e.g. they are available in colors other than

black, and have more durable chains, spokes and tires and tubes).[1]

II.53 The quality of vegetable ghee has deteriorated in recent years as firms have substituted inferior quality oils as inputs in response to rising input prices and regulated prices on output. With manufacturers unable to recuperate fully their higher costs through higher prices, capacity utilization and output growth have declined.[2] Capacity utilization fell from 117% in 1978-79 to 81% by 1985-86, and output, which grew at an average annual rate of 10.5% in the 1970s, grew more slowly--at 5% p.a.--from 1980 to 1986.

II.54 In cement, domestic ex-factory prices (net of excise taxes) are about Rs 900/ton compared with Rs 744/ton for imported cement.[3] When shadow prices are used to approximate the comparable international cost of domestic inputs, however, the ex-factory price of domestic cement compares favorably with the imported price. This is especially true in inland markets where imported cement incurs high transport costs. Although Pakistan's small plants are technically inefficient and involve high unit operating costs, many remain economic in terms of their low opportunity cost of capital and transport cost savings over time.

II.55 In some automotive components and the powerloom weaving sector, small firm sizes have resulted in significant problems in terms of product quality. One reason for the preponderance of small firms in engineering industries and textile weaving is that tax policies discourage growth and formalization of small-scale units. The Factories Act requires firms with more than ten workers to register with the Directorate of Industries, which in turn requires them to pay applicable excise duties and sales taxes on their output and a host of labor taxes and employment benefits. Annex II.16 shows the applicable labor taxes and regulations for registered firms. To avoid these taxes and payments, as well as general day-to-day factory inspections and regulations, many firms remain smaller than the registration limits.[4]

1/ The similarity in cost and quality between Indian and Pakistani cycles may explain why few cycles are smuggled from India, even through the transport cost is less than from China.

2/ Small production scales, which were enforced through sanctioning restrictions on plant size after 1977, may also be partly responsible for rising production costs. A study by U.S. AID estimiated a savings of Rs 1 per kilo--or 8%--for plant sizes over 30,00 tons p.a.; average plant sizes in Pakistan are 9,500 and 20,000 tons p.a. for private and public sector plants, respectively.

3/ Source: World Bank, Pakistan Cement Industry Modernization Project, May 1987. Industry Department, Report No.6707-PAK. Imported cement price is CIF Karachi.

4/ In practice, firms are able to employ up to about 50 workers without registering by avoiding (or anticipating) factory inspections. Since the registration limit is based on employment size, workers can be sent away during factory inspections and inspectors can be induced to under-report the number of workers. In contrast to India, there is not a system of product reservation based on asset size, so firms are not prohibited from investing in capital equipment which would prevent them from expanding beyond these asset limits. Small scale technical and marketing assistance promotion programs and preferential credit policies in Pakistan define small firms as having asset sizes up to Rs 10 million. However, these programs are not considered to be effective enough to deter firm growth.

II.56 Small firms in Pakistan are characterized by low product costs but poor product quality. Low unit costs are possible because of lower wage costs and tax payments. But small firms do not have sufficient output volume to be able to amortize investment in testing and quality control equipment. Nevertheless, the cost advantage of small firms may have discouraged entry by larger firms that would be more capable of technical innovation and quality control. In the automotive sector for example, replacement parts are generally manufactured by small scale firms, but product quality is inferior. Unacceptable product quality and lack of technological progress in small units may have discouraged vehicle assemblies from developing subcontracting relationships. In textile weaving, small powerloom firms have captured the major share of the fabric market, but have lacked the financial and technical resources to improve product quality and reliability and move into high quality blends and synthetic fabrics. This has prevented the garment export sector from diversifying into specialty garments that are not subject to quota limits in export markets.

II.57 The evidence is mixed regarding the polyester industry's cost performance. On the one hand, it exists as an import substitution industry only because of protection, and no firm manager saw any prospects for direct exports of yarn or fiber. On the other hand, it is an input into successful export industries and there is little evidence of scarcity rents.

II.58 The most clearly over-protected and inefficient part of the polyester industry is the initial stage of production of polyester chips from imported chemicals. The chemicals come in at zero duty, the chips at 60%. But Pakistan cannot obtain those chemicals at the bulk rates available to very large plants in Japan and Europe, and some foreign firms produce chips using ethylene glycol as a by-product of other chemical manufacturing. By creating strong incentives to avoid high tariffs by producing chips domestically, Pakistan is imposing a high cost on the downstream industry and foregoing the opportunity to benefit from the availability of chips on world markets at dumping prices.

II.59 The prevailing ex-factory price of filament yarn is below the total landed cost of equivalent imports, implying that the theoretically available effective protection is not fully utilized. Possible explanations include domestic competition, competition from smuggled imports, and quality differences (including different average deniers) between the domestic product and the imported product used for reference. But the evidence also suggests that production in Pakistan could not compete with imports without protection for some time. At the current exchange rate, production costs are significantly above those in Indonesia, a comparable country whose costs in turn are not internationally competitive (Annex II.17). Part of the gap is attributable to high depreciation and financial charges, which can be expected to decline over time. Even so, competitiveness with imports is unlikely to be achieved without further exchange rate depreciation to reduce the high cost of nontradables and enhance Pakistan's labor cost advantage.

II.60 In the automotive sector, while product costs are currently roughly comparable to international costs, most car and light commercial vehicle firms are primarily assemblers. As the domestic content rises under the deletion program, the cost of assembly will likely rise, since domestic component manufacturers are too small to realize potential economies of scale. The cost of most components exceeds the cost of imported components by about 20 percent.

Conclusions

II.61 In general, while growth performance has been good, products are often not able to compete internationally in terms of price and performance. When prices are controlled, firms appear to sell poor quality products and avoid investing in quality improvements. As Pakistan's industrial base widens, a gradual increase in the sources of competition will be needed to stimulate technological innovation and aggressive marketing behavior. Continued liberalization of investment restrictions, as well as market growth, should increase domestic competition in most industries. In these industries where MES remains large relative to the domestic market, trade liberalization will play a key role in providing the threat of competition from imports. Improved product quality and cost reduction are needed to ensure sustained growth of efficient import substituting and export industries.

