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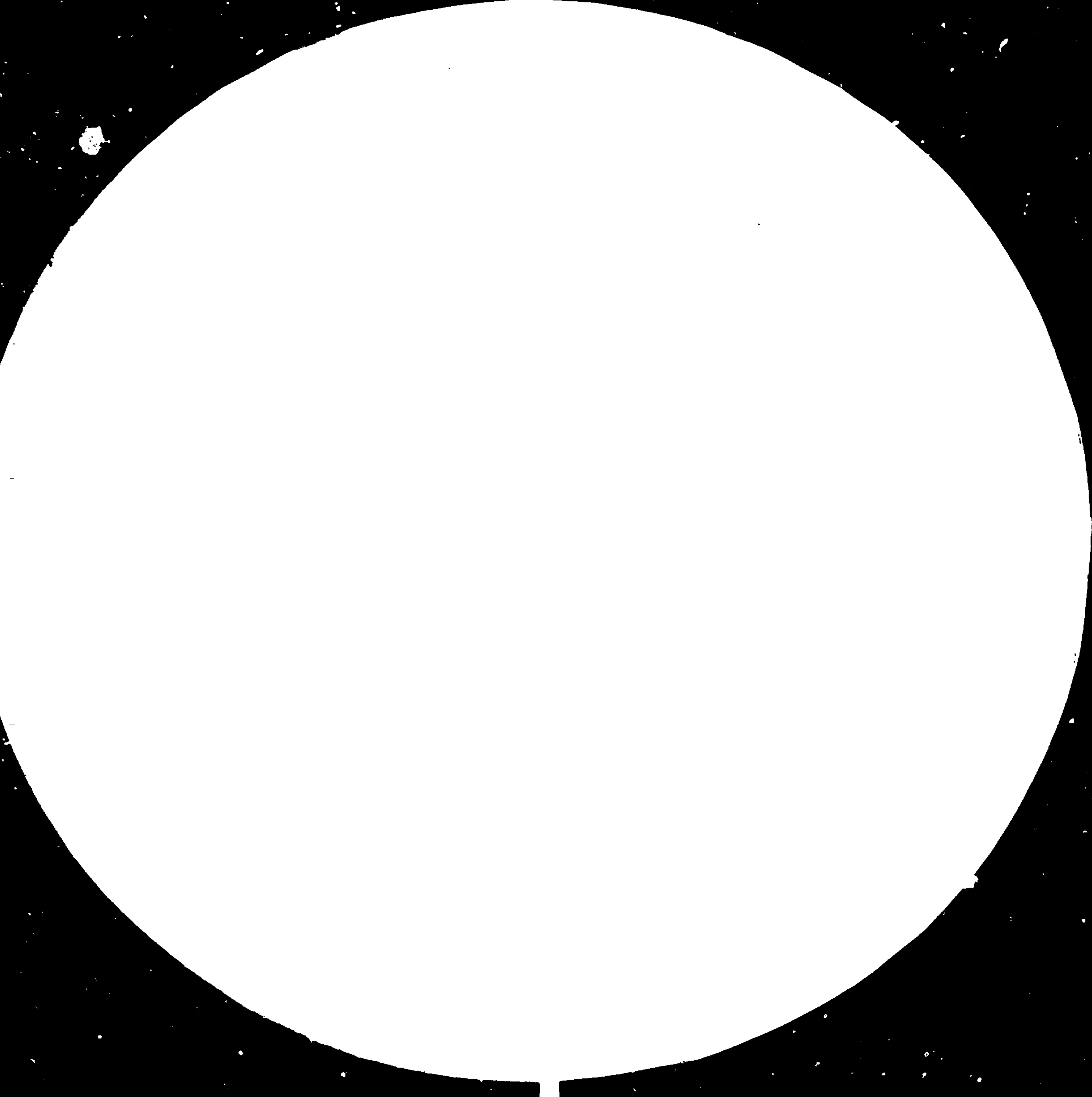

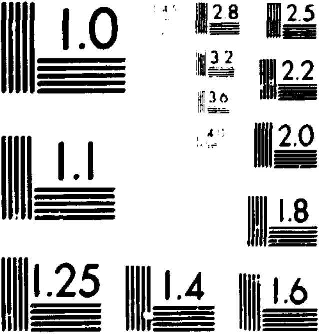

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ROLE OF THE PUBLIC SECTOR IN THE INDUSTRIALIZATION OF PAKISTAN*

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PREFACE

This study was undertaken within the framework of the research and studies programme on the role of the public sector in the industrialization of developing countries conducted by the Regional and Country Studies Branch of the Division for Industrial Studies, UNIDO. Through this research programme, an attempt has been made to analyze the role and function of the public industrial sector in developing countries and to examine the crucial issues surrounding their operations.

The country studies have primarily focussed upon the role of public industrial enterprises as instrument of industrial policy and strategy; their contribution to growth and development of the industrial sector and national economy; their operational performance as well as their organizational framework and institutional infrastructure. By examining the role of public industrial enterprises and identifying the major constraints facing these enterprises in various developing countries the uncertainties surrounding their operational performance may be reduced and a basis laid for improving their efficiency and enhancing their contribution to industrial growth and national development.

In this country study the role and function of the public industrial sector in Pakistan is analyzed. The study was carried out in co-operation with Reza H. Syed, Managing Director, Investment Advisory Centre of Pakistan, as UNIDO consultant on the basis of information and data collected through a questionnaire survey.

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INTRODUCTION

Although regulation of private sector activity can be achieved through a wide range of policy instruments available to the government, yet these instruments sometimes fail to provide effective assistance to the government in the attainment of its socio-economic objectives. In such a situation the government is forced to resort to direct intervention in economic activity through the creation and operation of public enterprises. In developing countries, factors like limited size of the domestic market, lack of technical know-how and skilled manpower, high cost of capital and political and economic uncertainty, make private investors prefer industries which are: (a) consumer oriented and, therefore, have a local market, (b) already in existence in the country (having been set up by other entrepreneurs) and, therefore, are relatively simpler to set up and operate, (c) quick yielding with short gestation periods. Therefore, frequently the development of basic industries which are technologically complex and have long gestation periods, is very slow and can only be accelerated through direct intervention by the public sector.

Public industrial enterprises pursue a host of objectives and the relative importance attached to these objectives differs from country to country. In the case of Pakistan the private sector was seen as the primary agent of economic development and in the period immediately following independence relatively little attention was paid to the task of developing a coherent public industrial sector policy. Objectives and strategies were gradually evolved and have been subject to significant change over the period 1947-1980. These are reviewed in Part I of this paper. Part II discusses sectoral performance and in the final Part III the organisational structure and management system of Pakistan's industrial public enterprise sector are evaluated.

I. OBJECTIVES AND STRATEGIES FOR THE DEVELOPMENT OF THE PUBLIC INDUSTRIAL SECTOR

A. Objectives for the Establishment of the Public Industrial Sector

The first policy pronouncement regarding direct participation of the Government in industrial activity was made in September 1948. According to this policy, public ownership was to be limited to: (a) arms and ammunition, (b) generation of hydro-electric power, and (c) manufacture and operation of railways, telephone, telegraph and wireless equipment. In addition, the government reserved the right to take-over or participate in any activity vital to the security and well being of the state. It also reserved for itself the right to develop particular industries of national importance where private initiative was lacking.

The First Five Year Plan which covered the period 1955-60 argued that:

> "The public agencies have large and growing responsibilities of their own and the assignment to them of tasks which can be successfully accomplished by private enterprise will restrict the pace of development. The public agencies should concentrate upon their large and varied tasks, and in the fields open to private enterprise operate only in those geographical areas or sectors of development where private action lags".[1]

It is evident, therefore, that the role of the public sector during this period was restricted considerably and confined largely to the establishment of infra-structure and provision of utilities.

