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A WORLD BANK COUNTRY STUDY

PUB-3641

TURKEY

Industrialization and Trade Strategy

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This report is based on the findings of a special economic mission which visited Turkey in May–June 1981. The mission was led by Bela Balassa and consisted of Jayanta Roy (Deputy Mission Chief), Tony Bell, Sheetal Chand, David Davis, Isabelle Girardot-Berg, Seok Hyun Hong, Michel Noel, Turgut Ogmen, Pasquale Scandizzo, Harbaksh Sethi, Jose de Silva Lopes, Gurushri Swamy, Martin Wolf and Helen Chin.

The mission chief is responsible for the scope and overall conclusions of the report.

Europe, Middle East and North Africa
Regional Office
The World Bank
Washington, D.C., U.S.A.

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Library of Congress Cataloging in Publication Data
Main entry under title:

Turkey, industrialization and trade strategy.

(A World Bank country study)
"This report is based on the findings of a special economic mission which visited Turkey in May-June 1981. The mission was led by Bela Balassa."
1. Turkey--Industries. 2. Industrial promotion --Turkey. 3. Turkey--Commerical policy.
I. Balassa, Bela A. II. World Bank. Europe, Middle East, and North Africa Regional Office. III. Series.

HC492.T858 1982 338.09561 82-13570
ISBN 0-8213-0046-6

TURKEY

INDUSTRIALIZATION AND TRADE STRATEGY

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Symbols Used in Statistical Tables

. Not available

- Zero or negligible

TURKEY

CURRENCY EQUIVALENTS

Currency Unit		Jan. 1980 /1	Oct. 1980	June 30, 1981	Sept. 1, 1981
US Dollar	=	TL 70.0 /2	TL 83.50 /2	TL 100.00 /2	TL 120.00
TL 1	=	US$ 0.01	US$ 0.01	US$ 0.01	US$ 0.01

/1 Since January 1980, the rate is being adjusted for the differential inflation between Turkey and its major trading partners. TL 100/$1.00 was used for this report.

/2 Except for imports of fertilizers and insecticides/pesticides, as well as raw materials and inputs for their manufacture, for which the rate was TL 55/$1.00 in January 1980, and is TL 70.0/$1.00 from October 1980, and TL 85.34/$1.00 from April 15, 1981.

GLOSSARY OF ABBREVIATIONS

BIS	-	Bank of International Settlements
CTLD	-	Convertible Turkish Lira Deposit
CPI	-	Consumer Price Index
DRC	-	Domestic Resource Costs
DRS	-	Debt Reporting System
GATT	-	General Agreement on Trade and Tariffs
IGEME	-	Export Development Center
ILO	-	International Labor Office
ITC	-	International Trade Center
LIBOR	-	London Interbank Offer Rate
LFPR	-	Labor Force Participation Rate
MB	-	Monetary Base
M&LT	-	Medium and Long-term
MI	-	Annual Survey of Manufacturing Industries
MIC	-	Middle Income Countries
OECD	-	Organization for Economic Cooperation and Development
SDR	-	Special Drawing Rights
SEE	-	State Economic Enterprise
SII	-	Social Insurance Institute
SIS	-	State Institute of Statistics
SPO	-	State Planning Organization
TCEA	-	The Turkish Confederation of Employer Associations
TEK	-	Turkish Electricity Authority
TL	-	Turkish Lira
TPAO	-	Turkish Petroleum Company
TSKB	-	Industrial Development Bank of Turkey
VAT	-	Value Added Tax

FISCAL YEAR

March 1 - February 28

TURKEY-COUNTRY DATA

Population: 44.8 million (1980)
GNP Per Capita: US$1460 (1980)

Indicator	Amount (million US$ at current prices) 1980	Average Annual Increase (%) (at constant 1980 prices) 1965-70	1970-75	1975-80	Share of GDP at Market Prices (%) (at current prices) 1965	1970	1975	1980
NATIONAL ACCOUNTS								
Gross domestic product /a	56,617	6.6	7.5	2.8	100.0	100.0	100.0	100.0
Agriculture	12,112	3.1	4.4	2.7	30.7	26.4	26.2	21.4
Industry /b	13,529	9.5	9.5	2.9	16.6	17.2	18.0	23.9
Services	27,925	8.2	8.0	3.7	42.9	46.5	46.0	54.5
Consumption	47,918	5.8	7.0	2.5	84.6	82.8	84.8	82.4
Gross investment	13,022	11.7	12.9	1.8	16.7	20.1	23.7	25.4
Exports of goods and NFS	4,130	7.9	7.3	0.9	6.1	5.8	6.1	7.1
Imports of goods and NFS	8,453	11.2	13.8	-3.5	7.4	8.7	14.5	14.8
Gross national savings	9,764	11.6	11.9	3.3	15.8	18.8	18.4	20.1

		Average Annual Increase (%) (at constant 1980 prices) 1970-75	1975-80	Composition of Merchandise Trade (%) (at current prices) 1965	1970	1975	1980
MERCHANDISE TRADE							
Merchandise exports	2,910	-0.8	4.6	100.0	100.0	100.0	100.0
Primary /c	1,863	-4.3	4.6	80.0	83.0	64.1	64.0
Industrial products	1,047	17.0	4.7	20.0	17.0	35.9	36.0
Merchandise imports	7,667	12.4	-4.7	100.0	100.0	100.0	100.0
Food	308	9.9	-17.6	6.0	9.3	8.3	4.0
Petroleum	3,620	18.5	9.9	10.0	7.0	17.0	47.2
Machinery & equipment /d	1,435	9.9	-16.2	39.9	39.8	38.5	18.7
Other	2,304	12.1	-6.4	44.1	43.9	36.2	30.1

	1975	1976	1977	1978	1979	1980
PRICES AND TERMS OF TRADE						
GDP deflator	15.1	17.7	22.1	30.2	48.3	100.0
Exchange rate	14.4	16.1	18.0	24.3	36.4	76.4
Export price index	60.4	62.8	68.9	73.0	85.9	100.0
Import price index	48.6	49.1	54.2	61.7	72.8	100.0
Terms of trade index	124.3	127.9	127.1	118.3	118.0	100.0

	As % of GDP (at current prices) 1965	1970	1975	1980
PUBLIC FINANCE				
Current revenue	15.0	22.6	22.0	19.8
Current expenditure	10.0	11.8	12.6	11.5
Surplus (+) or deficit (-)	-2.0	-2.3	-0.4	-4.8
Investment expenditure	4.7	5.7	4.2	3.9
Transfers	5.0	7.5	5.5	9.2
Foreign financing	1.8	1.6	0.3	0.2

	1965-70	1970-75	1975-80
OTHER INDICATORS			
GNP growth rate (%)	6.8	7.7	2.6
GNP per capita growth rate (%)	4.1	5.0	0.3
ICOR	2.9	2.9	5.7
Marginal savings rate (%)	28.2	19.5	30.8
Import elasticity	1.7	1.8	-1.3

/a At market prices; components are expressed at factor cost and will not add due to exclusion of net indirect taxes and subsidies.
/b Includes mining and quarrying, manufacturing, and electricity, gas, and water.
/c Includes agriculture and mining and quarrying.
/d Includes metal products and machinery, electrical appliances, and transportation vehicles.

TURKEY-BALANCE OF PAYMENTS, EXTERNAL CAPITAL AND DEBT

(million US$ at current prices)

Population: 44.8 million (1980)
GNP Per Capita: US$1460 (1980)

	Actual							Projected		
	1970	1975	1976	1977	1978	1979	1980	1981	1983	1985
BALANCE OF PAYMENTS										
Net exports of goods & NFS	342	3067	2993	3880	1953	2442	4293	3853	3937	3537
Exports of goods & NFS	754	2152	2742	2556	3106	3257	4102	5530	8295	12271
Imports of goods & NFS	1096	5219	5735	6436	5059	5699	8396	9383	12232	15808
Workers' Remittances	273	1312	983	982	983	1694	2071	2500	2916	3354
Net transfers	91	23	15	12	-	-	-	-	-	-
Current account balance	-58	-1892	-2295	-3572	-1710	-1771	-3196	-2634	-3035	-3164
Direct private investment	92	251	163	169	147	200	100	220	284	369
Public M&LT (gross) /a	271	334	720	997	1017	4321 /d	2489	2453	3082	3521
Amortization on M&LT /a (excl. debt relief)	-146	-175	-203	-234	-336	-414	-914	-982	-1992	-2424
Public M&LT (net) /a	125	159	517	763	681	3907	1575	1471	1090	1097
Debt Relief (amortization only)	-	-	-	-	-	-	814	533	811	-224
Other capital /b	27	1065	1503	2074	1030	-2410	1099	651	1072	2175
Change in reserves (- = increase)	-186	417	112	566	-148	74	-392	-241	-222	-253
International reserves	612	1404	1292	726	874	800	1192	1433	1825	2312
Reserves as months of imports	7	3	3	1	2	2	2	2	2	2

	Actual						
	1972	1975	1976	1977	1978	1979	1980
GROSS DISBURSEMENTS							
Official grants	-	-	-	-	-	-	-
Gross disbursements of M&LT loans	372	324	720	997	1017	4321 /c	2489
Concessional	261	100	167	193	227	596	909
Bilateral	139	69	81	130	192	510	849
IDA	4	18	21	19	8	3	-
Other multilateral	118	13	65	44	27	83	60
Non-concessional	111	224	553	804	790	3725 /c	1580
Official export credits	1	47	57	47	91	202	283
IBRD	25	91	117	146	165	277	313
Other multilateral	27	48	54	5	35	11	35
Private /c	58	38	325	606	499	3235 /c	949
EXTERNAL DEBT							
Debt outstanding and disbursed /d	2538	4475	6883	10943	14313	15791	17119
Official	2273	2980	3275	3648	5970	7198	9265
IBRD	92	288	391	512	648	890	1157
IDA	99	144	163	181	188	190	184
Other	2082	2548	2721	2955	5134	6118	7924
Private /a	246	340	558	1104	1144	4101 /e	5007
Short-term	19	1155	3050	6191	7199	4492	2847
Debt outstanding including undisbursed (public and private)	3560	6086	9207	13736	17554	19794	22875
DEBT SERVICE							
Total debt service /e	224	291	368	418	532	689	712
Payments	161	175	203	234	336	414	100
Interest	63	116	165	184	196	275	612
Total debt service as % exports of goods + NFS + workers' remittances	11.8	8.4	9.9	11.8	13.0	13.9	11.5
Total debt service as % GNP	1.3	0.8	0.9	0.9	1.0	1.2	1.2
Average interest rate on new loans (%)	4.4	7.3	7.2	7.6	6.9	11.2	8.5
Official	4.5	6.4	7.1	7.6	6.3	4.4	.
Private	6.8	8.7	7.8	7.6	8.2	13.7	.
Average maturity of new loans (years)	22.1	13.1	12.7	11.7	13.2	11.1	8.2
Official	26.0	18.6	17.3	14.5	15.6	23.5	.
Private	11.0	5.1	10.2	8.9	7.6	7.1	.
BANK GROUP EXPOSURE (%)							
IBRD DOD/total DOD	3.7	8.7	10.2	10.8	9.5	7.7	6.8
IBRD disbursements/total gross disbursements	6.7	27.2	16.3	14.6	16.2	6.4	12.5
IBRD debt service/total debt service /e	5.1	10.5	11.7	15.0	15.4	15.3	18.8
IDA DOD/total DOD	3.9	4.3	4.3	3.8	2.7	1.6	1.1
IDA disbursements/total gross disbursements	1.1	5.4	2.9	1.9	0.8	0.1	-
IDA debt service/total debt service /e	0.4	0.6	0.6	0.5	0.4	0.4	0.4

	As % of Debt Outstanding at End of Most Recent Year (1980)
TERMS STRUCTURE	
Maturity structure of debt outstanding (%)	
Maturities due within 5 years	40.7
Maturities due within 10 years	60.3
Interest structure of debt outstanding (%)	
Interest due within first year	5.7

/a Includes private guaranteed and non-guaranteed debt.
/b Includes errors and emissions, and for projected years it includes net IMF, and unidentified capital inflows.
/c Includes $2,638 million of consolidated short-term debt.
/d Includes stock of short-term, and debt relief, but excludes IMF borrowing.
/e Takes account of debt relief due to debt rescheduling, and excludes interest on short-term debt.

INDUSTRIALIZATION AND TRADE STRATEGY
AN OVERVIEW

Background

i. Development policies in Turkey traditionally favored import substitution over exports and industry over agriculture, with public enterprises playing an important role in the economy. After initial successes, these policies encountered increasing difficulties as high-cost import substitution, aggravated by inefficiencies in public enterprises, led to a decline in the productivity of investment.

ii. Until 1977, high rates of economic growth were nevertheless maintained by raising the share of investment in the gross domestic product. The rise in investment was financed by savings from workers' remittances and, following the quadrupling of oil prices, increasingly by foreign borrowing. Rising external indebtedness, in turn, raised questions concerning Turkey's creditworthiness. As a result, foreign borrowing practically ceased in 1978, creating a foreign exchange scarcity that aggravated the adverse economic effects of the import-substituting policies.

The 1980-81 Policy Measures

iii. The policy reforms introduced in January 1980 aimed not only at redressing the economic situation, but also at changing the development strategy Turkey followed for several decades. The newly-adopted strategy has entailed moving towards outward orientation and giving an increased role to market forces.

iv. The measures applied in January 1980 included the devaluation of the Turkish lira from TL47 to TL70 to the U.S. dollar; duty-free entry of imported inputs used in export production; the simplification of the procedures involved in obtaining export incentives and import licenses; the streamlining of administrative regulations on investment incentives, with the reorientation of priorities towards export-oriented activities, agriculture, and tourism; a more positive attitude taken towards foreign investment; and the liberalization of the prices charged by the state economic enterprises. In July 1980, the rediscount rate of the Central Bank on short-term notes was raised to a considerable extent and interest rates paid to savers, and charged to borrowers, were freed. In January 1981, the system of income taxes was reformed, imports liberalized, and additional export incentives provided; these were further supplemented by increases in export tax rebates and daily adjustments in the exchange rate in May 1981. In July 1981, interest rates on bonds were freed and their indexation allowed.

v. While the January 1980 reforms had some immediate effects, their impact was delayed by reason of the unsettled domestic conditions until September 1980. The main achievements subsequently have been the rapid expansion of exports, with their dollar value rising by 64 percent between the first ten months of 1980 and of 1981; the rise in foreign investment, reaching an estimate of $110 million in 1981 as compared to $33 million in 1980; increases in time deposits and certificates of deposits, from TL 123 billion in September 1980 to TL 450 billion in September 1981; and a decline in the rate of inflation from a peak of 133 percent between February 1979 and

February 1980 to slightly below 35 percent in the second half of 1981. However, with sluggish business conditions associated with the stabilization measures applied, private investment remained stationary and there was little change in industrial employment in the face of increases in the labor force.

The Need for Medium-Term Policies

vi. The important measures taken so far would need to be complemented by further actions in order to fully implement Turkey's newly-adopted development strategy. This will require time; given the long period of inward orientation and the limited use of the market mechanism, in particular in the public sector, the changeover cannot be affected overnight. Nor is this desirable since firms in the private and the public sectors need to adjust to the changing circumstances. At the same time, for firms to adjust, they need considerable certainty as to the shape of things to come.

vii. This objective would be served by the adoption of a medium-term policy framework. Such a framework would incorporate measures aimed at encouraging efficient exports and import substitution, promoting savings and investment, fostering modernization and technical change, and reforming the state economic enterprises. There is further need for establishing an appropriate institutional structure to formulate and to implement medium-term policies. Finally, government regulations and the process of their practical implementation would need to be simplified.

Encouraging Exports and Efficient Import Substitution

viii. Efficient exports and import substitution would be encouraged by increasing reliance on the exchange rate as a policy instrument in the place of import protection and export subsidies. Furthermore, as long as inflation is more rapid in Turkey than in its major trading partners, continued adjustments in exchange rates are necessary to maintain the competitiveness of Turkish exports.

ix. To reduce the bias against exports and to promote efficient investments, the existing high levels of import protection would need to be lowered to a considerable extent. There is further need to lessen disparities in rates of import protection and to rationalize the use of instruments of protection. While carrying out these tasks will require time, both to limit economic disruptions and to avoid a substantial deterioration of the balance of payments, it would further be desirable to make public a time-table on the reform of the system of protection, so as to prepare firms for the changes to be made.

x. The reform would need to include, first of all, the gradual replacement of import licensing by tariffs, with priority given to liberalizing the importation of intermediate products and machinery. It would further be desirable to establish a tariff ceiling that would be attained over a transitional period of five years, during which time differences in tariff rates would also be reduced. The tariff ceiling may be set at 30 percent, with additional incentives granted to infant industries on a temporary basis and on a degressive scale. To the extent possible, infant industry incentives should be provided in the form of production and investment subsidies rather than tariffs, so as to encourage exporting. This is of particular importance

in the electrical and non-electrical machinery, machine-tool, and electronics industries, which may be regarded as infant industries in Turkey, because the exploitation of economies of scale will not generally be possible in the confines of the domestic market.

xi. With increased reliance placed on the exchange rate, the extent of export subsidies should be reduced and the procedures involved simplified. This may involve lowering rates of credit subsidies and relating them to value added in exports; eliminating the additional five percent of tax rebate provided to exporters whose annual exports exceed $15 million; and reconsidering the partial deductibility of exports, and increments in exports, from taxable income.

xii. Parallel with reductions in export subsidies, it would be desirable to extend the free trade treatment of exports by ensuring duty-free access to all inputs used in export production. Furthermore, to permit Turkish firms to better compete abroad in exporting durable goods, there would be need for a medium-term credit facility, complemented by an export credit guarantee scheme. Credit facilities for investments in tourist accommodations also need to be improved, and institutional and tax measures taken to improve the marketing of manufactured and agricultural exports and tourism.

xiii. The exploitation of Turkey's agricultural potential would necessitate rationalizing the price system, limiting government interventions, as well as institutional changes. For traded crops, such as wheat, barley, and cotton, where Turkey holds a small share in the world market, domestic prices should be adjusted to the trend in world market prices, with interventions limited to setting guaranteed floor prices in years of low prices and levying an export tax in years of high prices. It would further be desirable to provide credit to finance input purchases and the holding of stocks by farmers at realistic interest rates, to establish a crop insurance scheme, and to further encourage the involvement of the private sector in foreign trade. For traditional exports, such as tobacco, hazelnuts, raisins, and figs, which are subject to market limitations abroad, export taxes should be set with a view to discourage undesirable expansion while ensuring adequate foreign exchange earnings. Further changes towards establishing rational prices for agricultural inputs would be desirable and, among institutional measures, improvements in transportation facilities should receive particular attention.

Promoting Savings and Investment

xiv. The restructuring of the economy in the process of increased outward orientation would necessitate new investments. This, in turn, requires higher domestic savings as well as foreign investment in Turkey, while ensuring the efficient allocation of investment funds. Apart from the measures proposed in Para. viii, to xiii, these objectives would be served by reforming the tax system, the system of financial intermediation, and investment incentives.

xv. Increases in private savings may be attained if the taxation of interest earnings and capital gains is limited to real returns by making adjustments for inflation. To promote business savings, the profits of corporations and unincorporated businesses should also be adjusted for inflation through the revaluation of assets and changes in the treatment of inventories. While the implementation of these measures would lower tax

revenues, the loss would be compensated through the introduction of the value added tax. In preparing for the introduction of the VAT, indirect taxes may be raised to provide the necessary revenues.

xvi. Reducing the spread between interest rates paid by borrowers and received by depositors through the elimination of the financial transactions tax as well as the lowering of the cost of holding reserves with the Central Bank would further increase the availability, and decrease the cost, of investible funds to the private sector. Reducing the deficit of the public sector would also have such an effect. This is a particularly urgent task, lest "crowding out" occurs through limitations on the availability of credit and its high cost to the private sector.

xvii. The efficient allocation of investible funds would be promoted by revitalizing capital markets and limiting the scope and extent of selective credits. This objective would also be served, and private investment promoted, through further simplifications and greater automaticity in the granting of investment incentives and the use of incentive measures that do not favor capital-intensive investments.

xviii. Additional measures need to be taken to attract new foreign investment, so as to increase the amount of capital resources available and to bring managerial, technical, and marketing know-how to Turkey. In particular, liberal and unambiguous rules should be established as regards the repatriation of capital and dividends. It would further be desirable to eliminate the requirement of co-operation with state economic enterprises as a condition for foreign investment in certain activities. Finally, Turkey could become a more attractive location for foreign investors, if the lira was made convertible as is being envisaged by the government.

Fostering Modernization and Technical Change

xix. A priority task for the further development of Turkish industries is to ensure technological progress and to provide for labor training. This is necessary in order to provide modern inputs for user industries and to shift towards skill-intensive activities, where Turkey's comparative advantage will increasingly lie in the future.

xx. The government may contribute to the promotion of technological progress through the establishment of specialized institutions of applied research. Such institutes may play an especially important role in certain engineering branches and in the chemical industry. At the same time, their establishment would need to be complemented by granting tax incentives for research and development to private firms.

xxi. These measures should be part of a medium-term plan of science and technology, which should further provide for the development of technical universities that represent a link between research and the training of scientists and engineers. The training of technicians and skilled workers would also be promoted through the establishment of specialized schools and courses, as well as through tax benefits to firms undertaking training.

xxii. Efforts made to promote research and training would benefit, in particular, the electrical and non-electrical machinery, machine tool, and electronics industries. These industries may also receive supplementary investment incentives and preferential medium-and long-term credit on infant industry grounds. They could further be assisted through the establishment of specialized industrial parks where ancillary activities would be available. At the same time, the development of the industries in question requires considerable flexibility to respond to changing world market conditions that can best be served by relying on private initiative. Correspondingly, it would be desirable to forego the implementation of government investments in these industries which, at any rate, would largely involve the duplication of existing facilities.

Reforming the State Economic Enterprises

xxiii. The reform proposals under review represent important changes in increasing the independence of the SEEs. They would need to be complemented by other measures as regards organizational issues and the choice of new investments. Turkey may profitably follow the example of Hungary in decentralizing decision-making and ensuring competition among producing units in the public sector. This would require breaking up industry-wide SEEs and giving firm managers the freedom to decide on production, prices, and on employment, with a view to maximizing profits. In basic industries where technological considerations do not permit breaking up the SEEs, domestic prices should be linked to world market prices, with allowance made for acceptable levels of protection, as long as the conditions of import competition are not established.

xxiv. In the process of integrating the SEEs in the market economy, one should equalize the conditions under which private and public firms operate by eliminating credit and other subsidies to the SEEs and equalizing corporate income tax rates. Eventually, new investments in the SEEs should be financed in the same way as private investment. This, however, would require considerable improvements in the operation of the SEEs.

xxv. As long as investment decisions are not delegated to the enterprises, and financing is provided by public development banks, new investments should be subject to economic project evaluation at world market prices. The re-evaluation of projects included in the investment program of the State Planning Organization would also be necessary as a follow up to the Bank's Public Sector Investment Review. This, in turn, would necessitate establishing an economic project evaluation capability.

Policy Interdependence and Macroeconomic Considerations

xxvi. The elimination of inefficient investment projects would permit limiting the size of the public investment program. The reduction of the deficit of the public sector would further necessitate economizing on public consumption expenditures. In this way, one may reverse recent tendencies that increased the use of resources by the public sector at the expense of the private sector.

xxvii. These considerations indicate the interdependence of decisions concerning the public and the private sectors. The measures affecting the

generation of savings and investment and incentives to particular activities are also interdependent. For one thing, increasing the availability of investible funds is required to develop efficient exports and import substitution. For another thing, rationalizing the system of incentives is necessary to ensure the appropriate choice of investments.

xxviii. Correspondingly, the simultaneous implementation of the proposed medium-term policy measures is needed for each of them to have maximum effect. Their full implementation may permit attaining an export growth rate of nearly 18 percent, and a GDP growth rate of about 5 percent, in the 1981-85 period.

xxix. High rates of economic growth would generate increased employment. Greater outward orientation would also contribute to employment as exports tend to be more labor intensive than import substitution, both in industry and in agriculture. Employment would further benefit as a result of changes in investment incentives that would make them more neutral in their effects on the choice of techniques, reductions in social charges paid by firms, as well as the elimination of existing discrimination in export and investment incentives against small-and medium-scale enterprises.

xxx. At the same time, the growth of output and employment in the process of structural transformation will continue to require foreign assistance to Turkey. It should be recognized by the international community that the shift from inward-to outward-orientation is a long process, necessitating considerable investments which cannot be financed from domestic savings alone.