ANNEX II.1

Shares of Different Manufacturing Industries in Value Added

(Percent Share)

SI.NO.	Industry	1954	1959-70	1969-70	1980-81	Changes in share 1954-81
1.	Food Manufacturing	8.5	7.6	10.0	25.9	+17.4
2.	Manufacturing of Beverages	0.4	0.3	0.1	0.8	+.4
3.	Tobacco Manufacturing	5.5	5.3	6.1	3.4	- 2.1
4.	Manufacturing of Textiles	46.7	39.1	28.5	23.3	-23.4
5.	Manufacturing of Footwear and other Wearing Apparel	3.5	2.4	3.8	3.0	-.5
6.	Manufacturing of Paper and Paper Board	-	1.6	1.2	1.6	+1.6
7.	Printing and Publishing Industries	2.7	2.4	5.4	2.3	-.4
8.	Manufacturing of Leather and Leather Products & Others	2.4	0.7	2.2	1.7	-.7
9.	Rubber and Rubber Products	0.9	0.5	0.7	1.6	+.7
10.	Chemical and Chemical Products	9.5	8.3	7.9	13.5	+4.0
11.	Non-Metallic Products	4.0	6.1	2.5	2.0	-2.0
12.	Basic Metal Industries	2.1	3.1	2.0	7.0	+4.9
13.	Manufacturing of Metal Products	2.1	3.9	3.7	1.3	-.7
14.	Non-Electrical Machinery	0.9	2.1	3.9	2.3	+1.4
15.	Electrical Machinery	0.8	2.7	2.6	4.5	+3.7
16.	Transport Equipment	1.1	3.4	1.6	2.3	+1.2
17.	Other Industries	8.9	10.5	18.1	6.2	-2.7
	Share of top five industry groups in total	79.1	71.6	70.6	75.9	-3.2

Source: Based on Census of Manufacturing Industries, in Economic Survey of Pakistan, 1984-85

Average Firm Size

Year	Gross Output Per Firm Constant	Employees Per Firm	Number of Firms
1955-56	1187.3	102.7	1314
1957-58	1097.4	102.8	1566
1958-59	1420.4	112.0	1703
1959-60	1506.3	112.2	1851
1962-63	2098.6	139.9	2699
1963-64	2064.4	111.1	2974
1964-65	2146.2	120.6	3132
1965-66	2230.3	109.8	3136
1966-67	2462.9	115.8	3508
1969-70	3381.9	116.6	3587
1970-71	3541.7	120.4	3549
1975-76	4214.1	156.0	3248
1976-77	4631.3	135.4	3373
1977-78	4954.5	125.0	3676
1980-81	6407.8	118.3	3818

Source: Census of Manufacturing Industries, various years.

Sectoral Pattern of Registered Public Limited Companies 1/

	1982/83	1983/84	1984/85	1985/86
Insurance	45	45	47	50
Cotton Textile	593	633	689	743
Woollen	66	68	74	75
Synthetic & Rayon	34	36	36	43
Financial Institutions	62	61	69	69
Jute	18	23	23	23
Sugar & allied industries	93	116	127	147
Cement	28	27	29	29
Tobacco	39	40	41	42
Fuel & Energy	43	49	54	56
Engineering	572	612	701	777
Auto & allied engineering	283	313	349	365
Cables & electrical goods	236	242	252	257
Transport & Communications	243	253	263	265
Chemical & Pharmaceutical	313	351	401	472
Paper & Board	74	84	95	114
Vanaspati & allied industries	71	74	86	92
Construction	475	541	623	739
Leather & tanneries	152	177	210	226
Miscellaneous	8744	9682	10317	11205
TOTAL:	12184	13427	14486	15789

Source: Corporate Law Authority

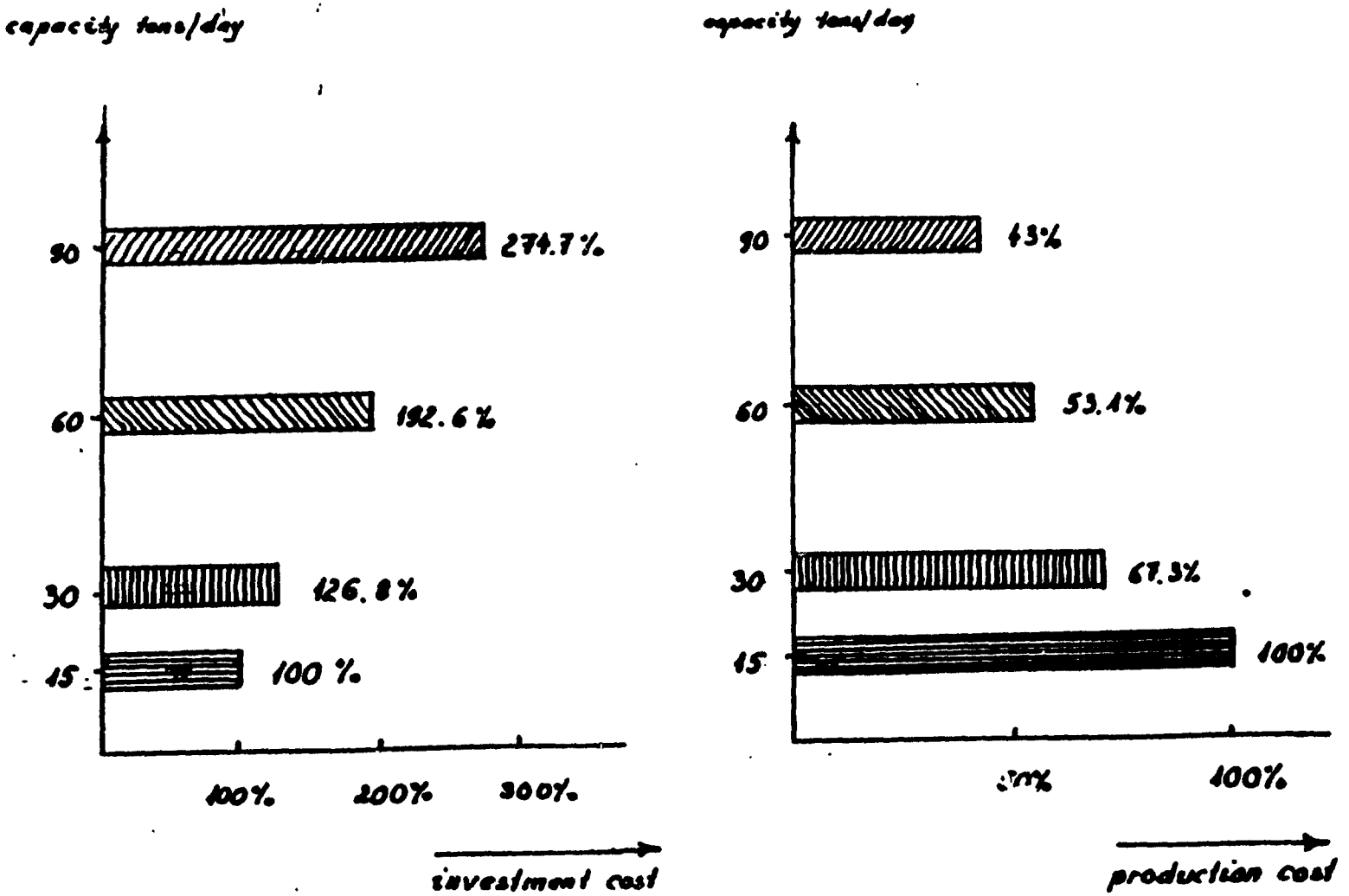
1/ Includes only public and private limited companies; does not include companies with unlimited liability, limited by guarantee, associations not for profit or foreign companies.

