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INDUSTRIAL DEVELOPMENT IN TURKEY - PAST PERFORMANCE AND PROSPECTS 1/ (1976)

by

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1/ This study has been prepared on the basis of statistical information and analysis contained in some publications (The Economic Development of Turkey, volumes 1-5, IBRD, April 1974; Current Economic Position and Prospects of Turkey, IBRD, June 1975; The Allocation of Resources Within the Industrial Sector in Turkey, A.O. Krueger and B. Tuncer, December 1975; Second Five Year Development Plan (1968-1972), published by the State Planning Organization, Ankara, 1969). Other relevant material and experience available at UNIDO has also been used.

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Introduction

In 1923, the year of the establishment of the Republic, Turkey was a very backward country in addition to being torn by decades of war. The per capita income was under $100 (at present prices). Industry virtually did not exist. There was no infrastructure in any modern sense. In other words, in the early 1920's, Turkey was at the level of today's least developed countries of Africa and Asia.

Among the developing countries, Turkey is somewhat different in a number of ways: 50 years ago there was a strong sense of statehood, a tradition of central administration, a well-organized army, a handful of intellectuals in the tradition of the "young Turks", as well as an imaginative, realistic, resourceful and dynamic national hero and leader. The modern nation-state emerged in 1923, and systematic efforts to achieve a higher living standard preceded those of most developing countries by a generation.

Since 1950, the Turkish economy has grown at an accelerating pace and has undergone substantial transformations. GDP increased by a trend growth rate of 5.7 per cent per year on an averate, with industry growing at 7.2 per cent; agriculture at 3.3 per cent and services at 7.1 per cent. This growth has resulted in a more sophisticated economic structure and in increases in the standard of living in spite of a fast-growing population. Per capita GNP rose from about $230 in 1950 to $822 in 1975. The pace of growth accelerated during the period of the first, second and third five year development plans (1963-67, 1968-72, 1973-77). However, in a country starting from such a low level of GNP per head and with a population growing by 2.5 per cent per year, it could hardly be considered to be more than the minimum required. Turkey now belongs to the group of developed developing countries.

The Turkish economic development policy formation could be divided with a certain degree of oversimplification into six periods:

- The period from 1923 to 1932 during which laissez-faire policies were pursued;
- the 1932-1940 period during which a policy usually called Etatism was followed;

- the decade of the 1940's when the disruptions of the war and its aftermath dominated;
- the 1950's which are now regarded as having laid the foundations of the public sector. The private sector also made a substantial progress during that period;
- the period of the 1960's during which planning was understood to be the central instrument of economic policy with major emphasis on industrialization and import substitution;
- the period after 1970 is marked by a greater outward orientation of the economy and the signing of the Common Market Agreement with all its far-reaching implications.

This review will cover various aspects of industrial development during the fifth and the sixth periods mentioned above.

The basic problems facing Turkey in the second half of the 1970's are the following:

- a very high growth rate of the population accompanied by a high dependency ratio;
- a high level of unemployment both open and disguised. The restrictions on emigration to Europe due to the recession aggravate the situation. Out of an average 440,000 persons entering the labour force annually, not more than 150,000 are able to find employment;
- Per capita income is the lowest among European countries. Income distribution between social groups, professional and occupational groupings is unbalanced;
- the formal educational system does not conform to the needs of the economic and social structure, nor is it susceptible to change. The non-formal educational system has also proved inadequate to improving the manpower productivity. Higher education does not meet the requirements of development;

- health services are inadequate both in quality and quantity; there is a regional imbalance;
- the infrastructural and social burdens imposed on the state by the rapid urbanization are not being met. The central and local authorities can not supply the needed roads, drinking water, electricity, etc., in the rural areas. The production infrastructure is inadequate;
- Domestic savings are not adequate to meet investment requirements; domestic financial resources are not properly mobilized and used for economic and social development;
- the industrial structure is not adequate; the operating capacities are small in size, there is a lack of modern technology; produotivity is very low. Agriculture is still dependent very much on weather, productivity has not increased sufficiently.
- the level of exports is too low and they do not increase fast enough. The structure of exports is inadequate. There is a chronic balance of trade deficit;
- public administration, although modern in some places, is on the whole out-dated. The administration is too heavy and slow, geographically imbalanced, with no clear-cut division of duties between central and local administrations;
- the political decision to join the EEC and achieve a full customs union by 1995 puts very strong pressures and ambitious requirements for socio-economic development. The seriousness of these requirements does not seem to be realized well-enough by the authorities concerned and appropriate preparatory measures have been somehow delayed. This may have serious implications on the implementation of the Agreement with the European Economic Community.

1. Role of manufacturing in the Turkish economy - in broad perspective

At the beginning of the fifties, the Turkish industrial sector was relatively small, though the policy of "etatism" in the previous two decades led to reasonable growth. Industry, including mining nad power, has grown at a relatively rapid rate since 1950. The average annual growth rate for 1950-1975 is 9.3 per cent at 1968 constant prices. From 13 per cent of the GDP in 1950, it increased to 17 per cent in 1960, to 23 per cent in 1972 and to 25 per cent in 1975. Industry is expected to reach 27 per cent of the GDP in 1977, 34 per cent in 1987 and 37 per cent in 1995.

Of total industry, manufacturing accounted for about 85 per cent of the value added and mining about 8 per cent in 1972. The manufacturing sector accounted for 9 per cent of the GDP (in 1968 prices) in 1950, stagnated at 9 per cent in 1960, reached 16 per cent in 1970 and 18 per cent in 1973.

The main manufacturing activities have been in traditional consumer goods: food, beverages and tobacco processing (accounting in 1972 for 37 per cent of manufacturing production) and textiles (16 per cent). During the sixties, however, modern industries developed fast (mainly basic metals, metal products and machinery, chemicals and petroleum products) and now account for more than 40 per cent of manufacturing production.

The diversification of manufacturing industry has implied a relative shift away from consumer goods industries with the major shift taking place in intermediate goods and investment goods.

The first, second and third five year plans aimed at rapid industrialization as the leading factor in sustained economic growth and as a means to absorb surplus manpower from agriculture, improve the regional location of production units, reduce dependence on foreign aid and increase the living standard of the people. In the pursuit of these objectives, industrial development policy has emphasized import substitution and the policy tools have been high protection and generous incentives for domestically-oriented industries. Turkey has achieved a considerable degree of self-sufficiency in some industries. Inward-oriented policies have led to slow growth of industrial exports.

Both the public and private sectors of industry play an essential role in implementing these policies. The role of the foreign private investments in industrial development is limited.

2. The structure and recent performance of the manufacturing sector

2.1 Growth performance

During the fifties, the industrial growth rate was relatively low (5.3 per cent during 1950-1962). The tendency was heavily towards import substitution and the main emphasis was placed on establishment of new large projects in the public sector - in engineering, fertilizers, steel, cement, textiles, paper as well as strengthening the private sector.

Industrial growth picked up remarkably during the sixties. It is commonly accepted that, to a considerable extent, this was due to the introduction of economic planning. Industrialization was given a high priority during the plan periods and industrial growth averaged about 10.5 per cent during the first plan (1963-67) and 9.8 per cent during the second plan (1968-72). Growth of manufacturing accelerated sharply during this period, reflecting accelerated investment, which was encouraged by generous incentives, and continued import substitution under heavy protection. Manufacturing output increased at about 13.3 per cent per year during 1960-1970 and production became more diversified with a large development in consumer goods and assembling industries.

Production targets of the plans were surpassed for light consumer industries, such as food, drink, tobacco, paper, plastic, textile and leather. They were not reached in intermediate industries, reflecting the preference of private investors for the traditional industries and due to delays in the implementation of public projects in the intermediate industries.

The third plan (1973-1977) constitutes the first stage of a long-term strategy for the period 1973-1995, in which industrial growth is emphasized. Net output in manufacturing is expexted to grow by about 11 per cent per year. The consumer goods production would increase by only about 7 per cent per year, intermediate goods by 14 per cent and investment goods by 17 per cent per year. The highest growth is assumed for petrochemicals (nearly a six-fold increase), fertilizers (3.5 times) and machinery (nearly three times).

The major projects are the expansion of the steel complexes at Eregli and Iskenderum, the second petrochemical complex, and a new petroleum refinery and chemicals complex at Tarsus. Further expansion would take place in nitrogen, fertilizers and aluminium. A breakthrough in the engineering industries would be highlighted by the production of automotive gears and transmissions, automotive and ship diesel engines, heavy industrial machinery, pumps and compressors and by the expansion of shipbuilding into larger vessels.

Industrial output, measured at constant 1968 producers' prices, increased 13.4 per cent in 1973, 8.6 per cent in 1974 and 9.2 per cent in 1975. The manufacturing output alone grew for the same years 14.4 per cent, 8.3 per cent and 9.2 per cent respectively.

During 1975 manufacturing production increases of considerable magnitude took place in capital goods (cement, 19 per cent; fertilizers - 31 per cent; paper and cardboard - 9.5 per cent; steel ingots - 8.3 per cent, etc.) and in consumer goods (woolen fabrics - 19 per cent; beer - 14 per cent; cigarettes - 8 per cent, etc.). Domestic sales seem to have increased also, but less than production in some cases, so that inventories increased by the end of 1975.

Important decreases in the production also occured in 1975: sheets - 34 per cent; rolled products - 7 per cent; newsprint - 9 per cent; sugar - 12 per cent, etc.

Electricity generation increased by 16 per cent in 1975 and reached 15631 million kWh. Production of crude petroleum and coal as well as their derivatives decreased.

The insufficient domestic savings, delays in implementation of investment projects, the ever-increasing gap between imports and exports, the high levels of open and disguised unemployment, the very high growth rate of the population were some of the main problems causing headaches to the Turkish economy at the outset of 1976.

In many respects, the performance of the Turkish economy and the industry in particular during 1973-1975 fell short of the Third Plan targets. The major reasons for the shortfalls were: a) the bad weather in 1973 which caused a severe setback in agriculture production and hence affected industry directly and indirectly in many ways. The situation

however improved in 1974 and particularly with the impressive agricultural crops in 1975; b) unforeseen world developments, e.g. high international inflation, a big jump in the oil import bill and recession of the world economy and the ensuing sluggish demand for Turkish exports; c) the Cyprus operation in the second half of 1974 and finally d) there were delays in plan implementation due to financial constraints, physical (power, intermediate products) and managerial shortages.

With such shortfalls in the first three years of the Third Plan, it seems unlikely that the overall plan targets for industry will be met. There are, however, real possibilities for the actual implementation figures in industry not being too much below the basic targets set up by the Third plan for 1977.

2.2 Industrial structure

Rapid industrialization led to substantial structural changes in the economy. The share of agriculture in GDP at factor cost declined from about 48 per cent in 1950 to 25 per cent in 1975. The share of industry increased from 13 per cent to about 25 per cent in 1975 and, as stated above, will continue to grow.

Important structural changes occur within the industrial sector itself. The share of the net industrial product by sectors in GDP at factor cost changes as follows:

Table 1. Structure of Industrial Production

	1962	1967	1972	1977-plan
Mining	11.0	9.4	7.7	8.9
Manufacturing	82.5	85.3	86.2	85.1
Energy	6.5	5.3	6.1	6.0
Industry - total	100.0	100.0	100.0	100.0

The share of manufacturing tends to increase with the relative share of mining declining, and the share of energy being more or less stable. This structural change is a result of the higher growth rate of the manufacturing sector.

The manufacturing sector itself comprises a large complex of industries which develop at different rates and lead to considerable structural changes within this sector. Changes in industrial structure are difficult to analyse because census data are available only for 1950 and 1963. Detailed data for non-census years is available only for medium and large-sized establishments and more seriously because after 1968 only gross output figures are available, even for the larger establishment. Nevertheless, the available data is sufficient to give an idea about the most important trends in the changes of the structure of the manufacturing industry in Turkey from 1950 for 1977.

Table 2. Structure of Manufacturing Production

	1950	1963	1968	1972	1977-plan
Consumer goods	67.8	50.2	50.1	46.6	38.3
Intermediate goods	21.3	31.6	38.1	39.4	44.2
Investment goods	10.9	18.2	11.8	14.0	17.5
Manufacturing-total	100.0	100.0	100.0	100.0	100.0

The data for 1950 and 1963 are from a census; for 1968 from a survey covering only large and medium establishments; for 1972 and 1977 - in 1971 prices. The output is measured in terms of value added.

The analysis of the structure of manufacturing clearly indicates a stable decline in the share of consumer goods, a stable increase in the share of the intermediate goods and a fluctuating increase of investment goods. Turkey has made an important step forward in transforming her industrial and manufacturing structure to resemble that of the more advanced industrial nations. No doubt, this transformation will be a continous and difficult process.

By the end of the Third Plan (in 1977) the most important consumer goods industries in terms of value added produced will be the food processing 19 % of the total manufacturing sector and textiles and clothing - 14 %.The most important intermediate goods industries will be: basic metals - 10 %, chemicals and fertilizers - 10 %, petrochemicals - 10 %. The most important investment goods industries will be: automotive industry - 6 %, machinery - 5 %.