Until 1970 the government continued to see the public industrial sector as playing a supportive role vis-a-vis private enterprise which was regarded as the main vehicle for accelerating development. During

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[1] Government of Pakistan, National Planning Board, The First Five-Year Plan, 1956-60, December 1967, p.85.

this period the government embarked upon a serious effort at establishing a financial infra-structure in the country. In pursuance of this policy a number of financial institutions were set up by the government both for supporting industrial activity as well as for encouraging the growth of the social and physical infra-structure. The government also participated directly in various development schemes particularly those relating to the agricultural, communication and transport sectors,

The direct participation of the government in the industrial field was justified on the following grounds:

> "The extreme inadequacy of the industrial facilities inherited at partition and the consequent excessive dependence on imports have forced the country to industrialise very rapidly. But the experience of Pakistani businessmen was largely concerned with land management, construction, commerce and foreign trade. Private enterprise is not attracted to some industries because of their technical complexity, high capital requirements or relatively low profitability. Some geographical areas are also unattractive for lack of facilities. This, together with the risk involved in launching new enterprises in untried fields, has forced the Government to undertake industrial projects in those areas where private business is unwilling to venture. It is, however, the announced policy of the Government that (public) enterprises should be transferred to private hands as soon as they have been established as going concerns and willing buyers are found".[2]

During 1965-1970 the policies of the government did not indicate any significant departure from the earlier period. However, the role of the public sector was explicitly recognised to include reduction in inequalities in the distribution of income, wealth and economic power. It was also realised that in order to establish a base for heavy industry in the country the public industrial sector had to perform a leading role. This policy was reflected in the Plan document

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[2] Government of Pakistan, The Third Five-Year Plan (1960-70), May 1965, p.119.

in the following terms:

> "Despite the existing policy of maximum reliance on private enterprise, the role of the public sector will expand during the Third Plan period in several key sectors, especially in the field of heavy industry. This is principally attributable to the size of the market in this country for products of the principal heavy industries. At present this market is so limited that there is little justification for more than one or two optimum scale plants. There is a dilemma here. If plants in such industries are restricted to the economically optimum number of one or two and are located in the private sector, it would be impossible to avoid a monopolistic or a duopolistic situation, which is fraught with grave political and social implications. If, on the contrary, for consideration of economic egalitarianism and in disregard of economic criteria, a proliferation of industrial units is permitted, a situation can develop where the industrial complex becomes overcapitalized, inefficient and incapable of building up any export capability. This would also needlessly increase the country's maintenance bill, by denying the exploitation of economies of scale. A number of industries in Pakistan are suffering from this malaise. The situation can only be remedied by setting up economically optimum plants in the public sector".[3]

Towards the end of 1969, there was a growing realisation in the country that a heavy reliance on the private sector for industrialization had given rise to concentration of wealth in the hands of a few industrial groups. The political parties operating at that time were quick to capitalise on this issue in the 1970 election. The Peoples Party, which came to power after these elections, assigned a leading role to the public sector. The Peoples Party Government immediately on taking power nationalised 10 categories of basic industry.

The preamble of the Presidential Order, providing for the take-over of industries, stated the following as objectives of the state control of

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[3] Government of Pakistan, The Third Five Year Plan (1965-70), May 1965, pp.168-169.

industries:

(i) Broad-basing the benefits of economic development and industrialisation

(ii) Equitable distribution of wealth and economic power

(iii) Exploitation of national economic resources for the maximum advantage of the common man

(iv) Making the controllers of the means of production accountable to the Government

(v) Safeguarding the interests of small investor .

In 1972 all 32 life insurance companies in Pakistan were taken over by the government. This measure aimed at removing the interlocking of life insurance with private ownership of major industrial groups, extending the area of operation of life insurance from the hitherto comparatively more affluent sections of society to the common man, increasing the return to the policy-holders and providing cheaper and more economic insurance[4].

The next phase of nationalization was initiated in January 1974. In this phase banks, petroleum marketing companies and shipping companies were nationalised. The major objective of this second phase of nationalisation was to extend the control of the government to vital sectors of the economy As far as banks were concerned the objective of nationalisation was described as follows:

(i) To direct banking activities towards national socio-economic objectives

(ii) To distribute equitably bank credit to different classes, sectors and regions

(iii) To co-ordinate banking policy in various areas of feasible joint activity

(iv) To ensure safety and security of deposits of account holders.[5]

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[4] Government of Pakistan, Finance Division, Economic Adviser's Wing, "Pakistan Economic Survey 1973-74", p.15.

[5] Ibid, p.17.

The rationale for operating the public industrial sector has changed significantly during the period 1947-1977. The public enterprise set inherited by Government of Pakistan in 1947 was mainly guided by the motive of ownership of natural monopolies; such projects accounted for 91 per cent of the capital investment and 100 per cent of the value added by the public enterprise set. Of the 14 public enterprises in 1947, 9 enterprises were in mining (coal and salt-mines) and the rest in the railway, post and telegraph, port trust and broadcasting. There was only one manufacturing enterprise which was abandoned by the owners who had migrated to India.

The sectoral classification and motive categories of the 17 enterprises set up during 1947 to 1955 is given in Table 1.

TABLE 1.

SECTORAL CLASSIFICATION AND MOTIVES CATEGORIES

Motives	Industrial Classification	No. of Enterprises	
Economic Growth	Financial Institutions	4	
	Insurance	1	
	Manufacturing	7	12
Merit Goods	Finance (House Building Finance Corporation)	1	
	Road Transport	3	4
Natural Monopoly	Air Transport		1
			17

The emphasis in this period, therefore, was on economic growth motives. This emphasis was increased in subsequent years. After 1970 the public industrial sector was developed as a means for reducing economic concentration and gaining control of "the commanding heights" of the economy. Motives such as the provision of merit goods, the control of natural monopoly and the acceleration of economic growth became less important causes for the establishment of public enterprises during this period.

The relative importance of major objectives assigned to public and private industries in Pakistan at present are detailed in Table 2.

Public industrial enterprises are thus established and operated to "undertake tasks beyond the capacity of other enterprise", to articulate "a specific socio-economic model of development", to control "strategic sectors of the economy" and also to "discourage the concentration of economic power". There is relatively little overlapping of objectives between the public and private industrial sectors; and public industrial enterprise may thus be seen as playing a role which compliments that of the private sector. This trend has been accentuated by the present government which has abandoned many economic policies pursued by the previous administration. It has put emphasis on the primacy of private industrial enterprise as a means for accelerating development and has undertaken limited denationalisation. The "division of labour" between public and private enterprise can be seen from the distribution of industrial units between these two sectors.

B. Distribution of Industries between Private and Public Sectors

In order to identify the industries that can be set up by the private sector, a demarcation has been made between the private and public sectors in respect of categories of industries falling under the Economic Reforms Order ~~1972~~. ~~Since~~ it is not ~~possible~~ to make a ~~clear~~ cut ~~delineation~~ in ~~all~~ cases and there would be several grey ares, it should be borne in mind that the demarcation is subject to the following qualifications:

(i) The demarcation made is only indicative and the Government has the option to permit private investment of any manner and type depending on the merit of each case. Proposals involving

TABLE 2. THE RELATIVE IMPORTANCE OF MAJOR OBJECTIVES ASSIGNED TO PUBLIC, PRIVATE AND FOREIGN INDUSTRIAL ENTERPRISES

	Role assigned to				
Major objective	Public industrial sector	Co-operative industrial sector	Private domestic industrial sector	Joint-ventures	Foreign enterprises
	(Rank in order of priority)				
1. To utilize more fully economic resources	9	......	1	7	2
2. To control the exploitation of natural resources	19	......	x	8	x
3. To commercialize activities traditionally run as government departments	10	......	x	x	x
4. To stimulate agricultural development	11	......	5	9	8
5. To generate foreign exchange earnings	4	......	2	2	3
6. To transfer, adapt and develop technology	12	......	6	3	1
7. To generate employment	13	......	7	10	x
8. To increase the availability of essential consumer goods	21	......	3	11	5
9. To develop backward areas	14	......	x	12	x
10. To provide a competitive element	20	......	4	x	7
11. To undertake tasks beyond the capability of other enterprises	1	......	x	4	6
12. To stimulate the advancement of weaker sections of society	17	......	x	x	x
13. To discourage the concentration of economic power	5	......	x	x	x
14. To manage and control "natural" monopolies	18	......	x	x	x
15. To provide the requisite economic infrastructure	6	......	x	5	x
16. To control and manage the "essential services"	7	......	x	x	x
17. To control strategic sectors of economy	3	......	x	x	x
18. To control the "commanding heights of economy"	15	......	x	x	x
19. To adopt a specific economic and political model of development.	2	......	x	x	x
20. To help stabilize prices	8	......	x	6	x
21. To take over the management of ailing private sector firms	16	......	x	x	x
22. Other [specify] Import substitution	x	x	x	1	4

substantial foreign investment for establishment of export-oriented industries or in collaboration with public sector agencies can, in the above context, receive added consideration.

(ii) In industries where market considerations limit the number to a few units, the size of a new private sector unit should not be so large as to place it in a position of dominance in the market, provided economic production is possible in units of smaller size.

(iii) The demarcation does not restrict the balancing, modernisation and replacement or, in exceptional cases, expansion of existing units falling in the categories reserved for the public sector.

(iv) Proposals not fully covered by the demarcation made would be considered by a Special Committee comprising Secretaries of the Industries, Production and Finance and Planning Divisions for according approval in principle before a detailed project is prepared and submitted to the Government for sanction.

The following detailed demarcation has been made between the public and private sectors:

1. Iron & Steel Industries

Public: Rolling of M. S. sheets and plates (all types and sizes), plain and corrugated, block and coated.