Average Polyester Plant Sizes in Pakistan and the Far East

	Pakistan		Korea	Taiwan	Thailand	Malaysia	Philippines	Japan	Indones
	Current	Planned							
Polyester staple									
No. of producers	2	5	5	9	2	1	1	6	
Total capacity (tons/day)	80	240	554	1625	193	115	59	955	23
Av. plant size (tons/day)	40	48	111	181	97	115	59	159	6
Polyester filament									
No. of producers	9	9	10	12	4	-	1	10	
Total capacity (tons/day)	100	122	644	1586	78	-	65	1127	2
Av. plant size (tons/day)	11	14	64	132	20	-	65	113	3

Source: Gherzi Textil Organization, "Indonesia Textile Industry Study," Jakarta, 1986, Table 3.24/1

Index of Investment and Production Cost of Polyester Fibre Production with Increasing Capacity



Note: Investment cost and unit production cost are taken relative to costs for a 15 tons/day plant (cost = 100%).

Production of Cotton Yarn and Cloth—Categorywise

	1978-79		1979-80		1980-81		1981-82		1982-83		1983-84		1984-85	
	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total
No of Reporting Mills	143		149		148		157		158		161		158	
Yarn														
(000 Kgs)														
Coarse Count	172,449	52.61	187,406	51.65	165,724	44.20	185,632	43.2	191,753	42.8	163,334	37.8	164,554	38.1
Medium Count	110,343	33.66	118,840	32.75	145,127	38.71	165,888	38.6	182,530	40.7	179,538	41.6	19,1684	44.4
Fine Count	10,865	3.31	11,651	3.21	12,427	3.32	18,128	4.2	20,133	4.5	19,789	4.6	21,397	5.0
Super Fine Count	2,548	0.78	3,669	1.01	4,624	1.23	8,359	1.9	11,235	2.5	15,645	3.6	12,744	3.0
Mixed & Hard Waste	2,562	0.78	8,080	2.23	8,260	2.20	19,362	4.5	9,511	2.1	9,372	2.2	8,391	1.9
Man-made	29,031	8.86	33,217	9.15	38,785	10.34	32,786	7.6	33,268	7.4	44,082	10.2	32,861	7.6
TOTAL:	327,798		362,862		374,947		430,154		448,430		431,580		431,731	
% Change over Preceding year:	10.04		10.70		3.33		14.72		4.25		(-) 3.75		0.03	
Cloth (Mill Sector)														
(000 Sq Mtrs)														
Grey	246,682	72.69	291,053	67.47	194,285	63.10	196,434	60.44	175,820	52.40	152,458	51.41	148,673	54.69
Bleached	38,719	11.41	44,158	12.80	35,323	11.47	43,490	10.81	53,804	15.98	47,778	16.11	39,424	14.50
Dyed & Printed	43,422	12.80	48,975	14.31	49,995	16.14	53,185	16.38	57,717	20.18	59,733	20.13	54,875	20.19
Blended	10,529	3.10	18,149	5.30	28,279	9.19	40,912	12.59	30,396	11.44	36,632	12.35	28,855	10.62
TOTAL	339,352		342,335		307,842		325,021		336,537		296,599		271,827	
% Change over preceding year.	(-) 13.29		0.88		(-) 10.06		5.57		3.23		(-) 11.60		(-) 8.35	

Source *TEXTILE Commissioner IC S.O.*

Variety Wise Production of Cotton Fabrics in Pakistan (Mill Sector)

Period	Grand Total	FINE					MEDIUM					COARSE					Blended	
		Total	%	Grey	Bleached	Dyed	Total	%	Grey	Bleached	Dyed	Total	%	Grey	Bleached	Dyed		
1971—72	628180	94476	15.04	58360	2[illegible]179	12628	372834	59.35	237060	69234	66550	160679	25.61	100542	12914	36423		
1972—73	588606	75222	12.78	44206	21586	9448	365478	62.09	232758	73690	59026	147906	25.13	106456	19846	21704		
1973—74	592172	71141	12.01	37332	21042	12767	350389	59.17	189667	81335	80387	170642	28.82	116210	32258	22174		
1974—75	555855	76162	13.70	40643	21964	13556	302187	54.36	172748	63647	65772	177526	31.94	129601	25196	28730		
1975—76	520438	78291	15.04	45010	19451	13830	288201	55.57	199535	39864	49802	152946	29.39	116403	16754	19789		
1976—77	408287	65038	15.93	36106	14427	14506	227452	55.71	150318	31776	39358	112368	27.52	87530	10891	14030	3428	0.84
1977—78	391347	55239	14.11	29749	12900	12590	208674	53.30	141746	28336	38483	123064	31.45	80701	18241	23122	4470	1.14
1978—79	339352	39083	11.52	22618	8046	8419	178986	52.74	143073	15002	20810	110766	32.64	81681	15651	14013	10229	3.10
1979—80	342335	38340	11.49	14448	12433	12458	175497	51.27	234672	19843	20982	109439	31.94	82833	11762	16534	18149	5.30
1980—81	307882	39532	12.84	18024	8152	13356	151314	49.14	109033	20109	23172	89767	29.03	68226	7982	13487	28279	9.19
1981—82	325020	48846	14.91	25573	8414	14458	159270	49.00	112777	18818	26674	76306	23.50	58806	6252	12268	40600	12.50
1982—83	335537	38581	11.50	13829	10001	14861	195720	58.33	116780	39022	39608	62830	18.73	46401	4591	12848	38366	11.44
1983—84	296500	40141	13.53	16057	8802	15482	174422	58.81	110347	33442	30633	45404	15.31	28684	6732	13618	36632	12.36
1984—85	271827	23868	8.78	9872	5121	8875	175812	64.68	114012	30602	31198	43292	15.93	24799	3701	14892	28856	10.61
1985—86 (July-March)	190541	17402	9.13	6066	4093	7263	123386	64.76	86370	16618	18396	26664	13.99	15899	1610	9246	23089	12.12