The most recent developments in some of the manufacturing branches are as follows:

Textile and Clothing Industry

The textiles industry is by far the largest industry in Turkey, comprising roughly 3 mm spindles and 40.000 looms. Cotton is naturally the principal input of the industry, about 325.000 tons annually. Exports of both yarn and cloth grew rapidly after 1970 and a high priority has been given to investments in a new spinning capacity but since mid-1974, export demand has temporarily fallen back in the face of world market conditions. New plants and extentions currently under construction or about to begin will add at least 1 mm spindles in 1976. Most of the expansion is taking place in cotton spinning and weaving, artificial fibre weaving and knitwear. In the woolen and worsteds sector the major effort is towards modernization (in fact, substantial unused capacity is reported for this sub-sector). Textile production was $2,6 billion in 1974. The production target for 1975 was $ 2,9 billion. The produotion of cotton fabrics reached 214.400 metric tons in 1975 and of woolen fabrics 6570 metric tons. The production of cotton cloth in 1974 was 210 mm metres and of woolen cloth 5,5 mm metres.

Paper and Board Industry

Paper and board industry is mainly in the hands of the government-owned SEKA enterprise, which has an old-established (now 135.000 tons

a year capacity) mill at Izmit and three other mills, opened in 1971-72. Together these three mills have an annual output capacity of 226.000 tons of paper and board and 247.000 tons of pulp and cellulose. SEKA has began construction on a major new paper-pulp-timber complex for which substantial World Bank and European Investment Bank credits have been obtained, and plans to begin building three more mills by 1980. Paper and cardboard production in 1975 was 222.200 metric tons and of newprint 87.400 tons. Paper and board industry production was $ 177 million in 1974, and about the same in 1975.

Sugar Industry

Sugar production is government-controlled. Capacity is now barely adequate and at least one new factory is planned. Production costs are high and exports have seldom been possible without heavy subsidies. Sugar production is constantly declining during the last three years from 873.000 tons in 1973, to 758.000 tons in 1974, and to 665.000 tons in 1975.

Glasswork and Ceramics Industry

This industry developed from a point of non-existence to a level which exceeded entire domestic demand and secured itself a sound place within export commodities. The production value of glasswork and ceramics was $ 159 million in 1974.

Cement Industry

This is one of the fastest growing industries in Turkey. At present there are 29 cement plants in the country, with an annual capacity of about 12,5 million tons. New plants and extensions under construction will raise capacity to over 16 million tons in 1977. This industry produced 10,692,000 tons of cement in 1975. The value of cement production in 1974 was $ 209 million and in 1975 $ 245 million.

Iron and Steel Industry

One outstanding oharaoteristio of the 1972 demand supply pattern for this industry in Turkey was the imbalance between metallurgical and rolling capacity neoessitating large imports of " semis ". This imbalance will be eliminated by 1977. The production of finished products so far was ooming essentially, and in roughly equal proportions, from two integrated mills: the old and badly situated Karabuk steel mill and the recently constructed Erdemir steel mill on the Blaok Sea. A third steel mill was put into operation in 1975 with USSR assitance at the deepsea port of Iskenderum. By 1982, both Iskenderum and Erdemir mills would have attained a production of 4,0 million tons. There are tentative plans for oonstruotion of a fourth major steel works.

Whereas steel absorbed 14 % of total manufacturing investments in the Seoond Plan, that share is projeoted to rise to 17,6 % in the Third Plan. Turkey's main disadvantage in this highly capital intensive industry lies in the investment oost per ton steel, which is much higher than in the industrialized countries. Iron and steel production was at the level of $ 866 million in 1974. Production estimate for 1975 was $ 980 million and is expected to reach $ 1100 million in 1976.

The production of pig iron in 1975 reached 1,191,000 tons, steel ingots - 1,448,000 tons, rolled products 1,118.000 tons and sheets 181.000 tons.

Chemicals and Petrochemicals Industries

The ohemioal and fertilizers industry acoounted for slightly more than 8 % of the value added in manufacturing in 1972. Contrasted with its oontribution to GNP, this industry is absorbing a very large share of total manufacturing investments about 25 % and 23 % respectively in the Second and Third Plans. Whereas at the end of the First Plan, consumer goods

(soaps, detergents, paints, matches, medicines) dominated the picture, the Second Plan was characterized by the expansion of fertilizer production (the capacity of nitrogen fertilizers production rose from 118.000 tons to 1,4 million tons and of phosphates fertilizers from 222.000 to 1,6 million tons) and the initiation of petrochemicals production, synthetic fibres production (from imported intermediates) and boron chemicals production.

The Third Plan places high priority on the chemicals industries which is said to be justified by heavy increase in the demand for both chemicals and fertilizers, the strong forward and backward linkages in the chemicals industry and the role of those industries as "carriers and accelerators" of technological development. As a result, rising imports during the Second Plan are being slowed down. The increase in imports would fall almost entirely within the group sundray unspecified chemicals. Major increases in chemicals production would occur in alkalies, boron products, synthetic fibres, detergents, films, medicine, insecticides, plastic materials, carbon black and synthetic rubber. Production of nitrogen fertilizer would triple and phosphate fertilizers double, with even larger increases in phosphoric acid and sulphuric acid production. Apart from marginal exports in, e.g., plastics to take advantage of unused capacity, the major increases in exports would come from boron products. The Third Plan period witnessed the completion of the petrochemicals complex, the partial completion of the Aliaga complex (producing intermediates for synthetic fibres) two major introgen fertilizer plants, a major alcali complex and a new boron products plant. All the projects described belong to the public sector.

Petrochemicals and fertilizer production up to now have proved difficult fields for developing countries. Turkey has entered in this field in a gradual manner, starting with products at the consumer end where a market exists and where advantages of scale are relatively moderate. It has also initiated production of intermediates and basic chemical raw materials like ammonia, ethylene, aromatics, although the derived demand is at present hardly sufficient to justify units of optimum size.

The Turkish chemicals and petrochemicals industry encountered enormous difficulties throughout its development. The first major unit, the integrated nitrogen fertilizer plant at Kutahaya (1961) based on lignite, faced many difficulties, and has made losses even in recent years. The Jarimca petrochemicals complex faced many delays in construction, and several of the major units were well below competitive size. Capacity utilization in nitrogen fertilizer production in 1968-72 has varied between 44 and 69 %.

Inspite of the recent growth achieved in the Petrochemicals industry, the domestic production does not come up to the level to meet the demand, which is estimated at around $ 740 million in 1976. Thus, the prospective petrochemicals' import will amount to $ 180 million this year. Japan has agreed to finance the construction of the second petrochemicals complex, being built at Izmir. Recently, a third petrochemical complex has been mooted, possibly to be part-financed by Libya.

The Pharmaceutical industry as a sub-branch of the Chemical Industry, is a rather advanced field which not only meets total domestic demand, but is also gaining increasing importance in foreign trade.

The production of chemical fertilizers in 1975, was more than 1,500.000 tons, 2,100.000 tires, etc.

Metal Products Industry

This industry began to progress particularly after 1963. It covers a wide range of production, from investment goods such as steel construction materials to consumer goods such as kitchen utensile. The production value of metal products amounted to $ 454 million in 1974. The plan target for 1976 is $ 713 million.

Machinery Industry

This branch, which is one of the most important fields of production on Turkish industry, produces durable consumer goods as well as intermediate goods. The manufacturing of investment goods is also progressing at an average annual growth rate of 14 per cent.

Power machines like high pressure steam boilers, industrial ovens, air condition systems, lathes, printing machines, etc. can be cited as examples of the manufactured items in this industry. The production value of the machinery industry in 1974, was at the level of $ 556 million.

Electrical Machinery and Equipment Industry

This branch recorded considerable production increases in the recent years both in terms of quantity and in variety of manufactured electrical machinery and equipment. The production value was $ 303 million in 1974.The Plan target for 1976 is $ 452 million.

Electronics Industry

The last 15 years witnessed the birth and growth of this industrial branch in Turkey. This rapid growth can be partly attributed to the extension in recent years of radio and TV broadcasting to cover the entire country. The contribution of the different production groups in value terms to the overall electronics output is as follows:

- communication equipment - 12,7 %
- industrial equipment - 3,1 %
- consumer equipment - 81,6 %
- circuit elements - 2,6 %

The production value of electronics in 1975 was at the level of $ 174 million.

Automotive Industry

The Turkish automotive industry is essentially an assembly operation and is highly fragmented. During the Second Plan the local content of trucks and vans assembled in Turkey increased from 20 % to 57 %, and of buses from 30 % to an average 70 %. This, however, was done without efficient planning and co-ordination of subcontractor industries; the result was a large number of scattered firms, operating at non-economic levels of production. There are nearly 20 companies engaged in motor vehicles and tractors production. Six of these manufacture tractors, four make buses, and three make passenger cars and/or light pickups. Engines and transmissions are imported. Whereas other car production plants in the Mediteranean area have reached an output of 200.000 or over, which is often regarded as a minimum economic scale, in Turkey two manufacturers by 1977, would share a production of 70.000 vehicles. The difference between local and c.i.f. prices for trucks and tractors ranges between 40 and 60 %.

The target of the Third Plan is to push hard towards the all-Turkish car and truck (85 - 90 % domestic component). In a second stage, tractor production and truck production would be re-organized to achieve desired additional integration of domestic components through merger of scattered small firms.

The production of the automotive industry in 1975, was a follows: tractors - 34.280, trucks - 13.720, light weight trucks - 18010, mini-buses 5460, buses 1280, automobiles - 67290.

Agricultural Machinery Industry

The manufacturing of agricultural machinery other than tractors have gained importance in parallel with the growing domestic demand arising from the population explosion as well as the increasing export opportunities for raw and processed agricultural products.

Some major agricultural machinery manufactured in this branch include ploughs, drill for sawing machines, harvest machines and various equipment and tools.

The above description of the various industries contains the contribution of the small-scale industries and handicrafts as well in the respective fields. But, since this is an important field of production activity in Turkey, a few more words may be justified. Co-operation between the small-scale and large-scale industries and its promotion along lines outside large-scale industrial fields, has been foreseen by the national Plans. Efforts are being made to adapt the existing small-scale industrial enterprises (20460 workshops in 1965 with 130.000 employed and more than 35.000 workshops by 1970) to changing economic and industrial standards to enable these branches having development potential to flourish and expand, thereby giving them the opportunity to benefit from existing facilities and speed up their development. Small-scale industries that have no development potential have not been encouraged and supported. Instead, their activities have been directed towards other fields.

Handicrafts are defined as those goods produced by an artisan working on any craft manually and by using his skill, independently and under his own responsibility or with a member of his family or together with a draftsman or apprentice, at his home and/or his workshop and/or as a peddler, for the purpose of marketing his products. The number of handicrafts workshops in Turkey at the end of 1965 was 192.000 with more than 580.000 employed. The different ministries concerned are assigned specific responsibilities to assist the handicrafts and the Agricultural Bank provides credits for financing those handicrafts that have marketing potential.

2.3 Public and Private Sector Industry

One of the fundamental principles of the economic policy of Turkey is the adherence to a mixed economy in which public and private sectors both play a significant part in fostering economic development. This approach was adopted 40 years ago and has been applied without any basic changes. The introduction of national development planning was also based on this fundamental socio-economic reality. It is reflected in the allocation of investments between the public and the private sectors of the economy:

Table 3. Fixed Investment by Ownership Sectors
(in %)

	First Plan 1963-1967 (actual)	Second Plan 1968-1972 (actual)	Third Plan 1973-1977 (target)
Public Sector	52,0	52,4	56,3
Private Sector	48,0	47,6	43,7
Total	100,0	100,0	100,0

Since the early 1970, the public sector has been expected to take the lead in introducing economic and social change. A leading role in this was assigned to industry. With the advent of development planning, this role has been reinforced. The Turkish public sector today includes ownership of more than one half of the capital invested in industry and practically all the big investment projects carried out have been done by publicly-owned companies.

At present, the public sector accounts for about 37 % of value added in manufacturing industry and 80 % in mining industry, and has a virtual monopoly in steel, petroleum refining, fertilizers, petrochemicals. It has also accounted for about 55 % of industrial investment during the last 10 years. Most of these industries are operated by State

Economic Enterprises (SEE). As a general rule, the public sector enters fields considered of vital importance or where the private sector is unwilling to invest, either because of shortage of financing capacity or because of low financial return. The policy proclaimed in the Second and Third Plans is to encourage the private sector to assume more and more responsible role in manufacturing in the long run. This seems to be the trend at present in some mixed branches such as cement, earthenware, and fertilizers. Large enterprises with mixed capital have also developed.

Only industries coming under the "monopolies law" are exclusively reserved to the state (tobacco products, most spirits, utilities, rail, air and municipal public transport, salt, opium products). The private sector has been permitted to engage in production of tobacco products for export.

Investment in State Economic Enterprises has grown at a fast rate with mining, power, coals, petroleum and steel growing above average. Investment in manufacturing SEE's, after a rapid growth till 1969, has slackened off in the last few years. This could be seen in Table 4:

Table 4. Fixed Investment by State Economic Enterprises

(per cent of the total investment in the economy at current prices)

	1962	1967	1972
Mining and Power	7.7	12.4	25.8
Coal, Petroleum and Steel	24.4	22.2	38.1
Manufacturing	18.8	24.2	6.3

In recent years somewhat more emphasis has been placed on private industry, due mainly to the increased financial burdens of the state and the increased capability of the private sector to assume development

responsibilities. However, even with the trend toward more reliance on the private sector, the government and the public sector will continue to play a crucial role in economic affairs.

The network of public industries (SEEs) includes a number of industries in addition to those reserved exclusively to the state. At present, the more important of the 27 SEEs engaged in industry include: Sumerbank (mainly textiles), Etibank (mining and mineral processing), the Machinery and Chemical Industries' Board (chemicals, munitions, special steels, castings, etc.) TPAO (petroleum), Azot (fertilizers), SEKA (paper), the Turkish National Electricty Board, Pet-Kim (petrochemicals), the Turkish Coal Board, etc.

Through the SEEs the government also has interests in some 45 other industrial joint ventures with private capital.