Private: Iron & Steel industries of all types and sizes, other than those specified above but including (i) rolling of section including pre-stressed deformed bars; (ii) wire drawing (including high carbon steel wire drawing); (iii) baling hoops rerolling; (iv) metal structures of all sorts; (v) welded pipes, tubes and fittings thereof; (vi) fabrication of storage tanks of all types; (vii) castings of cast iron and steel; (viii) forging of all types; (ix) cast iron spun pipes.

2. Basic Metal Industries

Public: Manufacture of basic metals and alloys thereof such as (i) basic production of iron and steel (pig iron, mild steel etc. based on ore); (ii) alloy steels, special alloy steels (including stainless steel), tool steel and high carbon steels; (iii) basic production of non-ferrous metals.

Private: All down-stream metal product industries including (i) refining, rolling and extraction of non-ferrous metals; (ii) tinning and galvanising.

3. Heavy Engineering (Mechanical) Industries)

Public: (i) High speed engines (i.e. above 1600 RPM) of all types (including automobile engines); (ii) cotton textile industry; (iii) sugar mills machinery; (iv) cement machinery plant; (v) chain pulleys and cranes of all types; (vi) railway rolling stocks; (vii) mining machinery and equipment; (viii) ship-building and dry-docking repair.

Private: Heavy engineering (mechanical) industries of all types and sizes, other than those specified above, but including: (i) slow and medium speed enginers (below 1600 RPM range) of all types; (ii) general purpose machine tools and equipment; (iii) components, parts and sub-assemblies of cotton textile, sugar and cement plant machinery; (iv) road construction machinery and equipment including road rollers; (v) steam boilers; (vi) components, parts and sub-assemblies of mining machinery and equipment; (vii) barges, boats and other smallcrafts.

4. Heavy Electrical Industries

Public: (i) Power and distribution transformers above 33,000 volts (33 KV); (ii) circuit breakers and isolators above 33 KV; (iii) instrument transformers and capacities above 33 KV.

Private: Heavy electrical industries of all types and sizes other than those specified above but including: (i) power and distribution transformers up to 33,000 volts (33 KV); (ii) circuit breakers and isolators up to 33 KV; (iii) instrument transformers and capacitors up to 33 KV; (iv) control and relay panels; (v) switchgears; (vi) insulated and bare cables and electric wires, etc; (vii) electric motors.

5. Assembly and Manufacturing of Motor Vehicles

Public: Assembly and manufacturing of automobiles (trucks, buses, cars, pickups, vans and jeeps, etc.).

Private: Industries of all types and sizes, other than those specified above but including: (i) assembly and manufacturing of two and three wheelers (motor cycles, scooters and auto rickshaws); (ii) components and parts of all types of automotive vehicles (cars, buses, trucks, jeeps, pickups and motor cycles/scooters), also building of bodies for trucks and buses.

6. Assembly and Manufacturing of Tractors and Farm Machinery

Public: Assembly and manufacturing of tractors.

Private: Industries of all types and sizes, other than those specified above but including: (i) assembly and manufacture of power tillers; (ii) self-propelled farm machinery and equipment other than tractors; (iii) tractor-drawn agricultural implements and other farm equipment; (iv) components, parts and sub-assemblies of all types of tractors.

7. Heavy and Basic Chemicals

Private: Industries of all types and sizes.

8. Petro-Chemical Industries

Public: Basic manufacturing of petro-chemicals.

Private: (i) Down-stream industries of all types and sizes, based on use of building blocks, secondary products of petro-chemicals as raw materials; (ii) private sector investment in basic manufacture of petro-chemicals would be allowed only in collaboration with the public sector.

9. Cement Industry

Private: All types and sizes.

10. Public Utilities

Public: Public utilities including: (i) electricity generation, transmission and distribution; (ii) gas supply; (iii) oil refineries.

It is apparent that public investment is concentrated in heavy industrial branches. This underlines the complimentary character of public industrial investment in Pakistan. It seeks to supplement not supplant private investment and address itself to the pursuit of economic objectives not easily attainable by private enterprise. In the manufacturing sector in particular the complimentarity of pub[illegible] and private investment is very marked. It is therefore appropr[illegible] to assess the performance of the public enterprise set using evaluation criteria broadly similar to those employed in an assessment of the private sector.

II. PERFORMANCE AND IMPACT

The public enterprises in Pakistan have been set-up as a commercial venture and are supposed to earn good return on government investments. In fact, most of the firms operate in very favourable factor input and output markets and enjoy preferential environments as regards the availability of funds, import quotas for raw materials and spares, government sanctions and permissions etc. Most of the enterprises which were nationalised after 1972 were technically and financially very viable ventures and the various corporations set-up after 1972 such as the Cotton Export Corporation, Rice Export Corporation, etc. have operated in monopolistic markets. The commercial banks, insurance companies and shipping companies nationalised in 1973-4 were considered the most lucrative investments. It is legitimate therefore to study the performance of the public enterprise set by focussing attention on its financial profitability.

A. Profitability and Rates of Return

On the whole the public enterprises have done quite well as regards their financial profitability during the 5 year period 1970-75: this period was marked by a number of set-backs to the economy. During 1970-75 on the aggregate there was continued decline in the profit before tax to sales ratio of the public industrial sector from 14 per cent in 1970 to 7 per cent in 1973 and 5 per cent in 1975. The earned surplus to sales ratio declined to 2 per cent in 1973, as against 12 per cent in 1970, but improved to 8 per cent in 1975. The lower earned surplus to sales ratio in 1973 indicates comparatively more payments in the form of dividends, which was a general characteristic feature of industries in 1973 when higher dividends were paid even out of the previous year's accumulated reserves.

Strangely enough, the gross profit to sales ratio remained more or less constant during this period at 30 per cent in 1970, 31 per cent in and at a slightly lower level of 27 per cent in 1975. This implies that there were exceptionally higher expenses incurred by public sector industries on administration. It may be further noted that after nationalisation of 32 basic industries in 1972, the private sector had lost interest and initiative and withdrawn a sizeable amount of owner's equity from these enterprises. This lead to increased borrowings and a consequent substantial increase in financial expenses of the enterprises. This explains the constant gross profit to sales ratio in this period as against declining profit before tax to sales ratio.

The financial performance of the public industrial enterprises remained healthy after the change of regime in 1977. Net profits before tax amounted to Rs 24.76 million in 1978-79 and to Rs 667 million in 1979-80. In the case of National Fertilizer Corporation, the improvement in profitability is attributable to the completion of expansion of Pak-Arab Fertilizer (Multan) in January 1979 and commissioning of Pak-Saudi Fertilizers Ltd. (Mirpur Mathelo) in April 1980. As regards other Corporations profitability increased due to higher production and greater financial discipline. In the case of loss-incurring corporations, higher production and sales were responsible for reduction in losses.

B. Industrial Production

The performance of the public industrial sector may also be viewed in terms of its contribution to industrial production. The production index for public industrial enterprises at constant prices of 1972-73 indicates an improvement of 29.5% during 1979-80 as compared to 1978-79. All the Corporations have shown an increase in production. The highest increase of 87.62% was in the case of the National Fertilizer Corporation, followed by Pakistan Automobile Corporation (40.89%), State Petroleum Refining and Petrochemical Corporation (37.46%), State Engineering Corporation (17.28%), State Cement Corporation of Pakistan (11.02%), Federal Chemical and Ceramics Corporation (8.96%) and Pakistan Industrial Development Corporation (8.10%). This increase in production has been achieved mainly due to better capacity utilisation. In the case of the National Fertilizer Corporation, the increase in production is accounted for by the expansion and modernisation of Pak-Arab Fertilizers (Multan) and the commissioning of a new plant, namely, Pak-Saudi Fertilizers (Mirpur Mathelo) in April 1980.

C. Sales

Total sales during 1979-80, including projections for April-June 1980, amounted to Rs.12,994.94 million as compared to Rs.8,307.75 million during 1978-79. The highest increase recorded was in the case of the National Fertilizer Corporation, followed by State Petroleum Refining and Petrochemical Corporation 93.77%, Pakistan Industrial Development Corporation 43.99%, Federal Chemical and Ceramics Corporation 35.72%, Pakistan Automobile Corporation 35.52%, State Cement Corporation of Pakistan 30.85%, and State Engineering Corporation 23.85%. The increase in the sales of National Fertilizer Corporation is attributable to higher production, in the case of State Petroleum Refining and Petrochemical Corporation, to favourable export prices of naptha and furnace oil and in the case of other Corporations increase in sales is due to higher production.