PART I

THE SUMMARY REPORT

CHAPTER 1. INTRODUCTION

1. Following several decades of basically inward orientation of policies, in January 1980 Turkey adopted a development strategy that has entailed moving towards outward orientation and giving an increased role to market forces. This present report examines the policy conditions of the full implementation of this strategy, and proposes the adoption of a medium-term policy framework for the purpose. It follows earlier Bank reports "Turkey: Policies and Prospects for Growth" (December 12, 1979) and "Public Sector Investment Review" (December 7, 1981). A separate report will deal with energy.

Inward-oriented Industrialization, 1963-73

2. Development policies in Turkey traditionally favored import substitution over exports and industry over agriculture. The application of these policies permitted rapid industrial growth as the imports of nondurable consumer goods and their inputs were replaced by domestic production. The products in question well-suited the conditions existing in Turkey as they tended to be labor-intensive and did not require sophisticated technology or large-scale operations.

3. While Turkey established some industries producing intermediate products at an early stage, it was after the possibilities for import substitution in nondurable consumer goods and their inputs were exhausted that the replacement of the imports of intermediate products and producer and consumer durables became the dominant force in its industrial development. These products require sophisticated technology and large-scale production for efficient operations, resulting in high cost manufacture in the limited domestic market. Costs were especially high in capital-intensive intermediate products, which were at the center of the investment program of the public sector. Correspondingly, incremental capital-output ratios rose from 1.6 in 1963-67 to 2.4 in 1968-72 in the manufacturing sector. At the same time, incremental capital-output ratios increased from 1.9 to 2.3 in agriculture, where the policies applied favored import substitution crops and capital-intensive production techniques.

4. Notwithstanding the fall in the productivity of investment, Turkey was able to avoid a decline in the rate of economic growth as rapid increases in workers' remittances permitted a rise in the rate of investment. With the rapid growth of population, increases in per capita incomes were nevertheless substantially smaller in Turkey than in Southern European countries that had greater outward orientation.

Policy Responses to External Shocks, 1973-78

5. Along with other newly-industrializing countries, Turkey experienced external shocks of considerable magnitude after 1973, including the quadrupling of oil prices and the subsequent world recession. Rather than limiting aggregate demand to remedy the resulting balance-of-payments deficit, the response of successive Turkish governments to these external shocks was to borrow abroad in order to maintain past rates of economic growth. In fact, economic growth accelerated in the years immediately following 1973, as a large proportion of the borrowed funds was invested.

6. The acceleration of the rate of economic growth added to Turkey's import needs. At the same time, export market shares declined to a considerable extent as exports were adversely affected by the appreciation of the real exchange rate -- the nominal exchange rate adjusted for changes in relative prices at home and abroad -- and by the adverse effects of high protection. Notwithstanding increased protection, Turkey did not save foreign exchange through import substitution as expanding industries required considerable amounts of foreign materials, intermediate products and machinery, while increased investment activity necessitated additional machinery imports. Also, in the absence of fuel-saving measures, Turkey increasingly relied on imported petroleum.

7. Rather than adjusting to the situation created by external shocks, the economic policies followed by Turkey thus added to the adverse balance-of-payments effects of these shocks, requiring increased foreign borrowing. The debt-service ratio, defined as the ratio of interest payments and amortization to merchandise exports, increased from 14 percent in 1973 to 33 percent in 1977 as a result, raising questions as to Turkey's creditworthiness.

8. The consequent difficulties encountered in further borrowing created a foreign exchange scarcity that aggravated the adverse economic effects of the policies applied. With increased import restrictions and the implementation of high-cost investments in the public sector, the incremental-capital output ratio in the manufacturing sector reached 4.7 in 1973-77 while the ratio attained 4.0 in agriculture. At the national economy level, the incremental capital-output ratio rose from 2.9 in 1963-73 to 5.1 in 1973-79 and, after a temporary increase from 6.6 percent in 1963-73 to 7.7 percent in 1973-76, the rate of economic growth declined to 2.1 percent in 1976-79.

The 1980-81 Policy Reforms

9. The policy reforms introduced in January 1980 aimed not only at redressing the economic situation but also at changing the development strategy Turkey followed during several decades. The new strategy involved moving towards greater outward orientation and giving an increased role to market forces.

10. The Turkish lira was devalued from TL 47 to TL 70 to the U.S. dollar in January 1980. Subsequent adjustments led to a further depreciation of the lira in real terms (i.e. after adjustment for changes in relative prices) vis-a-vis the dollar. In turn, with the rise of the U.S. dollar in the first half of 1981, the lira appreciated against other currencies in real terms, but this tendency was reversed after June 1981. By October 1981, the Turkish lira depreciated in real terms by 22-25 percent vis-a-vis the U.S. dollar, 5-7 percent vis-a-vis the German mark, and 10-12 percent vis-a-vis the currencies of Turkey's major trading partners compared to its 1973 level.

11. In January 1980, the procedures involved in obtaining export incentives were simplified, and exporters were given the right to import materials and intermediate products dutyfree under the foreign exchange allocation scheme. Additional export incentives were granted in January 1981 and indirect tax rebate rates were raised in May 1981.

12. On the import side, the principal change effected in January 1980 was the streamlining of the operation of the import regime that involved reducing the waiting period for import licenses and providing foreign exchange allocations automatically once the licenses were granted. This was followed by the liberalization of imports in January 1981, involving the elimination of quotas and transfers from the restricted list (Liberalization List II) to the free list (Liberalization List I).

13. Administrative regulations concerning investment incentives were also simplified and the time needed for making decisions substantially reduced. Furthermore, a reorientation of priorities occurred, with greater emphasis being placed on export-oriented activities, agriculture, and tourism.

14. Decision-making on foreign direct investment, too, was simplified. All relevant measures were consolidated in one department and the taking of decisions accelerated. At the same time, some previously off-limit sectors, such as food processing, oil, and mining, were opened to foreign investment and foreign investors were generally accorded the same incentives as domestic investors.

15. In January 1980, the prices charged by the state economic enterprises (SEEs) were liberalized and consumer subsidies were eliminated or greatly reduced. Further price adjustments occurred subsequently, although the prices of coking coal, fertilizer, and sugar continue to be controlled and informal controls are applied to some other products.

16. In July 1980, the rediscount rate of the Central Bank on short-term notes was raised from 14 percent to 26 percent and interest rates paid to savers, and charged to borrowers, were freed. While at the beginning a "gentlemen's agreement" enforced by the cartel of commercial banks limited the extent of the increases, interest rates rose to a considerable extent on deposits as well as on loans in early 1981 as the pressure of competition rendered the agreement largely ineffective. Also, in July 1981, interest rates on bonds were freed and their indexation allowed.

17. The system of income taxes was reformed in January 1981, involving substantial reductions in personal income tax rates that had not been adjusted for inflation during the preceding years, and bringing small businesses, the liberal professions, and farmers within the purview of the income tax system. Also, decisions were taken to replace the complicated and inefficient system of indirect taxes by value added taxation.

The Effects of the 1980-81 Policy Measures

18. The January 1980 reforms had some immediate effects. The premium on the lira in the parallel exchange market, that averaged 50 percent in 1979, declined to 5 percent. Also, the liberalization of prices lessened distortions in resource allocation and reduced the deficit of the SEEs. As a result, the net borrowing requirements of the public sector decreased, making it possible to lower the rate of growth of the money supply.

19. On the whole, however, the economic effects of the reforms were retarded by reason of the unsettled conditions existing in Turkey at the time. Until September 1980, there was considerable political uncertainty, and

production was disrupted as a result of intensifying violence, declining labor discipline, and increasing strike activity, with 7.7 million workdays lost in the first eight months of 1980 compared to 1.1 million workdays in 1979.

20. These considerations largely explain why the dollar value of exports in the first eight months of 1980 hardly exceeded that for the corresponding period in 1979. The situation changed in the following months, and the dollar value of exports in the remainder of the year was 63 percent above that for the same period in the preceding year. Exports continued to rise rapidly in 1981, with their dollar value in the first ten months of the year exceeding the figure for the comparable period of the previous year by 64 percent. Increases were concentrated in manufactured goods that experienced a rise of 120 percent in the latter period. Product groups with the largest increases included textiles and clothing, cement, glass, iron and steel, nonelectrical machinery and transport equipment, with the Middle East becoming an increasingly important market.

21. Also, increases occurred in the issuance of domestic investment licenses and the share of agriculture in the total rose to a considerable extent. However, with sluggish business conditions associated with the application of restrictive monetary policies, domestic private investment remained stationary in 1981 after declining by 20 percent in 1980.

22. Foreign direct investment increased in the second half of 1980, and rose further in 1981, with investments totalling approximately $110 million, compared to $33 million in 1980 and a cumulative total of $228 million at the end of 1979. However, about 85 percent of foreign investment involved the use of non-guaranteed trade arrears from blocked accounts in the Central Bank.

23. With lesser reliance on Central Bank credits by the public sector and limitations on private credit, the rates of growth of reserve money fell from 56 percent in 1979 to 48 percent in 1980. The ratio of the money supply to GNP declined from 20 percent to 15 percent during the same period. Furthermore, in response to rising interest rates, time deposits and certificates of deposit doubled between July 1st and December 1980, and increased two-and-a-half times between December 1980 and December 1981. Finally, after having reached a peak of 133 percent in February 1980, when the effects of the freeing of SEE prices and of the January 1980 devaluation were felt, year-to-year increases in wholesale prices were less than 50 percent a year later and slightly below 35 percent in the second half of 1981.

The Need for a Medium-Term Strategy

24. The measures taken in 1980 and in 1981 represent important steps in the implementation of Turkey's newly-adopted development strategy. They would need to be complemented, however, by further measures to fully effect the changeover to an outward-oriented economy that relies chiefly on market forces. This will require time; given the long period of inward orientation and the limited use of the market mechanism, in particular in the public sector, the changeover cannot be effected overnight. Nor is this desirable, since firms in the private and in the public sectors have to adjust to the changing circumstances. At the same time, for firms to adjust, they need considerable certainty as to the shape of things to come.

25. This purpose would be served by the adoption of a medium-term policy framework. Such a framework would incorporate measures aimed at encouraging exports and efficient import substitution, promoting savings and investment, fostering modernization and technical change, and improving the operation of the state economic enterprises. The application of this framework, in turn, would necessitate appropriate institutional arrangements. This may take the form of establishing a high-level council consisting of economic ministers to develop a medium-term strategy and designating a government agency, most suitably to State Planning Organization, to work out the relevant measures in co-operation with other government bodies.

26. Notwithstanding the improvements made since January 1980, government regulations and their practical implementation remain cumbersome in Turkey. To reduce the resulting uncertainty in business decisions and the cost of complying with the regulations, there is a need to simplify the regulations and to streamline their practical implementation.

27. This report will consider measures that may be taken in the framework of a medium-term development strategy. These measures will be grouped under the following headings: production incentives, the financial system, the system of taxation and investment incentives, industrial development and exports, state economic enterprises in manufacturing, agricultural development and exports, and tourism.

CHAPTER 2. PRODUCTION INCENTIVES

Exchange Rate Policy

28. With the exchange rate lagging behind increases in domestic prices, the Turkish lira appreciated in real terms by about 30 percent vis-a-vis the U.S. dollar and by 20 percent vis-a-vis the currencies of Turkey's major trading partners between 1973 and the fourth quarter of 1979. The large devaluation of January 1980 and subsequent adjustments in exchange rates more than offset these changes, giving rise to a depreciation of the real exchange rate by 5 percent vis-a-vis the U.S. dollar and 15 percent vis-a-vis the currencies of the major trading partners over its 1973 level by the third quarter of 1980.

29. Between the third quarter of 1980 and the second quarter of 1981, the Turkish lira depreciated further vis-a-vis the U.S. dollar but appreciated in real terms against other currencies, with the real exchange rate vis-a-vis the currencies of the major trading partners returning to approximately the 1973 level in June 1981. This tendency was revised subsequently, and the lira depreciated by about 10 percent vis-a-vis the currencies of Turkey's major trading partners between June and October 1981.

Incentives to Industrial Exports

30. In the course of the last two decades, a series of measures were taken to provide incentives for industrial exports in the form of indirect tax rebates, access to preferential credits, foreign exchange allocation and retention schemes, and temporary import permits. However, until January 1980, the impact of these measures was limited by the overvaluation of the Turkish

lira as well as the dispersion of responsibilities for export incentives among various ministries.

31. Decision-making on export incentives was consolidated in January 1980, and exporters were given the right to import materials and intermediate inputs dutyfree under the foreign exchange allocation scheme. In January 1981, income-tax reductions were granted on new exports as well as on increments in exports and interest rates on export-oriented investments were reduced. Furthermore, in April 1981, indirect tax rebate rates were raised by five percentage points across-the-board and firms whose exports exceeded a certain limit received additional rebates.

32. Following the recent changes, tax rebate rates vary between 5 and 20 percent on industrial products, classified into eight categories. While the rebates are designed to compensate for taxes levied at earlier stages of production, in practice the classification of the commodity depends also on its profitability in export markets. Also, an additional rebate of 5 percentage points is provided to firms whose exports exceed $4 million a year and a further 5 percentage points to firms with exports in excess of $15 million a year.

33. The purpose of export credits is to finance production for exports; the credits may reach 80-90 percent of the value of industrial exports, granted for up to eight months. Export credits are provided at preferential rates; they are exempted from the financial transactions tax and pay one-half of the interest equalization tax; and they further benefit from a rebate on the rate of interest. Since February 1981, the average interest cost of export credits was 19 percent compared to 49 percent on one-year nonpreferential loans. At the same time, a guarantee deposit of 15-20 percent is required on export credits while non-preferential borrowers need to hold compensating balances of up to 30 percent with the banks.

34. Under the foreign exchange retention scheme, industrial exporters may retain one-half of their net foreign exchange earnings and may transfer the foreign currencies thereby obtained to other users. Under the foreign exchange allocation scheme, they have access to foreign currencies for the dutyfree importation of materials and intermediate products and for the duty-inclusive importation of equipment, generally up to 60 percent of the value of their exports. A higher limit, 80 percent, applies to exporters holding a foreign purchase order that comes under the temporary import regime. The subsidy equivalent of these schemes, however, declined to a considerable extent after January 1980, owing to the large decrease in foreign exchange premia on the parallel exchange market. In turn, the income tax reduction scheme introduced in January 1981 provides considerable subsidies to exports.

35. Excluding the foreign exchange premia, average subsidy rates on industrial exports declined from 14 percent in 1979 to 8 percent in 1980, subsequently rising to 10 percent in the first quarter, and 11 percent in the second quarter of 1981. The decline between 1979 and 1980 was largely due to the fact that the growth of the various subsidy schemes did not keep up with the rapid expansion of exports while the newly-introduced income tax reductions on exports led to increases in export subsidies after 1980. In turn, the real export exchange rate, adjusted for export subsidies, rose by 3 or 21 percent between 1979 and the second quarter of 1981, depending on the

price index utilized. These results indicate the increased incentives industrial exports received after January 1980; export incentives increased further afterwards as the Turkish lira depreciated by 10 percent in real terms between June and October 1981, irrespective of the choice of the price index.

36. Export subsidy rates on industrial exports vary to a considerable extent among commodity categories. In the second quarter of 1981, subsidies exclusive of the foreign exchange premium were the highest on nonferrous metal (37 percent), followed by cement (27 percent), and transport equipment (24 percent). In turn, subsidies averaged 3 percent on rubber products and on beverages.

Industrial Protection

37. Under its inward-oriented strategy, Turkey had provided extensive protection to domestic producers through tariffs and quantitative import restrictions. Tariffs have remained unchanged in recent years while some measures of import liberalization were taken in January 1980 and in January 1981.

38. According to information derived from tariff schedules, which do not allow for the effects of duty exemptions, industrial tariffs average 53 percent on non-EEC imports and 44 percent on EEC imports that enter at preferential rates in the framework of Turkey's Association Agreement with the European Common Market. At the same time, tariff rates vary to considerable extent among sectors and among products. Limiting attention to protection against the EEC that is the principal source of Turkish imports, tariffs are the highest on leather and fur products (107 percent), plastic products (94 percent), and beverages (77 percent); they are relatively low on chemicals (32 percent), non-ferrous metals (22 percent), and iron and steel (19 percent).

39. Variations in effective rates of tariff protection, representing the protection of value added, are even greater, due to the variability of tariffs on inputs. Effective tariff rates range from 256 percent on tobacco, 189 percent on sugar and 167 percent on plastic products to negative effective protection on fertilizers, petroleum and coal products, non-alcoholic beverages and cotton ginning.

40. The data do not allow for the protective effects of quantitative restrictions in the form of import licensing, the estimation of which would have required comparing domestic and foreign prices. In cases where such comparisons were made, the difference between domestic and foreign prices exceeded 30 percent in nine out of the thirteen cases. Considering further that, notwithstanding the measures of import liberalization taken since January 1980, 70 percent of total imports (50 percent of non-oil imports) are subject to import licensing, it would appear that quantitative import restrictions continue to raise the level of protection above that indicated by the tariff to a substantial extent.

Import Protection vs. Export Subsidies

41. With import protection exceeding export subsidies by a large margin, the incentive system still involves a bias against exports in Turkey. In the

second quarter of 1981, tariffs on industrial imports averaged 44 percent compared to average export subsidies of 11 percent. At the same time, tariff rates understate the extent of import protection as they fail to allow for the effects of quantitative restrictions.

42. Differences between tariff and subsidy rates are especially large for plastic products (107 and 13 percent) leather and fur products (94 and 4 percent), and beverages (77 and 4 percent). Export subsidies slightly exceed tariffs in cases of iron and steel (21 and 19 percent) and nonferrous metals machinery (26 and 23 percent), but these results are likely to be reversed if consideration is given to the protective effects of import licensing.

Industry vs. Agriculture

43. The system of protection applied in Turkey discriminates against agriculture that has protection rates substantially lower than industry, the average was 26 percent in 1978 and it does not appear to have changed much between 1978 and 1980. Furthermore, within agriculture, support pricing as well as input subsidies have benefited import-substitution crops, such as wheat, sugarbeet, sunflower, and tea, over export products, including fruits, vegetables, and livestock.

Recommendations

44. Rapid increases in Turkish exports since September 1980 have responded to incentives in an improved political and economic climate but have also been conditioned by the availability of unused capacity. In the long run, high export growth can be maintained only if export oriented investments are undertaken. At the same time, as long as producers expect the maintenance of existing levels of protection, they will find it more profitable to invest in production for domestic markets. Variations in protection levels introduce further distortions in the choice of investments and, more importantly, in the choice of production methods. Also, high protection provides little incentive for the rationalization of production and improvements in technology.

45. These considerations point to the desirability of lowering the level of import protection and rationalizing its structure. While such a task cannot be accomplished overnight, to limit economic disruptions and to avoid a substantial deterioration in the balance of payments, private investment decisions should be guided by future -- lower -- levels of protection. This purpose can be served by the government announcing its intention to reduce and to rationalize import protection. To prepare producers for this eventuality, a timetable should be made public on the reform of the system of protection, to be carried out over a period of, say, five years.

46. The reform should include, first of all, replacing import licensing by tariffs over the transitional period of five years. Import licensing provides additional protection, the extent of which is not known with any confidence. It also involves administrative interventions, often on a case-by-case basis, and interferes with the operation of market forces. By contrast, tariffs act automatically and provide a choice to the user between imported and domestic products, taking account of factors such as price, quality and delivery dates.

47. In preparing for the liberalization of import licensing, it would be necessary to establish a list of items, the importation of which is effectively prohibited at present as they do not appear on either liberalization lists. Import liberalization should take the form of annual transfers of prohibited items to Liberalization List II and that of items from Liberalization List II to List I, with priority given to liberalizing the importation of intermediate products and machinery.

48. Furthermore, a tariff ceiling should be established, to be attained in annual instalments over the transitional period of five years, during which time differences in tariff rates should also be reduced. The tariff ceiling may be set at 30 percent with additional incentives granted to infant industries on a temporary basis and on a degressive scale. To the extent possible, infant industry incentives should be provided in the form of production or investment subsidies rather than tariffs so as to encourage exporting. This is of particular importance in the electrical and non-electrical machinery, machine-tool and electronics industries, which may be regarded as infant industries in Turkey, because the exploitation of economies of scale will not generally be possible in the confines of domestic markets.

49. Reductions in import protection would necessitate adjustments in the exchange rate in order to maintain balance-of-payments equilibrium. It would further be desirable that the exchange rate be increasingly used as a policy instrument to promote exports in the place of export subsidies.

50. First of all, with the proliferation of subsidies, their effects on particular export products are difficult to gauge, whereas the impact of exchange rate changes is easily ascertainable. The effects of exchange rate changes are also automatic and do not require the administrative procedures involved in granting subsidies, which may discourage small and medium-sized exporters. At the same time, export subsidies are subject to retaliation under GATT rules and developed countries may apply retaliatory measures once Turkish exports substantially increase in value. Finally, subsidies to export value tend to encourage the use of imported inputs in export activities, while exchange rate changes bear on value added in exports. This is because a devaluation raises the domestic currency equivalent of the export price, as well as that of the price of imported inputs, thereby encouraging the use of domestic inputs.

51. The first candidate for reducing export subsidies is the preferential export credit that provides subsidies of 30 percent to exporters who have access to such credits. Also, credit subsidies should be granted on the basis of value added in exports, as discussed in Para. 87 below. In turn, it would be desirable to establish a medium-term credit facility, complemented by an export credit guarantee scheme, so as to permit Turkish firms to better compete abroad in exporting durable goods since foreign firms generally provide medium-term credits and benefit from credit guarantee schemes. As a first step towards this goal, export credit and insurance schemes in effect in other countries should be reviewed.

52. Existing regulations as to the partial deductability of the value of new exports, and of increments in exports, from taxable income would also need to be modified. The present system tends to discourage small exporters by

imposing a minimum export value of $250,000 for manufactured exports. One may further envisage reducing the extent of this subsidy for all exporters.

53. As regards the tax rebate on exports, it would be desirable to eliminate the second additional five percent rebate provided to firms that export more than $15 million a year. A first step in this direction is being taken by limiting the application of additional rebates to amounts above the thresholds cited in Para. 31. One may further welcome the intention expressed by the government to calculate the rebates on the basis of value added in exports (net foreign exchange earnings). At the same time, it would be desirable to extend the additional rebate to the exports of fruits and vegetables that may be considered an infant industry in Turkey.

54. Parallel with reductions in export subsidies, it would be desirable to extend the free trade treatment of exports. In this connection, one may welcome proposed legislation to make the importation of prohibited items for export production automatic, to eliminate tariffs on machinery used in export production, and to exempt domestic inputs used in export manufacture from production taxes. It is further recommended to extend the privilege of duty-free importation to all producers of the principal domestic inputs used in export production. Early passage of legislation on the establishment of free trade zones would also be desirable.

55. Increasing reliance on the exchange rate as against import tariffs and export subsidies would improve the profitability of agricultural exports that are presently discriminated against in favor of manufactured products. As discussed in Paras. 180-185, further changes in incentives to agriculture would be desirable, so as to approach world market price relations with respect to products as well as inputs.

56. Finally, as long as inflation is more rapid in Turkey than in its major trading partners, it will be necessary to continue the current policy of making adjustments in exchange rates in line with the inflation differential. It is of particular importance to maintain competitiveness vis-a-vis European currencies, given the importance of the EEC as a trading partner and a competitor in Turkey's major markets.