The relative importance of the SEE's within the manufacturing sector varies from industry to industry and from time to time. SEE's are in general of well above average size. Sizeable changes in their share of output usually reflect the start of new plants. Until the late 1970's the shares of the public and private sectors in manufacturing industry were about even. Some ovservers believed that there was an unwritten rule that each sector should be of similar size. Subsequent experience seems to have disproved that, as the 37 % share of SEE's in manufacturing output in 1973, indicates :

Table 5. Relavtive Importance of State Economic Enterprises in Turkish Industry

(per cent of sectoral output)

	1950	1963	1967	1973
Food Processing	48	34	42	32
Beverages	98	89	87	60
Tobacco	68	77	88	81
Textiles	42	25	22	17
Clothing	95	75	58	17
Wood Products	54	56	43	27
Furniture	0	0	0	32
Paper	90	91	81	69
Printing	15	11	18	8
Leather Products	0	0	0	0
Rubber and Plastic Products	0	0	0	0
Chemicals	9	30	17	21

Petroleum Products	100	100	98	90
Non-metallic Products	20	38	40	24
Iron and Steel	91	86	74	61
Metal Products	60	38	32	3
Machinery	78	26	16	27
Electrical Machinery and Electronics	0	1	1	2
Transport Equipment	99	60	39	26
Other Manufacturing	0	0	0	1
Total Manufacturing	51	44	48	37

Twc decades ago one of the fundamental issues in Turkey was the lack of dynamic entrepreneural class. This, however, has changed. Private initiative has gained a momentum. The introduction of a set of incentive measures in mid 1960's and their vigorous implementation played a key role in this process.

The relative importance of the private sector has increased from 49,5 % of the value of production in manufacturing in 1950 to 63,3 % in 1973. The following table indicates in a different way the same trend in manufacturing which may be easily noticed from Table 4 above :

Table 6. Relative Share of Private Manufacturing Industry

(in per cent of the total value added in manufacturing)

	1950	1963	1967	1973
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] total	[illegible]	[illegible]	[illegible]	63.3

The private sector has given more emphasis during the last 20 years to consumer goods industries as well as to investment goods industries. It is interesting to note that during the recent years the share of the private investment in the investment goods industry exceeds 80 - 85 %. The share of the private sector of the employment in the manufacturing industry increased from 49 % in 1950 to 65 % in 1973. As stated above, this is a reflection of the liberal policies towards the private sector

One of the basic principles in investment policy in the Third Plan is that the State would undertake high priority investments (i.e. those introducing new technology or providing substantial external economies) in areas where, because of the long gestation periods, high capital requirements, and/or high risks, the private sector does not venture even when provided with reasonable inducements. On the other hand, the SEE's will not invest in fields where the private sector is sufficiently active nor expand their operations unnecessarily, except through complementary investments to improve the operational efficiency and competitiveness of existing state plants. Private investors are also barred from the exploitation of strategic natural resources and from investments with a monopolistic potential.

2.4 Regional Allocation of Industry

Turkey was a land of sharp contrast in climate, topography and development when the Republic was established in 1923. Due to an inadequate transportation system, the Anatholian Plateau had few economic relations with the outside world. The region was very much underdeveloped. During the past two-three decades, the various governments have shown a substantial concern for regional development.

The policies of dispersing public investment to correct regional imbalances, which had been initiated in the early years of the Republic were continued afterwards, and were particularly significant in the construction of large factories. Between 1950 and 1960, over 40 state factories were built in almost as many locations. Only one was in Istanbul, three in Ankara, and all but 12 were located outside the Marmara and Aegean reagion. This provided some employment in these regions, but not enough to reduce significantly the flow of migrants to large urban centers. The dispersal of the State Economic Enterprises had significant secondary growth effects.

For example, the Sugar Corporation has encouraged farm and livestock development and stimulated growth in smaller specialized industries to serve their needs. Besides their economic importance, the SEEs are often being used as a lever for important social and modernizing influence in small towns.

Private investment, aided by incentives, also increased rapidly but was concentrated around Istanbul, Ankara and Izmir. The Industrial Development Bank was established in the early fifties to channel long-term loans from external sources to private enterprises. Of the 401 projects it helped finance, 63 % were in the Marmara region (205 in Istanbul alone) and another 12 % in the Aegean (39 in Izmir), i.e. in the two most developed regions of Turkey.

The construction of a large highway network facilitated the development of outlying regions. The Government set up village institutes, promoted self-help community development, and set up a Ministry of Village Affairs in the late sixties. The regional development policies also included the spread of educational and health facilities, water supply and limited electrification.

During the 1960s in industry, market forces continued to favour location in the most developed areas, but the incentive system was changed in 1963, to induce location in the less developed areas. The rate of the investment allowance against taxable profit which was 30 % of investment for industrial projects, was set up at 50 % for projects in less developed areas. Between 1967 and 1969, the State Planning Organization was empowered temporarilly to grant allowances up to 80 %. The same principle of regional diversification was applied in the case of the construction tax, real property tax and interest rates.

Dispersion of State Economic Enterprises continued, but the need to apply economic and financial viability oriteria more strictly than in the past was stressed in choosing location. Incentive policies were developed to attract private investors towards the less developed regions, but so far without noticeable success. The national development plans adopted the objective of balanced regional development for improved social justice, and several attempts at regional planning were made, but have moved little beyond the research stage. Market forces continued to favour the location of private investment in the most developed areas in most cases, in spite of the incentives system. Limited economic opportuniteis and poor administrative and institutional capabilities in the underdeveloped regions have helped to perpetuate this situation.

Little quantitative evidence is available to assess the extend and trends of regional disparities in economic development. However, various pieces of evidence seem to indicate that regional disparities have probably increased in the past two decades. In 1965, per capita value added in the Eastern provinces (33 % of the population) was estimated at one third the level of the East Marmara provinces (13 % of population). An analysis of regional disparities based on data for 1970 shows that the ten most developed provinces are located in the western half of the country, whereas the twelve least developed provinces lie east of a straigth line drawn from Zonguldak to Gaziantep. The Istanbul and East Marmara regions in 1965, had 19,8 % of the total population of Turkey, 17,5 % of the labour force, but contributed 59,9 % of the manufacturing output.

Evidence of increasing disparities includes the significant differences in the rates at which the various regions have become urbanized from 1950 to 1970, the strong attraction of the western part of the country to private investors, in spite of special

incentives, the increased weight of Istanbul and the neighbouring provinces of East Marmara in the national economy and manufacturing in particular. The following table may help to illustrate it:

Table 7. Regional Shares

(per cent)

Region	area 1965	population 1965	value added 1965	number of workers in manufacturing 1967	value added in manufacturing 1967
Marmara	9,4	18,6	27,0	46,6	48,0
Central Anatolia	29,1	23,1	24,1	13,9	18,3
Aegean	8,3	11,2	11,7	15,1	11,6
Antalya	4,7	3,0	2,6	1,1	0,9
Cukurova	5,0	6,1	6,6	6,7	12,9
Western Black Sea	4,2	4,7	5,7	4,8	4,8
Eastern Black Sea	9,0	13,1	8,7	7,3	8,6
Eastern Anatolia	30,3	20,2	13,6	4,5	4,9
	100,0	100,0	100,0	100,0	100,0

Therefore, the Central and Eastern Anatolia and Antalya regions, where 46,3 % of the population lived, contributed only 19,5 % of the manpower and 24.1 % of the value added produced in organized manufacturing, while the Marmara region, having 18,6 % of the population, contributed 46,6 % of the employment and 48,0 % of the value added generated by organized manufacturing. The picture did not improve in the course of the last 10 years. On the contrary, it may have worsened, in spite of governments regional development policy.

Under the Third Plan in manufacturing, the public sector plans to establish new industrial plants in 33 provinces. To stimulate private investment, the Plan proposes to continue the current system of extra incentives for industries in priority areas. In addition to existing incentives, there is a need perhaps for more Government assistance in identifying and preparing projects to be located in priority areas. Further measures would include increasing the availability and reliability of electric power supply, and improving thetelecommunication network linking provincial towns to Ankara and Istanbul. The establishment of regional development corporations, as suggested in the Third Plan, may also be desirable. The Plan envisages continuation of the programme to establish estates for small industries in outlying regions based on a UNDP pilot programme. This programme seems well prepared, but suffers from a lack of trained staff for the crucial technical assistance element.

2,5 Employment in Industry

In 1950, Turkey had a population of about 21 million, mostly rural (71 %), and in 1975, reached 40 million, with 58 % rural. The average growth rate of the population is about 2,7 %. The urban population grew much faster and in 1975, is 42 % of the total.

The labour force has increased at about 1,2 % per year during the same period. It increased in industry by 4,2 % in the fifties and 3,2 % in the sixties. The low growth of the labour force (1.2 % per annum) compared with population (2,7 % per annum) can be partly explained by the rising proportion of the young, the rapid increase in the school population and the emigration of workers

abroad in the late sixties and early seventies. This emigration absorbed 14 % of the incremental labour supply after 1975, and until recently.

The share of industry in overall employment grew from 8,3 % in 1962 to 12,7 % in 1975. The development plans were theoretically in favour of labour intensive techniques, but the development policies actually implemented resulted in the use of capital intensive techniques and created much less employment than had been expected. The development policies in industry actually emphasized a high rate of growth of output and labour productivity rather than employment, although the labour surplus rose from about 1,1 million in 1962 to 2,0 million in 1975, and the unemployment rate is now around 13 % despite emigration of more than 700.000 workers abroad. A large fraction of migrant workers is made of skilled workers, who are a scarce resource for the fast growing economy.

Despite the additional employment provided by the basic materials industries- iron and steel, chemicals and cement, the analysis shows that the employment effect of the heavy investment in industries has been particularly weak. The rise of the marginal investment per worker by three to four times in the late sixties compared with the earlier periods reflects a substantial change in the structure of industry and also the effects of various factors favouring a capital intensive development, such as low interest rate policies, overvalued exchange rates and fast rising industrial wages.

Unemployment is projected in the Third Plan at 15 % of labour force outside agriculture in 1977. This ratio may even rise in reality since emigration dries up in recent years as a result of the economic slowdown in Western Europe. Some observers feel that substantial increases in employment are feasible at a small loss in terms of overall growth (e.g. a 1.2 % annual increase in employment at a loss of 0,2 % GDP growth) if more emphasis is put on housing and services.

2.6 Investment in Industry

The relatively fast and sustained growth of the Turkish economy of the last 20 years can be explained to a considerable extent by the large and growing investment effort. The share of fixed investment to GDP at ourrent prioes increased from 10,4 % in 1950, to 15,4 % in 1960, to 16,2 % as an average for the First Plan period (1963-67), to 19,3 % as an average for the Second Plan period (1968-72) and to an average 21,5 % for 1973-75. The targets for 1976 and 1977 are 24.2 % and 25.0 % respeotively.

For the whole period 1950-72 the fixed investment was equal to 17,3 % of the GNP at current prices and the resources used for inorease in stocks were 1,3 % of the GDP. It is important to state that throughout the plan periods an effort is being made to allocate less and less resources for stocks increases.

Seotoral allocation of investment respected the Plan priorities, with industry been given the highest priority. The share of industrial investment in the total fixed investment as oompared to investment in agriculture grew as follows:

Table 8. Fixed Investment in Industry
(per oent from total fixed investment in current prices)

Sectors	1950	1960	1963-67	1968-72	1973-75
Industry	10.0	27.8	31.1	37.1	40.1
Agriculture	10.0	11.1	14.9	12.2	11.5

Although the Third Plan target rate for industrial investment (45.4 %) is unlikely to be achieved, the growing investment effort in industry is obvious.

The largest ever increasing portion of industrial fixed investment has been allocated to manufacturing, followed by energy and mining industries:

Table 9. Allocation of Industrial Investment to Major Sectors

(per cent)

Sectors	1963-67	1968-72	1973-75
Mining	17.8	9.3	9.9
Manufacturing	62.7	68.2	71.2
Energy	19.5	22.5	18.9
Industry total	100.0	100.0	100.0

The distribution of the fixed investment among different industries within the manufacturing sector is of particular interest, since it indicates the long-term priorities assigned to those industries. The largest part of the manufacturing fixed investment has been allocated to industries producing intermediate products, followed by consumer goods and investment goods. The shares of food processing, beverages, tobacco, textiles, leather, rubber, cement, glass and clay industries tends to decline, while the relative shares of petroleum, chemicals, fertilizers, steel and non-ferrous, metal products and machinery as well as electronics constantly increase. This could be seen from the following table:

Table 10. Allocation of Fixed Investment Within the Manufacturing Sector

(per cent)

Sub-sectors	1963-67 actual	1968-72 actual	1973-77 projected	1973-75 actual
Consumer Goods	28.0	17.5	16.6	28.7
Food, Beverages and Tobacco	12.8	8.9	6.6	
Textiles and Clothing	15.2	8.6	10.0	
Intermediate Products	58.2	68.2	61.4	58.4
Forest Products and Printing	5.7	9.5	6.7	
Leather, Rubber and Plastics	5.1	1.9	2.1	
Petroleum, Chemicals, Fertilizers	13.0	24.4	22.7	
Cement, Glass and Clay	11.3	8.7	4.0	
Steel and non-ferrous	23.1	23.7	26.0	
Investment Goods	13.1	13.8	22.0	12.9
Metal Products and Machinery	7.5	7.5	14.1	
Electrical Machinery and Electronics	2.4	1.7	3.5	
Transport Equipment	3.2	4.5	4.4	
Small Industries	0.7	0.5	—	—
Total	100.0	100.0	100.0	100.0

Considerable increase of industrial investment is planned for 1976 (65 % at current prices). Heavy emphasis is being given to energy and mining.