D. Taxes and Duties

During the year 1978-79 the amount of taxes and duties paid to the Government was Rs.2,050.18 million. During the year 1979-80 the amount paid was Rs.3,090.44 million, indicating an increase of Rs.1,040.26 million. The highest amount of taxes and duties (Rs.1,806.72 million) came from the State Cement Corporation, followed by Pakistan Automobile Corporation (Rs.701.12 million), Pakistan Industrial Development Corporation (Rs.231.69 million), State Petroleum Refining and Petrochemical Corporation (Rs.129.31 million), Federal Chemical and Ceramics Corporation (Rs.48.27 million), National Fertilizer Corporation (Rs.38.35 million) and Pakistan Steel Mills Corporation (Rs.13.56 million).

E. Employment

The total number of employees in the public sector corporations are estimated to be 64,790 as on June 30th 1980, compared to 64,364 as on June 30th 1979, showing an increase of 1.01% during the year. The highest increase in the number of employees was recorded in the Pakistan Steel Mills Corporation where the number of employees increased from 14,009 on 30th June 1979, to 15,402 on 30th June 1980, followed by State Petroleum Refining and Petrochemical Corporation where the number of employees increased from 849 on 30th June 1979 to 999 on 30th June 1980 due to coming into production of a new project, namely, National Petroleum Ltd. In all other Corporations the number of employees has come down as a result of administrative measures to keep the number of employees to the minimum.

The overall conclusion must be that the public industrial sector has been functioning relatively efficiently. This is the reason that has lead the present administration to approach cautiously the extensive schemes of denationalisation that were being advocated. The weight of the public industrial sector - depicted in the appendix tables - is unlikely to be significantly reduced in the forseeable future.

F. Others

Public industries in Pakistan are mainly import substituting industries. Their contribution to national exports is relatively small. Similarly they account for only about 5 per cent of total manufactured imports. Clearly they do not represent a problem for the countries balance of payments.

Public enterprises have however significantly contributed to inflationary pressure within the economy. Over the period 1975-1980 the wholesale price index increased by 37%. The price of some products of the public industrial enterprises have increased at a much faster rate. Thus the price of cement rose by about 350 per cent and of fertilizer by 42 per cent over this period. As against this the price of vegetable ghee increased by only 33 per cent.

The impact of the public industrial enterprise has been limited by the very weak linkage that exists between this sector and small scale industries. These industries provide a very small proportion of the inputs of the public enterprises. Very little emphasis is placed on the type of sub-contracting that can help the small scale enterprises. The public sector sells a very small proportion of its output to small scale industries and provides no technical or advisory services for helping these industries. The development of strong links between these industries and public manufacturing enterprises must be regarded as a matter of considerable importance.

The public sector plays an important role in providing basic needs in the country, for example, edible oil, sugar, rice, cement, fertilizer etc. All the units producing edible oil, rice milling, cement and fertilizer are being controlled by the public sector and it has been observed that the performance of these industries are quite satisfactory and all are working at their optimum capacities.

The main problems faced by the public enterprise sector may be accounted for by organisational and legal deficiencies. The next section examines the organisation and managerial structures of the public industrial enterprise sector in Pakistan.

III. ORGANISATIONAL STRUCTURE AND PERFORMANCE

A. Organisational forms and Legal Structures

The salient features of the broad categories of public enterprise are detailed below.

i) Departmental Agencies

In functional terms, these enterprises are extensions of the various departments that administer them. The annual targets for performance of these agencies are set like regular government departments without any separate organisation to monitor performance. In cases where departmental enterprises have autonomy in functioning (for example Pakistan Railways), the personality of the enterprise is distinct from the department itself. In such cases the Administrative Ministry does not directly look after the day to day functioning of the enterprise. Operational control is exercised through a Policy Board, whose functions include administration, recruitment policy, planning and development and performance evaluation. The individual members of the Policy Board are assigned specific functions for which they enjoy sufficient authority. Thus, the members of the Policy Board act individually for exercising executive functions and collectively for discharging the policy making responsibility.

The control of the legislature is exercised through the processing of the bill for grants which generally entails discussion on performance and other aspects of the departmental enterprise. The accounts of these enterprises are subject to scrutiny by the Auditor General. The audit reports are also placed before Parliament after consideration by the Public Accounts Committee. The reports include, apart from specific lapses on the part of the administration which runs the enterprise, an overall survey of the financial position of the undertaking. The Public Accounts Committee reports are then presented to Parliament. The concerned department is required to submit to the Public Accounts Committee periodical reports on the action taken on the Committee's recommendations.

ii) Statutory Corporations

A salient feature of statutory public corporations is that while operational decision making rests in their Board of Directors, the policy guidelines are specified in the Statute, and Charters together with administrative control structure and limits on powers. The main basis for deviating from the departmental companies model was the belief that legal autonomy provides a buffer between the managers and bureaucrats and leads to greater efficiency. In order to ensure that accountability to Government is not sacrificed, the Charters specify composition of the Board, appointment of Chief Executives and the procedure for submission of performance reports to Parliament and to the appropriate ministry.

In statutory public corporations, policy making functions are exercised by the Board of Directors appointed by the Government. In most cases the Chief Executive is vested with executive authority and other members representing the interest of different Ministries of the Government are appointed on a part-time basis to assist in the formulation of policies, guidelines and in performance evaluation. The Ministry of Finance has a nominee on the Board of all public corporations. Periodical meetings of the Board are also held for reviewing the performance of the corporation and for submitting a report annually to the Government and Parliament. Junior level managerial appointments are made by the Chief Executive in consultation with the Board and concerned administrative Ministry.

iii) Joint Stock Companies

Public joint stock companies are different from the private joint stock companies only in that the Government holds at least 51% of the paid-up capital. Accountability to the Government is exercised through Directors appointed by the Government in proportion to its share-holdings. Public enterprises which are organised in this manner function like privately managed companies and are required to conform to the usual corporate regulations. Generally speaking such enterprises enjoy complete freedom in decision making, although the process of decision-making is, by and large, controlled by Government nominated Directors. There has, by and large, controlled by Government nominated Directors. There has, however, been an increasing realisation that legal autonomy has been eroded by the administrative interference of the Government and this has led to the establishment of the holding company model. The policy aims of the Government, to which individual enterprises are expected to conform, are conveyed to them by the Government through the holding corporations. In this way, therefore, the basis of monitoring performance thus accountability shifts from the Government to the holding corporations. The holding corporation, in turn, remains accountable to the Government which is however freed from the obligations of monitoring the day-to-day operations of individual enterprises.

iv) Comparative Review

Pakistan has followed a mixed strategy with regard to the legal forms of its public enterprises. There are examples of each of the three conventional legal types - departmental agencies, public corporations and joint stock companies.

TABLE 3. FORMAL CATEGORIES OF PUBLIC ENTERPRISES SECTOR IN PAKISTAN AS ON 30TH JUNE, 1975

Classification	No. of Enterprises	Value Added: Rs. in Million	Value Added: As % of total PE Sector
1. Departmental Agencies	3	1294.0	17.0
2. Public Corporations	26	1598.7	21.0
3. Joint Stock companies	143	4725.1	62.0
TOTAL	172	7617.8	100.0

The largest number of public enterprises fall in the category of joint stock companies. Included in this category are companies which could also be classified as dual public corporation/joint stock companies. There are also independent juridical entities established under Ordinances or Acts of legislature but incorporated under the Companies Act, 1913, invested with special powers and restrictions on the Board. The dual public corporations/joint stock companies have Policy Boards in addition to Functional Boards. Government control of these entities is either via direct majority shareholding or direct plus indirect majority. A further classification of these entities into categories of control via direct majority and control via direct plus indirect majority was not considered analytically.

The joint stock companies in the public enterprises sector in Pakistan exhibit different ownership patterns. Firstly, there are those where the Government has direct control via direct majority shareholding. Secondly, there are those where a Government owned and/or controlled company has a majority shareholding (control via indirect majority). Thirdly, there are companies where the Government has indirect control via majority shareholding by several Government owned and/or controlled co orations/companies (control via multiple indirect majority). Lastly, there is one joint stock company, namely the Pakistan Industrial Credit and Investment Corporation (PICIC) Ltd., where the Government did not own any part of the share capital either directly or indirectly until recently but the chief executive has always been a Government nominee. This has been treated as a special case of control without equity.

The operating projects which are included in the category of joint stock companies do not have any independent juridical status nor do they have any share capital or Functional or Policy Boards of their own. They are totally owned, controlled and managed by their holding corporations and the Government has, therefore, total indirect ownership and control of these entities.

The category of joint stock companies also includes another sub-set which covers the operating companies controlled by holding companies.

There are a total of 107 enterprises which function within the holding company framework.

B. Assessment of Managerial Efficiency of Public Enterprises

An assessment of managerial efficiency of different types of public enterprises it reveals that public enterprises generally do not operate under competitive conditions and the prices for their products/services are often fixed for achieving other dominant motives than profitability and return on capital. Value added analysis is, therefore, considered a better yardstick than profitability for evaluating the efficiency of public enterprises. Changes in the value added by public enterprises in relation to the sales value, value of the output and the capital employed, are a useful guide to the operating conditions of each sector of public enterprises.