Figures in 000 Sq. Mtrs.
Source: CSO/Textile Commissioner

ANNEX II.7

Installed and Working Capacity

Period	Installed Capacity					Working Capacity				Capacity Utilization: Working as % of Installed	
	No. of Mills	Spindle (000)	Per Mill (000)	Looms (000)	Per Mill	Spindles (000)	Per Mill (000)	Looms (000)	Per Mill	Spindles	Looms
1948	-	78	n.a.	3	n.a.	78	n.a.	3	n.a.	100.0	100.0
1961-62	71	1,644	23	28	394	1,524	21	26	366	93.0	93.0
1971-72	131	2,848	22	30	229	2,650	20	26	198	93.0	87.0
1972-73	150	3,226	22	29	193	3,057	20	27	180	9[illegible].0	93.0
1973-74	155	3,308	21	29	187	3,034	20	27	180	92.0	93.0
[illegible] 4-75	143	3,110	22	29	203	2,823	20	25	175	91.0	86.0
[illegible] 76	166	3,487	21	29	175	2,560	15	21	127	73.4	72.4
Dec 77	172	3,651	21	28	163	2,747	16	22	128	75.2	78.6
Dec. 78	174	3,499	20	27	155	2,830	16	19	109	80.9	70.4
Dec 79	185	3,653	20	26	135	2,965	16	16	86	81.2	64.0
Dec. 80	182	3,921	22	24	132	3,069	17	14	77	78.3	58.3
Dec. 81	197	3,936	20	21	107	3,188	16	14	71	79.0	66.7
Dec. 83	209	4,113	20	21	100	3,262	16	13	62	79.3	61.9
Dec. 84	217	4,361	20	21	97	3,251	15	11	51	74.5	52.4
Dec 85	220	4,429	20	21	95	3,401	15	11	50	76.8	52.4
Dec. 86	223	4,428	20	19	85	n.a	n.a.	n.a.	n.a.	n.a.	n.a.

Source: APTMA - Chairman's Review 1985.

[illegible] 17 87

ANNEX II.8

Pakistan: List of Closed Textile Mills
December 1986

A. Units which cannot be revived without complete replacement.
B. Units which can be revived with new machinery but closed due to financial problems.
C. Units which are partially closed.

Category	No.Firms	Number Spindles	Number Rotors	Number Looms
A. Sind Province	25	411,016		1,252
Punjab Province	13	192,172		126
NWFP	3	37,580		621
Total A.	51	640,768		1,999
B. Sind Province	9	131,643	2,400	498
Punjab Province	5	90,616		126
Baluchistan	2	99,980		2,200
Total B.	16	322,239	2,400	2,824
C. Sind Province	14	80,112	1,391	
Punjab Province	8	45,832	100	228
Total C.	22	125,944	1,491	228
Grand Total	89	1088951	3,891	5,051

Source: Textile Commissioner's Organization

ECONOMIC CLASSIFICATION OF EXPORTS

(Rs. million)

Year	Primary Commodities		Semi-Manufactures		Manufactured Goods		Total
	Value	Percentage Share	Value	Percentage Share	Value	Percentage Share	Value
1969-70	632	33	375	23	702	44	1,609
1970-71	690	33	472	24	876	44	1,986
1971-72	1,510	46	914	27	947	28	3,371
1972-73	2,366	39	2,663	30	2,602	30	8,661
1973-74	4,007	39	2,294	23	3,860	38	10,161
1974-75	4,832	48	1,306	13	4,047	39	10,286
1975-76	4,902	44	2,068	18	4,283	38	11,253
1976-77	4,822	41	1,698	17	4,783	42	11,294
1977-78	4,834	38	1,912	15	6,435	50	12,980
1978-79	6,474	32	3,489	21	7,963	47	16,925
1979-80	9,838	42	3,519	15	10,063	43	23,416
1980-81	12,824	44	3,320	11	13,136	45	29,280
1981-82	9,112	35	3,507	13	13,651	52	26,270
1982-83	10,326	30	4,618	13	19,498	57	34,442
1983-84	10,789	29	5,172	14	21,376	57	37,338
1984-85	10,961.	29	6,664	17	20,334	54	37,979
1985-86	17,139	35	7,892	16	24,561	49	49,592
Jul-Mar							
1985-86	12,293	35	5,682	16	17,306	49	35,281
1986-87	11,758	27	8,985	20	23,602	53	44,345

Source: 1985-86 Economic Survey, Statistical Appendix.

Export Shares by Commodity
(Percentage of Total Export Value)

	1982/1983	1985/1986
Cotton, raw and waste	11.5	16.6
Rice (all varieties)	10.6	11.0
Readymade garments	6.6	10.9
Cotton fabrics	10.3	10.1
Cotton yard and thread	9.5	9.1
Leather and leather products	3.8	5.9
Carpets and rugs	5.5	5.3
Bed sheet/covers and pillow covers	2.5	3.2
Towels, napkins and bar mops	1.6	3.0
Fish and fish products	2.6	2.7
Crude and chemical fertilizers	0.6	1.9
Medical, dental and surgical instruments	0.8	1.7
Silk, artsilk and synthetic fabrics	9.7	1.6
Sports goods and toys	1.3	1.6
Fruits and vegetables (incl. prepared)	1.9	1.5
Motor vehicles, launches, ships, aircrafts & railway coaches	1.0	1.1
Machinery, equipment and parts	1.7	1.0
Petroleum products	2.8	1.0
Sugar, molasses, confectionery & honey	0.8	1.0
Tents, tarpaulins & canvas goods	3.4	1.0
Gowar gum & protein extracts	0.7	0.7
Iron & Steel products (incl. pig iron)	0.7	0.6
Wool & animal hair (incl. wool tops)	0.6	0.6
Cutlery, hardware, tool and metal products	0.6	0.5
Footwear of leather, canvas & rubber	0.4	0.5
Onyx/marbles & their products and precious stones	0.3	0.4
Handicrafts & small manufactured articles	0.8	0.4
Tobacco, raw and manufactured	0.4	0.4
Spices, tea and chocolate	0.5	0.4
Animal bones, casings & waste materials	0.3	0.3
Cotton bags	0.7	0.3
All other items	5.5	3.6
TOTAL	100.00	100.0