2.7 Economic Efficiency in Industry

The limited information available does not allow a comprehensive analysis of the economic efficiency in the Turkish industry at different levels. However, even this fragmentory data, properly organized and analyzed, provide an opportunity to detect certain general trends characterising the performance of the industry with an emphasis on the qualitative economic indicators.

In general terms the rate of economic growth is subject to the proportion of investment in GNP and the efficiency of this investment. In the previous section, it was found that a major factor for the relatively high growth rates in Turkey has been the considerable investment effort. The gross investment was about 10 % of the GNP in the early 1950s, increased to around 15 % in the early 1960s and was in the range of 20 % in the early 1970s, i.e. it doubled within two decades. The growth rates of GNP also increased, but at a slower pace. One should not easily conclude from this, that the efficiency decreased, because thiscriterion takes into account only the investment as a factor of production and omits other factors - the utilization of current material inputs as well as of labour. One may only say that the investment - output ratio deferiorated, compared to the early 1950. An analysis of the behaviour of this indicator in the Turkish economy for the period 1962-1975 indicates slight improvement. Investment - output ratios were calculated for each year and average ones for the five year periods, dividing the fixed investment as a per cent of the GDP (both in 1968 prices) to the annual growth rates of GDP, assumung one year time lag. The average investment output ratio for 1963-67 is 3,06 going down to 2,93 for 1968-72 and further down to 2,86 for 1973-75.

The Incremental Capital Output Ratios (ICOR) were also computed, dividing the annual fixed investment in 1968 prices to annual increments in GDP in 1968 prices, assuming also one year time lag. The ICORs remain stable - from 2,80 for the First Five Year Plan period to 2,90 for the

Second and 2.86 for 1973-75. In the early 1950s, the average 5 year ICOR was 2.13.

It may be premature to derive a conclusion that the performance of the Turkish economy deteriorated. First, because the ICOR is only a partial criterion of overall efficiency and secondly, because of the complexity of factors, determining the ICOR, the drastic strucutral changes being one of them.

Similar analyssis was carried out for the whole industrial sector and particularly for manufacturing industry. Industrial fixed investment at 1971 prices and value added generated by industry at 1968 prices were used. The time lag was also assumed to be one year. For the First Five Year Plan period, the ICOR in the industrial sector was 4.25, going up to 6.38 during the Seoond Plan period and slightly down to 6.00 for the three years of the Third Plan period. The major "blame" for this deterioration should be put on the structural changes as well as on the inefficient use of the resources.

In manufacturing the trend is the same, with the only differenoe that the increase of the ICOR is more consistent from 3.16 for 1963-67, to 4,52 in 1968-72 and further up to 5,58 for 1973-75.

The above data, characterizing certain features of the economic efficiency in the national economy, in industry and in manufacturing could be summarized in the following table:

Table 11. Capital Intensity of Output

Periods	National Economy		Industry	Manufacturing
	investment-output ratio	ICOR	ICOR	ICOR
First Five Year Plan period (1963-67)	3,06	2,80	4,25	3,16
Second Five Year Plan period (1968-72)	2,93	2,90	6,38	4,52
Third Five Year Plan period (1973-75 actual)	2,86	2,86	6,00	5,58

A very comprehensive analysis is needed on the economic efficiency in the Turkish industry, and a special study should be carried out for that. One of the fundamental facts this study would have to deal with is the interpretation of the changes in the ICORs and/or investment-output ratios. All developed countries in the early stages of their industrialization experienced certain objective, inevitable increase of the capital intensity of their industrial production until they have reached certain level of development. Turkey, as well as the other developing countries are now at the stage of the growing capital-output ratio (which alone still may not mean deteriorating efficiency). The problem is, however, how much this increase is unavoidable, where the effects of poor utilization of productive resources start? Such a question, naturally, can not be answered in this study.

While investment-output ratios have progressively deteriorated in the industrial sector and in the manufacturing, the labour productivity has constantly improved. The average annual industrial growth rate for the period 1963-75, was 10,5 %. The industrial employment for the same period grew annually at 4,3 %. Therefore, roughly 60 % of the industrial growth could be attributed to a higher labour productivity, and only 40 % comes from additional employment. The role of labour productivity in industrial growth varied throughout the years from around 80 % in 1963-64, to 27 % in 1967-68 or even negative in 1970, when the employment increased more than the value added generated in industry. This relatively high contribution of the productivity is a reflection of the Government's strategy, putting more emphasis on growth and productivity, rather than on employment.

In order to draw the complete overall picture of the efficiency in the Turkish industry, an analysis of the material intensity (raw materials, fuel, energy etc.) of the industrial output should be carried out. The essential data for such an analysis however was not available when this review has been prepared.

3. The Institutional Infrastructure for Industry

Turkey is a republic, subject to constitution. Parliament is popularly elected, with a National Assembly and Senate. The industrial development plan should be approved by the parliament to become a law for implementation by the public sector and an indicative document and guidance for the private sector.

Within the government, the State Planning Organization (SPO) plays a central role in economic policy formulation. The SPO is supervised by the Prime Minister or the Deputy Prime Minister, and is headed by an Undersecretary. It consists of two bodies. One is the High Planning Council, composed of four ministers headed by the SPO supervisor and usually including the Finance Minister. In addition, the undersecretary of SPO and the heads of the three departments, mentioned below are members, bringing the total of eight in all. The High Planning Council is responsible for recommending the five year plans and the annual programmes to the government, and thus plays a crucial role in setting priorities. The High Planning Council regularly reviews the implementation reports prepared by the staff of the SPO and recommends measures to the government.

The second body is the SPO staff with its three main departments: Economic Planning, Social Planning and Co-ordination. The first two are responsible for the preparation of the plans and annual programmes as well as research, analysis and policy recommendations in their respective fields while the third department is charged with the follow-up of the plan implementation and with maintaining co-ordination among various government agencies.

Three Ministries also play a considerable role in the overall decision-making process: the Ministry of Industry and Technology, of Finance and of Commerce. Other ministries are also concerned with specific aspects of industrial development decision making and implementation, but they are not as significant as the above three. The Ministry of Industry and Technology is of importance, both because it administers many of the investment incentives

currently affecting the direction of industrial growth, and because the State Economic Enterprises in the industrial sector are under its supervision. The Ministry of Finance has traditionally been the prestigious ministry, vieing with the State Planning Organization for control over economic policy. The Ministry of Commerce is instrumental in the formulation of the foreign trade regime, implementation of export incentives, and so on.

In addition to the ministries, there are also other Government institutions at a lower level which play a role in guiding industrial development. Chief among them are the Central Bank, DYB and the SEE. The role of the Central Bank was strengthened in the 1960's. It has a major responsibility for the allocation of credit to different industrial sectors, and for setting guidelines for allocating credit lines to individual firms.

The DYB lends to the SEE on the basis of their creditworthiness. It is therefore an agency which affects the allocation of resources within the public sector.

The State Economic Enterprises (SEE) play a significant role in industrial development through their own decisions, as well as influencing the decisions of other government institutions. All investments undertaken by the SEE must first have the SPO approval. SEE's are usually set up, as stated earlier, on a branch principle. They did play and will continue to play a significant role in achieving certain strategic industrial development goals, in regional diversification of industry, solving important political, social and other problems of crucial importance to the country.

The private sector also has a variety of interests and concerns about the direction of economic policy. There are different ways in which it can and does influence decisions. Until recently, the major official mechanism was the Union of Chambers of Commerce and Industry - an organization of private sector firms. Each industrial sector has its own Chamber. The chambers were regional, and then, when meeting together in Ankara, constituted the Union of Chambers. The Union represents private sector interests in a number of ways.

Other private sector organizations have been established in the 1970's, such as the Association of Industrialists and Businessmen, and they, too, speak out on economic policy issues and represent private sector interests.

In addition to the influence of industrialists, there are trade unions with their own interests in the direction of the industrial development. In general, they have been interested in issues such as higher wages, collective bargaining rights, retirement benefits, and other issues affecting working conditions and rewards.

4. Industrial Development Policy Objectives and Strategies

Turkey has followed a consistent development strategy since the establishment of the Republic in 1923. The aim of this strategy was a modernization of the country in a system of a mixed economy, the main emphasis being put on industrialization and self-sufficiency. A varying importance was always put on the integration and development of the backward regions. The development of industry and in particular manufacturing and energy have consistently been given a high priority, with relatively less attention to employment.

In order to pursue the development strategy of the country in a more systematic, consistent and co-ordinated way, the economic planning was made a requirement in the 1961 Constitution and was introduced as from early 1960 in the form of national development plans.

4.1 Industrial Development Objectives and Strategies during the First Five Year Plan (1963-1967)

The First Five Year Plan pursued the traditional strategy of industrialization in a mixed economy more vigorously and systematically. More emphasis than in the past was put on achieving a higher rate of growth and investment in a balanced economy as well as on the composition and sectoral allocation of investment. Attention was also diverted to

better regional balance in the allocation of industries, better economic organization and more consistent government economic policies stimulating industrial development - both in the public and private sectors. More attention was paid to improving the entire system of the State Economic Enterprises in Industry and particularly their efficiency. Other objectives were to increase the number of new employment opportunities in industry, to improve the mobilization of domestic resources for financing economic development, to increase the contribution of industry in reducing the balance of payments deficit, and so on.

4.2 Industrial Development Objectives and Strategies during the Second Five Year Plan (1968-1972)

The main objective of the Second Plan was defined as follows: "The Second Plan aims at strengthening the structure of the Turkish economy to a level capable of sustaining a high role of growth through efforts consistent with the principles of social justice and of equality in opportunity and, consequently, it aims at raising the standard of living of future generations rather than raising the physical welfare or consumption level of the community during the period 1967-1972".

The industrial sector has been assigned a leading role in achieving the main objective - to accelerate the rate of industrial activity in order to obtain rapid development and considerable structural changes. The planned growth of the industrial sector has been based on the rapid increase in demand, the domestic raw material availabilities, the mobilization of domestic investment funds, utilization of modern production technologies suitable to the conditions in Turkey. Through rapid industrialization it was expected to change the traditional structure of the economy and achieve important employment and foreign trade effects.

Priority in distribution of investments was given to the industrial sector and particularly manufacturing. First priority within the manufacturing sector was given to intermediate goods industries - chemicals, fertilizers, iron and steel, petroleum, cement, metals, rubber, etc., followed by investment goods industries. Priority was also given to energy, followed by mining industry.

Objectives were set-up for improving the organization of the industrial sector, the system of policy measures and regulations, lowering the production costs. The policy of import substitution and industrial export promotion was reiterated again, a special attention was drawn to the economically justified scale of production units, to increasing employment in manufacturing, to better distribution of manufacturing capacities throughout the country on the basis of certain criteria and improving industrial research and technical services.

4.3 Industrial Development Objectives and Strategies during the Third Five Year Plan (1973-1977)

The Third Plan development strategy is a continuation of the strategy of the two previous plans and constitutes the first stage of a long-term strategy for the period 1973-1995. The Third Plan target growth rate for GDP averages 8% per year. Value added in industry at factor cost is expected to grow at 11% per year. The share of industry in GDP would increase to almost 27% in 1977. Considerable ever growing portion of the total investment is allocated to industry.

The strategy of industrialization embodied in the Third Plan consists of an acceleration of growth, application of advanced technology and a farther shift in emphasis from consumer goods to intermediate and basic investment goods industries. These objectives are necessitated by the projected domestic demand, the achieved level of import substitution and the imperative need to prepare the industry for joining the European Economic Community (EEC).

Manufacturing output is expected to increase at more than 11% per year with first priority given in the allocation of investment to intermediate goods, followed by investment goods and consumer goods,(particularly textiles and clothing). In investment goods industries, emphasis is placed on production of diesel engines, a shipyard and other transportation requirements, and on heavy machinery and equipment as well as electronics. In the

metallurgical industry priority is given to expansion of existing iron and steel capacities, aluminum, zinc and lead projects as well as to a substantail expansion of the chemical, cement, pulp and paper industries.

Export of manufacturing goods will accelerate, reflecting the structural changes in production, with more emphasis on exports of intermediate and investment goods, as well as textiles.

The mining sector targets aim at meeting the requirements of the industrialization strategy in terms of inputs and energy, with a more efficient exploration and use of domestic natural resources. The primary objective of the energy policies is to meet demand as far as possible from domestic resources. For that purpose energy production will grow at a higher rate than manufacturing and other industrial and non-industrial sectors.

The industrial policy of the plan advocates incentives and reasonable protection for intermediate and investment goods industries which require advanced technology, control of monopolistic industries and integration of branches with high inter-industry transactions. Research and training in technology, productivity and standards will be promoted.

The public sector will continue to play a leading role in industrial development. It will invest in large projects and in projects required by the strategy of the Plan, which are not taken up by the private sector due to size, low profit or risk. Private investment is to be encouraged, also in the priority areas (except for strategic natural resources and monopolistic industries) and joint foreign investment is accepted when it introduces new advanced technology, promotes export and is internationally competitive.

The high growth targets, the changing industrial structure, and higher level of technology aimed at in the Plan are to be achieved under considerably deteriorated economic conditions in the world economy, particularly in the major partners of Turkey.

4.4 Long-term Industrial Development Strategy and Objectives (1973-1995)

The long-term development strategy of Turkey for the 22 year period 1973-1995, when she expects to become a full member of the EEC, requires the realization of the following basic objectives: to raise the standard of living to the level prevailing in Italy in 1970, through accelerated industrialization in a mixed economic system, solving the employment problem, improving the income distribution, while decreasing considerably the dependence on foreign capital. The achievement of the long-term objectives are expected to resolve the major problems currently facing the economy and prepare the country for joining the European Common Market by 1995.