CHAPTER 3. THE FINANCING OF ECONOMIC ACTIVITY

The Supply of Money

57. The acceleration of inflation in the second half of the 1970s found its origin in the rapid increase of the money supply. This, in turn, reflected the pressure under which the process of base money creation operated. The Central Bank had to accommodate almost automatically the growing borrowing requirements of public administrations and public enterprises. Increases in the scope of selective credits further contributed to the rapid expansion of the monetary base, because of their dependence on low interest credits provided by the Central Bank.

58. The supply of money is also influenced by variations in the multiplier of the monetary base. These variations have in large part been due to the fact that the reserve ratios imposed on bank deposits differ widely, depending on the types of credits extended by the banks. Reserve ratios range

from nil on medium-and long-term credits to less developed regions, 5 percent on export credits and on medium- and on long-term credits to priority sectors, and 10 percent on other medium-and long-term credits to 30 percent on time deposits and 35 percent on sight deposits.

Interest Rates and the Demand for Money

59. Interest rates on time deposits were kept at artificially low levels in face of accelerating inflation during the late 1970s, with real interest rates of -30 percent on six-month deposits in 1978 and in 1979 and -45 percent in 1980. Negative real interest rates contributed to the decline in the demand for money, defined as currency plus commercial, savings, and public deposits in deposit money banks, with its ratio to GNP falling from 27.9 percent in 1971-75 to 16.6 percent in 1980. The decline was even greater, from 20.8 percent to 10.4 percent, if one excluded commercial sight deposits, which comprise the compensating balances banks require their borrowers to hold.

60. Legal limitations on interest rates paid on time deposits were eliminated in July 1980. While initially increases in interest rates were limited under a "gentlemen's agreement," enforced by a cartel of commercial banks, by early 1981 the pressures of competition rendered the agreement largely ineffective. Interest rates were raised to 50 percent on one-year and subsequently on six month deposits, leading to rapid increases in time deposits and in certificates of deposit. Although there has been some shift from sight deposits, the freeing of interest rates has had a positive impact on the demand for money by households and it appears to have contributed to increases in the rate of household savings.

The Costs of Intermediation of the Banking System

61. The Turkish banking system is characterized by the high costs of intermediation, with a spread of more than 30 percentage points between the after-tax returns earned by depositors and the interest costs paid by borrowers. Several factors contribute to this spread: the withholding tax on interest earnings from time deposits; the low interest rates earned by banks on their liquidity and reserve requirements; contributions to the Differential Interest Rate Rebate Fund; the financial transations tax; and the high margin of operating costs and profits of the banks.

62. The withholding tax on time deposits is 25 percent, reducing the after-tax equivalent of the 50 percent interest rate on one-year time deposits to 37.5 percent; under proposed legislation, the rate of the withholding tax would decline to 20 percent, thereby raising the after-tax interest rate to 40 percent. In turn, interest rates charged on one year nonpreferential loans are 36 percent, rising to 49 percent if account is taken of the 15 percent levy accruing to the Differential Interest Rate Rebate Fund and the 15 percent financial transactions tax. Making allowance for compensating balances, the effective interest rate for nonpreferential borrowers may approach 70 percent. (The contribution to the Differential Interest Rate Rebate Fund declines to 10 percent on January 1, 1982.)

63. At the same time, the 15 percent liquidity requirement for large banks, with an average net yield of 14 percent and the 30 percent legal

reserve requirement, with an average net yield of 20 percent, raise the cost of funds derived from one-year time deposits to the banks to 76 percent. And while non-interest bearing sight deposits have lower reserve requirements, in the first nine months of 1981 practically the entire increase in deposits with the banks consisted of time deposits and certificates of deposit.

64. Deposit money banks in Turkey had a ratio of operating costs and profit margins to assets of 8 percent in 1977, rising to 11 percent in 1980. This compares with ratios of 3 to 5 percent in other OECD countries. High operating costs in Turkish banks reflect reliance on non-price competition in the form of heavy advertising, luxurious installations, and the establishment of many branches at the time when there was no interest rate competition. It is too early to judge if competition has become sufficiently strong to induce substantial improvements in the operational efficiency of the banks.

The Development of the Capital Market

65. The Turkish stock exchange does practically no business at present; bonds and stocks traded are placed generally through securities dealers. There have been few issues of shares and, despite rapid increases in recent years, the amount of private bond issues has remained small in absolute terms, due in part to legal limitations on interest rates and in part to the lack of a secondary market. In turn, while the introduction of 3 and 6 months Treasury bills in June 1980 led to competition with time deposits at commercial banks, following increases in interest rates on these deposits Treasury bills and bonds and bond issues by the State Investment Bank do not provided interest rates sufficiently attractive to private buyers and have been sold largely on a compulsory basis to banks and public institutions.

66. The law on capital markets, passed in July 1981, has freed interest rates on private bonds and introduced a system of indexation. It has also established the conditions for a more effective organization and control of the issue of financial assets. The development and regulation of stock exchanges for trading stocks and bonds should now be rigorously pursued.

The Allocation of the Domestic Financial Assets of the Banking Sector

67. The rise in the ratio of the domestic financial assets of the banking system to GNP from 45.5 percent in 1975 to 55.7 percent in 1977, and its subsequent decline to 38.9 percent in 1980, reflected the expansionary monetary policy followed in the first period and the tightening of that policy in the following three years. At the same time, the combined share of claims on public administrations and public enterprises in the total assets of the banks increased from 47.9 percent in 1975 to 55.5 percent in 1977 and rose further to 60.8 percent in 1980. It thus becomes apparent that the public sector, comprising the public administrations and the public enterprises, were the main beneficiary of domestic credit expansion until 1977 and that the restrictive monetary policy of subsequent years affected this sector much less than the private sector. This conclusion follows despite a small improvement in the first half of 1981 when the combined shares of public administration and public enterprises declined to 58.2 percent of the total assets of the banks.

68. The Central Bank financed 58 percent of the cash deficit in the consolidated budget of public administrations, amounting to 4 percent of GNP, in fiscal year 1980/81 at an interest rate of 0.75 percent. In turn, according to projections made in December 1981, the deficit for fiscal year 1981/82 would be about 1.2 percent of GNP, with the Central Bank financing approximately matching the total. In 1982/83, however, Central Bank financing is projected to decline below one-half of the deficit that would amount to about 1 percent of GNP.

69. The decline in the deficit of public administrations represents a welcome change compared to earlier years. This is because the financing by the banking system, and particularly by the Central Bank, of large budgetary deficits hinders the conduct of monetary policy and reduces the availability of funds to the private sector. In the event of large budgetary deficits, there is the risk that ceilings to credit expansion will not be maintained and the excessive growth of the money supply will jeopardize the objectives of fighting inflation and correcting the balance of payments deficit. If, alternatively, a strict control of credit expansion is maintained in spite of large borrowing requirements for the budget, there is the danger of "crowding out" of credit to the private sector. This "crowding out" will operate not only in a system which guarantees absolute priority to the satisfaction of the Treasury borrowing needs but also in a system under which the Treasury would compete without special privileges for the limited credit resources available. In this last hypothesis, interest rates might rise to such an extent that private investments with satisfactory rates of return could not be financed, with a negative impact on the future growth of the economy.

70. The financial resources needed by state economic enterprises (SEEs) to finance their losses, their investments in fixed capital, and increases in their working capital amounted to 14.1 percent of GNP in 1979. Following substantial increases in the prices of most of the SEEs, their losses in real terms were reduced by more than one-half in 1980. However, the real value of their investment expenditures continued to increase. In 1980, as well as subsequently, these expenditures have been subject to upward revision.

71. Thus, the financial requirements of the SEEs continued to be high, compared with the size of the financial system and the magnitude of domestic savings in Turkey. At the same time, the reported losses are understated by reason of the lack of adjustment made for inflation and for indirect subsidies, such as subsidies on interest rates.

72. Budgetary transfers and subsidies provided nearly one-half of the financial needs of the SEEs in 1980. These subsidies increased the deficit in the consolidated budget, accounting for 15 percent of total budgetary expenditures in 1980. Another important source of SEE financing, approximately three-tenths of the total, was bank borrowing on preferential terms. About one-half of the credits, destined in large part for the Soil Products office, were supplied by the Central Bank at low interest rates thereby contributing to money creation. Finally, one-fourth of the financial needs of the SEEs were provided through the accumulation of arrears vis-a-vis suppliers on which interest was generally not paid, giving rise to an involuntary subsidy by these suppliers.

Selective Credit Policies

73. The Turkish financial system is characterized by the widespread use of selective credit policies to the benefit of agriculture, exports, state economic enterprises, housing, small artisans and traders, certain types of investment, regional development, local authorities, tourism, maritime navigation, etc. Credit preferences are provided through a complex set of instruments, including low interest rates on credits and rediscounts by the Central Bank; levies and subsidies on interest rates paid to and received from the Differential Interest Rate Rebate Fund; differential reserve requirements on bank deposits against different types of credits; minimum ratios imposed on banks as regards the proportion of certain selective credits in their total portfolio; and the channelling of financial resources on particularly favorable terms through specialized institutions like the Agricultural Bank, the State Investment Bank, and the Tourism Bank.

74. The high rate of subsidization of selective credit has led to excess demands and leakages to uses for which selective credits were not intended. At the same time, given the ceilings imposed on various types of selective credits, legitimate needs could not be fully met, making it necessary to use rationing.

Recommendations

75. Various changes would be desirable in the financial system, so that it can fully discharge its function of providing financial intermediation, generating savings, and contributing to the efficient allocation of investible resources. It would further be necessary to ease existing constraints on monetary policy that impart an inflationary bias to the financial system.

76. To begin with, there is need to reduce the cost of intermediation by the banking system. After-tax real interest rates of 1.9 percent on one-year deposits, calculated at an annual inflation rate of 35 percent, limit the availability of savings. In turn, real interest rates ranging up to 25 percent impose a considerable burden on non-preferential borrowers.

77. To encourage savings, the taxation of interest receipts should be limited to yields adjusted for inflation. It would further be desirable to reduce the cost of financial intermediation by raising the interest rates the Central Bank pays on reserves held against time deposits and eliminating the financial transactions tax.

78. At the same time, for reductions in these charges to lead to higher interest rates to savers and/or lower interest rates to borrowers, it is necessary to ensure competition among banks and to increase competition from the capital market. Competition among banks may be increased by implementing the announced policy of accepting applications for the establishment of new domestic banks and of subsidiaries of foreign banks and allowing the diversification of existing banks. If additional measures appear necessary, the government may consider forbidding public sector banks to participate in cartel-type arrangements and introducing legislation against restrictive practices by banks.

79. Apart from increasing competition in the financial sector by providing alternatives to savers as well as to borrowers, the development of capital markets would improve the possibilities for medium-and long-term financing. In this connection, particular attention needs to be given to establishing rules and regulations for the trading of bonds in the secondary market, with a view to encouraging such trading.

80. The recent freeing of interest rates and the establishment of indexation for private bonds need to be followed by raising interest rates on Treasury bills and bonds, so as to make them competitive with private bonds. At the same time, to reduce the inflationary effects of the budget deficit one should limit the financing of the public sector deficit by the Central Bank.

81. Notwithstanding changes in the mode of financing, budget deficits create stringency in financial markets, thereby leading to "crowding-out" of private borrowers, with adverse effects on the growth prospects of the economy. Correspondingly, priority needs to be given to reducing the deficit of the public sector. This would require limiting the size of the public investment program and economizing with public consumption expenditures. In this connection, one may welcome the recent decision of the Treasury to limit budgetary transfers to the SEEs to TL220 billion in 1982 even if this amount will not be sufficient to provide the funds to finance the investment programme approved by the SPO.

82. It would also be desirable to eliminate the credit subsidies provided to public enterprises. Apart from improving the efficiency of financial markets, this would represent a move toward equalizing the conditions under which public and private firms operate. Eventually, the long-term financing of public and private firms would need to be put on the same footing as suggested in Para. 154.

83. The system of selective credits, too, has constrained the ability of the Central Bank to pursue monetary targets. The Central Bank has been called upon to accommodate a substantial part of selective credits, in particular for agriculture and exports, through refinancing. At the same time, the system of selective credits has imposed a considerable burden on nonpreferential borrowers through various charges that directly or indirectly finance the subsidized credits; it has increased the fragmentation of financial markets and reduced competition among financial institutions; it has impaired the efficiency of the allocation of resources and distorted economic calculations; it has increased the operating costs of the financial system, due to the need to implement and supervise selective credit controls and the fragmentation of the financial markets; and it has led to leakages of part of the subsidized credits to uses for which they were not intended while failing to fully provide for legitimate needs.

84. These considerations suggest the need to reform selective credit policies. To begin with, credit preferences should be granted only in cases where economic considerations so warrant. Also, the extent of the subsidy should be reduced, both to minimize the possibility of leakages to unintended uses and to limit the risks of distortions in resource allocation. Efficiency would also be served, and transparency ensured, if the present complex system of subsidization was replaced by interest rebates from the Differential Interest Rate Rebate Fund. At the same time, it would be desirable to reduce

reliance on the Central Bank in financing selective credits so as to improve its ability to conduct monetary policy.

85. There are valid reasons for subsidizing medium-and long-term credits. However, in the place of the preferential financing by the Treasury and the Social Security System, it would be desirable that development and investment banks rely on bond issues. This would permit increasing the availability of medium-term and long-term financing and would further contribute to the development of capital markets.

86. Medium-and long-term credits should continue to be provided to agriculture. At the same time, it would be desirable to eliminate the monopoly position of the Agricultural Bank in granting such credits, thereby permitting competition among banks. Consideration should further be given to eliminating the subsidization of short-term agricultural credit while ensuring increased access to such credit to all agricultural producers.

87. The automatic refinancing of export credit has interfered with the conduct of monetary policy and has led the Central Bank, on at least one occasion, to stop such refinancing. These difficulties may be avoided if the proportion of export credits refinanced by the Central Bank is varied in accordance with the needs of controlling the money supply. At the same time, interest subsidies -- to be paid from the Differential Interest Rate Rebate Fund -- should be reduced and be related to value added in exports, rather than to the amount of credit provided. This could be accomplished by classifying exports in several categories according to the share of value added and providing subsidies on the basis of actual export performance.

CHAPTER 4. THE SYSTEM OF TAXATION AND INVESTMENT INCENTIVES

Tax Revenue

88. After rising from 15.6 percent in 1970 to 19.2 percent in 1977, slightly below the average of 19.6 percent for a sample of twenty middle income countries, the tax to GNP ratio in Turkey declined to 16.8 percent in 1980. The decline was largely due to the inelasticity of indirect taxes (with respect to GNP) and the elimination of the import stamp duty. It occurred notwithstanding the high elasticity of the personal income tax that reflected the effects of "bracket creep" under rapid inflation. As a result of these changes, the contribution of direct taxes to total tax revenue increased from 37.2 percent in 1970 to 62.1 percent in 1980, while the share of indirect taxes on domestically produced goods declined from 26.4 percent to 14.2 percent and that of taxes on imports fell from 24.2 percent to 12.3 percent. (Taxes on services account for the remainder.)

Direct Taxes

89. In 1980, personal income taxes accounted for 83 percent of the revenue derived from direct taxes in Turkey. About two-thirds of personal income taxes were paid by wage and salary earners, who carried a high tax burden due to the lack of adjustment of the tax schedule with inflation. A worker earning the minimum wage of TL 61 thousand a year paid 27.5 percent of his income in personal income taxes. This proportion rose to 36.4 percent for workers earning TL 155 thousand a year, the average wage in high-wage

96. A variety of incentives are provided to approved projects. Capital goods are admitted duty free in cases when domestic substitutes are not available. Approved investments are exempted from the building construction tax and receive interest rebates up to 25 percent. Furthermore, an allowance of 30 percent of the cost of fixed investment is provided in the form of deductions from taxable income for projects of at least TL 20 million.

97. The allowance is 60 percent for investments in underdeveloped regions and 50 percent for export-oriented investments and tourism whereas the minimum size of investment eligible for the incentive is TL 10 million for designated priority sectors and TL 4 million for agriculture. Firms undertaking export-oriented investments are obligated to export generally 75 percent of the output of the new project, with an annual minimum of $500 thousand ($200 thousand for underdeveloped regions).

98. Historically, the bulk of investment licenses were issued to manufacturing activities, which received 93 percent of the total in 1979. The share of agriculture increased from 2 percent in 1979 to 13 percent in 1980 but declined again to 5 percent. In the same year, the direct employment effects of all promoted investments were estimated at 116 thousand.

Foreign Investment Incentives

99. Despite a nominally liberal foreign investment law, neglect by the authorities, combined with bureaucratic impediments, effectively discouraged foreign investment in Turkey in the past. These difficulties were compounded by the difficulties associated with the repatriation of capital and dividends, particularly after the onset of the foreign exchange crisis in late 1977. As a result, the cumulative amount of foreign investment in Turkey totalled only $228 million at the end of 1979.

100. In 1980, authority for granting permits to foreign investors was consolidated in the Foreign Investment (Promotion) Department of the SPO. Foreigners can now invest in any sector that is open to domestic entrepreneurs and receive similar incentives, although they are subject to different conditions. In certain industries, such as food, furniture, buses and lorries, and clothing, a commitment is required to export a certain share of the output. In other areas, such as diesel engines, machine tools, and electronic goods, co-operation with SEEs is required. Finally, with some exceptions, the share of foreign capital cannot exceed 49 percent, unless special dispensation is granted by the Council of Ministers.

101. Foreign investment in Turkey amounted to $33 million in 1980 and is estimated at $110 million in 1981. However, about 85 percent of foreign investment involved using non-guaranteed trade arrears from blocked accounts with the Central Bank. Despite the improvements made, the economic slowdown and limitations and uncertainties as regards the repatriation of capital and dividends have caused investors to take a wait-and-see attitude as far as the use of new funds is concerned.

Recommendations

102. A basic requirement of the tax system is to generate adequate revenue with minimal distortions and an equitable sharing of the tax burden while encouraging savings and private investment. The government has taken steps to reduce inflation-induced distortions in the personal income tax and to spread the burden of taxation more equitably. It is also planning to introduce a value added tax (VAT).

103. Despite the important contribution made by recent reforms, there is scope for further adjustments so as to generate a system of personal income taxes that provides adequate incentives to work effort and savings. To protect wage and salary earners from the effects of prospective inflation on income taxes, it would be desirable to put regular inflation adjustments into effect, as proposed by the Ministry of Finance. One may also welcome the proposed acceleration of reductions in tax bracket rates and, in particular, the government's intention to lower the minimum income tax rate to 28 percent and the maximum rate to 52 percent by 1985.

104. It would also be desirable to modify existing regulations that treat increases in the nominal value of financial and other assets as ordinary income. With rapid inflation, these provisions involve the taxation of capital that discourages savings. This can be avoided if capital gains taxation is applied only to inflation-adjusted values. In the face of possible difficulties of implementation, consideration may be given to excluding capital gains from taxable income.

105. Profits of corporations and unincorporated businesses should also be adjusted for inflation for purposes of taxation. This calls for implementing without delay the proposals made for the the revaluation of assets, so as to avoid taxing firms on "phantom profits" owing to inadequate allowance for depreciation based on historical values. Revaluation profits should be exempted from taxation and one should provide for the appropriate treatment of inventories, so that the costs of inputs are not understated. Finally, differences in tax rates on the profits of private corporations, unincorporated businesses, and public enterprises should be eliminated and these rates equalized at 40 percent. A legislative proposal to this effect has in fact been made.

106. Social security contributions of 18.5 to 24.0 percent paid by employers on wages and salaries in Turkey are high by the standards of middle-income countries; these charges raise production costs and tend to discourage labor-intensive activities. To improve international competitiveness and to increase employment, it would be desirable to reduce social security charges. This could be accomplished by improving the management of the social security system, reducing certain benefits, such as pensions, that appear excessive, and financing some of the social expenditures from the general budget.

107. The introduction of VAT would eliminate distortions in production and consumption that result from the existing system of indirect taxes. Given the administrative complications involved, sufficient resources should be provided to prepare the introduction of VAT. During the transitional period, the

existing indirect taxes should be placed on a fully ad valorem basis and their scope broadened.

108. The introduction of VAT would not affect excise taxes on luxury goods. In fact, excise taxes on these commodities would need to be increased in conjunction with the reform of the system of import protection described in Para. 48. For the sake of conservation, there is also need to increase taxes on energy, which are considerably lower in Turkey than elsewhere in Europe.

109. The recommendations made for reducing bracket rates and inflation-indexing the personal income tax, limiting the taxation of interest earnings and capital gains to real (inflation-adjusted) returns, abolishing the financial transactions tax, reducing corporate tax rates on private corporations, and introducing inflation cost accounting for depreciation and inventories, would represent a loss to the government budget. Together with the abolition of domestic production taxes and sales taxes, the revenue loss would amount to 6-7 percent of GNP. This would be more than offset by the VAT applied at a basic rate of 10 percent, with certain exclusions, which would provide revenue equalling 6 to 9 percent of GNP. Correspondingly, it should be possible to transfer the financing of some of the social expenditures to the general budget. At the same time, in preparing for the introduction of the VAT, indirect taxes may be raised to provide the necessary revenues.

110. Despite the progress made since January 1980, there is need for further simplification in the administrative procedures used to provide investment incentives. To increase automaticity in decision-making and to reduce uncertainty for would-be investors, it would be advisable to replace the "positive" list of eligible activities by a "negative" list that would designate a limited number of products, which do not receive incentives. Additional incentives would need to be granted to encourage the electrical and nonelectrical machinery, machine tools, and electronic industries that may be considered infant industries in Turkey.

111. One should further consider eliminating procedures that favor domestic market orientation, including the use of the domestic supply-demand technique for assessing the desirability of a project and the preference given to domestically produced machinery. Also, in order to avoid giving encouragement to capital-intensive industries and production methods, it would be desirable to extend the deductibility of investment from taxable income to working capital or, preferably, to replace this by income tax holidays, and to reduce the present minimum level of eligibility, which discriminates against smaller enterprises that tend to be labor intensive.

112. The measures taken after January 1980 to promote foreign investment should be complemented by additional measures to attract new capital to Turkey. To begin with, liberal and unambiguous rules should be established on the repatriation of capital and dividends, providing treatment comparable to countries that compete with Turkey for foreign capital. It would further be desirable to eliminate the requirement of co-operation with SEEs as a condition for foreign direct investment in certain engineering activities. Also, Turkey would become a more attractive location for foreign investors if the lira was made convertible as is presently envisaged by the government. Finally, there is need for increased promotion, inter alia involving the establishment of investment bureaus abroad, and for making efforts to

training, rather than providing general training that would supply transferable skills.

119. An exception is the mining sector, where Etibank has extensive training facilities and provides financial support to trainees. Its training facilities have, however, not been fully utilized. Furthermore, with declining funding, the number of workers receiving after-hours training in the program established under the Ministry of Industry has considerably decreased.

Export Marketing

120. The government has organized only a small number of trade fairs and visits to foreign trade fairs. It has established an Export Promotion Training Center (IGEME); but it mainly engages in documentation on a limited scale and has neither the staff nor the budget to mount an effective export promotion effort.

121. In recognition of the need to support export activities, in July 1980 the government passed a decree providing preferential credits, priority access to foreign exchange, and duty drawbacks to trading companies. Trading companies also receive additional tax rebates of 5 or 10 percentage points depending on whether their annual exports are between $4 million and $15 million or exceed the latter figure.

Comparative Advantage

122. Turkey's comparative advantage in manufactured exports rests on its natural resources, labor, and location. Natural resources yield a variety of agricultural, forestry, and mineral-based products for further transformation. Labor costs are substantially below those of Turkey's European trading partners, although exceed labor costs in Far Eastern countries.

123. Correspondingly, Turkey's comparative advantage does not lie in the simplest, most labor-intensive goods, nor in the most capital-intensive products. Rather, it lies in the large range of goods between the two extremes, and increasingly skill-intensive products. At the same time, closeness to European, Middle Eastern, and North African markets gives Turkey an advantage in exporting goods with a relatively high weight-to-value ratio.