Source: Federal Bureau of Statistics

DESTINATION OF EXPORTS AND ORIGIN OF IMPORTS

REGION	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
DEVELOPED ECONOMIES											
Exports	41.0	43.5	39.3	47.6	39.7	32.9	38.6	35.5	40.3	42.3	51.7
Imports	60.4	61.7	58.0	60.5	54.0	48.9	47.9	50.3	53.5	52.6	60.6
a. OECD											
Exports	40.2	42.7	39.0	47.2	39.2	32.5	38.5	35.2	40.0	41.9	51.4
Imports	59.9	60.9	57.2	59.8	53.4	48.3	47.3	49.7	52.7	51.9	59.7
b. Other European Countries											
Exports	0.8	0.8	0.3	0.4	0.5	0.4	0.1	0.3	0.3	0.4	0.3
Imports	0.5	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.8	0.7	0.9
CMEA											
Exports	4.4	4.0	4.3	3.7	3.9	3.9	4.1	4.2	4.5	5.7	5.9
Imports	4.5	3.7	3.0	3.1	2.9	3.2	3.0	2.1	3.0	1.6	1.8
DEVELOPING COUNTRIES											
Exports	54.6	52.5	56.4	48.7	56.4	63.2	57.4	60.3	55.2	42.1	42.4
Imports	35.1	34.6	39.2	36.4	43.1	47.9	49.1	47.5	43.5	45.8	37.6
a. OIC											
Exports	28.0	33.3	28.9	25.3	28.3	30.7	31.9	40.3	41.7	22.9	20.1
Imports	19.8	19.6	20.7	18.5	26.5	31.4	32.7	31.9	27.2	26.5	20.8
b. SAARC											
Exports	6.5	4.6	6.5	5.4	6.2	6.5	6.1	3.0	3.2	4.2	4.9
Imports	3.0	4.1	5.8	3.0	2.4	2.2	1.9	2.1	1.9	1.9	1.7
c. ASEAN											
Exports	2.9	3.3	5.1	2.5	2.4	2.5	3.7	3.1	3.1	2.3	3.2
Imports	5.0	4.6	5.3	6.4	6.2	5.0	5.8	5.4	6.3	8.4	6.6
d. CENTRAL AMERICA											
Exports	0.5	0.5	0.4	0.1	0.5	1.3	0.9	0.9	0.2	0.1	0.1
Imports	0.2	0.1	0.1	0.2	-	0.1	-	0.1	0.2	-	0.1
e. SOUTH AMERICA											
Exports	0.1	0.1	0.8	0.2	1.8	0.8	0.1	0.1	0.2	0.1	1.3
Imports	0.2	0.4	0.3	1.8	1.5	2.0	0.9	0.8	1.1	1.5	1.3
f. OTHER ASIAN COUNTRIES											
Exports	13.6	7.9	10.0	10.3	14.6	17.5	11.5	10.7	5.1	8.9	8.9
Imports	4.5	4.8	5.3	5.4	5.7	5.7	6.9	6.0	5.3	5.4	5.4
g. OTHER AFRICAN COUNTRIES											
Exports	3.0	2.8	4.7	4.9	2.6	3.9	3.2	2.2	1.7	3.6	3.9
Imports	2.4	1.0	1.6	1.1	0.8	1.5	0.9	1.2	1.5	2.2	1.7
GRAND TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Federal Bureau of Statistics

Notes: OECD = Organization for Economic Cooperation and Development.
CMEA = Council of Mutual Economic Association (USSR and Eastern European Countries).
OIC = Organization of Islamic Countries.
SAARC= Includes Banglades, India, Maldives, Nepal and Sri Lanka.

Cotton Yarn: Production and Domestic Requirement—Mill Sector

Period	Production	Mill Consumption (% of Production)		Export (% of Production)		Available for Local Market (% of Production)	
1971—72	335.702	98.785	(29.4)	130.158	(38.8)	106.769	(31.8)
1972—73	376.122	89.880	(23.9)	184.404	(49.0)	101.838	(27.1)
1973—74	379.460	96.056	(25.3)	100.564	(26.5)	182.840	(48.2)
1974—75	351.200	88.103	(25.1)	75.840	(21.6)	187.257	(53.3)
1975—76	349.653	83.943	(24.0)	110.490	(31.6)	155.220	(44.4)
1976—77	282.640	65.452	(23.2)	61.742	(21.8)	155.446	(55.0)
1977—78	297.895	55.165	(18.5)	59.955	(20.1)	182.775	(61.4)
1978—79	327.796	51.215	(15.6)	97.929	(29.9)	178.652	(54.5)
1979—80	362.862	47.910	(13.2)	99.835	(27.5)	215.117	(59.3)
1980—81	374.947	43.277	(11.5)	95.232	(25.4)	236.438	(63.1)
1981—82	430.154	42.624	(9.9)	95.621	(22.2)	291.909	(67.9)
1982—83	448.430	50.563	(11.3)	134.100	(29.9)	263.767	(58.8)
1983—84	431.580	34.972	(8.1)	101.805	(23.6)	294.803	(68.3)
1984—85	431.731	53.546	(12.4)	125.855	(29.1)	252.330	(58.5)
1985—86 (July-March)	359.788	36.640	(10.2)	113.938	(31.7)	209.210	(58.1)

Fig. in (000 Kg)
Source:

Pakistan Share in World Trade in Textile

Period	COTTON YARN			COTTON CLOTH		
	World Exports	Pakistan Exports	Pakistan's Share in World Export	World Exports	Pakistan Exports	Pakistan's Share in World Export
1971	388.423	109.557	28.2	680.793	48.397	7.1
1972	510.096	160.703	31.5	774.393	48.086	6.2
1973	536.175	146.920	27.4	778.300	73.813	9.5
1974	497.025	74.567	15.0	760.075	77.460	10.2
1975	545.918	152.972	28.0	741.774	56.199	7.6
1976	622.180	95.914	15.4	873.469	48.812	5.6
1977	547.506	46.716	8.5	819.043	36.986	4.5
1978	630.040	74.883	11.9	856.968	51.646	6.0
1979	673.424	88.759	13.2	939.004	58.707	6.2
1980	707.767	97.212	13.7	884.453	66.560	7.5
1981	677.720	84.625	12.5	746.6g0	75.075	10.1
1982	697.010	112.534	16.1	830.920	84.020	10.1
1983	783.770	141.600	18.1	913.520	104.160	11.4
1984	779.860	93.930	12.0	995.560	94.910	9.5