The time horizon and the components of the long-term development strategy are determined by the Turkish decisions to joint the EEC and the respective commitments she undertook by the Annex protocol signed in 1970. It becomes a necessity for Turkey to prepare herself for joining the EEC as a full member - i.e. to reach a level of development and economic structure corresponding to the other EEC member countries. According to the Ankara Agreement, the last phase will be based on a customs union and will be a period when Turkey's economic policies will be made to merge with the Community's common economic policies. If Turkey does not secure this, the EEC common economic policies may hurt her vital national interests.

In the long-term strategy GDP at market prices is expected to raise at 9% per annum. The industry will grow at 10.7 % per year and will generate 37% of GDP by 1995. Within manufacturing industry priority will be given to investment, intermediate and durable consumer goods. Particular attention will be paid to the development of chemical and petrochemical industries, building materials industries, metal and metal products, machinery and transport equipment, electronic equipment.

Financing the sustained growth of investment required by the strategy objectives will call for rapid increase in savings (private and public), achieving one third in relation to the GDP. The marginal ratio on domestic savings is expected to increase to 35 % for the 22 year period. Foreign capital will be welcomed to cover the domestic savings gap, provided it introduces advanced technology, training of qualified manpower and opens up export markets. Industry will absorb as an average 48 - 50% of total fixed investment.

In the long-term development strategy, the employment situation is expected to deteriorate until 1987 and improve thereafter. The strategy does not assume constraints in the supply of skilled labour in reaching a fast growth rate with a significantly different growth pattern. The use of modern and capital intensive technologies in industry and skill improvement will contribute to a substantial increase in labour productivity.

The State is expected to continue to be mainly responsible for attaining the goals of rapid industrialization. It is assumed that the private sector is still financially too weak to undertake large investment projects. The State thus has the responsibility of establishing industries which are capital intensive, require an advanced technology, involve an undue amount of risk, projects which concern national defense or which are considered necessary for carrying on the regional development policy.

In order to achieve the economic and social objectives for 1995 a number of principles are set forth in the strategy which are to guide the policy-makers over the coming years. First and foremost, sweeping reforms in the public sector, in the central and local administration and the State Economic Enterprises are considered to be essential conditions for attaining the desired objectives. Emphasis is given to coherence of administration by effective vertical and horizontal co-ordination. The need to reorganize the State Economic Enterprises along the lines of modern managerial practices has once again been strongly underlined.

The long-term strategy calls for a type of growth in industry, which relies almost equally on additional employment as well as on increased labour productivity. With an average annual industrial growth rate for 1973-1995, of 10,7 per cent, the employment in industry will grow annually at 5.8%. Therefore, about 45 per cent of the industrial growth will come from increased labour productivity.

The long-term strategy also calls for more insistant action in improving considerably the economic efficiency in the national economy, industry included, for following a more consistent policy of regional diversification of industrial establishments, for developing an appropriate infrastructure for economic and social development, etc.

The reduced dependence on foreign resources is to be reached by increased exports, especially industrial exports, combined with import substitution in industrial raw material and capital goods, to meet the rapidly increasing demand in these sectors. The central objective of rapid industrialization is expected to influence and guide major policies in other areas such as fiscal, monetary, credit and foreign trade policies, incentive measures, education programmes, infrastructural development policies.

The long-term strategy contains broad guidelines for policy in respect of education, health, housing, urbanization, etc. these are mainly seen in the context of industrialization, social stability and welfare. Such policies will be implemented only to the extent that they do not conflict with the main targets of rapid industrialization.

The most important quantitative targets of the long-term industrial development strategy until 1995 may be summarized as follows:

Table 12. Long Term Targets (1972-1395)

Items	1972-11 average	1972-87 average	1987-95 average	1972-1395 average
1. Population - average annual growth rate %	2.4	2.5	2.2	2.4
2. Gross Domestic Product (market prices) - average annual growth rate %	8.0	8.7	9.7	9.0
3. GDP per capita average annual increase %	5.1	5.8	7.3	6.3
4. Industrial output at 1971 prices - average annual growth rate %	11.3	11.0	10.3	10.7
5. Labour productivity in industry - average annual increase %	4.2	5.6	4.3	5.1
6. Investment in industry percentage from total investment %	45	48	50	49

	1972	1977	1987	1995
1. Population, millions	37,5	42,6	55,5	65,9
2. Total domestic savings as percentage of GDP %	19,6	25,4	30,5	31,7
3. Industrial ouput as percentage of GDP at factor cost %	23	27	34	37
4. Employment in industry - percentage of total employment %	11	14	18	22

5. Potentials and Constraints

5.1 Infrastructure

Electric power supply is one of the most essential components of industrial infrastructure. The combination of rapid industrialization and urbanization during the last twenty years was responsible for the fast growth of energy production and consumption. Electricity generation increased from 1.2 billion KWH in 1953 to 15.6 KWH in 1975, or around 12% average annual rate. In 1973 a serious power shortage appeared as demand boomed and the completion of major power generating stations under construction was delayed. The industry consumes 75 - 76 % from the electricity throughout the last two decades. This share is expected to continue through the next two decades in accordance with the planned emphasis on industrialization.

Total energy consumption increased from 7.7 million tons of petroleum equivalent in 1950 to 21.3 million tons in 1972 and is expected to reach 64 million tons by 1985. The demand for electric power is expected to rise at about 14% annually through 1978-80 as a result of entry into operation of some power intensive industries. Thereafter the annual rates are expected to be in the range of 10-11% up to 1985 and 7 - 8 % through the end of the century. If more power intensive pattern of industrial development is adopted those rates have to be increased, otherwise power shortages may develop. The electric supply system is expected to be strained until the completion of the large Elbistan project, scheduled to come into operation in successive stages in 1978-80. The development programme is a complex one, including over 30 projects through 1987.

Turkey has an integrated eyetem oovering the western and central portion of the country. This system is being expanded with a goal of establishing a grid oovering virtually the whole of the country by 1980. The Turkieh system is connected with the neighbouring Bulgarian system. Similar arrangements have been explored with USSR, Syria, Iran.

The primary objective of the energy policies is to meet demand as far as poesible from domestic sources. The development of multi-purpoee hydroelectric plants is to be accelerated. The introduction of nuclear energy is to be explored and poeeibly also acoelerated. Electric power development after 1990 will have to rely heavily on nuclear energy. A nuclear power plant of about 600 MW is coneidered for the early 1980's. The steep rise in the oost of imported oil , (in 1975 more than 38% of electrioity was generated from fuel oil), underlines the importance of growing priority to domestic energy sources (mainly lignite and hydro power) and the need to develop them as soon as poesible. The possible use of geothermal reeources (in the Agean region) for power production has been under consideration for some time and there are tentative plans in thie respect.

The investments in the field of energy are eo figured as to prevent the latter from becoming a bottleneck in the coming years and eepecially to oomply with the requiremente of a rapid induetrialization. Priority ie given to investments aimed at the construction of hydro-electric and thermal power plante and the expaneion of the existing ones, and to thoee allocated to the expansion and modernization of the power, communication and distribution networks, to the utilization of domestic geothermal potential and of natural gas.

Traneport ie another indiepeneable component of industrial infra- · etructure. Growth in transport eince 1950 came mostly from the construction of a large network of roads linking the rural districts to the cities, in oontraat with the emphasis on railway construction in the previous period. Although there have been heavy investments in the past twelve years, Turkey's road eystem is still less than adequate. At the end of 1974 there were 224000 km of roads and tracks, including 35,000 km of state highway (over 50% of which were concreted or asphalted roads). The length of surfaced national and provincial roads doubled and traffic density increased

from 0.1 million unit-km per km of road to 1.2 million. Road transportation is the primary mean of land transport, its share of freight transport increasing from 24% in 1950 to 72% in 1972. Emphasis now is on improvements. There is a provision for a double carriageway super-highway through Turkey from Bulgaria and Greece to Syria, and for a new coastal road from Istanbul to Iskenderum. Although work on the first highway has begun, neither of these is likely to be completed until the mid-1980's.

The railway network remained substantially the same - 8,140 km in December 1974. The situation of the railways deteriorated, as a result of the lack of funds for the maintenance, low rates, and poor conformity to the new pattern of traffic flows, resulting from the fast economic growth. There is no sufficient finance to provide new locomotives and rolling stock which are badly required, although the railway have begun local production of shunting and main-line diesel locomotives. Rehabilitation programme is in process. If considerable improvements were not made in the near future, the rail transport may cause some difficulties and become a bottleneck in the implementation of the industrial development strategy.

Water transport increased at about 6% per year in the 1960's, the merchant fleet consisting of small and old ships. In 1974 Turkish vessels handled only one third of the international cargo at Turkish ports. Up to 20% of export earnings are spent on foreign freight. Efforts are being made to increase holding of modern vessels. Shipbuilding capacities increase. More efforts are needed for the expansion of maritime transport to meet the increasing demand of the economy and the industry in partioular.

The commercial air fleet expanded considerably, responding to a high growing demand. The expansion will continue by obtaining more aeroplanes, building large and modern airports, modernizing the existing ones, etc.

The other element of the infrastructure - the housing increased fast, particularly in the 1950's, with the floor area of the construction permits increasing at 8% per annum between 1956 and 1972. Urbanization,

massive industrial development and higher inoomes growth contributed to this expansion. In the course of the current Plan and in the future in the housing sector, efforts will be directed towards the construction of large scale housing schemes and the acquisition of land by the public sector to avoid speculation Housing should probably grow at a higher rate than planned to provide accommodation for the increasing number of people to be employed in industry as well as other sectors of the economy.

In the field of education, including adult education, due priority is given to the investments for formal education designed to meet especially the need of the developing industry for skilled manpwer.

Investments in health services, designed to preserve and/or improve environmental condition and to develop preventive medicine are given a priority.

5.2 Raw Materials Resources

Turkey is a fairly rich country as regards natural resources, although she is not at a point of self sufficiency in some of the essential minerals and petroleum.

Turkey has solid agricultural raw materials resources. It has probably a greater long-run comparative advantage in agriculture than do most developing countries due to her climate, combined with proximity to Europe. The Mediterranen coast, the Anatolian plateau and the Black Sea region have distinctly different climates and provide for a wide range of agricultural production. Crops vary from cotton, tobacco, olive oil, sugar beets, fruits and vegetables, citrus fruits and nuts to wheat and other grains. Livestock, fishery and forestry potential are also significant. Substantial part of the agricultural products have been and will be exported fresh, but they constitute a ground for further development of agrobased industries to meet increasing local demand as well as for exports. Improved relations with EEC are expected to continue exerting additional demands for fresh, semi-prccessed and processed agricultural products.

Turkey's substantial mineral reserves have still only been partly surveyed and are as yet little developed. Large quantities of the following minerals have been found: bauxite, borax, chrome, copper, iron, manganese, sulphur, tungsten, coal, lignite and others. The mining sector has not played an important role in the Turkish economy despite the existence of extensive mineral resources and strong potential demand. This is essentially due to insufficient exploration of the resources, high transport costs, obsolete mining laws, management and staffing problems in the institutions dealing with this sector.

The mining industry has a high priority for development at the Third Plan. The plan sets a target for roughly doubling minerals production between 1972 and 1977, corresponding to an average annual growth rate of 15%. Production of metalic minerals will grow by no less than 27% per year. This will considerably reduce the import of minerals and on the other hand provide output for export, and , which is more important, for developing processing capacities in the economy in a medium and long-run. Iron ore production would be stepped up from 1.6 million tons of Fe content to 5.5 million tons in 1977, virtually eliminating the need for import at this stage. In the short and medium term, however, iron ore output will not keep pace with demand and some imports are necessary.

Particular attention has been paid recently to setting up an aluminium industry using Turkey's unexploitated reserves of bauxite. The newly built plant has an annual production capacity of 200,000 tons of alumina, 60,000 tons of aluminium ingots and 25,000 tons of rolled products.

Large investments have been made in the further development of the copper industry. A lead and zinc ore processing complex is being constructed.

About 40% of the investment in mining for the Third Plan is to be allocated to prospecting and research, excluding metallurgy.

Turkey's known oil deposits, mostly in Siirt province, currently meet less than 30% of domestic demand. Oil has been produced in small quantities since the 1930's but no significant fields have been discovered. There are two general reserve areas: at Batman in southeast and on the Mediterranean coast near Iskenderum. Off-shore prospecting is under way near Iskenderum.

Proven reserves are variously estimated at 20 to 70 million tons, or only 6 to 20 year at current produotion rates. The wells are generally low-yielding and prospects are not bright for increased production.

Under an agreement signed in 1973, construction of a 900-km pipeline to carry Iraqi crude oil from Kirkuk to Dörfiol was begun in 1975. Intially, this $ 400 million pipeline will carry 25 million tons a year, rising up to 35 million tons a year in 1983. Of this Turkey will receive up to an annual 14 million tons at preferential rates, as well as transit royalties. There is also a scheme for piping Iraqi natural gas to Turkey. Similar explorations have been made earlier with Iran.

No commercial fields of natural gas are known and there is no production, although some assooiated gas does ocour in connexion with the oil production.

The investments in mining industry during the Third Plan as well as in the long-term are being and will be directed especially to the exploration and production of metals which would supply the inputs needed in manufacturing end energy and would contribute to the increase of exports. The average annual growth rate in mining for the period 1973-1987 is 13%.