124. Its relatively low wages and proximity to markets provide advantages to Turkey in textiles, garments, and other made-up products. Also, the combination of low-cost skills with the availability of forestry resources provide possibilities for expanding the exportation of furniture. In addition to processed food discussed in Para. 176 below, Turkey's natural resource endowment also favors the production and export of leather products and of mineral-based glass, ceramics, sanitary ware, and chemicals.

125. In the longer term, Turkey's comparative advantage will increasingly lie in electrical and non-electrical machinery, machine-tools, and electronics. These industries tend to be skill intensive and Turkey should be able to increasingly participate in the international division of labor in the European area through the production of parts, components, and accessories; also, it can manufacture products that conform to demands in the Middle East.

Marketing Prospects

126. The Middle East has assumed increased importance as a market for Turkish exports, with its share rising from 14 percent in 1978 to 22 percent in 1980 and to 43 percent in the first ten months of 1981. Apart from processed food, the principal export commodities have included clothing, automotive products, iron and steel products, cement and glass.

127. While Middle Eastern markets are becoming increasingly important to Turkish firms, exports from Turkey represent only a small proportion of the manufactured imports of these countries. For example, in 1979, Turkey provided only one-half of one percent of the manufactured imports of the capital-surplus oil exporting countries (Iraq, Kuwait, Libya, and Saudi Arabia). And while one should cautiously interpret the recent upsurge in sales to the warring Iran and Iraq, Turkey has excellent possibilities to export relatively simple engineering goods, cement, and various chemicals, in addition to processed food, to the nearby markets of the Middle East. Cultural ties provide a further advantage to Turkey in these markets.

128. The rapid growth of exports to the Middle East and the slow expansion of the exports of textiles and clothing have reduced the share of the European Common Market in Turkish manufactured exports. Nevertheless, this share was 33 percent in the first ten months of 1981 and Turkey has possibilities for further increasing its exports to the EEC under the Association Agreement that provides for preferential entry.

129. Textiles and clothing are, however, subject to quotas under the Multifiber Arrangement. While quotas for several products have not been binding and expectations are that Turkey would receive preferential treatment in the allocation of future quotas, much of the expansion in textiles and clothing exports to EEC markets would have to take the form of upgrading product composition and quality. In turn, the EEC provides a large and growing market for engineering products.

Recommendations

130. On the example of Korea, the government may contribute to the promotion of technological progress through the establishment of specialized institutes of applied research. Such institutes may play an especially important role in certain engineering branches and in the chemical industry.

131. The establishment of applied research institutes should be complemented by tax incentives to research and product development undertaken by private firms. This should be part of a medium-term plan of science and technology, which would also provide for the further development of technical universities.

132. Technical universities represent a link between research and the training of scientists and engineers. The training of technicians and skilled workers should be promoted through the establishment of specialized schools and courses as well as through tax benefits to firms undertaking training. Tax incentives for research and training would promote a shift from hardware to software, which is necessary at Turkey's present stage of development.

133. Efforts made to increase research and training would benefit, in particular, the electrical and non-electrical machinery, machine-tool, and electronics industries. These industries are relatively undeveloped in Turkey compared to basic metals where government investment played an important role and the automotive sector that expanded at high costs in the protected domestic market. As noted in Para. 48, the former group of industries may receive further incentives on infant industry grounds. Rather than protection, such incentives should aim at reducing the cost of production, in order to provide low-cost inputs to other industries and to encourage exports.

134. Incentives to the electrical and nonelectrical machinery, machine-tool, and electronics industries may take the form of low-interest medium-term credits and higher than average tax allowances on new investments. One should further examine the feasibility of establishing specialized industrial parks where ancillary activities would be available. Finally, the services of foreign engineering consultants may be obtained to review plant layout and the organization of work, with a view to recommending productivity improvements.

135. In turn, there is a need for devising a long-term strategy for the automotive industry, to avoid further duplication of production facilities and to ensure vertical specialization in efficient plants. In view of the difficulties of consolidating producers that manufacture different cars and belong to different business groups, this may be sought in the direction of specialization agreements with the principals abroad, involving the exportation of some parts and components and the importation of others.

136. The export incentives discussed in Chapter 2 could be usefully complemented by measures taken to promote marketing abroad. This could be accomplished by establishing an institution that is engaged in the collection of market information, the provision of advice to exporters, and promotional activities, including the organization of trade fairs and foreign commercial missions. For such an organization to be effective, it should have branches abroad, both to identify markets and to solicit orders, on the example of KOTRA in Korea and CACEX in Brazil.

137. However, a public institution of export promotion can only play a supporting role to private firms. Turkey's large business groups are capable of mounting an export promotion effort but small and medium size firms can rarely export directly. Correspondingly, trading firms may play an important role as they do in countries such as Japan and Korea. Their recent proliferation, provides evidence of the response to incentives, but the extent of tax incentives should be reduced as suggested in Para. 53.

CHAPTER 6. STATE ECONOMIC ENTERPRISES IN MANUFACTURING

The Role of the SEEs

138. Eight firms established under Law 440 governing public enterprises account for much of the economic activity of the SEEs in Turkish manufacturing. These are the Turkish Sugar Corporation (TSF), Sumerbank (producing largely textiles), the Pulp and Paper Corporation (SEKA), the Petrochemical Corporation (Petkim), the Nitrogen Industry Corporation (Azot), the Turkish Cement Corporation (TCS), the Turkish Iron and Steel Corporation,

the Machinery and Chemical Corporation (MKEK). Two firms established under corporate law, the Endemir Steel Corporation and the Igsas Fertilizer Corporation, are of further importance.

139. Public enterprises provided almost all of the production of steel, alcoholic beverages, tobacco, and petroleum and more than half of cement, fertilizer, sugar, paper and paper products, and printing and publishing in 1979; they also manufactured textiles, clothing, machinery, transport equipment and a variety of other products. Excluding the firms established under corporate law, the SEEs accounted for 32 percent of production value, 30 percent of value added, and 36 percent of employment in the Turkish manufacturing sector in the same year.

SEE Performance

140. Available data on value added, employment and fixed investment indicate the declining efficiency of public sector enterprises compared to private enterprises in Turkish manufacturing. While the share of the public sector in value added in manufacturing fell from 51 percent in 1970 to 30 percent in 1979, its share in employment remained virtually constant at about 36 percent, and its share in fixed investment in manufacturing increased from 39 percent to 50 percent.

141. These findings are supported by sectoral, project, and product data. Whereas in 1963 output per unit of all factor inputs combined was higher in the public sector than in the private sector in six out of fourteen industries, by 1976 this number fell to three. Also, economic rates of returns in five public investment projects for the expansion and modernization of existing facilities ranged between 8 and 17 percent, below the rates usually expected from such projects. Finally, among the 28 products for which price information is available, domestic prices exceeded world market (border) prices by more than 40 percent in 15 cases. Low capacity utilization, poor management, excessive energy use, and overmanning were further signs of inefficiencies. Finally, with the major exception of cement, the manufacturing SEEs contributed little to exports and had a large import surplus.

Causes of Inefficiencies

142. Several factors explain to the observed inefficiences of these SEEs during the 1970s. The government relied almost exclusively on the SEEs to establish highly capital-intensive industries producing intermediate goods, such as steel, chemicals, petrochemicals, paper and non-ferrous metals, in which Turkey does not have a comparative advantage. Decisions on investments were made by the State Planning Organization, dominated largely by import-substitution considerations, with little regard for efficiency and costs. Also, investments were often characterized by inadequate project design, lower than efficient scale and inappropriate location, and they frequently experienced considerable delays and large cost overruns in actual implementation.

143. The supervising ministries intervened in the day-to-day operation of the state economic enterprises but the SEEs were not subject to cost discipline or to effective auditing. Nor did managers have incentives to

reduce costs and there were no real penalties for poor performance. Rather, both the Board of Directors and managers were largely political appointees and they carried out directives by the supervising ministries, e.g. to increase the work force beyond the needs of production in the late seventies.

144. Together with technical and skilled workers, managers had civil service status and were greatly underpaid while unskilled workers were overpaid compared to private industry, leading to the loss of technical and skilled manpower. On the average, wages were higher than in private industry whereas capital was subsidized. High protection was a further source of distortions as it excluded foreign competition, with most SEEs producing intermediate goods having a monopoly position in domestic markets.

Price Liberalization

145. Until January 1980, SEEs were subject to price control. Differences between actual costs and revenues were considered "duty losses" and were generally reimbursed by the Treasury. Prices were freed on January 1, 1980, although some formal and informal controls remain. The price of coking coal, fertilizer, and sugar continue to be controlled, informal controls apply to newsprint, and according to the Ministry of Industry and Technology informed the mission that it operates with an unofficial price ceiling of the tariff-inclusive cif price plus 30 percent. Less carefully rationalized interventions also exist.

146. The liberalization of prices has much improved the financial situation of the manufacturing SEEs, the major exception being the SEKA which has experienced increasing losses due in large part to the limitations imposed on the price of newsprint. At the same time, profits are overstated by reason of inadequate depreciation allowances, budgetary transfers, and credit subsidies. Also, the improved financial situation of the SEEs reflects in part the large increases in payment arrears to private suppliers.

Reforming the SEEs

147. The government has been giving the issue of state enterprise reform considerable attention. It has established the guiding principles of the reform, has prepared draft reform proposals, and has taken interim measures in regard to personnel. The guiding principles of the proposed reform are unexceptionable. They include the minimization of political interference, the decentralization of decision making, the rationalization of the structure of individual SEEs, the clarification and concentration of responsibility for the control of SEEs, and rewards for success to managers.

148. The reform proposals envisage reorganizing productive SEEs into holdings, each of which would have a number of subsidiary companies. In the manufacturing sector, there would be nine holdings: textiles and clothing, sugar, paper, cement, minerals, fertilizer, iron and steel, machinery and equipment, and a bank for workers abroad.

149. Each holding would have an annual shareholders' meeting or general assembly, consisting of appointed and elected members. The general assembly would appoint the full-time chairman, five part-time board members, and the general manager of the holding as well as the managers of the subsidiary

companies. Under a recent decree, the managers and skilled personnel will not have civil service status; their compensation has been increased substantially; and they will receive incentive payments for performance.

150. The general assembly would decide on general policy isues and provide yearly directives to the subsidiaries. Overall policy guidance for the holdings would be set by a high level Coordination Committee and the performance of the holdings would be periodically monitored by the responsible ministry on the basis of performance criteria, including increases in production, productivity, and profit. The holdings would be self-financing, with budgetary transfers limited to equity infusions for new investment.

Recommendations

151. The abolition of civil service status for managers and skilled personnel and the increases in their compensation represent important steps in reforming the SEEs. The proposals for extending the decision-making power of the managers, and making them responsible to a general assembly, also have considerable merit. However, by providing several performance criteria, the proposals do not ensure that profitability be the sole guiding principle for the SEEs. Also, the effective responsibilities of the high-level Coordinating Committee and the role of the ministries in monitoring performance are not entirely clear and the management structure may give rise to conflicts within the holding. Finally, the single industry coverage of the holdings would continue to limit domestic competition.

152. Turkey may profitably follow the example of Hungary in decentralizing decision-making and ensuring competition among producing units in the public sector. This would require breaking up the industry-wide SEEs whenever technological considerations permit and giving firm managers the freedom to decide on production, prices and, employment, with a view to maximizing profits. At the same time, for profit maximization to serve the national interest, an efficient pricing environment would need to be created.

153. The establishment of an efficient pricing environment would involve, first of all, the equalization of the conditions under which private and public firms operate, by eliminating credit and other subsidies to the SEEs and equalizing corporate income tax rates. At the same time, subsidies may be provided to achieve particular social objectives, such as regionalization. This should not, however, be limited to public firms.

154. Furthermore, steps would need to be taken towards reducing and equalizing protection rates as described in Chapter 2. In the meantime, in basic industries where technological considerations do not permit breaking up the SEEs, domestic prices should be set periodically on the basis of the estimated world market price, with allowance made for acceptable levels of protection.

155. Also, while the equity capital of the SEEs may be provided by the government, borrowing should come from financial institutions on the same terms as those facing major private borrowers. Eventually, private and public banks, as well as the capital markets, may provide financing for both private and public enterprises. This, however, would require considerable improvements in the operation of the SEEs.

162. Within agriculture, import substituting crops were benefited at the expense of export crops; the bulk of government investment was for large irrigation projects; input subsidies to machinery complemented by preferential credits encouraged the expansion of capital-intensive activities; and subsidies to fertilizers and low water charges led to inefficient resource usage. Correspondingly, increases in output were largest in the case of relatively capital intensive import substitution crops, including cereals, sugarbeet, sunflower and tea, while the production of major export crops showed a mixed pattern and the growth of agricultural exports hardly exceeded one percent a year.

Capital-Intensive Development in Agriculture

163. The capital-intensive character of Turkey's agricultural development in the pre-1980 period is indicated by the more than tenfold increase in the number of tractors between 1960 and 1979, reaching a ratio of one tractor per 37 hectar. Over the same period, the use of equipment associated with labor-intensive techniques declined. Capital-intensity also increased as low water charges did not encourage the intensification of irrigated land and only about one-half of the area equipped for irrigation was actually irrigated.

164. As a result, incremental capital-output ratios in Turkish agriculture rose from 1.9 in 1966-68 to 2.3 in 1968-72 and to 4.0 in 1973-78. The capital-intensity bias of Turkish agricultural growth also contributed to the underutilization of labor while discriminating against labor-intensive sectors such as fruits and vegetables. Surplus labor in agriculture during the peak season was estimated at 4 percent of the total labor force while rural-urban migration contributed to an increase in nonagricultural unemployment from 4 percent in 1967 to 9 percent in 1977.

Price Policy

165. Until 1980, the government set support prices for 23 major agricultural products, the principal exception being fruits and vegetables. It had a procurement monopoly for sugarbeet, tobacco and tea while public sector agencies purchased varying shares of the output of other crops. Support prices were intended to serve as guaranteed floor prices but in the inflationary environment of 1978 to 1980 they fell behind market prices. As a result, the public sector agencies were unable to fulfil their procurement targets.

166. Commodities that were subject to support prices were marketed by the SEEs and sales cooperatives at prices fixed below cost, with the government absorbing the resulting losses. In the course of the January 1980 reforms, authority granted to the marketing organizations to set consumer prices according to actual costs. Consumer subsidies were greatly reduced on meat and sugar while, despite substantial reductions, considerable subsidies remain on bread. Among inputs, subsidies were reduced in several stages on fertilizer and the government has decided to raise water charges so as to cover the cost of operating and maintaining irrigation schemes. Finally, the government reduced the number of commodities under price support to 16 in 1981.

167. Prior to January 1980, minimum export prices were set by the government and exports of several agricultural commodities were limited through licensing whenever, in the judgment of the Ministry of Commerce, domestic supply was insufficient to provide for domestic demand. Furthermore, a multiple exchange rate system was applied that discriminated against agricultural exports. Since January 1980, minimum export prices have been abolished for most agricultural exports and the export licensing system has been discontinued, the principal exception being livestock. Also, a unified export exchange rate has been adopted, with the large devaluation of January 1980 increasing the profitability of agricultural exports, that was, however, in part offset by the introduction of a system of flexible levies.

Incentives and Export Performance

168. Interventions in output and input markets under Turkey's inward-oriented strategy led to distortions compared to international price relationships. Calculations of effective protection for the year 1978 indicate that, in the agricultural sector, sugarbeet, olives and corn were the most heavily protected. In turn, apart from traditional exports (hazelnuts, tobacco, raisins, and figs) where Turkey's dominant market position justifies the imposition of export taxes, the system of protection applied discriminated against cotton, fruits, vegetables, and livestock through overvalued exchange rates and high prices of nonagricultural inputs, including transportation and packaging materials.

169. Among import substitution crops, exports of wheat occurred in periods of high output but necessitated subsidies. In the case of tea, procurement at high prices without quantity limitations led to the accumulation of large stocks and poor quality production. For sugar, protection gave rise to the rapid expansion of production at high costs. After January 1980, more realistic support prices have been adopted for wheat and limitations have been imposed on the planting and delivery of tea. However, increased sugar prices have further encouraged the growth of domestic production.

170. As a result of high support prices and relatively low export taxes, the production of traditional exports was above the optimal level, leading to the accumulation of stocks in the hands of the government that was the residual buyer. After January 1980, the government has reduced area allotments and imposed ceilings on deliveries. However, increases in support prices have generally been excessive, encouraging the expansion of production, and export taxes have been set overly low.

171. Among other agricultural exports, the expansion of cotton production served largely the domestic textile industry that grew behind high protection. In turn, the imposition of official prices on cattle and sheep, the government monopoly in meat exports, and quantitative limitations imposed on export sales constrained official exports while encouraging smuggling. Recent measures in the form of the removal of the official price for cattle and sheep and the abolition of the government export monopoly have improved the situation.

172. Unlike other agricultural products there was minimal government intervention in the production and exports of fresh fruits and vegetables. Correspondingly, production responded to export demand, leading to

specialization according to comparative advantage. However, fruits and vegetables suffered discrimination as a result of price support and input subsidies to competing crops. Also, it experienced the cost-raising effects of transport regulations. The recent extension of the foreign exchange retention and allocation schemes to the exports of fruits and vegetables will, however, benefit these products although the removal of the export tax rebate will reduce the profitability of exports.

Prospects

173. Geographical proximity has made the EEC Turkey's principal market for agricultural products. But, the share of EEC has declined over time, due in part to the imposition of import restrictions on several agricultural products and in part to the development of Middle Eastern markets.

174. The prospects of Turkish agricultural exports to the EEC will be affected by the recent, or prospective, entry of Greece, Portugal, and Spain as well as by the elimination of tariffs on Turkish agricultural exports to the Common Market by 1987. The effects of these changes will vary from product to product and will be affected by quota limitations.

175. Cotton is imported free of duty into the EEC and the prospects for Turkish exports will only depend on the domestic supply-demand balance. Tobacco, hazelnuts, raisins, and figs are subject to quotas, and competition from Greece is expected to reduce Turkish exports below the quota limit. However, there are good possibilities for expanding the exports of pistachio nuts that are not subject to quota.

176. Nor are pulses subject to quota and export possibilities will depend entirely on supply conditions in Turkey. Also, Turkey has advantages in early season fruits and vegetables, which will be accentuated with the removal of the EEC tariff, and there are possibilities for increasing the exports of several processed fruits and vegetables to Common Market countries. However, increased competition from Spain is likely to limit the exports of olives and citrus fruits.

177. Fresh and processed fruits and vegetables have especially good market prospects in the Middle East. Turkey also has excellent possibilities to increase its exports of sheep and lamb to this area. Finally, there is a market for processed cereals in some of the Middle Eastern countries.

Comparative Advantage

178. A simulation model has been used to examine Turkey's comparative advantage in agriculture. While the results are tentative, it appears that a move to world market prices, with optimal export taxes applied to exports that face inelastic foreign demand, would lead to increases in the production of feedgrains, tobacco, cotton, pulses, vegetables, fruits, and ovine products. In turn, the production of the major cereals would decline as would that of sunflower, sugarbeet, beef, and dairy products.

179. The simulation shows a 39 percent increase in agricultural output, a fivefold increase in exports, and a rise in imports (included input imports) by one-half under the assumption that, apart from optimal taxes on traditional

exports, the domestic prices of agricultural products and their inputs were equated to world market prices while the productive conditions existing in 1978 remained unchanged. The increase in production would be 20 percent, agricultural exports would rise fourfold and imports by one-half if prices received and paid by producers equalled world market prices but 1978 consumption levels were maintained by the use of consumption subsidies. The direction of changes in the output of particular commodities would be similar, however, in the two cases.

180. Projections have further been made for the year 1990, on the assumption that past trends in yields and investments would continue. The results show an average annual rate of growth of 5.7 percent under a policy of free trade, with optimal export taxes on traditional exports, exceeding historical growth rates by a considerable margin. The output of tobacco, cotton, fruits, vegetables, and sheep would grow above, and that of wheat, barley, roots, and beef below, historical rates. These results reflect changes in the allocation of land as well as the more efficient use of inputs under optimal policies.

Recommendations

181. The 1980-81 policy reforms have brought improvements in several respects. In particular, the large devaluation of the exchange rate has provided increased incentives to exports; reductions in consumption subsidies have led to the more rational pricing of foodstuffs and to lower budgetary deficits; and increases in the prices of fertilizer and plant-protection materials have encouraged their more efficient use.

182. The following recommendations aim at further improvements in the context of Turkey's outward-oriented development strategy. While the recommendations concentrate on measures necessary for Turkey to realize the efficiency gains that can be attained through the better utilization of the country's agricultural potential, various institutional constraints will need to be addressed to fully exploit the country's comparative advantages. They include measures to improve agricultural research and extension, veterinary services, and marketing information and promotion systems.

183. For traded crops, such as wheat, barley, and cotton, for which Turkey holds a small share of the world market, there is need to take additional steps in the direction of freer trade and less government intervention. This would mean, first of all, letting domestic prices adjust to the trend in world market prices, with interventions limited to setting guaranteed floor prices that would assure farmers the recovery of costs in years of low world prices and levying export taxes to keep domestic prices at desired levels. Moreover, credit at realistic interest rates should be provided to finance input purchases and the holding of stocks by farmers and a crop insurance scheme established. Finally, it would be desirable to further encourage the involvement of the private sector in foreign trade.

184. The prices of traditional exports, such as tobacco, hazelnuts, raisins, and figs, should be maintained at levels that discourage undesirable expansion while avoiding foreign exchange losses from declining marginal revenues. These measures may be implemented over a period of five years, so

as to avoid sudden unfavorable effects on producers' incomes. Gradual adjustment is of particular importance for perennial crops.

185. As regards sugarbeet, the appropriateness of a policy aimed at self-sufficiency may be questioned. While improvements could be made through the introduction of modern production, storage, and processing techniques, Turkey has a comparative disadvantage in sugarbeet production and alternative crops would need to be sought. Correspondingly, further investment in sugar factories is not desirable and pricing policy should aim to ensure the production of sugarbeet at levels necessary for full capacity utilization of existing factories.

186. The removal of restrictions on livestock exports should be completed to exploit Turkey's comparative advantages in Middle Eastern markets where the importation of live sheep is preferred. Meat exports should be further encouraged through the establishment of adequate cold chain facilities and improvements in transportation. Apart from removing regulations that limit competition in the domestic transport industry, foreign companies should be permitted to expand their transport operations in Turkey. Furthermore, there is need for public investment in roads and ports to improve the quality and capacity of the road network and to upgrade port capacity.

187. Improvements in transportation facilities would also be necessary to promote the exports of fruits and vegetables. At the same time, the exports of horticultural products should be made eligible for the additional indirect tax rebates provided to large exporters, including trading firms. Furthermore, the removal of import restrictions on inputs, such as packing materials, would be desirable to promote the exports of processed fruits and vegetables.

188. The undesirable expansion of the use of heavy mechanical equipment should be discouraged by eliminating the subsidies provided in particular through preferential, low interest, loans. The government's intention to remove subsidies to the production and distribution of fertilizers over a five-year period is also to be welcomed.

189. The government has accepted the principle of raising water charges to more appropriate levels. This would involve, as a first step, recovering the cost of the operation of irrigation schemes. Further steps would need to be taken to link water charges to the more efficient use of irrigated land. The water charge should be made of two parts: (a) a per hectare charge, independent of water use, increasing with the size of the irrigated area owned by the farmer, and (b) a volumetric charge, proportional to the amount of water used by the farmer and calculated as a percentage of value added per hectare of a relatively intensive cropping pattern.

CHAPTER 8. TOURISM

Recent Trends

190. Tourism accounts for more than one-tenth of the exports of goods and services in Turkey. While tourist arrivals declined from a peak of 1.6 million in the late 1970s to 1.3 million in 1980 due to political uncertainties, Turkey should be able to reverse this trend as competitive

prices, together with excellent climate, beaches and sightseeing, make it an attractive tourist destination.

191. Reductions in tourist arrivals lowered occupation rates as well as profits in tourist accommodations. In 1980, average gross operating profit in the eleven hotels for which data are available was 15.6 percent of total revenues, compared to a worldwide average of 26.7 percent, with little left for return on investment once allowance is made for fixed charges. A contributing factor was the failure to allow hotel prices to rise with costs, in particular labor costs, with the ratio of the wage bill to total revenue averaging 45.8 percent, compared to a worldwide average of 31.2 percent.