Figures in Metric Tons
Source: APTMA

Capacity Utilization /1

(Percentage)

1.Vegetable Oil Except Hydrogenated Oil and Cotton Seed Oil	62
2.Refined Sugar	88
3.Rice Milling	33
4.Cigarettes	62
5.Spinning, Weaving and Finishing of Cotton Textiles	76
6.Spinning, Weaving and Finishing of Woolen Textiles	55
7.Spinning, Weaving and Finishing of Jute Textiles	79
8.Spinning, Weaving and Finishing of Synthetic Textiles	57
9.Wool Carpets	58
10.Paper Board	70
11.Pulp & Paper	46
12.Tyres and Tubes	63
13.Alkalies	93
14.Fertilizers	112
15.Pesticides	63
16.Paints, Varnished	58
17.Synthetic Resins, Plastics	63
18.Cement	95
19.Glass & Products	73
20.Electric Bulbs	58
21.Steel Foundaries, Re-rolling mills	53
22.Fabricated metal	58
23.Plumbing Equipment	46
24.Agricultural Machinery	56
25.Utensils-Aluminum	34
26.Textile Machinery	63
27.Electrical Appliances	42
28.Batteries	68
29.Electrical Industrial Machinery	43
30.Electric Fans	39
31.Electrical Apparatus	44
32.Insulated Wires	54
33.Radio, Television Equipment	36
34.Motor Vehicles	75
35.Shipbuilding	
36.Cycles	79
37.Petroleum Refining	107
38.Bricks, Tiles	71
39.Matches	59
All 39 Industries	63

Source: Study by Robert Nathan and Associates and United Consultants (Pvt.) Ltd for the Government of Pakistan, " Capacity Utilization in Pakistan's Manufacturing Sector ", March 1987. Twenty alternative definitions of capacity utilization were estimated in this study; this table uses the common definition of actual output as a percentage of rated capacity.

PAKISTAN : DOMESTIC AND WORLD PRICES OF SELECTED COMMODITIES.
(MARCH 1987)

COMMODITY	(A) DUTY FREE PRICE US$	(B) CIF IMPORT PRICE Rs.	(C) DOMESTIC PRICE Rs.	(D) IMPORT DUTY %	(E) SALES TAX %	(F) EFFECTIVE TARIFF RATE a/	(G) LANDED COST Rs.	(H) DOMESTIC PRICE vs. IMPORT PRICE (% higher) b/	(I) DOMESTIC PRICE vs. LANDED COST (% lower) c/	(J) IMPORT STATUS
COOKING RANGE (GAS)				125	12.5					Restricted
Philips (4 Burner)	370	5841.8	6,500			163.13	15,371	11	-58	
Philips (5 Burner, ACM 1261)	536	8283.6	7,000			163.13	21,796	-15	-68	
Glanges (4 Bur, 000794)	320	5007.3	6,000			163.13	13,175	20	-54	
Glanges (5 Bur, 000315)	371	5826.4	8,000			163.13	15,331	37	-48	
AIR CONDITIONERS				150	12.5					Free
General (20,000 btu)	592	9149.1	13,000			191.25	26,647	42	-51	
National (13,000 btu)	548	8370.2	12,000			191.25	25,566	37	-53	
Toshiba (17,500 btu)	440	6800.0	10,000			191.25	19,865	47	-50	
General (17,000 btu)	475	7340.9	11,200			191.25	21,380	53	-48	
WASHING MACHINES				150	12.5					Free
Philco (W65A)	405	6259.1	6,000			191.25	18,230	-4	-67	
Indesit (2103A01)	327	5053.6	5,700			191.25	14,719	13	-61	
REFRIGERATORS				Rs.17/lit	12.5					Free
National 10.2 c(ft)	499	7711.8	10,000	51		80.07	13,887	30	-28	
National 19.4 c(ft)	537	8299.4	11,000	55		81.83	15,756	33	-28	
National (10.4 c(ft)	605	9350.0	13,000	54		82.72	17,085	39	-24	
Jaggas (9.8 c(ft)	335	5177.3	9,000	91		120.99	11,648	74	-23	
Kelvinator (12.1 c(ft)	364	5625.5	11,500	104		130.96	13,402	104	-14	
BLENDERS/JUICERS				80	12.5					Restricted
Moulinex (241- 2pcs set)	23	355.5	460			112.50	755	29	-39	
Braun (MX32)	42	649.1	855			112.50	1,379	32	-38	
Braun (MX2- 2pcs set)	55	850.0	1,100			112.50	1,806	29	-39	
RADIO CASSETTE RECORDER				125	12.5					Prohibited
JVC (RC870)	156	2410.9	3,100			163.13	6,344	29	-51	
VCR				80	12.5					Restricted
JVC (HR7610)	625	9659.1	10,000			112.50	20,526	4	-51	
VCR CASSETTE				Rs.25/pc	12.5					Restricted
Shalimar	12	185.5	180	11		38.25	256	-3	-30	
FANS				80	12.5					Prohibited
ABK (40-CM)	87	1344.5	1,400			112.50	2,857	4	-51	
CAMERAS				80	12.5					Free
Kodak (6000)	61	909.1	950			112.50	2,102	-4	-55	
Kodak (4000)	37	571.8	600			112.50	1,215	5	-51	
Konolta (Weather Matic)	50	772.7	1,100			112.50	1,642	42	-33	
WATCHES				40	12.5					Free
[illegible]	[illegible]	815.5	1,300			67.50	1,850	61	0	

PAKISTAN : DOMESTIC AND WORLD PRICES OF SELECTED COMMODITIES.
(MARCH 1987)