5.3 Manpower, Technical and Managerial Personnel

In 1950 Turkey had a population of about 21 million, mostly rural (71%). In 1976 it is 41 million. The total Turkish population is expected to increase at an average of 2.6% per year between 1973 and 1987, and at 2.2% from 1987 to 1995. The population of Turkey is expected to be about 65 million in 1995.

A very rapid rural-urban migration occured in the 1950's and 1960's. This process will continue in the following two decades and as a result the share of the urban population from 38% in 1972 is expected to increase to 75% in 1995.

Both, the rapid population growth and the fast urbanization process helped to provide an abundant manpower, at least in quantitative terms, which industry and other sectors can not absorb. This results in a high unemployment rate, in spite of the massive emigration abroad until 1973.

For the period 1973-1995, the average annual increase of employment in industry will be 5.8% and the share of industrial employment will increase from 11% in 1972 to 22% in 1995.

One may say safely that from quantitative point of view the manpower was not and is not expected to be a constraint for a rapid industrial development in Turkey. From qualitative point of view, however, the picture is somewhat different - there is a large reservoir of unskilled and semiskilled workers and a relative shortage of skilled personnel, highly qualified technical and managerial personnel. The core of the problem is how to improve the situation?

The educational system has played and will be playing a major role in solving this problem. The extension and improvement of the educational system has long been one of Turkey's main social needs - the demand for education and for skilled manpower is greater than the existing system can meet. This shortfall is manifested particularly at the secondary school level. Furthermore, the Universities produce too many art graduates and too few of the kinds of technical manpower the economy requires. There continue to be a great shortage of technicians; the ratio of technicians to professionals is less than two to one, as against a ratio of around four to one in industrialized countries.

Considerable progress has been made in the last 15 years in extending primary education, however, the general illiteracy rate of the population over six years of age was still 54.6 per cent in 1970. The primary school enrollment increased to 84%. The expansion of the programmes for adult education and training is being combined with greater vocational content. The Third Plan aims at an extensive reorganization of these facilities.

In the last decade, there have been striking increases in the numbers of technical personnel: between 1960 and 1970 the number of engineers, technicians and skilled craftsmen doubled. But there is still an overall shortage of technical manpower and particularly marked imbalances in certain lines. Thus, in 1972 there were excess supplies of certain kinds of engineers, such as construction, chemical, but severe shortages of other types, such as electrical engineers. There were shortages of all types of technicians and particularly of skilled building workers. The Third Plan aims not only at increasing the number of trained personnel, but also at correcting these imbalances , though shortages of various types of skilled manpower and particular of technicians are foreseen even in 1990.

The Plan has an ambitious scheme of educational reform. The structure of the educational system is to be altered, and its scope considerably extended to serve better the needs of the socio-economic development. By 1977, for example, primary school attendance is expected to be 100 per cent of the relevant age group, and by 1995, 77 per cent will be in the middle school; 45% will receive secondary education and 15 per cent university education.

The pattern of secondary education will be changed substantially. At present, about 60 per cent of the students in this level take general courses in lycees, and 40 per cent are in vocational and technical institutes. The Plan aims at switching these proportions to 35 per cent in the lycees and 65 per cent in the vocational and technical institutes by 1995. The attendance at the vocational and technical institutes is to expand most rapidly, followed by the institutes of higher education.

The structure of the universities is not to be changed greatly, though there will be greater emphasis on the training of technical management and scientific manpower.

Some studies indicate that the Turkish labour force has at present an excess capacity of professionals and a shortage of skilled urban labour force and middle-school level administrators. Growth requirements during 1973-1987 would require the training of 3 million persons in excess of what can be provided by the present educational system. A large proportion of the additional training needs consists of skilled workers of the middle school level and of managerial and clerical workers. During the whole period, the present educational system would continue to provide an excess of

of technical and professional workers who will have to be employed at a lower grade in their professions.

5.4 Foreign Exchange Position

The Turkish balance of payments has been historically characterized by a foreign exchange shortage. The deficit on current account averaged about $ 120 million per year in the 1950's increasing to an average of $ 180 million per year in the 1960's. There was a substantial current account surplus in 1973, which swung sharply to an expected deficit of $ 1,950 million in 1975. Turkish foreign trade and exchange policies have been shaped by this chronic disequilibrium situation, with complex and rigid controls throughout the last 20 years which varied in severity from time to time.

The origin of the chronic balance of payment disequilibrium in the fifties lay essentially in the rapid rise of demand for imports of investment goods and raw materials resulting from growing investment requirements, combined with sluggish exports resulting from the inelasticity of demand for Turkey's traditional exports and the lack of orientation of manufacturing towards exports. Net income from services was small, as was the net inflow from foreign investment. This structural problem was even compounded by the effects of price inflation on the balance of payments throughout much of the period. The process culminated in a liquidity crisis which led in 1958 to a debt consolidation and relief by Turkey's debtors. During the sixties, official assistance came essentially from the OECD consortium organized in 1962 which disbursed $ 2.5 billion during 1963-1972. The large deficit occuring in recent years was covered partially by using up the accumulated reserves and partially through recourse to short-term borrowing from abroad. At the end of 1972 Turkey's external medium and long-term outstanding (and disbursed) was $ 2.5 billion.

However, not all of the deficit can be explained with domestic economic and non-economic factors. There were and still are definitly factors external to the Turkish economy such as the increase in the petroleum prices, the general recession in the world economy, increasingly more protectionist policies abroad, etc.

The Third Plan projected continued improvement in the balance of payments with a declining dependance on foreign aid. The trade balance deficit in 1977 is projected to be only $ 675 million and the current account balance - a deficit of only $ 130 million. For the year 1987 the trade deficit is projected to be $ 750 million, while the current account balance is expected to be positive - $ 100 million.

The Third Plan projections have been overtaken by events. Some of the assumptions on which these projections were based are no longer valid. Commodity imports at constant prices will probably grow at more than 13% per annum, compared to 7.1% in the plan. In current prices the rise will be more substantial due to the rises in oil and other raw material prices and to general worldwide inflation. Oil import costs, for example, may rise in current prices from $ 210 million in 1973 to almost $ 800 in 1977.

Some studies on the balance of payments projections indicate that given the prospects of growth, worker's remittances and capital flows, the debt servicing capacity of the country in the medium term will not be substantially affected by possible variations in export and import growth, the rate of inflation, the parity of the lira or the terms of borrowing. On the other hand, a continued stagnation of the FR Germany economy, leading to a substantial return of Turkish workers (or at least not accepting more workers) and reduced flow of remittances, would reduce substantially the level of foreign exchange reserves, unless this is compensated by sending Turkish workers to Libya (as recently discussed), or by larger borrowing from abroad. If the economic stagnation is generalized to the other major trade partners of Turkey and prolonged, Turkish exports and particularly industrial exports, would also be negatively affected. The exports may then slow down, unless new export markets are found.

The balance of payments is likely to remain under pressure at least for the next few years, if not longer. Appropriate policies to expand exports, containment of import growth to overall foreign exchange availability and concentration on improving disbursements on existing commitments may prevent the balance of payments from deteriorating markedly.

Turkey continues to be creditworthy for substantial external borrowing. Even if suppliers' credits increase modestly, the debt service ratio as a proportion of total foreign exchange earnings may remain below 10 per cent for the next few years. However, in view of the hardening terms of official inflows of external assistance and the pressure on the balance of payments, borrowing on suppliers' credit terms should be carefully controlled.

Both the Tird Plan and the Long-term Perspective are weak in the analysis of the export markets for the major commodities, of the competitiveness of Turkish exports in these markets, and particularly weak in the analysis of the implications of the EEC agreement on the structure and growth of the economy, including structure and growth of future imports and exports.

In a situation where substantial foreign exchange reserves have been accumulated, but where inflation and shortages have appeared and even short term prospects are incertain, the medium- and long-term prospects of the balance of payments are particularly difficult to forecast.

6. Policy Measures and Programming of Implementation

The previous presentation indicated in very general terms the performance of the Turkish industry as well as the medium and long-term targets set up by the top policy making authorities. Both for assuring the successful industrial development in the past and for achieving the targets of the future, certain mechanisms of economic, organizational, planning and other measures have been and will be used in Turkey. The following presentation will briefly review some of the most important instruments being used by the Turkish authorities, related to industrial development.

6.1 Industrial Planning

To pursue the development strategy of the country in a more consistent way and to implement it successfully in reality, economic planning was made a requirement in the 1961 Constitution. It was introduced in the form of a national development plan. Planning attempts were made in Turkey in the 1930's and after the war, but they were not successful.

The time horizon of the Turkish national development plans has been always determined by the time horizon of the strategic development goals. The first 15 year perspective covering the period 1963-1977 was aimed at "the solution of social problems and raising the level of general welfare". Within it two Five Year Plans were implemented.

During the First Plan (1963-67) and the Second Plan (1968-72) the strategy of modernization and industrialization in a mixed economy was pursued more igorously and systematically. More emphasis than in the past was put on achieving a higher rate of growth and investment in a balanced economy. Attention was also diverted to important social objectives - more equitable income distribution, balanced regional development as well as improving the efficiency of the public sector, problems of economic organization, important reforms, etc.

The new developments that have emerged during this period (domestic and international) required a new approach in setting up strategic goals and priorities. This necessitated to elaborate the Third Plan as a first phase within a new long-term development plan. The time horizon of the new perspective plan (1973-1995) is determined by the commitments Turkey undertook in her relations with the European Economic Community - the decision to join the EEC as a full member by the end of the Century. The underlying consideration in determining the new perspective targets is a development level and economic structure corresponding to the level of other EEC member countries and taking into account the domestic socio-economic conditions in Turkey. Reaching the development and income level and economic structure of Italy by 1970 has been adopted as a strategic target, with the condition that Turkey's potentials are utilized in the best possible way.

The Five Year Plans set the basic targets at national or sectoral levels in terms of output, investment, etc. for the entire plan period. Although some important annual targets are stated, the plan does not devote much attention to the timing of the outputs and investments over the period.

Once the plan is accepted by Parliament, comprehensive Annual Programmes are being prepared. Throughout the programming and implementation stage the Plan remains a key document, and its provisions affect the Annual Programmes and the incentive measures and regulations in a variety of ways. The Annual Programmes contain a list of the investment projects (ongoing or new) during the year, the sectoral and subsectoral distribution of investments for the public sector. It also contains a list of promotion measures and the industries to which they will apply in the private sector. If and when the conditions change certain adjustments may be made in the originally planned targets through the Annual Programmes. The implementation stage then consists of making financial arrangements for the public sector and granting appropriate incentives and guidance to the private sector. Plan targets assigned to the public sector are compulsory, whilst those for the private sector are indicative. Through a system of policy measures and incentives the private sector is guided to implement the indicative targets.

In the framework of the national plan as from 1972 provincial plans are also been successfully prepared and implemented. These plans help to carry out the regional development policy of the government.

6.2 Policy for Regional Development

The general policy for investment allocation puts a special stress on the necessity of a countrywide expansion of industry. Priority regions are identified and they are given a share from industry at least in proportion of their existing potentials. A number of principles are set to guide the implementation of this policy.

Direct ation in terms of locating public enterprises in priority backward regions, even at the expense of short-term efficiency considerations has had a great impact on regional development. This policy will be followed in the future too in selecting the location of public sector projects.

As stated earlier in this review, special [illegible] for private sector investments in regions classified as underdeveloped. The investment allowance for underdeveloped regions is 50 per cent as compared to 30 per cent for other regions and the interest subsidies announced for 1973 are increased by 1 per cent for investment credits in backward regions. Although these incentives for promoting regional development increase the profitability for investors in outlying regions, they seem to have been insufficient to offset the disadvantages existing in such regions. Vigorous promotion measures would be needed to attract more private capital in underdeveloped regions.

The Third Plan emphasizes the continued development of the mineral and agricultural resources of the underdeveloped regions, continued implantation of state-sponsored "seed" projects in textiles, construction materials, food processing, engineering industries as well as the application of preferential incentives for private industries.

6.3 State Economic Enterprises Policy

Another important instrument extensively used for implementation of the industrial development strategy is the establishment and promotion of State Economic Enterprises (SEE) in the industrial sector.

SEE system was developed in the mid-1930's. Now they play a very important role as an efficient tool for direct and indirect government intervention in taking and implementing development decisions? The basic reason for such intervention is the obligation of the government to achieve specific objectives within specified periods.

Due to various reasons (such as imbalances in the markets for production factors, lack of adequate resources in the private sector, insufficiency of know-how and organization, unwillingness to take risks, the profit oriented operation of the private sector), possibilities of proper resource allocation to achieve the envisaged development objectives are limited should the market mechanism be left to function free. Thus government intervention becomes a necessity. Moreover, one should not forget that an incentive system has its costs, sometimes rather high. Under such conditions, it is felt in Turkey, it would be more rational for the government to indulge directly in entrepreneurship, than to bear most of the risk and the financial burden, while letting private capital do the management and profit from it, without always acting in accordance with the national development strategy, objectives and priorities.

The limits of state intervention through SEE are mainly determined by the development objectives. The division of responsibility between the public and private sector thus determined allows both sectors to operate in a mutually complementary manner and develop without limiting each other.

The SEE are assigned numerous production, economic and social responsibilities. They can influence the level of consumption of some goods, the resource allocation among economic sectors and subsectors, the distribution and redistribution of income, the level of employment, encourage the development of backward regions, etc. In an inflationary environment, they may contribute within certain limits to price stability.