Domestic Resource Costs and Foreign Exchange Receipts

192. While tourist arrivals declined by 15 percent in 1980, reported foreign exchange receipts from tourism increased by 16 percent, raising average daily expenditures to $22.60. But,the year-earlier figure appears to have been an underestimate as tourists utilized the parallel foreign exchange market where much higher rates could be obtained prior to the January 1980 devaluation.

193. Average daily expenditures by foreign tourists in Turkey slightly exceed the estimated figures for Greece ($21.00), Spain ($21.50), and Morocco ($18.20) while falling short of the figure for Tunisia ($37.60) that reflects lesser "dilution" by cruise passengers and one-day excursionists. At the same time, foreign exchange leakages in the form of payments to, and imports from, abroad are relatively low in Turkey, not exceeding 8 percent.

194. The domestic resource cost of earning foreign exchange from international tourism was estimated at TL 65.6 per U.S. dollar in 1980, 15 percent below the average official exchange rate of TL 76.0 for the year. It is substantially below costs in many other foreign exchange earning activities in Turkey and would decline further with increased capacity utilization.

Prospects Until 1990

195. Mediterranean tourism is expected to rise at an average annual rate of 6 percent during the 1980s. Turkey should be able to increase its share from 1.2 percent to 1.6 percent during this period, provided that appropriate policies are followed. Correspondingly, the number of tourist arrivals in Turkey would rise by 9 percent a year. An increase of this magnitude is modest by the standards of other Mediterranean countries at a similar stage of tourism development and may be considered a conservative figure. Nor is there much of a danger of cultural dislocation, given the large size of the country and the importance of domestic tourism. At the same time, even allowing for increases in occupancy rates, attaining this result would require nearly doubling accommodation capacity.

Recommendations

196. The establishment of physical facilities should be part of an overall plan, aiming at the mobilization of public and private resources in tourism over the next ten years. Such a plan would include, inter alia, matching targets for capacity increases with prospective traffic flows; appropriately

scheduling public sector investments in infrastructure; encouraging private investment, both domestic and foreign, in tourism; adopting civil aviation policies aimed at optimizing returns to the economy as a whole; and establishing an effective market promotion program.

197. Even though additional supporting infrastructure will be required for longer term tourism development, there are immediate possibliities for augmenting accommodation capacity where infrastructure is already in place or where only minor network extensions are needed. In the next few years, one should promote superstructure investments where such immediate possibilities exist, either in established tourist destinations or in planned integrated resorts.

198. The Ministry of Tourism and Information has rightly decided to concentrate immediate efforts in 5 out of the 106 project areas that have been under development or study. However, even in these areas, including Side and South Antalya on the Mediterranean coast, Koycegiz on the South Aegean Coast, Istanbul, and Cappadocia, priority should be given to installations where infrastructure exists and investments in additional accommodation capacity can be rapidly made.

199. While returns are high in non-hotel tourism activities, such as shopping, entertainment, and internal transport, the profitability of hotels in Turkey, as elsewhere, is modest. Accordingly, capturing the potential benefits of tourism as a whole necessitates providing adequate loan finance on suitable terms to complement equity funds that are available from the private sector. Although private sector participation is likely to come from domestic sources, foreign participation would be desirable in order to provide capital as well as expertise and marketing experience.

200. In providing increased loan finance, the existing large preferential margin on loans by the Tourism Bank could be reduced. At the same time, there can be little justification for further direct hotel investment by the Tourism Bank that has received emphasis in the past. For one thing, the private sector can be attracted to priority tourism zones that are well-equipped with infrastructure. For another thing, the Tourism Bank's funds would be more effective as a credit source which can attract other (equity) funds.

201. At present only 36 percent of international visitors exclusive of cruise passengers, arrive by air. Air charter operations, which could reduce per passenger costs and thus stimulate demand, are in their infancy in Turkey. While this is partly explained by the low total accommodation capacity at individual destinations in relation to the passenger-carrying capacity of charter airplanes, the protectionist attitude favoring the commercial interests of the Turkish Airlines (THY) has also been an inhibiting factor and needs modification.

202. To realize Turkey's tourism potential, civil aviation policy should be reconsidered, with a view to ensuring convenient and least-cost access. This would necessitate weighing the financial interest of THY against the economic returns in the tourism sector and the economy as whole. Air charter operations, by both domestic and foreign airlines, should be encouraged. Also, on the basis of reciprocity, foreign airlines should be granted

PART II

THE MAIN REPORT

PART II

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CHAPTER 1

INTRODUCTION

A. Economic Policies and Performance Prior to the January 1980 Reforms

1.1 Following several decades of inward orientation, in January 1980 Turkey adopted a development strategy that has entailed moving towards outward orientation and giving an increased role to market forces. This report examines the policy conditions for the full implementation of this strategy and proposes the adoption of a medium-term policy framework for this purpose. It follows earlier Bank reports "Turkey: Policies and Prospects for Growth" (December 12, 1979) and "Public Sector Investment Review" December 7, 1981). A separate report will deal with energy.

1. Inward-Oriented Industrialization, 1960-73 1/ Characteristics of the Policies Followed in Turkey

1.2 Development policies in Turkey traditionally favored import substitution over exports and industry over agriculture. The application of these policies permitted rapid industrial growth as the imports of nondurable consumer goods and their principal inputs were replaced by domestic production. The products in question tend to be labor intensive and do not require large-scale production for efficient operations, with costs rising relatively little at lower output levels. They thus well-suited the conditions existing in Turkey.

1.3 While Turkey established some industries producing intermediate products at an early stage, it was after the possibilities for import substitution in nondurable consumer goods and their inputs were exhausted that the replacement of imported intermediate products and producer and consumer durables by domestic production became the dominant force in its industrial development. These industries, however, offered conditions less favorable to Turkey. They required large-scale production for efficient operations, with costs substantially higher at the low output levels imposed by limitations of the domestic market. Such was the case, in particular, in the automobile industry where production occurred at a small fraction of optimal output level leading to high costs in the production of parts and components as well as in assembly. Economies of scale are of further importance in the manufacture of intermediate products, such as steel, petroleum derivatives and chemicals, which were in the center of the investment program of the public sector that traditionally played an important role in the Turkish economy. These products are also highly intensive in capital that is a scarce resource in Turkey.

1/ This section draws on Bela Balassa, "Policies for Stable Economic Growth in Turkey," paper presented at the Conference on "The Role of Exchange Rate Policy in Achieving the Outward Orientation of the Turkish Economy," held in Istanbul in July 1979. The paper was published in the Proceedings of the Conference and reprinted as Essay 13 in Bela Balassa, The Newly Industrializing Countries in the World Economy, New York, Pergamon Press, 1981.

1.4 These characteristics of "second-stage" import substitution, aggravated by the inefficiencies experienced in public enterprises that account for one-third of manufacturing output in Turkey, led to a decline in the productivity of investment and raised the capital requirements of employment creation. The incremental capital-output ratio in the manufacturing sector rose from 1.6 in 1963-67 to 2.4 in 1968-72 while the amount of investment per job created increased from TL 267 thousand to TL 363 thousand in terms of 1976 prices. Also, incremental capital-output ratios rose from 1.9 to 2.3 in agriculture, where the policies applied favored import-substitution crops and capital-intensive production methods.

1.5 At the same time, net foreign exchange savings in second-stage import-substitution industries were relatively small as these industries required imported materials, intermediate products, and machinery, the full utilization of which was not assured in the confines of the domestic market. Furthermore, import savings were obtained at a high cost to the domestic economy. According to calculations made for the second half of the sixties, the domestic resource cost of net foreign exchange savings in import substituting industries was, on the average, 3.4 times higher than that of net foreign exchange earnings in export industries, which suffered discrimination as a result of the policies followed. Finally, the contribution of import substitution to the growth of the manufacturing sector, that was positive in the 1963-68 period, turned negative in 1968-73.

1.6 Notwithstanding the fall in the productivity of investment, Turkey was able to avoid a decline in its rate of economic growth as rapid increases in workers' remittances permitted raising the rate of investment. Workers' remittances rose from practically nil in 1966 to 5.6 percent of GNP in 1973, nearly matching the value of merchandise exports. With a considerable portion of workers' remittances being saved, the share of gross domestic investment in GDP increased from 16.0 percent in 1963-67 to 18.0 percent in 1968-72.

Comparisons of Growth Performance

1.7 Despite increases in investment shares, growth rates of per capita incomes were substantially lower in Turkey than in Southern European countries characterised by greater outward-orientation, including Greece, Portugal, and Spain. This conclusion also applies, though differences in growth performance are smaller, if comparisons are made with Yugoslavia, where a partial reversal of outward-oriented policies occurred during the sixties. In the 1960-73 period, per capita incomes rose at an average annual rate of 6.8 percent in Greece, 6.9 percent in Portugal, 5.7 percent in Spain, 5.2 percent in Yugoslavia, and 3.8 percent in Turkey. At the same time, GNP growth rates in Turkey were overstated by reason of price distortions that led to the overestimation of the contribution of the manufacturing and the service sectors to GNP growth.

1.8 Price distortions reflected the high protection of manufacturing industries that discriminated against primary and manufacturing exports and primary production in general. Correspondingly, the share of foreign trade in the national economy was considerably lower in Turkey than in other Southern European countries. In 1973, the average ratio of merchandise exports and imports to GNP was 7.8 percent in Turkey as against 14.7 percent in Greece,

21.2 percent in Portugal, 10.5 percent in Spain, and 19.9 percent in Yugoslavia.

1.9 In reducing the share of foreign trade in the national economy through import substitution and discrimination against exports, the inward-oriented policies followed in Turkey entailed considerable costs for the national economy that were rising over time. While the adverse effects of these policies were temporarily alleviated through increases in workers' remittances, Turkey was not well prepared for the external shocks it experienced after 1973.

2. External Shocks, Policy Responses, and Economic Growth 1973-78 1/

The Balance-of-Payments Effects of External Shocks and of Policy Responses to These Shocks

1.10 Along with other newly-industrializing countries (NICs), Turkey suffered external shocks of considerable magnitude in the 1973-78 period. These included the quadrupling of oil prices in 1973-74 and the world recession of 1974-75, followed by a relatively slow recovery. The balance of payments effects of the deterioration of the terms of trade, calculated as the difference between the current price values of imports and exports and their constant price values at the average prices of the years 1971-73, equalled 5.1 percent of GNP in Turkey in the 1974-78 period. Taking further account of the shortfall in exports due to the deceleration of world demand, the balance-of-payments effects of external shocks totalled 5.4 percent of GNP during this period (Tables 1.1 and 1.2).

1.11 Rather than restricting aggregate demand to remedy the balance-of-payments deficit, the response of successive Turkish governments to external shocks was to borrow abroad in order to maintain past rates of economic growth. In fact, economic growth accelerated after 1973 as the share of gross domestic investment in GDP increased from 17.5 percent in 1963-73 to 22.7 percent in 1974-76 (Table 1.3).

1.12 The acceleration of economic growth, in turn, added to Turkey's import needs. Also, in the absence of fuel saving measures, Turkey increasingly relied on imported energy while the share of nonfuel imports in its GNP remained approximately unchanged. Finally, Turkey lost market shares in traditional as well as in nontraditional exports, further adding to foreign borrowing requirements. As a result, additional net external financing requirements came to exceed the adverse balance-of-payments effects of external shocks.

1/ This section draws on Bela Balassa, "The Policy Experience of Newly Industrializing Economies after 1973 and the Case of Turkey," paper presented at the Second Conference on The Role of Exchange Rate Policy in Achieving the Outward Orientation of the Turkish Economy, held in Istanbul on July 1-2, 1981. The paper in question also describes the methodology applied in the calculations.

Table 1.1

Balance of Payments Effects of External Shocks and of Policy Responses to these Shocks

(US$ million)

Balance of Payments Effects	1974	1975	1976	1977	1978	Average 1974-78	1974	1975	1976	1977	1978	Average 1974-78
	NEWLY INDUSTRIALIZING ECONOMIES						OUTWARD ORIENTED NIC's					
External Shocks												
Terms of Trade Effects	11922	15439	11118	9770	11094	11869	3611	4421	2530	1970	3011	3108
Export Volume Effects	465	3441	2147	4827	6074	3391	14	1490	738	1993	2533	1354
Together	12387	18879	13265	14597	17168	15259	3625	5911	3267	3963	5544	4462
Policy Responses												
Additional Net External Financing	15053	14184	3112	-793	-2907	5730	2609	1686	-2901	-4441	-4592	-1528
Increase in Export Share	-767	-90	600	1838	3404	997	463	890	2357	3094	4360	2233
Import Substitution	-2417	1406	5659	8867	11399	4983	-237	1325	2088	3872	5090	2428
Effects of Lower GDP Growth Rate	517	3381	3894	4685	5271	3550	790	2010	1723	1438	686	1329
Together	12387	18880	13265	14597	17168	15259	3625	5911	3267	3963	5544	4462
	INWARD ORIENTED NIC's						TURKEY					
External Shocks												
Terms of Trade Effects	8311	11018	8589	7800	8084	8760	1007	1807	1691	2289	1539	1667
Export Volume Effects	451	1951	1409	2834	3540	2037	13	132	92	158	186	116
Together	8762	12970	9998	10634	11624	10797	1020	1939	1783	2447	1725	1783
Policy Responses												
Additional Net External Financing	12444	12498	6013	3648	1686	7258	1426	2389	2083	2883	1018	1960
Increase in Export Share	-1230	-980	-1757	-1257	-956	-1236	-148	-109	31	-208	-42	-95
Import Substitution	-2180	81	3571	4995	6309	2555	-245	-275	-210	-159	737	-31
Effects of Lower GDP Growth Rate	-273	1371	2171	3247	4386	2220	-13	-66	-121	-68	13	-51
Together	8762	12970	9998	10633	11624	10797	1020	1939	1783	2447	1725	1783

Source: Bela Balassa, "The Policy Experience of Newly-Industrializing Economies After 1973 and the Case of Turkey," paper presented at the Second Conference on The Role of Exchange Rate Policy in Achieving the Outward Orientation of the Turkish Economy, held in Istanbul on July 1-2, 1981.

Table 1.2

Balance of Payments Effects of External Shocks and of Policy Responses to These Shocks
(percent)

Balance of Payments Effects	1974	1975	1976	1977	1978	Average 1974-78	1974	1975	1976	1977	1978	Average 1974-78
	NEWLY INDUSTRIALIZING ECONOMIES						OUTWARD ORIENTED NIC's					
External Shocks												
Terms of Trade Effects/GNP	3.7	4.6	3.1	2.6	2.8	3.3	7.4	8.9	4.6	3.3	4.5	5.6
Export Volume Effects/Exports	1.8	12.6	6.7	14.1	15.8	10.7	0.1	12.9	4.8	12.2	13.3	9.2
Export Volume Effects/GNP	0.1	1.0	0.6	1.3	1.5	1.0	0.0	3.0	1.4	3.3	3.8	2.4
External Shocks/GNP	3.8	5.6	3.8	3.9	4.4	4.3	7.5	12.0	6.0	6.6	8.3	8.0
Policy Responses												
Additional Net External Financing/GNP	4.6	4.2	0.9	-0.2	-0.7	1.6	5.4	3.4	-5.3	-7.4	-6.9	-2.7
Increase in Export Market Shares/Exports	-2.9	-0.3	1.9	5.4	8.8	3.2	4.1	7.7	15.5	18.9	23.0	15.2
Import Substitution Effects/Imports	-6.0	3.7	14.6	21.8	25.5	12.3	-1.7	10.1	13.6	22.8	25.2	15.3
Effects of Lower GNP Growth Rate/Imports	1.3	8.9	10.1	11.5	11.8	8.8	5.8	15.3	11.2	8.5	3.4	8.4
	INWARD ORIENTED NIC's						TURKEY					
External Shocks												
Terms of Trade Effects/GNP	3.0	3.9	2.9	2.5	2.5	2.9	3.5	5.8	5.1	6.6	4.3	5.1
Export Volume Effects/Exports	3.0	12.7	8.4	15.9	18.2	12.0	1.4	15.0	8.1	17.7	16.7	11.8
Export Volume Effects/GNP	0.2	0.7	0.5	0.9	1.1	0.7	0.0	0.4	0.3	0.5	0.5	0.4
External Shocks/GNP	3.2	4.5	3.4	3.4	3.6	3.6	3.5	6.2	5.3	7.0	4.8	5.4
Policy Responses												
Additional Net external Financing/GNP	4.5	4.4	2.0	1.2	0.5	2.4	5.0	7.7	6.2	8.3	2.8	6.0
Increase in Export Market Shares/Exports	-8.1	-6.4	-10.4	-7.1	-4.9	-7.3	-16.4	-12.4	2.7	-23.4	-3.8	-9.7
Import Substitution Effects/Imports	-8.2	0.3	15.3	21.0	25.8	10.4	-11.8	-11.9	-8.5	-6.3	41.8	-1.4
Effects of Lower GNP Growth Rate/Imports	-1.0	5.5	9.3	13.7	18.8	9.0	-0.6	-2.9	-4.9	-2.7	0.7	-2.3

Source: See Table 1.1

Table 1.3

Interest, Debt Service and Debt Service Ratios
(in US$ millions, current prices)

	1971	1972	1973	"1972"	1974	1975	1976	1977	1978
				NEWLY INDUSTRIALIZING ECONOMIES					
Debt Service	4749	6157	8416	6441	10340	12526	16100	20324	29601
Merchandise Exports	16533	20951	32005	23163	42802	41522	53515	64317	78103
Debt Service Ratio	28.7	29.4	26.3	27.8	24.2	30.2	30.1	31.6	37.9
				OUTWARD ORIENTED NIC's					
Debt Service	843	1195	1725	1254	2347	2583	3485	4215	5750
Merchandise Exports	5980	7780	12771	8844	18619	17686	25065	30375	38528
Debt Service Ratio	14.1	15.4	13.5	14.2	12.6	14.6	13.9	13.9	14.9
				INWARD ORIENTED NIC's					
Debt Service	3906	4962	6691	5186	7993	9943	12615	16109	23851
Merchandise Exports	10553	13171	19234	14319	24183	23836	28450	33942	39575
Debt Service Ratio	37.0	37.7	34.8	36.2	33.1	41.7	44.3	47.5	60.3
				TURKEY					
Debt Service	140	169	189	166	251	261	415	570	583
Merchandise Exports	677	885	1317	960	1538	1401	1960	1753	2288
Debt Service Ratio	20.7	19.1	14.4	17.3	16.3	18.6	21.2	22.5	25.5

Sources: See Table 1.1.

1.13 The observed changes in export and import shares are explained by the policies applied. Exports were discouraged by the appreciation of the real exchange rate -- the nominal exchange rate adjusted for changes in relative prices at home and abroad -- as well as by the adverse effects of import protection on exports. Between 1973 and 1978, the real exchange rate appreciated by 10 or 13 percent vis-a-vis the U.S. dollar and by 10 or 14 percent vis-a-vis the currencies of Turkey's major trading partners, depending on the choice of the domestic price indices (Table 1.4). Exports were also discouraged as increased import restrictions, in particular on automobiles and machinery, made production for domestic markets highly profitable and raised the cost of domestically produced inputs.

1.14 Notwithstanding high protection, Turkey did not save foreign exchange through increased import substitution. For one thing, the rise in domestic investment necessitated higher machinery imports. For another thing, expanding industries required considerable amounts of imported materials, intermediate products, and machinery.

Inward-vs. Outward-Orientation

1.15 Turkey represented an extreme case of inward-oriented policies, coupled with reliance on foreign borrowing, in the 1973-78 period. Other newly-industrializing countries pursuing inward-oriented policies during this period included Argentina, Brazil, Israel, Mexico, Portugal and Yugoslavia. In these countries, foreign borrowing was used to offset about two-thirds of the balance-of-payments effects of external shocks, on the average, with domestic adjustment accounting for the remainder. While the countries in question lost export market shares, this was more than offset by savings in imports that resulted from a deceleration of economic growth and reductions in import shares.

1.16 In turn, newly-industrializing countries characterized by outward-orientation were able to surmount the adverse balance-of-payments effects of external shocks through domestic adjustment. Outward-oriented policies, providing similar incentives to exports and to import substitution as well as across industries, had been applied since the early sixties in Korea, Singapore and Taiwan; such policies were adopted by Chile and Uruguay after 1974. This group of countries increased their export market shares to a considerable extent, reduced import shares, and accepted a temporary reduction in the rate of economic growth for the sake of avoiding large foreign indebtedness.

1.17 With export shares rising, and import shares decreasing, over time, by the end of the period domestic adjustments more than offset the adverse balance-of-payments effects of external shocks in outward-oriented NICs. Correspondingly, debt service ratios, defined as the ratio of interest payments and amortization to merchandise exports, in these countries remained practically unchanged during the period under consideration (Table 1.5).

1.18 By contrast, debt service ratios rose from 35 percent in 1973 to 60 percent in inward-oriented economies. The increase was the largest in Turkey,

Table 1.4

Real Exchange Rates in Turkey, 1967-1981

Period	Exchange Rate Lira/Dollar	Index of the Exchange Rate	Index of Relative Prices vis-a-vis the United States		Index of Relative Prices vis-a-vis Turkey's Trading Partners		Index of the Real Exchange Rate vis-a-vis The US Dollar		Index of the Real Exchange Rate vis-a-vis The Currencies of Turkey's Trading Partners	
			A	B	A	B	A	B	A	B
1967	9.000	63.6	69.2	68.2	81.4	80.3	91.9	93.3	78.1	79.2
1968	9.000	63.6	69.6	66.6	85.0	81.3	91.4	95.5	74.8	78.2
1969	9.000	63.6	71.9	69.4	88.2	85.1	88.5	91.6	72.1	74.7
1970	11.500	81.3	74.1	73.9	87.9	87.7	109.7	110.0	92.5	92.7
1971	14.917	105.4	83.1	83.2	95.3	95.4	126.8	126.7	110.6	110.5
1972	14.150	100.0	93.8	93.9	100.9	101.3	106.6	106.5	99.1	98.1
1973	14.150	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1974	13.927	98.4	109.2	108.5	108.7	107.1	92.8	94.2	93.9	95.3
1975	14.442	102.1	110.0	108.5	108.7	107.1	92.8	94.1	93.9	95.3
1976	16.053	113.4	121.6	121.4	125.6	125.3	93.3	93.4	90.3	90.5
1977	18.002	127.2	142.1	146.5	142.1	146.5	89.5	86.8	89.5	85.8
1978	24.282	171.6	201.1	209.3	186.9	194.6	85.3	82.0	91.8	88.1
Q1	21.379	151.1	176.8	180.5	165.7	169.1	85.5	83.7	91.2	88.1
Q2	25.250	178.4	190.5	197.9	165.7	169.1	85.5	83.7	91.2	89.4
Q3	25.250	178.4	206.5	214.8	190.7	198.4	86.4	83.1	93.6	89.9
Q4	25.250	178.4	219.9	230.0	197.9	214.2	81.1	75.0	90.1	83.3
1979	31.078	219.6	292.9	326.1	254.3	294.3	75.0	67.3	86.4	74.6
Q1	25.250	178.4	239.5	259.3	216.6	234.5	74.5	68.8	82.4	76.1
Q2	28.360	200.4	276.4	306.1	254.4	291.7	78.5	65.5	78.8	71.1
Q3	35.350	249.8	303.7	342.0	270.7	304.9	82.3	73.0	92.3	82.9
Q4	35.350	249.8	339.3	375.5	303.1	335.4	73.6	66.5	82.4	74.5
1980	76.038	537.4	529.7	537.5	486.9	494.2	101.5	100.0	110.4	108.7
QI	61.595	435.3	453.2	466.1	407.3	418.9	96.1	93.4	106.9	103.9
QII	75.529	533.8	525.9	526.9	478.7	479.6	101.6	101.3	111.5	111.3
QIII	80.095	566.0	535.9	541.8	487.5	492.9	105.6	104.5	116.1	114.8
QIV	86.934	614.4	598.4	610.0	574.1	585.3	102.7	100.7	107.0	105.0
1981										
Q1	94.589	668.5	635.7	622.3	657.6	643.7	105.2	107.4	101.7	103.9
QII	102.836	726.8	639.0	628.6	716.4	704.5	113.7	115.6	101.4	103.2
June	107.647	760.8	668.5	647.7	773.3	749.3	113.8	117.5	98.4	101.5
QIII	118.854	840.0	678.0	678.2	794.8	795.2	123.9	123.9	105.7	105.6
July	114.148	806.7	666.5	660.3	785.6	778.3	121.0	122.2	102.7	103.6
August	120.968	854.9	673.0	674.8	807.4	809.5	127.0	126.7	105.9	105.6
September	121.445	858.3	694.4	700.0	791.4	797.9	123.6	122.6	108.5	107.6
October	124.274	878.3	705.0	717.4	786.5	800.0	124.6	122.4	111.7	109.8

Sources: 1967-1978 - B. Balassa, Growth Policies and the Exchange Rate in Turkey, July 21, 1979.
1979-1981 - IMF, International Financial Statistics, various issues.
- State Planning Organization, Turkey - Main Economic Indicators: 1979-1981, May 1981.