For all public enterprises, the value added to sales ratio has shown declining trend decreasing from 0.67 in 1961 to 0.55 in 1970, 0.46 in 1973 and finally to 0.36 in 1974-75. It means that the increase in selling prices of the public enterprises have not been equal to the increase in cost of production resulting in reduced profitability. This is assuming that the production volume has not gone down. The trend is more evident after exclusion of the finance and insurance companies as the ratio of value added to sales decreased from 0.76 in 1961 to 0.58 in 1970, to 0.27 in 1973 and then increased to 0.34 in 1974-75. This seems to be in line with the overall position of the economy which was at its lowest ebb in 1972-73 but had picked up in 1974-75.

The position was no better in the public enterprises before their nationalisation where the overall value added to sales ratio decreased from 0.42 in 1961 to 0.29 in 1970 and to 0.22 in 1972-73 as against the public enterprises ratio of 0.46 in 1972-73. After excluding the finance and insurance sector, the ratio of value added to sales for public enterprises before their nationalisation decreased from 0.42 in 1961 to 0.25 in 1970 and was negligible (about 0.07) in 1972-73. It means that in 1972-73, almost all these enterprises suffered losses or substantial reduction in profits. This fact is also noticed in the profit before tax to sales ratio which decreased from 0.16 in 1961 to 0.10 in 1970 and to 0.08 in 1973.

The value added by the public enterprises when viewed in relation to the capital employed (debt plus equity) is not satisfactory. For all public enterprises, the ratio of value added to the capital employed was 0.08 in 1961 which remained more or less constant up to 1974-75. In the manufacturing sector, this ratio decreased from 0.35 in 1961 to 0.27 in 1970, to an all time low 0.17 in 1973 and rose to 0.25 in 1974-75.

The ratio of value added to capital employed has remained almost the same in public enterprises before their nationalisation except in 1972-73 when the ratio had declined to only 0.04 as compared to 0.09 for the public enterprises.

The low level of value added in relation to the capital employed is not typical only of public enterprises but appears to be a characteristic of the developing countries in general and of Pakistan in particular. The capacity utilization rate of most of the industries is very low. In the sixties, the capacity utilization rate was estimated to be about 60 per cent of the one shift capacity of the plants. The low capacity utilization was more evident in the import substituting and the engineering industry. The situation has, since then, improved but is still far from satisfactory. This low rate of capacity utilization is one of the factors responsible for the low value added to capital employed ratio in public enterprises in Pakistan.

Among the public enterprises with direct government majority share capital or under direct government control, the highest value added to total capital employed ratio of 72 per cent was reported by eight enterprises operating in competitive markets, followed by 25 per cent for 6 natural monopolies, 20 per cent for 12 projects in privileged markets, and 18 per cent for six projects in contrived markets.

Further analysis of the 8 joint stock companies with direct government majority operating in competitive markets reveals that their valued added to sales ratio is 36 per cent or almost half of the value added to capital employed ratio indicating a capital turn-over rate of about 2 times and the profit before tax to capital employed ratio of about 37 per cent which means that profitability though very high still does not account for more than 50 per cent of the value added.

In the six joint stock companies with direct Government majority in natural monopolies. it is found that the value added to capital employed ratio is only 25 per cent as against a value added to sales ratio of 43 per cent indicating a very low capital turn-over ratio of 0.58 and a profit before tax ratio of only 4 per cent of capital employed. This indicates heavy capital investment and very poor labour productivity.

The 12 enterprises with direct government majority in the privileged markets, comprising mainly the financial institutions, have shown good performance; value added being 20 per cent of the capital employed, which is considered more than satisfactory for financial institutions.

The performance of public joint stock companies with indirect government majority has been better than that of public enterprises with other forms of control structure in all types of markets.

Surprisingly the best performance was shown by enterprises in competitive market in which the average value added to capital employed ratio was 34 per cent as against 24 per cent for enterprises in duopolistic markets and 12 per cent for enterprises in contrived monopoly markets.

In terms of the profitability to capital employed ratio, the best performance of 12 per cent was achieved by enterprises in the contrived monopoly markets, as against 11 per cent by enterprises in oligopolistic markets, 7 per cent by enterprises in domestic monopoly markets, 5 per cent by the enterprises in duopolistic markets and 4 per cent by the enterprises in competitive markets.

For the 25 operation projects under holdings companies which are categorised as indirect government majority projects, the performance was similar to that attained by joint stock companies with indirect government majority.

The above analysis of the comparative performance of public enterprises under different control structure reveals that the best results were reported by the joint stock companies with indirect government majority. These enterprises have shown value added at about 29 per cent of the capital employed. As against this the value added as percentage of capital employed for the 32 joint stock companies in which Government had direct majority share was only 6 per cent. The value added contribution by the 20 enterprises in the category of dual public corporation joint stock company was also very poor at only about 4 per cent of the capital employed. The 25 enterprises under the holding corporations had value added ratio of about 15 per cent. Figures were not available for the 2 enterprises in the category of integrated departmental agencies.

Tables 4 and 5 give some indication of the financial performance of the different categories of public enterprises in Pakistan. A negative relationship between efficiency as measured by the value added to capital employed, and level of government control may clearly be discerned.

TABLE 4.

PERFORMANCE OF PUBLIC ENTERPRISES BY STRUCTURE OF CONTROL: PROFITABILITY

Description	No of Enterprises	Profit Before Tax to Sales		Profit Before Tax to Capital Employed		Profit Before Tax to Equity	
		Ratio	Percentage	Ratio	Percentage	Ratio	Percentage
I.A. Integrated Departmental Agency	2	0.20	3.19	N.A.	N.A.	N.A.	N.A.
I.B. Autonomous Departmental Agency	1	0.20	7.16	N.A.	N.A.	N.A.	N.A.
II. Public Corporation	6	0.16	5.78	N.A.	N.A.	N.A.	N.A.
III. Dual Public Corporation Joint Stock Company	20	0.02	13.08	0.02	35.00	0.02	31.43
IV.A. Joint Stock Company (Control via Direct Majority)	32	0.08	40.43	0.04	39.18	0.67	56.67
IV.B. Joint Stock Company (Control via Direct Majority)	69	0.05	14.39	0.07	10.68	0.22	3.62
IV.C. Joint Stock Company (Multiple Indirect Majority)	16	0.08	12.63	0.11	6.89	0.45	2.79
IV.D. Joint Stock Company (Control without Equity	1	0.28	1.02	0.27	4.15	0.21	3.46
V. Operation Project Under Holding Company/Corporation	25	0.05	2.33	0.19	4.10	0.09	2.03
Aggregate Average	172	0.05	100.00	0.35	100.00	0.32	100.00

TABLE 5.

PERFORMANCE OF PUBLIC ENTERPRISES BY STRUCTURE OF CONTROL: VALUE ADDED

	Description	Value Added to Sales		Value Added to Capital Employed	
		Radio	Percentage of Total Value Added	Ratio	Percentage of Value Added
I. A.	Integrated Departmental Agency	0.87	8.71	-	6.66
I. B.	Autonomous Departmental Agency	0.60	13.49	-	10.32
II.	Public Corporation	0.48	8.75	-	6.70
III.	Dual Public Corporation Joint Stock Company	0.32	13.23	0.04	14.29
IV. A.	Joint Stock Company (Control via Direct Majority)	0.27	34.10	0.06	41.04
IV. B	Joint Stock Company (Control via Indirect Majority)	0.22	10.12	0.29	10.66
IV. C.	Joint Stock Company (Multiple Indirect Majority)	0.19	7.85	0.29	6.01
IV. D.	Joint Stock Company (Control without Equity)	0.27	0.86	0.28	0.59
V	Operation Project Under Holding Company/Corporation	0.39	2.89	0.149	3.73
Aggregate Average		0.22	100.00	0.07	100.00

As against this in terms of the value added to sales ratio, the 'best' performance is that of corporations with the highest level of government control. There is a clear positive association between the value added to sales ratio and the level of government control.

The value added to sales ratio, is highest at 87 per cent for the enterprises with maximum direct Government control and is lowest at 19 per cent for the public sector joint stock companies in which Government has multiple indirect majority or in enterprises in which direct Government control is minimum. The higher value added to sales ratio indicates either an unreasonably high margin of profit to sales ratio with extremely low capital turn-over ratio or high labour intensity with low labour productivity. The lower value added to sales ratio coupled with the higher value added to capital employed ratio of the joint companies with indirect majority share holdings of the Government indicates a better capital turn-over rate and higher labour productivity. The high value added to sales ratio cannot be taken as an indicator of efficiency; it denotes monopolistic profit margins.