The SEE has usually followed a policy of rigid prices in the face of general inflation in the rest of the economy. This policy has been followed as a means of restraining the rise in the general price level and, in the case of SEE prices of intermediate goods, as a means of encouraging industrialization and import substitution. In many cases, low prices had social aims as well, particularly maintaining the income of some groups, maintaining low price for some essential goods and services, employment in underdeveloped regions, etc. The pressure on the budget to finance the deficits incurred by SEE led in the past to certain price increases for goods and services they produce.

The functioning of the SEE is closely related with setting-up and implementation of industrial development priorities, especially when the incentive instruments available to alter the private sector behaviour do not bring about the desired results. For instance, when an investment target for a given sector or region is not fulfilled by the private sector, the availability of SEE gives the government an additional instrument with which to achieve the target.

The relative importance of each of these objectives has varied considerably in the last two-three decades, and is expected to do so in the future.

The SEE have experienced in the past and are still experiencing some financial difficulties, in terms of low profitability and efficiency. The low financial performance may derive from two reasons: inefficient operations and management, and the pursuit of non-economic objectives assigned to them. A firm judgement on economic efficiency of SEE can be arrived at only by first separating the costs incurred by these establishments to fulfill the non-economic functions they perform on behalf of the government, and secondly by individually analyzing the SEE for their efficiency of operations. If this were not done one may not be certain that the funds which are now being allocated to the SEE for performing a number of socio-economic (non-commercial) functions, would not have been spent by the government, channelled in a different way, for achieving the same objectives and priorities.

6.4 Technological Policy

As stated earlier, growth and productivity figure very highly among the fundamental industrial development objectives, both in the past and in the future. These ambitious objectives cannot be achieved without a sound technological policy. This fact necessitated the elaboration of a long-term technological policy in Turkey, supplemented by a set of instruments and incentives for its implementation.

In the fields where foreign competition from the point of view of quality and production cost is great, especially in the chemical, petrochemical, machinery manufacture, metal goods, non-ferrous metals, electronics, the use of the most advanced technology is considered to be fundamental. The plans advocate incentives and reasonable protection for intermediate and investment goods industries, which require advanced technology. Research and training in technology, productivity and standards in such industries are being promoted. In other areas, where certain inferiority in the quality and cost could be tolerated, labour intensive production technology is being used.

In selecting the technologies, special attention is paid so that they respond best to the priorities of the Plan, to the needs of the country and are complementary to the existing technologies and enhance their improvement. The utilization of imported technology in the most effective manner is considered to be fundamental. For this reason, the adaptability of the imported technologies to the conditions of the country is being taken into consideration. Special attention is being paid to avoid import of different patents for similar technologies. Provisions imposing hinderance or limitation to exports are not accepted when license agreements are concluded.

Foreign investments in industrial development in Turkey are not desired in principle, but the policy is to accept joint foreign investment only when it introduces new advanced technology and produces goods which are internationally competitive in sectors which could not be developed with local resources.

A close relationship is urged between imported technologies and domestic research-development activities. Scientific infrastructural sufficiency is being secured in order to adopt new rapidly developing technologies

to the local environmental conditions. Broad technological research-development activities aimed at domestic production are being conducted in compliance with the development objectives. Investments are allocated by the Plan for expanding and improving the material basis for research and development. Co-ordination is being secured between existing domestic research-development units producing new technologies and those to be established. Increasing the efficiency of research and development units is strongly emphasised.

6.5 Foreign Exchange and Trade Policy

Turkish foreign trade and exchange policies have been determined by chronic foreign exchange shortages through the fifties and sixties, with complex and extensive controls throughout the period. The severity of this control varied depending on foreign exchange availability. The control system has been successful in curbing the total flow of imports, favouring imports of raw materials and investment goods at the expense of finished consumer goods. This has implied high costs to the importer and to the economy. Tariffs and other charges have had a strong direct effect on the prices of imported goods. The system of import allocation led to higher inventory requirements and underutilization of capacity in some cases.

The strict exchange control and overvalued currency in the past discouraged strongly the growth of exports and particularly manufactured goods. Export incentives for non-traditional goods were introduced in the sixties, but they had little impact on exports, because of the combined adverse effects of the overvalued exchange rate, import controls, high import duties and other taxes more than offset the export incentives. This made the production for the domestic market more profitable. Since the 1970 devaluation, however, the export incentives have played an important role in promoting exports. Another important effect of high protection has been the encouragement of investment in high cost import substititon industries. Protection was absolute in some cases.

Various trade policy changes were made in 1973: the addition of $ 250 million to the Regulatory, Reserve and Price Stability quota to increase imports of goods in short supply, reduction of the custom duty rates to a nominal 1% on various items, abolition of the preprice control system for imports. In addition, exports of some goods were banned, others were made subject to license and a list of goods was announced on which restriction could be announced if domestic demand warranted. The export tax rebate was also reduced in some cases.

Substantial exchange rate changes at long intervals have been undertaken in the past with resultant high costs. Turkey has a long history of controls, of system of taxes/subsidies on trade and development of industry in a protected atmosphere, leading in effect to multiple exchange rates.

As a consequence of the development objectives of the Third Plan and the Long-term Perspective the import policy places the emphasis on replacement of imports in iron and steel, chemicals, machinery, metal furniture and vehicles. In implementing this policy, priorities are given gradually to products which may be competitive with those of other countries. According to the Third Plan imports will be made in conformity with the development of industry, the requirements for modern technology, domestic savings and price stability.

The import policy will be, however, affected by the Turkish obligation towards the EEC. Turkey started the implementation of the 35% consolidated liberalization and made the first reductions in customs and similar duties. After the second reduction of the import duties in 1975 the consolidated liberalization ratio will reach 30%, to be followed by a third one in 1977 in the framework of a 12-year schedule. For import of items which are not liberalized, some quotas will be allocated for the EEC countries which will be gradually increased.

Further modifications of tariffs and quotas will be made gradually in accordance with the clauses of the Annex Protocal of the Ankara Agreement with EEC.

The current export policy aims at more rapid increase of exports compared with the previous Plan period. Due to limited resources to increase the export of traditional goods, the increase in total export will depend heavily on increased industrial exports. The prevailing view in Turkey is that at present the establishment of an export-oriented industry is possible only for certain industries, based on natural resources and agriculture, such as forestry, mining, food processing. The policy orientation is to produce first enough industrial goods for the domestic market and attain the quality and production costs' levels which meet the requirements of the foreign market. Only then these industrial goods should be introduced to the foreign market. For this reason, it is said, in the present industrialization process in Turkey, it is not possible to distinguish export-oriented industry from import substitution industry. Therefore, the policies to encourage exports and replace imports do not substitute, but rather complement one another. A set of incentives, simplification of tax return procedures and other assistance to improve industrial exports are adopted aiming at rapid increase of exports and improvement of their structure in favour of industrial goods. Sharp shift to industrial exports is expected during the second half of the 1980's, mainly to the EEC countries.

6.6 Public Investment and Incentives Policy

Public Investment in Turkey has played an important and growing role in industrial development since the 1930's in the framework of a mixed economic system. The share of public investment increases throughout the Five Year Plans.

The public investment policy relies heavily on public savings to meet the investment targets, sometimes overstating the saving potential of the public sector and facing shortfalls in public savings. The government was using sometimes "captive funds" which public sector enterprises got at relatively low interest rates.

A basic principle in investment policy in the Third Plan is that the State, as stated earlier, would undertake high priority investments in areas where the private sector does not venture even when provided with reasonable inducements. On the other hand, the State Economic Enterprises will not invest in fields where the private sector is sufficiently active nor expand their operation unnecessarily, except for improvement of operational efficiency and competitiveness of existing plants.

Besides direct investment in production activities through the SEE, private investment has also been promoted in desired directions through a complex system of incentives. Industry and underdeveloped regions have been always among the favoured areas.

In the First Five Year Plan, incentives were applied primarily to discourage investment in non-manufacturing sectors (by means of taxes) in the hope of diverting investible resources toward manufacturing. The first steps were taken in that period toward developing the incentive system in existence now. During the Second Plan the investment incentives introduced earlier were diversified and their application became more selective. Due to a decision of the Constitutional Court in 1969, the various incentives have been administered on an all-or-none basis: either the individual applicant is granted the specified rate of incentives, or he does not get anything.

The system currently in effect is as follows. There are six types of incentives of varying importance. In each Annual Programme there is a General Promotion Table which lists the six incentives and the sectors and sub-sectors eligible for the incentive. The first incentive is the tax rabate scheme on investment, origianlly introduced in1963. The second important measure is the exemption from custom duty for investments made in the priority sectors. The third promotion measure allows the payment of custom duties in installments, which, of course, is an incentive only when custom exemption does not apply. Allocation of foreign exchange from the investment quotas is used as another incentive measure. The last two promotion measures are relatively less important and comprise provision of medium-term credits at low interest rates and permitting the use of foreign credits.

The declared aims of the investment incentives are to stimulate industrial development within the priorities set by the Five-Year Plans and over the long run to make Turkish industry more competitve in the framework of the EEC membership. There is enough evidence that the incentives granted have undoubtedly spurred industrial investment in the private sector.

6.7 Price Stabilization Policy

The price policies actually followed in the last two decades reflected the attempt to accommodate conflicting partial objectives without clear co-ordination either as to priorities or means. As a result they have been accompanied by large price distortion between the various sectors of the economy, affecting resource allocation and income distribution, and in some respects even contributed indirectly to inflationary pressure. The Government tried to control price movements in some fields, while in others prices were allowed to fluctuate. The price of foreign exchange was kept constant in spite of fast domestic price increases, thus leading to delayed and drastic devaluations. Interest rate ceilings and subsidies on interest are determined by the Ministry of Finance and the Central Bank.

The Government attempted to protect consumers against inflation by maintaining at a low level prices of basic services such as transport, fuel, electricity and the retail price of basic foodstuffs. It tried to protect the producers against inflation by controlling the price and subsidizing inputs into industry and agriculture, and by supporting agricultural prices.

These price policies contributed to a relative price stability, but they also had several undesirable economic and social effects. For instance, the Government policy of maintaining low and stable prices of SEE's output contributed to large deficits and poor savings in the public sector and consequently adversely affected public savings and investment. Some price increases in SEE's products in early 1974 have corrected the widening gap between sales and costs.

Future price stability in Turkey is highly desirable on both economic and social grounds. Its achievement, however, is very difficult, given the strong demand-pull and cost-push forces that are fuelling the current inflation, and the inherited rigidities in the extensive price control, and trade and exchange systems. The immediate short-term aim of the Government has been and will continue to be to slow down price increases to a politically acceptable rate, e.g. that prevailing in the economies of Turkey's major trade partners. This could probably be achieved after an initial upward adjustment if an appropriate combination of policies is effectively implemented. A wide range of general policies and specific measures can be considered,

which, according to some studies, may include the following: increasing the supply of goods particularly of key inputs; reducing costs of production and increasing competition in the domestic market; restraining the growth of demand for goods and services which are in short supply or which are under-priced; restraining the growth of general demand through appropriate monetary, credit, fiscal, public debt and investment policies.

Policies of such widespread scope and impact will clearly need continuous review and their formulation and implementation would require co-ordination at various levels among various Government agencies. In response to this problem an Interministerial Committee was established in 1973 to deal with the issue of price inflation, and a permanent sub-committee of Under-secretaries and a Secretariat from the State Planning Organization (SPO) were assigned to help in the co-ordination of price stabilization policies. Their effectiveness will depend, among other things, on the technical support which the committee gets and the flexibility of the Government in responding quickly to changed circumstances and changing needs.

The Third Five-Year Plan contains a set of measures along the lines described above aiming at stabilization of prices for intermediate and capital goods, as well as the retail prices of consumer goods.

6.8 Fiscal and Borrowing Policy

The large and rising investments undertaken by the public sector during the past two decades and the considerable increase in current spending imposed a continued strain on public financial resources, despite the Government's success in raising tax revenue. This strain was even aggravated by the results of the pricing policies concerning agriculture and the state economic enterprises, which required substantial subsidies. Under these circumstances, the public sector has experienced a shortage of financial resources and has covered its deficit partly with limited amounts of long-term external borrowing, but mainly by recourse to short-term advances from the Central Bank, which is believed to have been a major factor behind price inflation.

There is some evidence that the public sector will increase its saving performance in medium run. Tax receipts of the Central Government increased considerably, and it will be difficult to achieve substantial further

improvements in tax revenue, as new revenue sources become limited and rising tax rates become more and more difficult. Nevertheless, some observers feel several possibilities of increasing tax revenue exist including further improvements in tax administration and collection of taxes, introduction of a value-added tax, gradual increase in the presently low rates of real property taxation, liberalization of imports, which would make up for the losses of import tax collections. Non-tax receipts, it is felt, could also be substantially raised above current levels.

On the expenditure side, it is likely that a significant expenditure overrun will have to be incurred in order to maintain the capacity of the Government to undertake planned investments and support planned developments in the sectors concerned during the current Plan period. There is an indication that the saving rate for the public sector is probably too ambitious, since there is a likelihood of a small shortfall on tax revenue, an overrun on current spending and sizeable shortfall on the savings of the SEE. There will be considerable overall deficit in the public sector instead of declining and turning into a small surplus by 1977 as expected by the Third Plan.

Under these conditions, unless the Government is prepared to reduce investment expenditures or to revert to excessive borrowing from the Central Bank, more active borrowing policies would be needed domestically and abroad. The Treasury, it is felt, should substantially increase its long-term borrowing, which would reduce the Treasury's need for short-term borrowing from the Central Bank and create the possibility of using part of the bond proceeds to retire short-term bank credit. In addition, some observers feel that consideration could be given to enabling the economically strongest state economic enterprises to issue their own long-term bonds without Government guarantee, but subject to Treasury approval.