Notes: - The index of the real exchange rate has been calculated by adjusting on index of the nominal exchange rate for changes in wholesale prices at home and abroad. Calculations for Turkey's principal trading partners, covering 63.8 percent of Turkish exports and 67.6 percent of Turkish imports in 1973, (the United States, Belgium, France, Germany, Italy, Netherlands, Switzerland, and United Kingdom) have been made by weighting with the sum of exports and imports combined in the year 1973. The sources of Turkish wholesale price indices are:

A: Business Research and Publications Department of the Department of Commerce
B: Chamber of Commerce, Istanbul.

Table 1.5

Domestic Expenditure Shares, Incremental Capital-Output Ratios and Growth Rates

	1963-73	1973-76	1976-79	1973-79	1963-73	1973-76	1976-79	1973-79
Domestic Expenditure Shares (as a percentage of GDP)	NEWLY INDUSTRIALIZING ECONOMIES				OUTWARD ORIENTED NIC's			
Private Consumption	68.5	67.7	64.4	66.1	70.5	65.9	61.2	63.5
Public Consumption	11.6	12.0	13.5	12.7	12.6	12.9	13.0	13.0
Total Consumption	80.1	79.7	77.9	78.8	83.1	78.8	17.2	76.5
Gross Domestic Investment	21.7	25.0	25.0	25.0	20.1	25.8	27.3	26.5
Net Foreign Investment	-1.7	-4.7	-2.9	-3.8	-3.2	-4.6	-1.5	-3.0
Incremental Capital-Output Ratios	3.0	4.5	4.3	4.4	3.0	4.9	2.7	3.4
Growth Rates (constant prices)								
GNP	7.1	5.1	5.8	5.4	7.4	5.9	9.7	8.4
Population	2.4	2.4	2.4	2.4	2.1	1.8	1.7	1.8
Per Capita GNP	4.7	2.7	3.4	3.0	5.3	4.1	8.0	6.6
Domestic Expenditure Shares (as a percentage of GDP)	INWARD ORIENTED NIC's				TURKEY			
Private Consumption	68.3	68.0	65.1	66.6	72.0	72.7	65.9	66.9
Public Consumption	11.4	11.9	13.7	12.8	12.8	12.2	12.2	11.8
Total Consumption	79.7	79.9	78.7	79.3	84.8	84.9	78.0	79.6
Gross Domestic Investment	21.7	24.8	24.5	24.7	17.5	22.7	25.5	24.9
Net Foreign Investment	-1.5	-4.7	-3.2	-4.0	-2.3	-7.6	-3.5	-4.5
Incremental Capital-Output Ratios	3.1	4.4	4.9	4.6	2.9	2.8	12.6	5.3
Growth Rates (constant prices)								
GNP	6.9	5.0	5.0	4.9	6.6	7.7	2.1	5.1
Population	2.5	2.6	2.6	2.6	2.5	2.5	2.5	2.5
Per Capita GNP	4.4	2.4	2.4	2.3	4.1	5.2	-0.5	2.6

where debt service ratios increased from 14 percent in 1973 to 33 percent in 1977, declining to 26 percent in 1978 when foreign liquidity problems limited further borrowing.

Adjustment Policies and Economic Growth

1.19 Their successful domestic adjustment made it possible for outward-oriented NICs to accelerate their economic growth in the second half of the period. Thus, after declining from 7.4 percent in 1963-73 to 5.9 percent in 1973-76, GNP growth rates in this group reached 9.7 percent between 1976 and 1979, averaging 8.4 percent in the entire 1973-79 period. In turn, growth rates fell from 6.9 percent in 1963-73 to 5.0 percent in 1973-76 in inward-oriented NICs and remained at this level thereafter. At the same time, after an acceleration of economic growth, from 6.6 percent in 1963-73 to 7.7 percent in 1973-76, average growth rates were only 2.1 percent in Turkey in 1976-79 (Table 1.3).

1.20 Outward-oriented NICs had a favorable growth performance, notwithstanding the fact that they suffered considerably larger external shocks than countries characterized by inward orientation. In the years 1974 to 1978, the balance-of-payments effects of these shocks averaged 8.0 percent of GNP in the first group and 3.6 percent in the second. (With a total of 5.4 percent, Turkey exceeded the average for the inward-oriented group.)

1.21 The superior growth performance of outward-oriented NICs may be largely explained by the greater flexibility and efficiency of their economies. Having been exposed to foreign competition, firms could better adopt to changing conditions in the world market. Export orientation also permitted the exploitation of economies of scale in the manufacturing industries of outward-oriented economies. At the same time, providing similar incentives to domestic and to export sales, as well as across industries, contributed to the efficient allocation of resources, and of increments in resources, under an outward-oriented strategy.

1.22 In turn, the bias against exports and the considerable dispersion of incentive rates reduced the efficiency of resource allocation in inward-oriented economies, whose reliance on domestic markets also limited the exploitation of economies of scale and provided little incentive for improvements in productivity. In several inward-oriented NICs, efficiency in resource allocation suffered further as a result of increased protection after 1973.

1.23 Efficiency differences are reflected in incremental capital-output ratios that remained at relatively low levels in countries pursuing outward-oriented policies but showed substantial increases under inward orientation. Between 1963-73 and 1973-79, these ratios rose from 3.0 to 3.4 in outward-oriented NICs and from 3.1 to 4.6 in inward-oriented NICs.

1.24 The increase in incremental capital-output ratios was particularly pronounced in Turkey, from 2.9 in 1963-73 to 5.1 in 1973-79. This increase reflected the adverse effects of inward-orientation of the Turkish economy that were aggravated as a result of the import restrictions introduced during this period. A further contributing factor was the implementation of high-cost investments by public enterprises. With the high share of public

investment, incremental capital-output ratios in the manufacturing sector reached 4.7 in 1973-77 while the amount of investment per job created attained TL 572 thousand in terms of 1976 prices. At the same time, incremental capital-output ratios reached 4.0 in agriculture where the policies applied increasingly favored import-substitution crops and capital-intensive production methods.

1.25 Savings performance, too, was more favorable in countries pursuing outward-orientated policies than under inward-orientation. Thus, average domestic savings ratios increased from 16.9 percent in 1963-73 to 23.5 percent in 1974-79 in outward-oriented NICs while they hardly changed in inward-oriented NICs.

1.26 Various factors contributed to these results. To begin with, there is evidence that a larger than average proportion of incomes derived from exports is saved. Furthermore, higher GNP growth rates under export orientation raised the average savings ratio as the percentage of incomes saved rises at higher income levels. Finally, interest rate policies and investment incentives were generally more conducive to savings in countries pursuing outward-oriented policies than was the case under inward orientation.

1.27 Turkey provides an exception among inward-oriented NICs, inasmuch as its domestic savings ratio rose from 15.2 percent in 1963-73 to 16.3 percent in 1973-79. This increase may be explained in large part by the rise in workers' remittances, a higher than average proportion of which is saved.

B. The 1980-81 Policy Reforms

1. The Measures Applied

1.28 In the absence of improvements in Turkey's foreign exchange position through increased exports, import substitution, or a deceleration of the rate of economic growth, continued foreign borrowing led to doubts concerning Turkey's creditworthiness. By 1978, borrowing possibilities were by-and-large exhausted and this fact, together with the lack of improvements in the balance of trade, gave rise to foreign exchange shortages and contributed to the economic slowdown. At the same time, domestic savings were adversely affected by negative interest rates as the acceleration of inflation was not matched by higher nominal interest rates.

1.29 Despite efforts made at stabilization, the situation deteriorated further in 1979. The real exchange rate appreciated again, contributing to further losses in export market shares. Also, the foreign exchange stringency was aggravated as the inflow of funds from abroad gave place to an outflow. Finally, the government's budgetary position deteriorated to a considerable extent, due chiefly to the large deficits of the state economic enterprises, syphoning off funds from the private sector and adding to the money supply. As a result of these influences, inflation accelerated while GNP declined in absolute terms.

1.30 The January 1980 reforms aimed not only at redressing the situation characterized by economic disruptions but also at changing the development strategy Turkey followed for several decades. The new strategy involved

moving towards outward orientation and giving an increased role to market forces.

1.31 The Turkish lira was devalued from TL 47 to TL 70 per U.S. dollar, with further adjustments made that more than offset the effects of price increases on the real exchange rate in the first nine months of 1980. As a result, between the fourth quarter of 1979 and the third quarter of 1980, the Turkish lira depreciated in real terms by about one-half vis-a-vis the U.S. dollar as well as vis-a-vis the currencies of Turkey's major trading partners, exceeding its 1973 level by 5 percent in the first case and by 15 percent in the second. With the subsequent rise of the U.S. dollar, the lira appreciated in real terms against other currencies until June 1981, when the real exchange rate vis-a-vis the currencies of Turkey's major trading partners returned to approximately its 1973 level. This tendency was reversed in subsequent months, however, and between June and October 1981 the lira depreciated by 10 percent in real terms.

1.32 In January 1980 exporters were given the right to import materials and intermediate products duty-free under the foreign exchange allocation scheme. At the same time, the procedures involved in granting export incentives were simplified. In January 1981, income tax reductions were granted on new exports and increment in exports and interest rates on export-oriented investments were reduced, and in May 1981, indirect tax rebate rates were increased.

1.33 On the import side, the principal change effected in January 1980 was the streamlining of the operation of the import regime that involved reducing the waiting period for licenses and providing foreign exchange allocations once the licenses were granted. This was followed by the liberalization of imports in January 1981, involving the elimination of quotas and transfers from the restricted list (Liberalization List II) to the free list (Liberalization List I).

1.34 Administrative regulations concerning investment incentives were also simplified and the time needed for making decisions substantially reduced. Furthermore, a reorientation of priorities occurred, with greater emphasis being placed on export-oriented activities, agriculture, and tourism.

1.35 Decision-making on foreign direct investment, too, was simplified. All relevant measures were consolidated in one department and the taking of decisions accelerated. At the same time, some previously off-limit sectors, such as food processing, oil, and mining, were opened to foreign investment and foreign investors were accorded the same incentives as domestic investors.

1.36 In January 1980, the prices charged by the state economic enterprises (SEEs) were liberalized and consumer subsidies eliminated or greatly reduced. The immediate effects of this policy were considerable, with price increases ranging from 45 percent for gasoline to 300 percent for paper and 400 percent for fertilizer. Further price adjustments occurred afterwards, although bread continues to be subsidized, the prices of coking coal, fertilizers, and sugar continue to be controlled and informal controls apply to some other products.

1.37 In July 1980, the rediscount rate of the Central Bank on short-term notes was raised from 14 percent to 26 percent and interest rates paid to

savers, and charged to borrowers, were freed. Although initially a "gentlemen's agreement" enforced by the cartel of commercial banks limited the extent of the increases, interest rates subsequently rose to a considerable extent on both deposits and loans as the pressure of competition rendered the agreement largely ineffective. In February 1981 rates on time deposits of one-year duration reached 50 percent and rates on loans of similar duration 38 percent, with the cost of nonpreferential credit approaching 70 percent if account is taken of contributions to the Differential Interest Rate Rebate Fund, the financial transaction tax and the holding of a 30 percent compensating balance. Finally, in July 1981, interest rates on bonds were freed and their indexation introduced.

1.38 The system of income taxes was reformed in January 1981. The reform involved substantial reductions in personal income tax rates that had not been adjusted for inflation during the preceding years. Also, the reform aims at bringing unincorporated business and farmers within the purview of the system of income taxes. Finally, decisions were taken to replace the complicated and inefficient system of indirect taxes by value added taxation.

2. The Effects of the 1980-81 Policy Measures

1.39 The January 1980 reforms had some immediate effects. The premium on the lira in the parallel exchange market, that averaged 50 percent in 1979, declined to 2-3 percent. At the same time, notwithstanding further increases in oil prices in 1980, with the rise totalling 150 percent since 1978, Turkey was able to avoid the foreign exchange stringency that characterized the 1978-79 period.

1.40 Furthermore, apart from lessening distortions in resource allocation, increases in SEE prices lowered the net borrowing requirements of the public sector by reducing the deficits of the SEEs. With lesser reliance on central bank credits by the public sector and limitations on private credit, the rate of growth of reserve money fell from 56 percent in 1979 to 48 percent in 1980. The ratio of the money supply to GNP declined from 20 percent to 15 percent during the same period.

1.41 On the whole, however, the economic effects of the reforms were retarded by reason of the unsettled conditions existing in Turkey at the time. Until the September 1980 military takeover, there was considerable political uncertainty and production was disrupted as a result of intensifying violence, declining labor discipline, and increasing strike activity, with 7.7 million workdays lost in the first eight months of 1980 as compared to 1.1 million workdays in 1979.

1.42 These considerations largely explain why the dollar value of exports in the first eight months of 1980 was only 11 percent above that for the corresponding period in 1979. The situation changed in the following months, and the dollar value of exports in the remainder of the year exceeded that for the same period of the preceding year by 63 percent. Even larger increases were shown for manufactured exports that surpassed the corresponding 1979 figure by 75 percent in the September-December period, compared to an increase of 4 percent in the January-August period.

1.43 Manufactured exports continued to rise rapidly in the first ten months of 1981, exceeding the figure for the comparable period of the previous

year by 120 percent while the dollar value of total exports rose by 64 percent. The Middle East accounted for a large part of the increase, with its share reaching 43 percent compared to 13 percent in 1979 and 22 percent in 1980. In turn, the share of the European Common Market fell from 43 percent to 33 percent, although exports to this area increased by one-fourth between the first ten months of 1980 and 1981. Product groups with the largest increase included textiles and clothing, cement, glass, iron and steel, nonelectrical machinery, and transport equipment.

1.44 The provision of domestic investment licenses also increased and the share of agriculture in the total rose from 2 percent in 1979 to 13 percent in 1980, with a decline of 5 percent occurring afterwards. However, with sluggish business conditions associated with the application of restrictive monetary policies, domestic private investment remained stationary in 1981 after declining by 20 percent in 1980.

1.45 Foreign investment increased in the second half of 1980, although it remained small in absolute terms. For the year as a whole, the actual amount of foreign investment was $33 million, in contrast with yearly net flows of -10 to +15 million dollars in the 1974-79 period and a cumulative total of $228 million at the end of 1979. It should be added, however, that about 85 percent of foreign investment entailed the use of non-guaranteed trade arrears from blocked accounts in the Central Bank. This was also the case in 1981 when foreign investments reached $110 million.

1.46 In response to rising interest rates, time deposits and certificates of deposit increased to a considerable extent. They doubled between July 1st and December 31, 1980 and increased two-and-a-half times in the first nine months of 1981. By contrast, the increase had been only 7 percent in the first half of 1980.

1.47 Increases in wholesale prices, brought about in part by the effects of the freeing of SEE prices and of the January 1980 devaluation, peaked in February 1980, when the year-to-year increase was 133 percent according to the index of the Ministry of Commerce. A year later, a rise of 47 percent was observed the July 1980-July 1981 increase was 38 percent, and a rise of slightly less than 35 percent is estimated for the second half of 1981. Similar trends are exhibited by the index of the Istanbul Chamber of Commerce.

1.48 Increases in wages will affect the rate of inflation in the future. Following the January 1981 tax reform, negotiated increases have been kept to 10 percent plus TL 3000, representing an average increase of about 12-15 percent before taxes and 40-45 percent after taxes. At the same time, wage increases in the informal sector are limited by sluggish business conditions and the resulting rise in unemployment.

1.49 The decline in private investment and the increase in unemployment are the concomitants of the process of adjustment underway in Turkey. At the same time, there are encouraging signs as the decline of GNP by 1 percent in 1980 is expected to be followed by a rise of about 4 percent in 1981. However, the upturn of domestic private investment has not yet occurred.

C. The Need for Medium-Term Policies

1. Medium-Term Policy Framework

1.50 It has been noted that the January 1980 measures simultaneously aimed at redressing the situation characterized by economic disruptions and at changing Turkey's development strategy towards outward orientation and the greater use of the market mechanism. Additional measures have subsequently been taken and progress has been made towards both objectives, despite the external difficulties Turkey has experienced as a result of the 150 percent increase in oil prices between 1978 and 1980.

1.51 Further actions would need to be taken, however, in order to fully implement Turkey's newly-adopted development strategy. This will require time; given the long period of inward orientation and the limited use of the market mechanism, in particular in the public sector, the changeover cannot be effected overnight. Nor is this desirable since firms in the private and in the public sectors need to adjust to the changing circumstances. At the same time, for firms to adjust, they need considerable certainty as to the shape of things to come.

1.52 This purpose would be served by the adoption of a medium-term policy framework. Such a framework would incorporate measures aimed at encouraging exports and efficient import substitution, promoting savings and investment, improving the operation of the state economic enterprises, and fostering modernization and technical change. The application of this framework, in turn, would necessitate appropriate institutional arrangements. This may take the form of establishing a high-level council to develop the medium-term strategy and designating a government agency, most suitably the State Planning Organization, to work out the relevant measures in cooperation with other government bodies.

1.53 Notwithstanding the improvements made since January 1980, government regulations and their practical implementation remain overly cumbersome in Turkey. In order to reduce the cost of complying with the regulations and uncertainty in business decision-making, there would be need to simplify regulations and to streamline their practical implementation.

2. The Structure of the Report

1.54 This report considers measures that may be taken in the framework of Turkey's medium-term development strategy in regard to industrialization and trade, with attention given to the need for the simplification of existing regulations. The first part of the report analyses incentive policies, including production incentives, the financial system, as well as the tax system and investment incentives; the second part examines sectoral issues in industry, agriculture, and tourism that have a bearing on Turkey's industrialization and trade strategy. The report will review the policies followed before and after January 1980, indicate the effects of these policies, and make recommendations for the future.

1.55 Production incentives include the exchange rate, export incentives, and import protection in the form of tariffs and quantitative import restrictions, all of which bear on the allocation of resources among sectors as well as on exports and import substitution. The operation of the financial

system, encompassing the central bank, the deposit money banks, development and investment banks, and the social security institutions, is influenced by reserve requirements, interest rate policies, the financing of the public sector, as well as selective credits. At the same time, the financial system, together with the tax system, affects the generation of savings and on the allocation of these savings among alternative investment opportunities. Incentives to domestic and foreign investment will also influence the rate of investment and its sectoral allocation.

1.56 In the discussion of sectoral issues, consideration will be given to Turkey's comparative advantage in industry, agriculture, and tourism and to measures that may be given to exploit these advantages. Apart from marketing that has relevance for all three sectors, emphasis will be given to the promotion of technological development and labor training in regard to industry, to efficient pricing and improvements in transportation facilities in the case of agriculture, and to the need for increased accommodation facilities with respect to tourism.

CHAPTER 2

PRODUCTION INCENTIVES

Introduction

2.1 Over the last two decades, economic activity in Turkey has been influenced by a complex system of production incentives which favored industry over agriculture as well as import substitution over exports in both sectors. Agricultural exports were taxed through overvalued exchange rates and/or levies as well as by various policy measures that have benefitted import substitution crops. In turn, while a series of measures were taken to provide incentives to industrial exports, these were far overshadowed by protection to domestic industry in the form of tariffs, import licensing, import quotas, and restricted access to foreign exchange.

2.2 The 1980-81 policy reforms brought improvements in several respects. The large devaluation of the Turkish Lira in January 1980 provided increased incentives to agricultural as well as to industrial exports. At the same time, the responsibilities for export promotion, which up to then had been dispersed among various ministries, were centralized in a new department within the State Planning Organization (SPO), the "Office of Incentives and Implementation " (TUD). Also, exporters were given the right to import materials and intermediate inputs duty-free under the Foreign Exchange Allocation Scheme. In May 1980, the Foreign Exchange Retention Scheme was extended to include exporters of fresh fruits and vegetables and Turkish contractors abroad. In January 1981, exporters were granted income tax reductions and export oriented investments received increased incentives. Finally, in May 1981, indirect tax rebates were raised by 5 percentage points across the board and large exporting firms received additional rebates.

2.3 The Government also took steps to liberalize the Import Regime. In January 1980, import regulations were simplified and commercial banks were allowed to retain a higher proportion of foreign exchange deposited with them. In January 1981, the Quota List was abolished and about 200 items were transferred from the restricted List to the free Import List.

2.4 In this Chapter, the system of production incentives in Turkey is examined, with consideration given to incentives in the industrial sector and to relative incentives in agriculture vs. industry. In Section A, the exchange rate policy applied in the late seventies and following the 1980 reform is described and changes in the real exchange rate estimated. The system of incentives to industrial exports is analyzed in Section B. Section C deals with the measures of import protection in the industrial sector. In Section D, the general structure of production incentives in industry is examined. Finally, Section E evaluates relative incentives to agriculture vs. industry.

A. The Exchange Rate Regime

1. Exchange Rate Policy in the Late Seventies and After the 1980 Reform

2.5 In the course of the 1970's, adjustments in the official exchange rate were made in large steps and at irregular intervals. Following the depreciation of the Turkish lira by 40 percent in August 1970, the exchange rate remained virtually unchanged in terms of the US dollar until mid-1975. After two small devaluations in 1975 and 1976, the official exchange rate was fixed at TL 19.25 to the US dollar in September 1977, TL 25.00 in March 1978 and TL 26.50 on April 5, 1979. On June 11, 1979, the exchange rate was set at TL 35.00 to the dollar, with a premium of TL 12.10 on all sales of foreign currency except for traditional agricultural exports, and on all purchases of foreign currency except for the importation of crude oil and its derivatives and the raw materials used in producing fertilizer. On January 25, 1980, the Turkish lira was devalued to TL 70 per US dollar, and further adjustments in the exchange rate were made at more frequent although irregular intervals. Since May 1, 1981, daily adjustments in the exchange rate have been made by the Central Bank.

2. Changes in the Real Exchange Rate

2.6 Compared with the situation existing in 1973, by the fourth quarter of 1979, the real exchange rate 1/ appreciated by 26 percent or 34 percent vis-a-vis the US dollar and by 18 percent or 25 percent vis-a-vis the currencies of Turkey's major trading partners, depending on whether use is made of wholesale price published by the Ministry of Commerce or the Istanbul Chamber of Commerce (Alternatives A and B, respectively in Table 1.4). The large devaluation of January 1980 and subsequent exchange rate adjustments led to a substantial depreciation of the real exchange rate in the first nine months of 1980. Between the fourth quarter of 1979 and the third quarter of 1980, the Turkish lira depreciated in real terms by 44-45 percent vis a vis the US dollar as well as vis-a-vis the currencies of Turkey's major trading partners, exceeding its 1973 level by 5 percent in the first case and by 15 percent in the second.