C. Institutional Mechanism for Government Control of and Support for Public Enterprises

A comparison of the organisational structure of the three broad categories of public enterprises sector, that is, the departmental agency, the public corporation, and the joint stock company helps to highlight the effort of the Government to vest public enterprises with a higher degree of legal autonomy with the intention of imparting greater flexibility in decision making. In order to determine whether the increased legal autonomy has in fact led to greater functional autonomy as well as a more efficient control system, it will be essential to analyse various control structure as they operate in different legal forms of public enterprises.

The following are the major control structures of public enterprises in Pakistan.

a. Investment Control

The pattern of control of investment varies with the source of investment financing. There are three major sources of investment financing, namely: (a) budgetary grants and loans, (b) borrowing from financial institutions and commercial banks and, (c) self-financing.

(i) Budgetary Financing: This is the major source of financing particularly for long-term investment. Most of the development schemes of autonomous public enterprises as well as new public enterprises in manufacturing, public utilities etc., and all the development schemes of departmental agencies are financed through budgetary loans and grants. In the case of public corporations the annual budgetary provisions after scrutiny by the administrative Ministries are subject to the final approval of the Finance Ministry. The development schemes for joint stock companies, whether or not operating under the holding company model, are initially examined by the administrative Ministry in consultation with the Planning Division. The various schemes are also examined by the Central Development Working Party (CDWP) on which different Ministries are represented and final approval is given by ECNEC, the Executive Committee of the National Economic Council headed by the Minister of Finance. If the project involves foreign exchange expenditure, as it generally does, the Economic Affairs Division is also consulted before finally identifying the specific source of foreign exchange out of various foreign credit lines available to the Government. The amount approved for various development schemes are aggregated in the formulation of the annual development plans which are subject to appoval of Parliament.

(ii) Borrowing: The departmental agencies do not ordinarily resort to this mode of financing as they rely exclusively on budgetary financing. In the case of public corporations, borrowing is authorised both from specialised financial institutions as well as from commercial banks. In the case of non-manufacturing public corporations, borrowing is usually arranged through the State Bank of Pakistan. Debt financing by manufacturing units, whatever their corporate status, is arranged directly through financial institutions. The usual form of this financing is by issue of debentures to a consortium of financial institutions. Commercial banks are also allowed to participate in debentures issues. In most cases, public enterprises at the time of issuing debentures request the Government to guarantee the issue. The government examines requests on a case by case basis and approves such requests after considering the actual and projected cash flow position of each public enterprise. The terms of the debenture issue are regulated by the Ministry of Finance (Controller of Capital Issues). The main advantage of a government guaranteed debenture is the concession of 2 per cent in the rate of interest as compared to the market rate of interest.

Most of the existing manufacturing units in the public enterprise sector belong to the category of enterprises which were originally set up in the private sector. The long-term financing (including foreign exchange component) of such enterprises used to be arranged through the PICIC and the IDBP. In the case of PICIC, however, the charter of the Corporation does not permit lending funds to a public sector entity. Consequently in order to arrange long-term financing (local and foreign exchange) for new as well as existing units, another financing institution namely NDFC (National Development Finance Corporation) was established in 1973. This Corporation now caters exclusively for project financing of public enterprises. NDFC is also playing a role in setting up of new public sector units in the country. There are thus two major sources of borrowing for long-term investment. In both cases, the rigid control of the government implies that the approval of the Finance Ministry as well as the approval of the concerned administrative Ministry is required.

(iii) Self-Financing: This source of financing constitutes a very small percentage of financing available for long-term investment. During the period 1972-73 to 1975-76, out of total investment of Rs. 17420.46 million in the public enterprise sector, only 1.7 per cent was contributed through self-financing. The ratio of self-financing is related directly to the quantum of investible surplus available to each enterprise. This, in turn, is related to, among other factors, the pricing policy of the enterprises. It is evident, therefore, that the greater the flexibility in price setting allowed to an enterprise, the greater will be its ability to realise investible surplus. It may however be emphasised that even in the case of financing investment through internal generation of funds, public enterprises are not allowed complete freedom in decision-making. The government exercises control both over the quantum of such investible surplus (through control of the dividend payout policy) as well as on the use of such surplus. Thus, even the expansion and modernization plans of public enterprises financed exclusively from internally generated funds are subject to prior approval by the government.

The purpose of exercising rigid control on investment is to ensure that un-economic projects are not sanctioned and that the targets and policies specified in the development plans are followed. However, it is not clear as towhat extent the ostensible purpose of such control has been achieved. On the contrary, in most cases where public enterprises are facing serious financial problems - some face the situation that even variable costs cannot be recovered - a detailed investigation will show that the fault lies with the initial investment appraisal process. Many of these units were economically unsound projects to begin with. The dilemma is that while initially projects are approved on the basis of their positive externalities and social benefits, they are also expected to make profit or at least break-even in financial terms. At the time of the project evaluation exercise, there is no institutional mechanism to evaluate the quantitative effect of social benefits expected to emanate from a project. The possible social benefits are merely stated in qualitative terms, if at all. In fact in most cases, a mere statement that a particular project is expected to correct regional imbalances or encourage employment and investment in an underdeveloped region, is regarded as sufficient to warrant the approval of the project. After such projects are implemented, it becomes increasingly difficult to evaluate their performance against the invisible and implicit social benefits. The managers of the units placed in this unfortunate situation continue to remind the government that as the project was initially sanctioned mainly for the potential social benefits, the financial losses which the project incurs should be compensated by the government. In such a situation it becomes impossible to guage managerial efficiency and to distinguish between financial losses resulting wholly from negligence and inefficiency on the part of the management.

b. Control of Operational Plan

The annual operational plans of public enterprises are drawn up in consultation with the concerned administrative Ministry. At the beginning of each financial year production, sales and other operational targets are initially projected by the various public enterprises. These are then discussed with the representatives of the government through the administrative Ministry and after detailed discussion the targets are finalized. In the case of departmental enterprises and public corporations, monitoring is confined to six-monthly or annual reviews in order to ensure that the targets are being achieved. In most cases an annual report is also presented to Parliament. It is interesting to note that in the case of joint stock companies, which in theory enjoy greater autonomy, the reviews are conducted more frequently and generally on a quarterly basis. In the case of state-owned companies, for example, the Chief Executives are required to present their operational results to the Ministry of Production at the end of each quarter and to defend their position in the event of any short-fall against the projected targets. Generally, the Ministry merely records the explanation and notes the corrective action that the particular unit proposes to take in the subsequent period. However, no effective attempt is made to evaluate managerial efficiency in achieving these targets. Also, there is no prescribed reward and penalty system linked to the achievement of planned targets to motivate the managers to ensure fulfillment of targets. In view of this, therefore, it is difficult to escape the conclusion that the quarterly performance reviews have very limited relevance. They give the government an illusion that it is exercising effective control on the operations of public enterprises.

c. Control of Personnel Management

The control of the government on recruitment and selection of top management extends to all the tiers of senior personnel. There is also no substantial variation in control among the three legal forms of public enterprises. In the case of joint stock companies, which enjoy the maximum legal autonomy, the government exercises a fairly rigid control on recruitment of managerial personnel. For example, the appointment of General Managers of state-owned companies is subject to the concurrence of sectoral corporations as well as the Ministry of Production. The second level positions (department or division managers) are appointed after consultation with sectoral corporations with the approval of the Finance Ministry. The appointment of the third level of management (deputy managers) is generally made by the Chief Executive of the concerned enterprises with the approval of the Chairman of the holding corporation even though the Chief Executive is formally authorised to make the appointment for these levels on his own. The pay scales, bonuses, fringe benefits etc. are almost uniform in these enterprises and the labour situation is under close supervision by the holding corporation. In the case of departmental enterprises, the control of government in recruitment is even more direct. The personnel are selected by the Public Service Commission, the agency responsible for recruitment of government servants. The government pay scales, fringe benefits and promotion systems are rigidly followed. In the case of public corporations, the Policy Board or Functional Boards have full powers of the appointment of the second level management and below and follow their own rules and regulations in all other personnel matters. However, it should be noted that in many of these enterprises, the Policy Boards are headed by the Provincial or Federal Ministers or high government officials and there is, therefore, a direct leverage available to the government in the personnel management of these enterprises. Moreover, even for those public enterprises where there is no direct or indirect ministerial involvement the fact of the appointment of politically favoured persons could not be ignored as a possible interference in personnel management.