COMMODITY	(A) DUTY FREE PRICE US$	(B) C&F IMPORT PRICE Rs.	(C) DOMESTIC PRICE Rs.	(D) IMPORT DUTY %	(E) SALES TAX %	(F) EFFECTIVE TARIFF RATE a/	(G) LANDED COST Rs.	(H) DOMESTIC PRICE vs. IMPORT PRICE (% Higher) b/	(I) DOMESTIC PRICE vs. LANDED COST (% Lower) c/	(J) IMPORT STATUS
CLOCKS				125	12.5					Prohibited
Seiko (Time Piece)	21	324.5	527			163.13	854	62	-38	
GRINDERS				00	12.5					Restricted
Braun (KM32)	12	185.5	300			112.50	394	62	-24	
MOBILE TROLLY/CABINETS				150	12.5					Prohibited
Philips (AB100)	230	3616.4	3,970			191.25	10,533	10	-62	
CIGARETTES				225	12.5					Prohibited
Kent	8	123.6	130			275.63	464	5	-72	
Benson & Hedges	6	92.7	160			275.63	348	73	-54	
Rothmans	6	92.7	160			275.63	348	73	-54	
555	5	77.3	130			275.63	290	68	-55	
Dunhill	7	108.2	105			275.63	406	34	-64	
BEVERAGE CONTAINERS				00	12.5					Free
Play Off	19	293.6	320			112.50	624	9	-49	
VACUUM JUGS				00	12.5					Prohibited
Tiger	8	123.6	160			112.50	263	29	-39	
ICE CONTAINERS				00	12.5					Free
Gloria	17	262.7	240			112.50	558	-9	-57	
COLOR TVs				00	12.5					Restricted
Sony (KTV2760 20")	660	10200.0	10,750			112.50	21,675	05	-52	
National (TC211 19")	437	6753.6	9,200			112.50	14,334	36	-36	
BABY TRICYCLES				00	12.5					Prohibited
TVC	135	2086.4	3,000			112.50	6,038	44	-52	
HAIR APPLIANCES				00	12.5					Restricted
Philips (Hair Dryer)	20	309.1	350			112.50	657	13	-47	
COFFEE GRINDER				00	12.5					Restricted
Philips (HR2102-622)	14	216.4	260			112.50	466	20	-45	
KITCHEN WARE				100	12.5					Prohibited
Royer (7 pcs pot set)	36	556.4	650			135.00	1,307	17	-50	
Rara (10 pcs knife set)	11	170.0	225			135.00	400	32	-44	
Philips (deep fat fryer)	59	911.8	1,000			135.00	2,141	10	-53	
BRIEFCASES				125	12.5					Prohibited
Samsonite (500773 3" black)	66	1020.0	1,500			163.13	2,604	47	-44	

Table 1
Page 2

PAKISTAN : DOMESTIC AND WORLD PRICES OF SELECTED COMMODITIES.
(MARCH 1987)

COMMODITY	(A) DUTY FREE PRICE OWS	(B) CIF IMPORT PRICE Rs.	(C) DOMESTIC PRICE Rs.	(D) IMPORT DUTY %	(E) SALES TAX %	(F) EFFECTIVE TARIFF RATE a/	(G) LANDED COST Rs.	(H) DOMESTIC PRICE vs. IMPORT PRICE (% higher) b/	(I) DOMESTIC PRICE vs. LANDED COST (% lower) c/	(J) IMPORT STATUS
BICYCLES				80	12.5					Prohibited
Dongsu (KD1702BH)	5	1004.5	1,500			112.50	2,135	49	-30	
BABY SEATS				80	12.5					Prohibited
Prince	14	216.4	320			112.50	460	48	-30	
IRONS				80	12.5					Restricted
National (HI-210HT,no steam)	23	355.5	500			112.50	755	41	-34	
Braun (Vapor 2000, steam)	34	525.5	600			112.50	1,117	29	-39	
TOASTERS				80	12.5					Restricted
National (NT-604 JE)	36	556.4	610			112.50	1,182	10	-48	
Philips (HD4551)	22	340.0	500			112.50	723	47	-31	
VACUUM CLEANERS				80	12.5					Free
Sharp	109	1684.5	2,600			112.50	3,500	54	-27	
TEA TROLLY				150	12.5					Free
Kayoot	66	1020.0	2,700			191.25	2,971	165	-9	
PERSONAL WEIGHING SCALE				80	12.5					Free
Krups	10	154.5	220			112.50	328	42	-33	
HEATERS				80	12.5					Restricted
Braun (HH0, fan heater)	34	525.5	1,200			112.50	1,117	128	7	

a/ Effective Tariff Rate is derived by taking into account the rate of import duty (t), the sales tax (s), and the surcharge applied to imported items (100%).
If the CIF import price is Pm, then the landed cost is calculated as:
$P_m(1+t)(1+s)+0.1P_m = P_m(1+t+s+ts)+0.1P_m = P_m(1+t+s+ts+0.1) = P_m(1+t+s+0.1+ts)$.
In other words, in terms of the Columns in the table, the effective tariff is (B+E+10%+B*E).

b/ Domestic price-import price differential: (C/B)-1.
c/ Domestic price-landed cost differential: (C/G)-1.

Note: ----- According to this table, on average, the domestic price is about 34% higher than the CIF import price, and 32% lower than the landed cost of the fifty seven sample commodities. For these common durables, therefore, the effective nominal protection is about 34%, which is 32% lower than what the tariff structure would imply. Because of the small size of the sample, the findings of this table should be interpreted with care. Nevertheless, they show the existence of "water-in-the-tariff," at least for the sample goods, which, in fact, are important consumption items in Pakistan.

EXTENT OF DIVERGENCE BETWEEN WORLD PRICE, LANDED COST AND DOMESTIC PRICE OF IMPORTED CONSUMER DURABLES /a
(February 1986)

Commodity	Domestic Price (Pd) Rs	Extent of Divergence Between Domestic Price, (Pd) and world Price, (Pw) b/ %	Extent of Divergence Between Landed Cost Pw(1+t), and Domestic Price, (Pd) /c %	Current Tariff Rate %
Refrigerator (9.5 cft)	10,500	34	21	70
Air-Conditioner (1 ton)	7,200	8	72	390
Dish washer	5,200	0	70	340
Washing Machine	4,750	12	66	340
Cooking Range	5,600	8	36	68
Hair Appliance	450	56	54	238
Iron	410	35	60	238
Gas Cooker	790	30	51	164
TV (Color)	10,100	17	43	103
VCR	12,000	50	26	103
VCR (Camera)	14,900	25	44	122
VCER Cassette	160	-17	57	92
Radio Recorder	2,600	-23	74	200
Car Cassette Player	1,200	21	54	164
Vacuum Cleaner	1,550	26	63	238
Fan	1,050	15	66	238
Heater	1,200	27	62	157
Blender/Juicer	425	11	65	212
Toaster	580	13	66	238
Microwave Oven	4,750	21	28	68
Kitchen Weighing Scale	190	32	35	103
Hostess Trolly	3,400	7	47	104
Vacuum Flask	225	41	37	122
Personal Weighing Scale	210	87	8	104
Camera	2,200	7	60	164
Clock	320	100	24	164
Baby Cots/Cart	320	43	30	104
Pressure Cooker	635	7	59	164
AVERAGE OF ABOVE		25	49	172

/a = In Karachi markets.
/b = Given by 1-Pd/Pw
/c = Given by 1-Pd/Pw(1 + t)
/d = Import duty + sales tax
SOURCE: Review of Industrial Policy Study for the National TAx Reform Commission Esesjay Consultants (Pvt.) Ltd. 1986. p.80.81.
from The Trade Regime in Pakistan, op. cit., p.132

Labor Laws Applicable to Registered Firms 1/

Wages

Overtime: double rate for over 8 hours/day; cannot exceed 10 hours. If overtime continues beyond 4 days or so, firm must seek permission of inspector.