2.7 A further depreciation occurred vis-a-vis the US dollar in the fourth quarter of 1980 that continued during the first half of 1981. In turn, with the rapid rise of the dollar, the Turkish lira appreciated in real terms against other currencies, with real exchange rate vis-a-vis the currencies of Turkey's major trading partners returning to approximately its 1973 level by June 1981 (Table 1.4). In particular, between the third quarter of 1980 and June 1981, the exchange rate, vis-a-vis the German Mark was maintained at TL 44-45, while prices rose by 5 percent in Germany and by over 25 percent in Turkey. However, the real exchange rate depreciated to a considerable extent after June 1971 and by October 1981 it exceeded the 1973 level by 22-25 percent vis-a-vis the US dollar, 5-7 percent vis-a-vis the German Mark, and 10-12 percent vis-a-vis the currencies of Turkey's major trading partners.

1/ The index of the real exchange rate has been calculated by adjusting an index of the nominal exchange rate for changes in wholesale prices at home and abroad.

Table 2.1: REAL EXCHANGE RATES VIS-A-VIS THE DEUTSCHE MARK, 1967-1981
(Base 1973 = 100)

Period	Exchange Rate Lira/DM	Index of the Exchange Rate Lira/DM	Index of Relative Prices vis-a-vis Germany		Index of the Real Exchange Rate vis-a-vis the DM	
			A	B	A	B
1967	2.2500	42.5	62.2	61.3	68.3	69.3
1968	2.2500	42.5	64.6	61.8	65.7	68.8
1969	2.2824	43.1	68.1	65.7	63.3	65.6
1970	3.1421	59.3	69.3	69.2	85.3	85.4
1971	4.2732	80.7	76.9	77.0	104.9	104.8
1972	4.4377	83.8	88.6	88.6	94.6	94.6
1973	5.2945	100.0	100.0	100.0	100.0	100.0
1974	5.3818	101.6	115.4	111.6	88.0	91.0
1975	5.8700	110.9	120.2	118.5	92.3	93.6
1976	6.3753	120.4	134.0	133.8	89.9	90.0
1977	7.7535	146.4	161.9	167.0	90.4	87.7
1978	12.0890	228.3	244.2	254.1	93.5	89.8
Q1	10.2982	194.5	208.2	212.4	93.4	91.6
QII	12.1581	229.6	229.8	238.8	99.9	96.1
QIII	12.5801	237.6	252.6	262.8	94.1	90.4
QIV	13.4689	254.4	274.3	296.8	92.7	85.7
1979	16.9556	320.2	381.7	425.0	83.9	75.3
Q1	13.6148	257.1	304.4	329.5	84.5	78.0
QII	14.9681	282.7	356.9	395.2	79.2	57.8
QIII	19.4637	367.6	398.1	448.3	92.3	82.0
QIV	20.0170	378.1	454.8	503.4	83.1	75.1
1980	41.8320	790.1	732.3	743.2	107.9	106.3
Q1	34.7327	656.0	617.7	635.3	106.2	103.3
QII	41.7172	787.9	715.6	716.9	110.1	109.9
QIII	45.1087	852.0	749.3	757.6	113.7	112.5
QIV	45.4866	859.1	841.7	858.0	102.1	100.1
1981						
Q1	45.3316	856.2	898.6	879.7	95.3	97.3
QII	45.2208	854.1	903.5	888.7	94.5	96.1
June	45.4074	857.6	943.2	914.1	90.9	93.8
QIII	48.8568	922.8	946.4	946.7	97.5	97.5
July	46.7839	883.6	935.7	927.0	94.4	95.3
August	48.3679	913.5	938.9	941.3	97.3	97.0
September	51.5187	973.1	964.6	972.5	100.9	100.1
October	55.1789	1042.2	974.8	991.4	106.9	105.1

Sources: - IMF, International Financial Statistics, various issues
- SPO, Turkey-Main Economic Indicators, May 1981

Notes: - A: Business Research and Publications Department: Department of Commerce
- B: Chamber of Commerce, Istanbul

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3. Recommendations

2.8 The increased flexibility observed in foreign exchange policy since January 1980 constitutes a major achievement, contrasting with the policies followed over the past 20 years. The introduction of day-to-day exchange rate variations since May 1, 1981 is also a welcome development.

2.9 At the same time, as long as inflation is more rapid in Turkey than the major trading partners, it will be necessary to continue the current policy of making adjustments in exchange rates in line with the inflation differential. It is of particular importance to maintain competitiveness vis-a-vis European currencies, given the importance of the EEC as a trading partner and a competitor in Turkey's major markets.

2.10 Also, increased reliance should be placed on the exchange rate as against export subsidies and import protection. As shown in the following, export subsidies have increased in importance recently and only limited progress has been made in liberalizing imports.

B. Incentives to Industrial Exports

Introduction

2.11 In the course of the last two decades, a series of measures were taken by Turkish authorities to provide incentives for industrial exports in the form of indirect tax rebates, access to preferential export credits, foreign exchange allocation and retention schemes and temporary import permits. However, until January 1980, the impact of these measures was limited by the overvaluation of the Turkish lira as well as by the dispersion of responsibilities among various ministries.

2.12 The tax rebate scheme is designed to compensate exporters for taxes levied at earlier stages of production. The rebate rates were originally calculated separately for each export product. In January 1975, the system was simplified by grouping the products in 10 lists and applying a standard rebate rate on f.o.b. export value to all products in each list. Moreover, the rebate rates applied within each list were adjusted upwards by five percentage points in cases where the firm's export earnings exceeded US$1.8 million. In conjunction with the June 1979 devaluation, the basic rebate rates were reduced and several categories combined. At the same time, the ceiling for the application of the supplemental rebate rate was raised to US$3.5 million.

2.13 Access to short-term finance was made available to Turkish exporters through the liberal policy pursued by the Central Bank for rediscounting export credits, while strict limitations were enforced on the rediscount of other commercial bank credits. Export credits were granted at preferential rates; they were exempted from the financial transactions tax and were paying one-half of the interest equalization tax; and they were benefitting from a rebate on the rate of interest.

2.14 Prior to 1979, exporters were allowed to retain 25 percent of their net foreign exchange earnings to import, subject to the relevant customs duties, intermediate inputs and equipment used in export production. In April 1979, the foreign exchange retention was raised to 50 percent of net foreign exchange earnings and exporters were allowed to transfer their rights to their suppliers. Furthermore, under the foreign exchange allocation scheme, exporters had access to foreign currencies for the importation of materials, intermediate products and equipment, generally up to 60 percent of the value of their exports.

2.15 In January 1980, the responsibilities for export promotion, which up to then had been dispersed among various ministries, were centralized in a new department within the State Planning Organization (SPO), the "Office of Incentives and Implementation" (TUD). At the same time, exporters were allowed to import materials and intermediate products duty free under the foreign exchange allocation scheme.

2.16 In May 1980, the foreign exchange retention scheme was extended to include Turkish contractors abroad, though these were allowed to retain only 10 percent of their net foreign exchange earnings. Moreover, exporters were allowed to transfer their rights not only to their own suppliers but to any industrial user. In January 1981, income tax reductions were granted on new exports and increases in exports and export oriented investments received increased incentives. Finally, in May 1981, indirect tax rebate rates were raised by five percentage points across the board and firms whose exports exceeded US$15 million a year received additional rebates.

2.17 The combined export subsidy, which takes into account the subsidy element of export credit, tax rebates, foreign exchange allocation and retention schemes, and duty exemptions, declined substantially following the 1980 devaluation, largely because the subsidy equivalent of foreign exchange allocations and retentions decreased with the fall of the premium on parallel market transactions. Some decreases were experienced also in other subsidy items as the provision of subsidies did not keep up with the growth of exports. However, these decreases were more than offset by the devaluation of the Turkish lira.

2.18 In turn, the effects of the appreciation of the lira in real terms vis-a-vis the currencies of the major trading partners between the third quarter of 1980 and the second quarter of 1981 were partly compensated by an increase in the combined export subsidy. This resulted largely from the increase in indirect tax rebate rates introduced in May 1981, the increased impact of duty exemptions on imported inputs for exports, and the introduction of income tax benefits for exporters. And, the subsequent depreciation of the lira led to further improvements in the export exchange rate (the official exchange rate adjusted for export subsidies).

1. The Export Tax Rebate Scheme

Evolution of the Scheme

2.19 The original aim of the Export Tax Rebate Scheme was to reimburse exporters for indirect taxes paid at the last and at earlier stages of fabrication. At the same time, exporters were exempted from indirect taxes payable on their sales in foreign markets. Such a scheme does not provide export subsidies, but only provides equal treatment to all producers as far as indirect taxes are concerned.

2.20 Table 2.2 summarizes the evolution of the export rebate rates from 1975 to the present. Until June 1979, the basic rebate rates ranged from 30 percent on List I items to 5 percent on List VII items for exporters with annual export revenues below US$1.0 million, and were raised by five percentage points for exporters above that ceiling. Items classified under Lists VIII through X were subject to specific rebate rates, which were however granted in relatively few cases.

2.21 In conjunction with the June 1979 devaluation, the basic rebate rates were reduced and several categories combined; at the same time, the ceiling for the application of the 5 percent supplemental rebate was raised to US$3.5 million. The new rates ranged from 15 percent on List I to nil on List IX, with specific rebates applied on List X items, consisting of packaging products.

2.22 In May 1981, the ceiling for the application of the 5 percent supplemental rebate was raised to US$4 million, and a second supplemental rebate was introduced for firms with annual export earnings in excess of US$15 million, entitling them for a rebate of 10 percentage points above the basic rate. While in May 1981 only 4 trading companies exceeded the US$15 million ceiling, a number of firms surpassed this limit in the following months. At the same time, the basic rebate rates were raised and increased differentiation introduced, with a 20 percent rebate rate applied on List I items, 17.5 percent on List II, 15 percent on List III, 12.5 percent on List IV, 10 percent on List V, 7.5 percent on List VI, 5 percent on Lists VII and VIII and 0 percent on List IX.

2.23 The classification of products is based essentially on the estimation of the amount of indirect taxes paid on direct and indirect inputs. Since January 1980, consideration has also been given to the domestic cost of production relative to the export price.

2.24 Four categories of indirect taxes are taken into account in determining the indirect tax content of the product:

(i) production tax paid on raw materials and intermediate goods;

(ii) taxes on labor;

(iii) taxes on direct expenses (energy and water, packaging, interest);

(iv) taxes on indirect expenses (amortization, sales expenses and others).

Table 2.4: EXPORT TAX REBATE RATES, 1975-1981
(in percent)

List /1	--From 09/75 to 06/79--- E US$1.8 M	E US$1.8 M	--From 06/79 to 04/81--- E US$3.5 M	E US$3.5 M	----------From 04/81---------- E US$4 M	E US$4 M E US$15 M	E US$15 M
1	30	35	15	20	20	25	30
2	25	30	10	15	17.5	22.5	27.5
3	20	25	5	10	15	20	25
4	15	20	5	5	12.5	17.5	22.5
5	10	15	5	5	10	15	20
6	5	10	5	5	7.5	12.5	17.5
7	5 /2	10 /2	5	5	5	10	15
8	Specific	Specific	5	5	5	10	15
9	Specific	Specific	0	0	0	0	0
10	Specific	Specific	Specific	Specific	Specific	Specific	Specific

/1 For composition of the lists, see Table 2.3
/2 Export ceiling: US$1.4 million

Source: IKA (Economic and Commercial News Agency), Daily Bulletin.

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2.25 In practice, however, if the product is profitable on the export market despite the indirect taxes paid on its inputs, the tax rebate rate actually applied may be lower than indicated by the computation of the indirect tax content. In turn, goods may be classified under Rebate List I, even if their indirect tax content is lower than 20 percent, in cases when rebating the estimated indirect tax content would not be sufficient to ensure the profitability of the product on the export market.

2.26 Table 2.3 shows the sectoral profile of export tax rebate lists for 16 sectors in the manufacturing sector, accounting for 93 percent of exports in 1979, on the basis of the lists in effect since May 1981. Among 483 products under export rebate lists for the 16 sectors retained in the study, 107 products have been included in List IV, 101 products in List II and 100 products in List III; there are no products on Lists IX and X, which pertain to fresh fruits and vegetables and packaging materials, as these products are not covered by the investigation.

2.27 Relatively high rebate rates are applied in the case of fabricated metal products, with Lists II and III dominating, non-electrical machinery, with the highest concentration observed on List I, followed by Lists III and II, and transport equipment, with the highest number of products on List I, followed by List II. In turn lower rebate rates are applied in the case of food processing, which are concentrated on List VI, and for chemicals, which are concentrated on List V.

2.28 Table 2.4 shows changes between the rebate lists in effect in 1980 and since May 1981 for the 16 industrial sectors. Among a total of 300 items for which changes have occurred, 186 represented transfers between the lists and 114 new additions to the lists.

2.29 In all cases, the observed transfers were from lists with lower rebate rates to lists with higher rates. The highest occurrence of transfers is observed for fabricated metal products, followed by non-ferrous metals, non-electrical machinery, electrical machinery and iron and steel. In turn, the largest number of additions have occurred in the case of non-electrical machinery, followed by fabricated metal products and food processing.

Impact of the Scheme

2.30 Table 2.5 shows total exports, exports receiving tax rebates, and the amount of the rebates from 1975 to the second quarter of 1981. The share of exports subject to tax rebates reached a peak of 50 percent in 1977 and declined in subsequent periods to 23 percent in the first quarter of 1981. This evolution is paralleled by the decline in the average ratio of tax rebates to the value of exports receiving rebates from 22 percent in 1977 to 8 percent in the first quarter of 1981.

Table 2.3: THE SECTORAL PROFILE OF EXPORT TAX REBATE LISTS IN MANUFACTURING: FREQUENCY TABLE; May 1981
(In No. of Product Occurrences)

I-O Sector Code	Sector	List I	List II	List III	List IV	List V	List VI	List VII	List VIII	List IX	List X	Total
11-16	Food Processing	8	8	9	9	2	20	0	0	0	0	56
17-18	Beverages	0	2	2	2	2	1	0	0	0	0	9
21-22	Textiles & Clothing	2	5	6	3	4	0	1	1	0	0	22
23	Leather & Fur Products	1	0	2	0	0	0	0	0	0	0	3
27	Paper & Paper Products	0	0	5	14	1	0	0	0	0	0	20
29-31	Chemicals	0	1	5	11	32	20	7	7	0	0	83
34	Rubber Products	1	1	3	2	0	0	0	0	0	0	7
35	Plastic Products	0	7	1	11	0	3	0	1	0	0	23
36	Glass & Glass Products	0	0	1	17	6	3	0	1	0	0	28
37	Cement	0	3	2	1	2	0	0	0	0	0	8
39	Iron & Steel	1	17	4	1	0	0	0	0	0	0	23
40	Non-Ferrous Metals	0	12	2	9	3	2	2	0	0	0	30
41	Fabricated Metal Products	0	23	39	5	0	0	0	0	0	0	67
42	Non-Electrical Machinery	22	10	16	3	0	0	0	0	0	0	51
44	Electrical Machinery	8	4	1	19	0	0	0	0	0	0	32
43,45-48	Transport Equipment	11	8	2	0	0	0	0	0	0	0	21
	Total	54	101	100	107	52	49	10	10	0	0	483

Source: Export Tax Rebate Lists, IGEME, May 1981.

Table 2.4: THE SECTORAL PROFILE OF EXPORT TAX REBATES LISTS: FREQUENCY TABLE: CHANGES BETWEEN 1980 and May 1981
(In No. of Product Occurrences)

I-O Sector Code	Sector	List I			List II			List III			List IV			List V			List VI			List VII			List VIII			Lists IX-X	All Lists		
		Transfer	New	Total	Transfer	New	Total	Transfer	New	Total	Transfer	New	Total	Transfer	New	Total	Transfer	New	Total	Transfer	New	Total	Transfer	New	Total		Transfer	New	Total
11-16	Food Processing	3	7	10	0	0	0	0	0	0	0	0	0	0	2	2	0	3	3	0	0	0	0	0	0	0	3	12	15
17-18	Beverages	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
21-22	Textiles & Clothing	0	2	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
23	Leather & Fur Products	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
27	Paper & Paper Products	0	0	0	0	0	0	3	4	7	10	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	13	6	19
29-31	Chemicals	0	0	0	0	0	0	0	2	2	0	0	0	1	6	7	0	0	0	1	0	1	0	3	3	0	2	11	13
34	Rubber Products	1	0	1	1	0	1	5	0	5	2	0	2	0	0	0	0	4	4	0	0	0	0	0	0	0	9	4	13
35	Plastic Products	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
36	Glass & Glass Products	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
37	Cement	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
39	Iron & Steel	0	0	0	14	0	14	0	0	0	0	1	1	0	0	0	3	0	3	0	0	0	0	0	0	0	17	1	18
40	Non-Ferrous Metals	0	0	0	15	0	15	5	0	5	8	3	11	2	0	2	0	0	0	0	5	5	0	0	0	0	30	8	38
41	Fabricate Metal Products	0	0	0	21	2	23	23	22	45	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	44	25	69
42	Non-Electrical Machinery	0	21	21	7	5	12	10	0	11	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26	52
44	Electrical Machinery	3	5	8	3	0	3	0	0	0	13	6	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19	11	30
43,45-48	Transport Equipment	3	5	8	5	1	6	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	6	15
	Total	11	40	51	78	8	86	47	29	86	42	14	56	4	8	12	3	7	10	1	5	6	0	3	3	0	186	114	300

Source: EBA Newsletter, various issues

Table 2.5: EXPORT TAX REBATES, 1975 - SECOND QUARTER 1981

	Total Exports	Exports Receiving Tax Rebates	Tax Rebates	Share of Exports Subject to Tax Rebate in Total Exports	Ratio of Tax Rebates to the Value of Exports Receiving Tax Rebates
	(TL Million)			(Percent)	
1975	20,075	7,412	1,279	36.9	18.6
1976	30,768	14,434	3,117	46.9	21.6
1977	31,339	15,575	3,400	49.7	21.8
1978	55,358	19,734	2,938	35.6	14.9
1979	75,744	24,597	3,290	32.5	13.4
1980	230,730	55,030	4,905	23.9	8.9
First Quarter 1981	96,199.1	22,242.0	1,841.0	23.1	8.3
Second Quarter 1981	96,351.4	35,877.2	3,489.0	37.2	9.7

Source: Central Bank

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2.31 However, following the modification of the rebate lists in May 1981, the share of exports subject to tax rebates increased from 23 percent to 37 percent between the first and the second quarter in 1981. Over the same interval, the ratio of tax rebates to the value of exports receiving rebates rose from 8 to 10 percent as a result of the increases in rebate rates introduced in May 1981.

2.32 Total exports, exports receiving tax rebates, and the amount of the rebates are shown in Table 2.6 for the 16 industrial sectors. The combined exports of the 16 sectors represented 31 percent of total exports in 1979, 33 percent in 1980, 37 percent in the first quarter of 1981 and 52 percent in the second quarter of 1981, reflecting the increased share of manufacturing exports. These exports accounted for 75 percent of all exports receiving tax rebates in 1979, 89 percent in 1980, 93 percent in the first quarter of 1981 and 84 percent in the second quarter of 1981.

2.33 In the 16 sectors under study, the share of exports receiving tax rebates in total exports decreased from 79 percent in 1979 to 65 percent in 1980 and 58 percent in the first quarter of 1981, but remained much above the average ratio for all sectors of activity, which was 33 percent in 1979, 24 percent in 1980 and 23 percent in the first quarter of 1981. Excluding the 16 industrial sectors, the ratios were 8 percent in 1979, 3 percent in 1980 and 2 percent in the first quarter of 1981. In the second quarter of 1981, the share of exports receiving tax rebates in the 16 industrial sectors increased again to 61 percent, compared with an average 37 percent for all sectors. The corresponding ratio was 6 percent excluding the 16 industrial branches.

2.34 Among the 16 industrial sectors, the share of exports receiving tax rebates remained above the 60 percent level for textiles and clothing, cement and fabricated metal products over the four periods of observation. However, the share remained below 30 percent for beverages and iron and steel throughout the same period.

2.35 In 1979, average tax rebate rates on eligible exports ranged from 27 percent for non-electrical machinery to 5 percent for non-ferrous metals. Rates higher than 15 percent were observed for glass and glass products, cement, transport equipment and non-electrical machinery, while only two sectors, beverages and non-ferrous metals, showed rebate rates of less than 10 percent.

2.36 In the 16 industrial sectors, the overall average rebate rate declined from 14 percent in 1979 to 9 percent in 1980. This decline was due to reductions in the rebate rates, rather than to changes in the composition of exports, as the overall average for 1980 on the basis of 1979 export shares was also 9 percent. In 1980, average rebate rates ranged from 19 percent for transport equipment to 5 percent for plastic products; they exceeded 10 percent for transport equipment and non-electrical machinery. In the first quarter of 1981, the overall average declined to 8 percent, slightly exceeding the 7 percent figure estimated on the basis of 1979 export shares.

Table 2.6a: EXPORT TAX REBATES IN THE MANUFACTURING SECTOR, 1979 - SECOND QUARTER 1981
(in TL Million)

I-O Sector Code	Sector	1979 Total Exports (1)	1979 Eligible Exports (2)	1979 Percentage Share of Eligible Exports in total Exports (3)	1979 Tax Rebate (4)	1979 Tax Rebate Rate (5)=(4):(2)	1980 Total Exports (6)	1980 Eligible Exports (7)	1980 Percentage Share of Eligible Exports in Total Exports (8)	1980 Tax Rebate (9)	1980 Tax Rebate Rate (10)=(9):(7)	1980 Total Exports (11)
11-16	Food Processing	3,543.3	1,566.8	44.2	172.6	11.0	10,366.8	6,948.2	67.0	478.3	6.9	6,182.1
17-18	Beverages	574.0	128.8	22.4	8.7	6.8	4415.1	73.5	1.7	4.2	5.7	1,354.3
21-22	Textiles & Clothing	11,595.8	11,595.8	100.0	1,635.0	14.1	32,549.9	27,166.0	83.5	2648.6	9.8	13,920.4
23	Leather & Fur Products	1,404.4	1,045.9	74.5	107.1	10.2	3,907.9	1,050.5	26.9	63.4	6.0	1,441.0
27	Paper and Paper Products	98.5	32.3	32.8	4.4	13.6	277.1	189.3	68.3	9.2	4.9	236.7
19-31	Chemicals	793.8	760.9	95.9	102.5	13.5	6,127.6	2,201.5	35.9	166.3	7.6	2,542.6
34	Rubber Products	67.2	11.1	16.5	1.6	14.4	795.2	669.3	84.2	33.9	5.1	536.9
35	Plastic Products	53.1	53.1	100.0	6.9	13.0	462.9	462.9	100.0	20.8	4.5	489.2
36	Glass & Glass Products	1,100.0	720.1	65.5	125.0	17.4	2,373.9	2,002.5	84.4	130.1	6.5	1,749.0
37	Cement	1,290.7	1,290.7	100.0	205.2	15.9	3,201.5	2,099.0	65.6	130.4	6.2	1,008.4
39	Iron and Steel	978.9	21.3	2.2	2.6	12.2	2,511.2	65.9	2.6	4.1	6.2	1,338.0
40	Non-Ferrous Metals	457.1	145.3	31.8	7.4	5.1	1,422.6	1,422.6	100.0	111.0	7.8	722.1
41	Fabricated Metal Products	179.0	127.4	71.1	15.0	11.8	647.9	555.2	85.7	39.1	7.0	369.4
42	Non-Electrical Machinery	400.8	400.8	100.0	107.8	26.9	1,748.8	698.9	40.0	73.9	10.6	1,181.9
44	Electrical Machinery	148.6	118.9	80.0	16.6	14.0	873.5	587.8	67.3	43.4	7.4	319.2
43,45-48	Transport Equipment	846.6	463.3	54.7	119.7	25.8	3,774.3	2,592.5	68.7	496.8	19.2	2,400.4
	Total	23,532.2	18,482.5	78.5	2,638.1	14.3	75,456.8	48,785.6	64.7	4,453.5	9.1	35,791.6

Source: SPO, Office of Implementation and Incentives.