All the public enterprises have accepted the right of labour to receive annual bonuses in addition to their wages. While theoretically the entitlement of bonus should be based on production, sales profitability or some other pre-determined criterion, this principle has not been observed by most public enterprises. In fact, payment of bonus even by enterprises that are incurring huge losses is not an uncommon practice. The rate of bonus invariably is based on the relative bargaining strength of labour and management. The obvious result of this is that bonus has come to be considered as a part of the normal emoluments rather than as a reward for extraordinary performance. Consequently, the motivational aspect of this device has become inoperative.

In the case of senior management personnel, there is a system of accelerated promotions and grants of additional increments for extraordinary performance. However, this is rarely used and has failed to act as an incentive for the exercise of managerial and technical initiative. There is, therefore, a lack of dynamism in the work environment and a growing tendency among managers of public enterprises for risk aversion. This has prompted them to adopt a bureaucratic attitude of concentrating on adherence to rigid procedures rather than attempting to bring about innovative changes.

d. Control on Pricing Policies

Pricing is the most sensitive area of control of public enterprise activity in Pakistan. Public enterprises in Pakistan have little, if any, autonomy in the matter of fixation of prices for their goods and services. The spectrum varies from rigidly fixed price to prices which are annual reviewed and adjusted, if considered necessary, by the Ministers. The price of coal produced by the collieries under Pakistan Mineral Development Corporation (which produces about 20 per cent of the total output of coal in the country) is fixed by the government from year to year keeping in view the market conditions. In 1975, while private coal mines sold coal at about Rs.600 to Rs.700 per ton, PMDC sold coal to Pakistan Railways, Water and Power Development Authority (WAPDA), etc. at half the market price. Subsequently the price was adjusted upwards by the Ministry of Fuel, Power and Natural Resources.

Fertilizer prices are controlled by the Ministry of Agriculture and fertilizer units are explicitly subsidised. Postal, telegraph, telephone, electricity, and power rates and railways fares are also controlled but no explicit subsidy is given by the government. The prices for the products of state enterprises other than fertilizers are fixed by the Ministry of Production with the approval of the Cabinet.

It will be noticed that the manner of control of pricing policies and the extent of control the government exercises on pricing policy, is not related to the corporate status of units manufacturing different products. Instead the variation is related to the nature of the product itself. In general the larger the base of consumers of a particular product the greater is the rigidity and control in price setting.

The public sector control structure in Pakistan has not changed significantly despite substantial organisational development during the past decade.

The major reason for changing corporate status of public enterprises has been the need to provide greater autonomy in decision-making. However, the greater legal autonomy granted to public enterprises has not resulted in a greater functional autonomy of such enterprises. The power delegated by the government according to the formal control structure is taken away through the requirements of adherence to administrative instructions and government guidelines. The effect of changing the corporate structure with the objective of allowing greater freedom to managers is thus vitiated; nor is this entirely unintended. There continues to be an element of mistrust between government controlling agencies and management of public enterprises. This tends to make the government suspicious of any attempt on the part of the management to act independently. Such attempts are frequently suspected of being an exercise in empire building. While the suspicion is not always baseless, this attitude instead of making the control effective merely succeeds in hampering the efficient working of public enterprises.

The control structure of the public enterprises in Pakistan does not incorporate many essential components of the operating mechanisms.

This inevitably leads to uncertainty on the part of the management and suspicion on the part of the controlling agencies. Thus, the lack of an effective management information system makes it impossible to operate the various instruments of control. At the same time, managers are not given clear instructions regarding the evaluation system, that is they are not made aware of the specific basis of evaluating their performance. Consequently the control system for monitoring achievement against any predetermined objective remains inoperative. In addition, there is no reward (motivation) system linked to performance and evaluation. However even if there was a well-designed evaluation system, it would remain purposeless in the absence of an effective information system. It is evident, therefore, that the operating mechanisms can function effectively only if all the essential components have been fully incorporated within the system.

The effect of the rigid control structure and lack of effective operating mechanisms is to develop the bureaucratic tendencies and practices within the public enterprises sector. Consequently, most decisions even if they are taken at the enterprises level are rarely taken in the entrepreneurial spirit. This atmosphere is not conducive to the promotion of innovation by public enterprises. The managers are prone to risk-aversion and do not generally make serious attempts either at minimizing costs or at venturing into new areas. With price commonly determined elsewhere and output mix and quantity constrained by the existing equipment, managerial discretion can make itself felt primarily in the realm of cutting costs. But given the employment structure of public enterprises, the first place to cut costs is labour. This, however, is virtually impossible because of the emphasis on the preservation of harmonious labour-management relations. Moreover since salaries and benefits in most public enterprises are in no way related to performance, there is 'satisfysing' rather than 'profit maximising' behaviour on the part of management and there is virtually no incentive to cut costs. While most public enterprises managers in Pakistan are competent and experienced professionals, the effective signals given by the control structure in the absence of the operating mechanisms do not stimulate cost efficiency or encourage public enterprises to act as dynamic agents in the developmental process. This is particularly significant as far as the contribution that the public industrial enterprises have made in the field of technological innovation and improvisation in Pakistan's industrial sector.

D. Public Industrial Enterprises and Industrial Innovation

Less than 25 per cent of national research and development activities are carried out by public enterprises. Emphasis is placed on the local manufacture of industrial equipment.

I Cement

About 80% of the components of the domestic cements plants are being manufactured in Pakistan.

II Sugar

About 80 to 90% of machinery employed in the sugar mills are being manufactured locally.

III Construction Machinery

Some of the items of construction machinery like mixers, bulldozers and hoister etc. are being manufactured in Pakistan.

IV Ship-building

Complete ships and barges are being fabricated in Pakistan. Pakistan is also exporting ships to foreign countries.

V Textile Machinery

Spindels, looms and some other textile machinery items are being manufactured locally.

VI Steel Industry

The complete machinery for re-rolling mills are being manufactured locally and Pakistan has also exported a complete re-rolling plant to the Middle-East. Small electric arc furnaces are also being manufactured in Pakistan.

VII Machine Tool Industry

Many items used in the machine tool industry are being manufactured in the country.

VIII Electrical Machinery

Many inputs of the electrical machinery industry like transformers, switch gears, etc. are being manufactured in Pakistan. Some of these are also being exported abroad.

IX Transport Equipments

Complete railway boggies are being manufactured in Pakistan. Contrete sleepers for the railway and some parts of automobiles like sel engines for trucks and parts of motorcycles and jeeps are also manufactured locally.

Local manufacture of industrial equipment has lead to the growth of co-operation between Pakistani public sector enterprises and transnational corporations. Thus M/s Millat Tractors Ltd. in collaboration with Massey-Ferguson of Canada is assembling tractors locally. National Motors are assembling trucks and buses in collaboration with Bedford, England.

The Suzuki Motor Company of Japan has installed its plant in Pakistan in joint co-operation with Awami Autos Ltd. for assembling pick-ups and motor cycles. Other cases of collaboration between public sector enterprises and transnationals may also be cited.

In general many improvements in the organisational structure of the public sector enterprises may be suggested. There is a need to develop a control structure capable of increasing meaningful interaction between government and public sector management. Improved communications, the quantification of non-market related enterprise objectives and rigorous monitoring of enterprise performance are important prerequisites for enhancing the role of the public enterprise sector within the Pakistan economy.

APPENDIX: STATISTICAL TRENDS

APPENDIX TABLE I

GDP, MANUFACTURING OUTPUT, VALUE ADDED, INVESTMENT, EMPLOYMENT BY PUBLIC AND PRIVATE SECTORS, SELECTED YEARS

Year	Share of Manufacturing Value Added in GDP (Percentage)	Year	Average Annual Growth (Base Year 1959-60): GDP	Average Annual Growth (Base Year 1959-60): Manufacturing Value Added
1965	11.0%	1965-70	4.3%	6.6%
1970	12.9%	1970-75	4.0%	3.4%
1980	16.0%	1975-80	5.0%	4.8%

	Year	Share of Public (Percentage)	Share of Private (Percentage)	Year	Average Annual Growth Public (Percentage)	Average Annual Growth Private (Percentage)
Manufacturing Output	1965	2%	98%	1965-70	+16.1%	+6.9%
	1970	3%	97%	1970-75	+98.3%*	-1.1%
	1975	40%	60%	1975-	(Due to mass nationalisation under the Economic reforms order 1972.)	
Manufacturing Value Added	1965	3.0%	97.0%	1965-70	+16.6%	+7.2%
	1970	4.5%	94.5%	1970-75	+73.6%	+7.6%
	1975	84.0%	16.0%	1975-		
Manfuacturing Investment	1965	.-	-	1965-70	-	-
	1970	11.4%	88.6%	1970-75	42.8%	0.58%
	1975	42.6%	57.4%	1975-80	42.8%	12.7 %
	1980	70.7%	29.3%			
Manufacturing Employment	1965	5%	95%	1965-70	+4.2%	-5.7%
	1970	8%	92%	1970-75	+26.7%	+0.07%
	1975	22%	78%	1975-		