Night Shift: no extra pay (shifts are usually rotated).

Holiday: double pay and substitute holiday.

Children: minimum 14 years; women and children 14-17 to work only 6:00 6:00 a.m. to 6:00 p.m. and no more than 6 hours.

Contract Labor: has same benefits under law, but: contractor (i.e. direct employer) is not always visible.

Inspections: Labor officials are supposed to inspect at least 10 factories a month, and each factory once a year. Joint Labor Directors make super-inspections of five percent of firms (i.e., 5 percent of firms are visited twice). Inspectors check working conditions, safety, cleanliness, maintenance of records, permanent (more than three months) versus temporary workers, etc..

1/ Most Labor laws are Federal.

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SELECTED MANUFACTURING INDICATORS 1972, 1984

	Brazil	Chile	China	Colombia	Egypt	India	Indonesia	Korea	Malaysia	Mexico	Pakistan	Philippines	Thailand	Turkey
Per capita income (US$)														
1972	576.0	1,237.4	128.9	389.0	225.4	108.4	90.9	312.0	462.0	821.1	143.4	316.1	204.6	642.0
1984	1,574.4	1,924.9	271.3	1,331.8	1,013.3	245.8	506.9	2,080.5	2,110.0	2,277.9	333.2	615.2	839.0	1,094.0
GDP (US$ billion)														
1972	58.2	12.0	110.6	8.7	7.8	62.1	11.0	10.6	5.0	45.2	9.3	8.5	7.9	46.4
1984	209.4	19.2	281.2	17.8	46.5	184.1	80.6	83.2	32.2	175.4	31.1	32.0	42.0	90.0
Real growth of GDP (%) 1972-1984	-	1.12	-	4.12	7.30	-	-	-	7.44	-	5.02	4.40	6.82	4.52
Manufacturing GDP (US$ billion)														
1972	16.8	2.0	37.9	1.6	1.1	9.2	1.08	2.33	0.75	10.7	1.5	2.1	1.3	2.0
1984	59.4	4.1	94.6	6.9	5.0	28.4	9.98	21.65	6.6	38.1	6.3	8.5	8.6	12.1
Manufactured GDP as % of total GDP														
1972	29	23	34	18	13	15	9	22	15	23	16	25	17	17
1984	28	21	33	18	12	15	12	28	20	21	20	26	20	24
Manufactured exports as % of manufacturing GDP a/														
1972	10	30	4	57	70	19	31	62	110	11	38	28	45	15
1984	38	88	21	50	16	19	33	102	64	8	40	52	65	25
Manufactured exports as % of total exports														
1972	70	80	42	90	88	16	18	70	49	33	55	51	56	49
1984	79	98	76	91	93	48	17	77	26	40	31	80	68	67
Total exports as % of GDP														
1972	70	9	3	12	11	17	16	19	34	8	6	14	14	5
1984	14	19	9	10	16	6	23	37	50	17	9	17	19	9
Manufactured imports as % of manufacturing GDP a/														
1972	19	34	6	51	83	10	120	33	175	21	47	50	88	46
1984	8	65	24	53	7	37	131	76	182	24	75	51	89	48
Manufactured imports as % of total imports														
1972	63	75	76	93	76	65	73	66	84	57	74	81	87	87
1984	30	77	87	86	84	64	67	58	90	55	70	70	88	62
Total imports as % of GDP														
1972	8	10	3	10	15	4	13	24	31	8	10	15	17	9
1984	8	18	9	11	31	9	24	37	41	9	20	19	22	19

Source: INDSP database; World Bank, World Development Report, 1986 and 1987; Pakistan, Economic Survey 1985-86, Statistical Supplement, Table 10.4.

a/ Since exports and imports represent the total value of the product while manufacturing GDP represents value added only, the ratio can exceed 100 percent.

ANNEX 11.10

Size, Distribution of Manufacturing Firms and Value Added, 1970-81

(percentage)

Employment Category	Establishments 1970-71	Establishments 1975-76	Establishments 1980-81	Value Added 1970-71	Value Added 1975-76	Value Added 1980-81
Up to 9 persons	12.3	17.4	18.7	0.4	0.7	0.6
From 10 to 19	24.3	30.6	29.7	2.3	1.9	1.9
From 20 to 49	35.4	24.8	24.7	6.6	5.2	5.9
From 50 to 99	11.2	9.5	10.1	6.9	5.2	6.7
From 100 to 249	8.3	7.5	7.3	6.8	9.9	11.8
From 250 to 499	3.5	4.0	4.0	13.5	16.7	16.3
From 500 to 999	2.6	3.0	3.1	21.2	19.2	23.9
From 1000 to 1999	1.2	2.0	1.5	21.4	22.1	24.2
From 2000 to 4999	1.0	0.9	0.7	15.7	14.0	7.3
From 5000 and above	0.1	0.4	0.1	5.2	5.1	1.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
Value of Fixed Assets (Rs.'000) 1/						
Up to 250	64.7	43.2	43.3	7.2	4.7	2.0
Above 250 to 500	11.3	11.3	14.0	4.3	2.4	1.8
Above 500 to 1000	9.1	8.4	12.5	5.9	3.1	3.6
Above 1000 to 2000	n.a.	6.0	8.7	n.a.	5.[illegible]	4.6
Above 2000 to 2500	9.6	2.1	2.3	20.8	3.3	2.4
Above 2500 to 5000	n.a.	4.6	6.1	n.a.	9.9	6.7
Above 5000	5.3	8.5	12.4	61.7	65.4	78.3
Rented or Leased	n.a.	15.7	0.7	n.a.	5.2	0.5
Not Reported	n.a.	0.3	0.1	n.a.	0.5	0.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

1/ Fixed asset ranges are not comparable between years because they do not take into account inflation and because they represent the book value of assets purchased over a number of years rather than a consistent estimate of capital stock.