6.9 Social Policies

Although social policies may seem at first glance to be an area outside the scope of this review, as a matter of fact it is not. The social policies persue a complex of objectives other than industrialization, but they have always been and would be a very efficient instrument in support of the implementation of the industrial development strategy of Turkey. The policy in respect of education, health, housing, urbanization, income distribution, etc., is considered here in the context of industrialization mainly.

Economic development in Turkey has been accompanied by considerable concern for social problems. A sizeable proportion of total investments in the past has been allocated to housing, health and education. Social objectives have been infused in economic management - in price policy for SEE inputs and outputs, encouraging employment in the SEE and differential incentives for regional development. Public expenditure on education and health has been substantial, the coverage of social insurance schemes has increased. Despite the progress, problems requiring special attention remain in each of these fields, and particularly concerted efforts would be required for providing more employment, improving income distribution, ecucation and training, health and housing services.

As stated earlier, the demand for education and skilled labour is greater than the existing system can provide and there are serious imbalances. In health and in social welfare schemes, apart from the need to expand these services to provide easier access by the whole population, there is a recognized need to co-ordinate the activities of various organizations involved. In housing, a main problem arising out of rapid urbanization has been the growth of squatter settlements in main cities.

The slow growth of employment should become a major concern of Government policy. Though the rate of growth of employment in industry accelerated during the Second Plan, compared to the First Plan, it failed to absorb the increment in the labour force. Consequently, the labour surplus rose despite the fact that since 1965 about one-third of the increments in the labour supply has been absorbed by emigration abroad. The Third Plan continues to emphasize investment in high growth and relatively less labour-intensive industries and the increasing unemployment is accepted as a price worth paying for rapid growth. Unemployment of the magnitude projected both in the Third Plan and in the Long-term Perspective is likely to cause serious social problems. The continuation of the recent ban on workers' emigration into the Federal Republic of Germany may accentuate the problem unless a solution is found for emigration to Libya and other countries in the Middle East. The implciations of alternative development strategies for employment may need due consideration.

The distribution of income appears to be highly unequal in Turkey and it has probably worsened during the last two decades. Both rural and urban incomes are unequally distributed. Some equalization has been achieved by

the distribution of public goods - education, health, which help to raise the living standard of the poorest sections of the society. Other policies of the Government which affect income distribution are price support policies, regional dispersion of public investment, etc. One of the most equalizing influences of the last decade has been the emigration of workers.

The Third Plan has adopted income distribution as one of the main five strategic objectives in the Long-term Perspective and suggests policies such as taxation, land reform, extension of health, education and social insruance. There is significant scope for redistributive taxation and affecting income distribution through increasing employment.

6.10 Strengthening of Institutional Support

The State is expected to continue to be mainly responsible for attaining the industrial development objectives set up by the Third Plan and by the Long-term Perspective both for the public and for the private sectors. The need for considerable improvement in the institutional infrastructure of the Turkish economy and the industry in particular - in general administration as well as State Economic Enterprises - was given wide coverage in the Five-Year Plans and a series of measures has been introduced towards achieving better administrative efficiency in the industry.

The Third Plan states the direct relationship between the efficiency of public administration and the success of economic development. The realization of planned targets, resource allocation and the necessary follow-up depends to a large extent on the operational efficiency of public administration. Therefore, re-organization and improvement in the functioning of public administration has been a major concern of the Government.

At the beginning of the Third Plan, public administration could not be brought to the level envisaged by the two previous plans. It is short of the modern requirements for development of industry, especially in view of the projected full association with the EEC by the end of the century. The Third Plan provides a very critical analysis of the current status of the institutional infrastructure for economic and social development (paras. 2117-2134) and concludes that the institutional infrastructure "remains behind the country's economic, social and cultural development and thus cannot be a leader of development". In "The New Strategy" is stated that "public

administration fails to be an effective tool of development due to its lack of necessary quality, pace and productivity". The Third Plan stated the urgent necessity of re-organization and improvement in the institutional infrastructure.

The Plan declared as a basic principle for public administration to carry out its duties fast, with quality, productivity and to be a conscious pace-setter of development to reconcile the choice of "development through industrialization" with the social and economic rights of the individuals.

Under this major principle, public administration reform studies will start:

- to improve public administration to perform its duties fast, productively, economically and with quality;
- to systematize public institutions to become flexible and dynamic so that they keep pace with changing requirements;
- to free public administration from being a burden on the economy and make it a leader for social and cultural integrity by equipping it with the information and techniques called for by the national choice of "development through industrialization";
- with the aim of raising an administration staff of high quality, integrity and skill.

The reform will cover the total public sector - central government, local governments, field administration and public enterprises - its structure, operation, equipment and personnel. The reform will be executed by public sector agencies within the principles envisaged in the New Strategy, the Third Five-Year Plan and the annual programmes.

The re-organization of the State Economic Enterprises has been extensively discussed and studied for years, but no serious action has been undertaken thus far. Although controversies about the role and deficiencies of the SEE have surrounded their growth during the past two decades, there has been a consensus under various Governments about the desirability of a mixed economy in which the SEE should play a leading role. As stated earlier, the growth of the SEE has been accompanied by serious financial difficulties. The establishment of the State Investment Bank in 1964 to supply the SEE with long-term investment funds and the introduction of some control led to an improvement of the situation of most of them.

The Third Plan finds faults with the existing SEE system, its organizational structure, neglect of marketing, cost-accounting, purchasing, stock control, research and programming. These faults affect adversely their efficiency and productivity. The plan outlines a reform plan to improve the management of the SEE aiming ultimately at higher productivity and efficiency. A special plan was prepared and submitted to the Parliament, calling for administrative re-organization of the SEE, including provisions enabling producing SEE's to compete in hiring managers, engineers and technicians under contracts and outside the civil service regulations. The Plan also provides for a special body to co-ordinate the activities of SEE with the policies of the ministries concerned, and for an upper body headed by the Prime Minister to determine their overall investment policies. Under the Plan, SEE will be combined into holding companies for the various sectors.

There is a proposal to separate two types of SEE: (i) those charged with social goals in addition to making profits, and (ii) those which are run on purely efficiency grounds without any additional social goals. The former would be attached to the Annexed Budget and the latter would be given greater autonomy in price policy, bond issues and management in general.

7. Possible Areas for UNIDO Assistance

On the basis of the above survey of the various aspects of the industrial development in Turkey, one may identify the following very preliminary areas of possuble UNIDO contribution to Turkey:

7.1 Assistance of Long-term Importance

The main objective of this type of UNIDO contribution is to help the Turkish Government in elaborating the Fourth Five-Year Plan (1978-1982) and further refinements in the Long-term Perspective up to 1995. This assistance might be needed in the following areas:

1. Assistance in elaborating a comprehensive long-term programme for gradual preparation of the Turkish industry for full membership in the European Economic Community. In this respect a number of issues would be studied profoundly: implications on the growth strategy and growth rates; implications on the industrial structure; implications on the technological level of industry, productivity, efficiency, competitiveness, quality of output; implications on the

imports and exports; implications on the role of the public sector as well as the private sector; implications on the policy measures and incentives to be followed with regard to the two sectors, etc.

2. Assistance in elaborating a long-term programme for development of the capital goods industry, covering a period of 15 to 20 years. This activity should be related with the activity under 1. above.

3. Assistance in elaborating a long-term programme for further upgrading the level of technology in the Turkish industry, consistent with rapid development of more labour intensive industries as well as other activities assuring a full employment within 10 to 15 years. This activity should be related to the activity under 1. above.

4. Assistance in elaborating a comprehensive long-term programme for development of agro-based and agro-related industries - the entire agro-industrial complex, taking into account the present status and development prospects of the agriculture and the relations with EEC. This activity is also related to the activity under 1. above.

5. Assistance in developing a programme for an overall improvement of the performance of the State Economic Enterprises in industry along two basic lines: first, ways and means for improving the economic efficiency in the SEE; second, improving the mechanism and the performance in carrying out certain socio-economic functions on behalf of the Government.

6. Assistance in carrying out a comprehensive study on the implications of the emigration of workers abroad on the Turkish economy, how to make the best use of this and minimize the negative effects.

7. Assistance in carrying out a comprehensive study on the Turkish long-term interests and on the potentials of establishing closer industrial co-operation in medium- and long-term between Turkey and her neighbours as well as the other countries in the Mediterranean area.

3. Assistance, along with UNESCO, in developing a programme for re-organization of the whole education system within the forthcoming decade so that it could meet the new requirements of the socio-economic development in fulfilling the long-term objectives by the end of this century.

7.2 Assistance of Immediate Importance

The objective of this type of UNIDO contribution is to help in solving specific current problems related to industrial development. Such assistance might be needed in the following areas:

1. Development and transfer of technology: assistance to the Research and Development Centre for Cement, assistance to the Marmara Research Institute, assistance for national quality control system, assistance in promoting electronics industry, assistance to the National Centre on Transfer of Technology, to the Industrial Information and Documentation Centre, etc.

2. Basic chemical, metallurgical and machine building industries: assistance in establishing herbicide production plant, assistance in organizing production of automotive and agro-parts, assistance in establishing non-ferrous applied metallurgy research and control laboratory at Etibank, assistance on development of basic chemical industry, assistance in design and control of pollution control equipment, etc.

3. Expanding small-scale industries for employment generation and regional development: assistance to the National Small Industries Development Centre, assistance in developing forest products industries, small scale-leather industries and prefabricated building elements, etc.

4. Up-grading skills for industrial development: assistance to the In-Plant Training Centre for Engineers, to the Industrial Project Development Centre, to the Research and Training Centre for Pulp and Paper, assistance in training on maintenance of bio-medical equipment, in preparation of comprehensive training organization for the Turkish iron and steel industry, assistance to the State Economic Enterprises.

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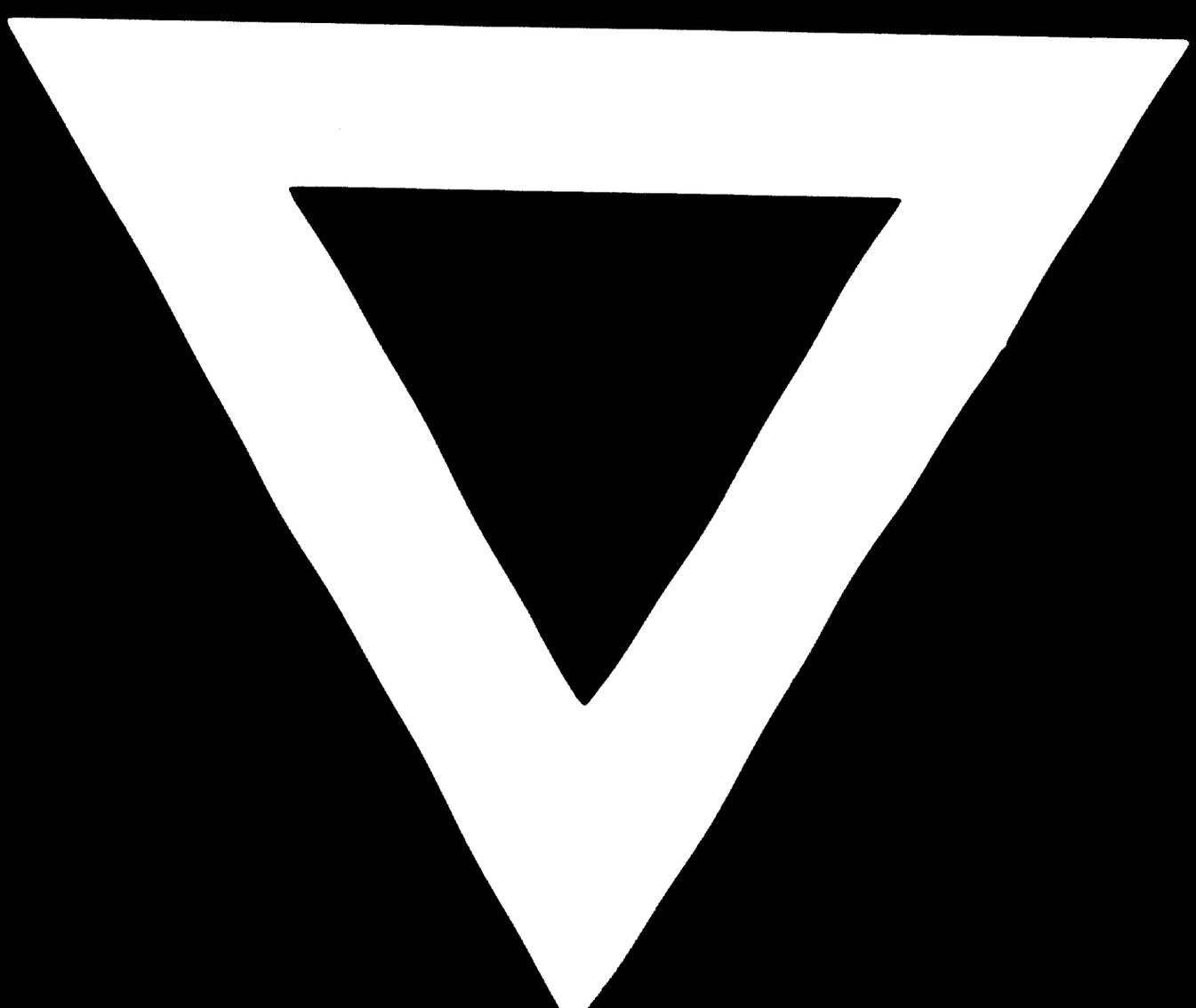

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