APPENDIX TABLE II

DISTRIBUTION OF PRIORITY MANUFACTURING INDUSTRIES BY PUBLIC AND PRIVATE SECTOR (LATEST YEAR AVAILABLE)

Branch	ISIC	Share of Total Manufacturing and Proportion of Public and Private Sectors of Various Manufacturing Categories			
		1 Manufacturing Output Year 1975-76		2 Manufacturing Value Added Year 1975-76	
		Share of Total Manufacturing Output (Public and Private)	Proportion of Public Sector in each Manufacturing Category	Share of Total Manufacturing Value Added (Public and Private)	Proportion of Public Sector in each Manufacturing Category
1	2	3	4	5	6
		- percentage -			
Mainly consumer durables:					
Food products	311 + 12	22.5%	52%	22.3%	4.5%
Beverages	313	1.1	Nil	1.5	Nil
Tobacco	314	4.3	Nil	8.3	Nil
Textiles	321	24.0	1.2%	24.0	1.2%
Wearing apparel	322	0.3	Nil	0.3	Nil
Leather and fur products	323	1.7	Nil	1.1	Nil
Footwear	324	0.2	Nil	0.1	Nil
Wood and cork products	331	0.2	Nil	0.2	Nil
Furniture and fixtures	332	0.1	Nil	0.1	Nil
Printing and publishing	342	0.9	25%	1.1	40%
Professional and scientific equipment, photographic and optical goods	385	0.3	Nil	0.5	Nil
Other Manufacturers	390	7.5	Nil	1.7	Nil
Mainly Intermediate goods:					
Paper	341	1.6	Nil	1.8	Nil
Industrial chemicals	351	3.1	83%	5.0	89%
Other chemicals	352	2.4	Nil	1.9	Nil
Petroleum refineries	353	-	-	-	-
Miscellaneous products of petroleum and coal	354	1.6	100	3.9	100%
Rubber products	355	1.6	Nil	1.3	Nil
Plastic products	356	0.2	Nil	0.2	Nil
Pottery, china and earthenware	361	0.1	Nil	0.2	Nil
Glass	362	0.2	Nil	0.2	Nil
Other non-metallic mineral products	369	3.3	90%	3.8	90%
Mainly Capital Goods: (Incl. Consumer Durables)					
Iron and Steel	371	5.0%	90%	3.5	95%
Non-ferrous metals	372	0.1%	Nil	0.1	Nil
Metal products, including machinery	381	1.6%	Nil	1.6	Nil
Non-electrical machinery	382	2.8%	21%	2.9.	29%
Electrical machinery	383	3.0%	Nil	3.2	Nil
Transport equipment	384	5.9%	82%	6.4	93%
Drugs and pharmaceutical		2.9%	Nil	1.1%	Nil
Sports and athelatics		0.1%	Nil	0.2%	Nil
Gining, pressing, baling of fibre		1.8%	Nil	0.9%	Nil
		100%		100%	

APPENDIX TABLE III

DISTRIBUTION OF MANUFACTURING INDUSTRIES: PUBLIC AND PRIVATE INVESTMENT AND EMPLOYMENT

Branch	ISIC	Share of Total Manufacturing and Proportion of Public and Private Sectors of Various Manufacturing Categories			
		3 Manufacturing Investment		4 Manufacturing Employment	
		Year 1975-76		Year 1975-76	
		Share of Total Manufacturing Output (Public and Private)	Proportion of Public Sector in each Manufacturing Category	Share of Total Manufacturing Employment (Public and Private)	Proportion of Public Sector in each Manufacturing Category
1	2	3	4	5	6
Mainly consumer durables:					
Food products	311 + 12	Not		8.9%	26%
Beverages	313	Available		0.6%	Nil
Tobacco	314			1.5%	Nil
Textiles	321			44.6	2.0%
Wearing apparel	322			0.2	Nil
Leather and fur products	323			2.6	Nil
Footwear	324			0.3	Nil
Wood and cork products	331			0.3	Nil
Furniture and fixtures	332			0.2	Nil
Printing and publishing	342			1.2	23%
Professional and scientific equipment, photographic and optical goods	385			0.7	Nil
Other manufactures	390			0.6	Nil
Mainly Intermediate goods:				1.7	Nil
Paper	341				Nil
Industrial chemicals	351			2.3	80%
Other chemicals	352			4.3	Nil
Petroleum refineries	353			-	-
Miscellaneous products of petroleum and coal	354			0.4	100%
Rubber products	355			3.0	Nil
Plastic products	356			0.2	Nil
Pottery, china and earthenware	361			0.3	Nil
Glass	362			0.5	Nil
Other non-metallic mineral products	369			5.4	34%
Mainly Capital Goods: (Incl. Consumer Durables)					
Iron and Steel	371	Not		3.6	90%
Non-ferrous metals	372	Available		0.1	Nil
Metal products, including machinery	381			2.4	Nil
Non-electrical machinery	382			3.0	31%
Electrical machinery	383			3.2	Nil
Transport equipment	384			4.3	80%
Drugs and pharmaceutical				3.5	Nil
Sports and athelatics				0.3	Nil
Gining, pressing, baling of fibre				0.8	Nil
				100%	

APPENDIX TABLE IV

DISTRIBUTION OF PUBLIC ENTERPRISES BY INDUSTRIAL BRANCH

Branch	ISIC	Number of Public Manufacturing Enterprises		
		Year 1975-76		
		Large	Medium	Small
		Number of Enterprises		
Mainly consumer durables:				
Food products	311 + 12	25	-	-
Beverages	313	-	-	-
Tobacco	314	-	-	-
Textiles	321	3	-	-
Wearing apparel	322	-	-	-
Leather and fur products	323	-	-	-
Footwear	324	-	-	-
Wood and cork products	331	-	-	-
Furniture and fixtures	332	-	-	-
Printing and publishing	342	8	-	-
Professional and Scientific equipment, photographic and optical goods	385	-	-	-
other manufactures	390	-	-	-
Mainly Intermediate Goods:				
Paper	341	-	-	-
Industrial chemicals	351	14	-	-
Other chemicals	352	-	-	-
Petroleum refineries	353	1	-	-
Miscellaneous products of petroleum and coal	354	1	-	-
Rubber products	355	-	-	-
Plastic products	356	-	-	-
Pottery, china and earthenware	361	-	-	-
Glass	362	-	-	-
Other non-metallic mineral products	369	10	-	-
Mainly Capital Goods: (Incl. Consumer Durables)				
Iron and steel	371	12	-	-
Non-ferrous metals	372	-	-	-
Metal products, including machinery	381	-	-	-
Non-electrical machinery	382	-	-	-
Electrical machinery	383	5	-	-
Transport equipment	384	11	-	-
Total:		90	-	-

APPENDIX TABLE V

SELECTED PUBLIC ENTERPRISES

AVERAGE FIGURES 1975-76 to 1979-80

(Rs. in Million)

1	2	3	4	5	6	7	8	9	10	11	12
Name of Enterprise	Branch	Location	Motive Pursued	Value Added	Employment	Export	Import of capital goods	Total Assets	Investment	Profit/Loss	Remarks
National Motors Ltd	Automobiles	Karachi	Assembling	157.67	3500	NIL	640.0	786.06	121.47	17.456	
Ravi-Rayon Ltd.	Chemical	Lahore	Acetate Rayon Manufacturing	27.591	1300	NIL	Nil	258.57	66.39	(11.576)	
Zeal Pak-Cement	Cement	Hyderabad	Cement Manufacturing	64.02	2675	NIL	Nil	299.21	118.05	12.06	
Gharibwal Cement Ltd	Cement	Jehlum	- do -	31.86	1300	NIL	1.97	149.66	42.66	11.08	1.97 one year Fig.
Javedan Cement Ltd	Cement	Karachi	- do -	29.07	1450	NIL	42.6	392.42	256.79	4.06	42.6 Investment in 1976
Pakistan Refinery Ltd.	Petro-Chemical Refinery	Karachi	Refinering	54.68	1200	234.84	Nil	709.01	102.38	11.03	
National Refinery Ltd	- do -	Karachi	- do -	149.36	1400	457.22	Nil	1295.13	511.47	34.36	
Metropolitan Steel Corp. Ltd.	Iron & Steel	Karachi	Steel Products	60.74	2000	NIL	Nil	165.53	44.24	11.44	
Quality-Steel Works* Ltd.	Iron & Steel	Karachi	Steel Products	33.21	900	11.16*	Nil	138.40	23.73	6.13	*Export for 2 years only
Harnai Woollen Mill Ltd	Textile	Harnai	Woollen Textiles	5.53	400	NIL	Nil	56.19	20.09	(2.26)	

* Average Figures for the period from 1974-75 to 1978-79.

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