(290I, p. 19 and 20)

Table 2.6b: EXPORT TAX REBATES IN THE MANUFACTURING SECTOR, 1979 - SECOND QUARTER 1981 (continued)
(in TL Million)

First Quarter 1981				Second Quarter 1981				
Eligible Exports (12)	Percentage Share of Eligible Exports in total Exports (13)	Tax Rebate (14)	Tax Rebate Rate (15)=(14):(12)	Total Exports (16)	Eligible Exports (17)	Percentage Share of Eligible Exports in total Exports (18)	Tax Rebate (19)	Tax Rebate Rate (20)=(19):(17)
2,540.7	41.1	155.6	6.1	7,623.0	2,864.0	37.6	174.1	6.1
125.3	9.3	6.3	5.0	1,059.2	127.9	12.1	7.1	5.6
11,721.1	84.2	984.6	8.4	19,560.6	12,810.4	65.5	1,366.7	10.7
0	0	0	-	1,788.3	1,595.0	89.2	146.3	9.2
27.4	11.6	1.4	5.1	222.5	63.2	28.4	5.1	8.1
754.5	29.7	38.5	5.1	2,366.8	2,366.8	100.0	116.0	4.9
181.8	33.9	9.0	5.0	339.7	339.7	100.0	17.0	5.0
32.3	6.6	2.7	8.4	1,019.7	177.1	17.4	11.7	6.6
387.4	22.1	19.4	5.0	2,553.2	1,169.3	45.8	58.7	5.0
1,008.4	100.0	50.4	5.0	5,305.4	3,135.5	59.1	348.9	11.1
67.0	5.0	3.4	5.1	1,690.9	379.5	22.4	51.4	13.5
722.1	100.0	62.8	8.7	796.3	796.3	100.0	51.0	6.4
369.4	100.0	20.7	5.6	508.1	508.1	100.0	53.9	10.6
566.3	47.9	63.8	11.3	1,282.8	522.4	40.7	62.8	12.0
205.0	64.2	11.5	5.6	461.0	259.5	56.3	21.6	8.3
1,998.6	83.3	314.3	15.7	3,048.9	2,937.9	96.4	589.9	20.1
20,707.3	57.9	1,744.4	8.4	49,626.4	30,052.6	60.6	3,082.2	10.3

2.37 In turn, in the second quarter of 1981, the overall average rebate rate increased to 10 percent. With the exception of chemicals, plastic products and non-ferrous metals, all sectors participated in the increase, with average rebate rates increasing by more than four percentage points for iron and steel, fabricated metal products, and transport equipment. Average rebate rates exceeded 10 percent for textile and clothing, cement, iron and steel, fabricated metal products, non-electrical machinery and transport equipment, with an average rebate rate of 20 percent estimated in the latter case. The increase in the overall average rebate rate largely reflects an increase in rebate rates across sectors, as the overall average rebate rate estimated in the second quarter of 1981 on the basis of 1979 export shares was 9 percent.

2. The Export Credit Scheme

Evolution of the Scheme

2.38 Industrial exporters may have access to export credits through two different channels: (i) in cases when a firm does not hold a letter of credit for its prospective export transaction, it may apply to TUD to obtain an Export Encouragement Certificate upon making an export pledge, and then turn to a commercial bank for obtaining the credit; (ii) in cases when a firm holds such a letter of credit, it may apply directly to the commercial bank. The credit limit, and the conditions of the export credit are determined differently under each alternative.

2.39 Credit Limits: In the case of requests submitted to TUD for credits with Certificate, the credit limit is determined by the use of two methods: (i) evaluation at cost, where the relevant indicator is the production cost in terms of domestic currency; and (ii) export price evaluation, with the f.o.b. price in dollar terms as the relevant measure. In the case of the evaluation at cost, the credit limit is calculated at 80 percent of the value of the transaction for all products belonging to Rebate Lists I to IX. In the case of the export price evaluation, the credit limit is calculated at 80 percent of the value of the transaction for products belonging to Rebate Lists I to III, 75 percent for products on Lists IV to VI, and 70 percent for products on Lists VII to IX.

2.40 The credit limit for the Certificate is then set according to the lower result obtained by the two types of evaluation. However, for firms exporting more than US$15 million per year, the credit limit is determined according to evaluation at cost, and set at 90 percent of the value of the transaction. Finally, in the case of requests submitted directly to commercial banks for export credits without Certificate, the credit limit is set in principle at 100 percent of the amount of the letter of credit, although banks do not exceed 80 percent of that amount in practice.

Table 2.7: INTEREST RATE STRUCTURE
(in Percent)

	1979		1980						1981			
			Until February 29		March 1 - June 30		From July 1		Until February 8		Since February 9	
	Short-term Export Credit /1	General Short-term Credit	Short-Term Export Credit	General Short-term Credit	Short-Term Export Credit	General Short-term Credit	Short-Term Export Credit	General Short-Term Credit	Short-term Export Credit	General Short-term Credit	Short-Term Export Credit	General Short-term Credit
Base Rate	9.00	16.00	9.00	16.00	17.00	21.00	22.00	31.00	22.00	32.00	22.50	36.00
Transaction Tax	-	4.00	-	4.00	-	5.25	-	7.75	-	8.00	-	5.40
Interest Equalization Levy	0.90	2.40	0.90	2.40	1.70	3.15	2.20	4.65	2.20	4.80	2.25	5.70
Commission	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Effective Interest Rate	11.90	24.40	11.90	24.40	20.70	31.40	26.20	45.40	26.20	46.80	26.75	49.10
Rebate	- 4.00	-	- 4.00	-	- 5.95	-	- 7.70	-	- 7.70	-	- 7.88	-
Final Cost to Borrower	7.90	24.40	7.90	24.40	14.75	31.40	18.50	45.40	18.50	46.80	18.87	49.10

Sources: - OECD, Economic Surveys, Turkey, March 1981
- EBA, various issues

/1 Note: General Short-term Credit: 1 year.

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2.41 Interest Rates: Table 2.7 summarizes the comparative evolution of interest rates charged on short-term export credits and on general short-term credit from 1979 to 1981. In 1979, and up to February 29, 1980, the application of the 15 percent financial transaction tax (from which export credits are exempted), the interest equalization levy (respectively 10 percent for export credits and 15 percent for general short-term credits), and the 2.0 percent commission on the amount of the loan levied by banks, resulted in an effective interest rate of 11.9 percent for export credits and 24.4 percent for general short-term credits, as compared to a basic rate of 9.0 percent and 16.0 percent respectively. After deduction of a rebate of 4.0 percent on export credits, the final cost to the borrower was estimated at 7.9 percent for export credits as against 24.4 percent for general short-term credit, yielding a subsidy of 16.5 percentage points during that period. After increasing slightly to 16.7 percentage points between March 1 and June 30, 1980, the subsidy component of export credits increased considerably after the freeing of interest rates in July 1980, reaching 26.9 percentage points in the second half of 1980, 28.3 percentage points in the first month of 1981 and 30.2 percentage points after February 9, 1981. 1/

2.42 A guarantee deposit of 20 percent of the amount financed by the bank, in cash or in the form of a payment undertaking, is required on export credits with Certificate and 15 percent on export credits without Certificate. In turn, on the whole, commercial banks require compensating balances of 30 percent on general short-term credit. Commercial banks may rediscount up to 75 percent of the credit to the Central Bank.

2.43 Other Credit Conditions: The term of export credits is up to 8 months, but firms may request an extension of the term to 12 months. In cases where at least 60 percent of the export pledge has been fulfilled, extension is granted in most instances. However, in cases where the realization rate is lower, extension is granted only under special conditions. Defaults are penalized by an increase in the interest rate, the imposition of stamp and other duties, and the loss of the guarantee deposit.

Impact of the Scheme

2.44 In the first half of the 1970's, export credits represented 3 percent of total credit by the Central Bank; it averaged 6 percent in the second half of the decade (see Table 2.8). Between 1976 and 1980, the share of export credits in total Central Bank credit rose from 4 percent to 7 percent. While export credits with Certificate only represented 18 percent of total export credits on average between 1970 and 1975, their share in the total averaged 58 percent between 1976 and 1980. In turn, the share of export credits without Certificate, which represented 49 percent

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1/ The data do not include the effect of increasing interest rates on export credits to 27.0 percent in late 1979, since the calculations presented in this Chapter do not extend beyond the second quarter of 1981. For the relevant estimates, see Table 3.19.

Table 2.8: EXPORT CREDIT USED
(in TL million)

Year	Total Central Bank Credit	Total Export Credit	Percentage Share in Total Credit	Export Credit with Certificate	Percentage Share in Export Credit	Export Credit without Certificate	Percentage Share in Export Credit	Export Preparation Credit	Percentage Share in Export Credit	Export Promotion Credit	Percentage Share in Export Credit
1970	15,552	1,026	6.6	195	19.0	418	40.7	76	7.4	337	32.8
1971	17,279	847	4.9	135	15.9	301	35.5	55	6.5	356	42.0
1972	20,466	659	3.2	39	5.9	298	45.2	40	6.1	282	42.8
1973	28,780	1183	4.1	136	11.5	704	59.5	99	8.4	244	20.6
1974	52,592	882	1.7	266	30.2	347	39.3	77	8.7	192	21.8
1975	66,198	2,115	3.2	467	22.1	1,240	58.6	35	1.7	373	17.6
1970-75 Average			3.3		18.4		49.3		5.7		26.6
1976	110,621	4,667	4.2	2,210	47.4	2,073	44.4	56	1.2	328	7.0
1977	189,699	7,583	4.0	4,005	52.8	2,649	34.9	71	0.9	858	11.3
1978	241,886	14,020	5.8	6,369	45.4	6,289	44.9	92	0.7	1,270	9.1
1979	382,138	20,848	5.5	13,735	65.9	4,882	23.4	-	0	2,231	10.7
1980	655,183	42,769	6.5	25,822	60.4	11,217	26.2	-	0	5,730	13.4
1976-80 Average			5.7		58.0		30.2		0.2		11.6
1970-80 Average			5.4		55.3		31.5		0.6		12.6

Source: Central Bank

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of total export credits in the first half of the 1970's, fell to 30 percent of the total between 1976 and 1980. Export preparation credit and export promotion credit (for exports of fresh fruits and vegetables) accounted for the remainder.

2.45 In early 1981, a sharp increase in the use of the export credit facility has been observed. According to TUD authorities, total export credit given, both with and without Certificate, amounted to TL 83 billion at the end of May, 1981 as against a Central Bank ceiling of TL 85 billion for the first half of the year. This evolution generated suspicion at the Central Bank that part of these credits may be diverted to the short-term domestic market by firms that take advantage of the differential between the subsidized rate and the commercial rate, despite the penalties involved in the non-realization of the export pledge. At the end of May 1981, the Central Bank instructed commercial banks to stop the processing of applications for export credits and to start inquiries about applicants without previous export performance records. 1/ The temporary freeze on export credits imposed by the Central Bank was lifted at the end of June 1981. 2/

2.46 Table 2.9 shows the evolution of export credit used for the 16 industrial sectors which represented 94 percent of total export credits with Certificate given in the manufacturing sector in 1979, 92 percent in 1980, 77 percent in the first quarter of 1981 and 95 percent in the second quarter of 1981. In the 16 industrial sectors, the ratio of export credit used (both with and without Certificate) to export values decreased from 60 percent in 1979 to 32 percent in 1980, and 20 percent both in the first and second quarters of 1981. While this tendency may in part be explained by delays in the utilization of export credits already granted, it largely reflects the fact that the global ceiling for export credits was increased less rapidly than exports.

2.47 In line with the changing composition of exports, the pattern of export credit used (both with Certificate and without Certificate) shows a tendency of diversification between 1979 and the first quarter of 1981, which is reversed however in the second quarter of 1981. The share of engineering industries, including fabricated metal products, non-electrical machinery, electrical machinery, and transport equipment, increased from 11.5 percent in 1979 to 20.9 percent in 1980 and 24.6 percent in the first quarter of 1981, but declined subsequently to 15.7 percent in the second quarter of 1981. By contrast, the combined share of textiles and food processing in total export credits declined from 62.5 percent in 1979 to 59.5 percent in 1980 and 32.4 percent in the first quarter of 1981. It increased subsequently to 63.1 percent in the second quarter of 1981.

1/ Note: IBA Newsletter No. 3293, June 1, 1981.
2/ Note: EBA Report No. 487, June 29, 1981.

Table 2.9a: EXPORT CREDIT USED IN THE MANUFACTURING SECTOR, 1979 SECOND QUARTER 1981
(in TL Million)

I-O Sector Code	Sector	1979 Export Credit w/ Certificate Given /1 13	1979 Export Credit w/ Certificate Used /2 13	1979 Export Credit w/o Certificate Used 14	1979 Total Export Credit Used	1980 Export Credit w/ Certificate Given 11	1980 Export Credit w/ Certificate Used 12 15	1980 Export Credit w/o Certificate Used 14	1980 Total Export Credit Used
11-16	Food Processing	2,046.0	599.1	354.9	954.0	7,472.4	2,348.7	922.9	3,271.6
17-18	Beverages	0	0	0	0	64.0	17.3	6.8	24.1
21-22	Textiles and Clothing	14,955.1	4,907.4	2,907.3	7,814.7	25,258.8	7,926.7	3,114.7	11,041.4
23	Leather and Fur Products	657.6	563.9	334.1	898.0	1,266.7	397.2	156.1	553.3
27	Paper and Paper Products	0	0	0	0	0	0	0	0
29-31	Chemicals	682.0	264.3	156.6	420.9	1,487.4	466.3	183.2	649.5
34	Rubber Products	584.6	52.9	31.3	84.2	617.6	190.0	74.6	264.6
35	Plastic Products	487.1	193.8	114.8	308.6	718.0	224.5	88.2	312.7
36	Glass and Glass Products	682.0	581.5	344.5	926.0	1,194.3	379.9	143.3	529.2
37	Cement	779.4	440.5	261.0	701.5	2,228.9	690.8	271.4	962.2
39	Iron and Steel	0	0	0	0	1,687.3	535.4	210.4	745.8
40	Non-Ferrous Metals	292.3	193.3	114.8	308.6	1,626.0	518.1	203.6	721.7
41	Fabricated Metal Products	1,071.7	123.2	73.1	196.4	1,835.3	569.9	223.9	793.8
42	Non-Electrical Machinery	535.8	158.6	94.0	252.6	2,991.3	932.6	366.4	1,299.0
44	Electrical Machinery	535.7	35.2	20.9	56.1	2,770.4	863.5	339.3	1,202.8
43, 45-48	Transport Equipment	1,047.3	696.0	412.3	1,108.3	3,843.4	1,208.9	475.0	1,683.9
		24,356.6	8,810.5	5,219.6	14,029.9	55,061.8	17,269.5	6,785.9	24,055.6

/1 Total export credit given in each period of observation has been derived from TUD data.
/2 Total export credit used in each period of observation has been derived as the geometric average of the stock of credit observed at the beginning and at the end of the period.
/3 In 1979, sectoral shares for export credit with Certificate given have been derived by assuming proportionality with export pledges. In that same year, sectoral shares for export credit with Certificate used have been derived by assuming proportionality with realization of export pledges in 1979.
/4 In each period of observation, sectoral shares for export credit with Certificate have been applied in the case of export credit without Certificate.
/5 In 1980 and in the first and second quarter of 1981, export credit with Certificate used by sector has been derived by applying the utilization rate of total export credit with Certificate to credit given by sector.

Sources: - SPO, Office of Incentives and Implementation
- Central Bank

Table 2.9b: EXPORT CREDIT USED IN THE MANUFACTURING SECTOR, 1979 SECOND QUARTER 1981 (continued)
(in TL Million)

First Quarter 1981				Second Quarter 1981			
Export Credit w/ Certificate Given 11	Export Credit w/ Certificate Used 12 15	Export Credit w/o Certificate Used 14	Total Export Credit Used	Export Credit w/ Certificate Given 11	Export Credit w/ Certificate Used 12 15	Export Credit w/o Certificate Used 14	Total Export Credit Used
2,936.3	703.9	409.4	1,113.3	3,845.5	950.6	821.1	1,771.7
0	0	0	0	0	0	0	0
3,086.2	739.6	430.1	1,169.7	9,020.8	2,230.1	1,926.2	4,156.3
814.9	196.0	114.0	310.0	55.1	15.2	13.1	28.3
94.7	22.3	13.0	35.3	125.0	30.3	26.2	56.5
1,685.1	405.4	235.8	641.2	358.3	91.0	78.6	169.6
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
444.3	106.9	62.2	169.1	871.1	217.4	187.8	405.2
2,234.6	534.6	310.9	845.5	773.3	192.2	166.0	358.2
674.1	160.4	93.3	253.7	1,666.7	414.6	358.2	772.8
2,035.3	490.1	285.0	775.1	469.8	116.3	100.5	216.8
68.3	17.8	10.4	28.2	281.7	70.8	61.1	131.9
368.7	89.1	51.8	140.9	650.9	161.8	139.8	301.6
129.3	31.2	18.1	49.3	644.6	161.8	139.8	301.6
4,000.6	957.9	557.1	1,515.0	1,633.8	404.5	349.4	753.9
18,572.4	4,455.3	2,591.2	7,046.3	20,396.6	5,056.6	4,367.8	9,424.4

3. The Foreign Exchange Allocation Scheme

Evolution of the Scheme

2.48 The foreign exchange allocation scheme ensures priority access to foreign exchange for exporters who already have obtained an export credit with or without Certificate and to exporters who do not have an export credit, but make an export pledge to TUD. Since January 1980, the allocation can be used for the duty-free importation of raw, intermediate and packaging materials in export production, as well as for the duty-inclusive importation of equipment destined for removing specific bottlenecks encountered in production for export. However, the total amount of the foreign exchange allocation may not exceed 60 percent of the f.o.b. value of the export pledge.

2.49 Export projects are evaluated by TUD to determine their foreign exchange content. Since May 1981, a distinction has been made between projects with a foreign exchange content of less than 60 percent, for which only a cursory evaluation is undertaken, and projects with import content higher than 60 percent, for which an in-depth analysis is carried out.

2.50 Upon receiving an Encouragement Certificate, which determines the amount of foreign exchange to be allocated to their project, exporters apply to the Ministry of Commerce for a Foreign Exchange Permit, which has to be delivered within four months of the application, but is obtained normally within one to two weeks. Under the January 1980 reform, importation had to be completed within four months following the receipt of the Permit. Since May 1981, however, the realization period has been extended to 6 months. If the importation is not completed within this period, the Ministry of Commerce may extend it by another 6 months upon delivery of a new Certificate by TUD.

2.51 The Encouragement Certificate, together with the Domestic Production Position Certificate, issued by the Ministry of Industry and Technology, also allows exporters to import machinery and equipment that is not included on the Liberalization Lists, and whose importation is therefore otherwise prohibited.

2.52 Since May 1981, firms that have received an export credit (with or without Certificate) and have fulfilled their pledge within a 12-month period may, within four months of the completion of their pledge, apply to TUD for a foreign exchange allocation corresponding to the raw, auxiliary and packaging materials used for the realization of that export. This retrospective foreign exchange allocation may represent at most 80 percent of the f.o.b. value of the pledge and entitles the exporters to import at most 50 percent duty-free for further use for its future exports, the remaining 50 percent corresponding to imports inclusive of duty.

2.53 Guarantee deposit rates are 10 percent for the first allocation made to a particular exporter, 5 percent and 1 percent for the second and third allocations, respectively, if previous pledges are fulfilled without

extension. Starting with the fourth allocation, TUD only requires a payment guarantee from the exporter. If the export pledge is not fulfilled within a 12-month period, the guarantee is retained for a Special Export Credit Fund for fresh fruits and vegetables. In cases when at least 80 percent of the pledge is fulfilled, the guarantee is released in proportion to the amount realized above the 50 percent limit, but the remainder is retained for the Export Credit Fund.

Impact of the Scheme

2.54 As shown in Table 2.10, foreign exchange allocations are subject to a ceiling, which was increased from US$11 million in 1970 to US$170 million in 1979, but declined to US$147 million in 1980. During the 1970-80 period, allocations of foreign exchange represented an average of 89 percent of the ceiling, while foreign exchange used represented 81 percent of the allocations. The latter estimate, however, is biased downwards in periods of rapid export growth, as part of the foreign exchange allocated in the course of 1980 will only be utilized in the first months of 1981 due to extensions granted to firms. If 1980 is excluded, the average share of foreign exchange used is 92 percent.

2.55 Table 2.11 shows the evolution of foreign exchange allocations and foreign exchange used for the 16 manufacturing sectors which represented 74 percent of total allocations in 1979, 91 percent in 1980, 73 percent in the first quarter of 1981 and 84 percent in the second quarter of 1981. During the 1979-80 period, textiles had the highest share of foreign exchange used under the allocation scheme, with 33 percent of the total, followed by transport equipment (28 percent) and non-ferrous metals (9 percent). During the first quarter of 1981, the share of textiles was estimated at 30 percent against 23 percent for transport equipment. In the second quarter of 1981, the share of textiles increased to 34 percent, while that of transport equipment declined further to 21 percent. Besides textiles, sectors with increasing shares are chemicals, from 5 to 6 percent, plastic products, from 1 to 7 percent, iron and steel, from 6 to 10 percent, fabricated metal products, from 2 to 3 percent, and electrical machinery, from 3 to 4 percent. Besides transport equipment, declining shares are observed for rubber products, non-ferrous metals and non-electrical machinery.

4. The Temporary Import Regime

Evolution of the Scheme

2.56 Before the January 1980 reform, industrialists holding a purchase order from a foreign firm had to apply through the Ministry of Industry to the Temporary Import Commission in order to obtain the benefits available under the Temporary Import Regime. For approved projects, customs duties on requisite imports were deposited, but refunded in full on export. The necessary imports had to be realized within 6 months of the permission being granted and exports within 12 months following the date of importation.

Table 2.10: FOREIGN EXCHANGE ALLOCATION
(in TL Million)

Year	Central Bank Ceiling (1)	Foreign Exchange Allocation (2)	Foreign Exchange Used (3)	Allocation Rate (2):(1)	Utilization Rate (3):(2)
1970	126.5	115.3	109.2	91.2	94.7
1971	134.3	107.8	99.7	80.3	92.5
1972	290.1	261.1	241.8	90.0	92.6
1973	141.5	61.5	42.6	43.4	69.3
1974	139.3	108.8	107.2	78.1	98.5
1975	274.4	247.4	227.0	90.2	91.8
1976	594.0	591.2	400.4	99.5	67.7
1977	360.0	186.6	171.6	53.2	89.6
1978	1,214.1	1,189.5	1,181.5	98.0	99.3
1979	5,283.3	4,478.1	4,315.5	84.8	96.4
1980	11,177.6	10,706.9	6,041.4	95.8	56.4
Weighted average				80.9	88.7
					(92.2)/1

/1 Excluding 1980.

Source: Central Bank

Table 2.11: FOREIGN EXCHANGE ALLOCATION WITH CERTIFICATE IN THE MANUFACTURING SECTOR, 1979 - SECOND QUARTER 1981
(in TL Million)

I-O Sector Code	Sector	1979 Foreign Exchange Allocation /1	1979 Foreign Exchange Used /2	1980 Foreign Exchange Allocation	1980 Foreign Exchange Used /2	First Quarter 1981 Foreign Exchange Allocation	First Quarter 1981 Foreign Exchange Used /2	Second Quarter 1981 Foreign Exchange Allocation	Second Quarter 1981 Foreign Exchange Used /3
11-16	Food Processing	136.2	131.3	397.1	224.0	491.6	277.3	448.5	253.0
17-18	Beverages	0	0	0	0	0	0	0	0
21-22	Textiles and Clothing	1,076.6	1,037.7	3,135.7	1,768.5	1,594.7	899.4	3,460.9	1,952.2
23	Leather & Fur Products	0	0	0	0	128.1	72.2	48.4	27.3
27	Paper & Paper Products	0	0	0	0	0	0	0	0
29-31	Chemicals	149.5	144.2	439.1	247.7	68.6	38.7	597.3	336.9
34	Rubber Products	106.3	102.5	312.4	176.2	26.6	15.0	47.0	26.5
35	Plastic Products	20.0	19.2	58.3	32.9	178.2	100.5	695.4	392.3
36	Glass & Glass Products	69.7	67.3	207.9	117.3	75.5	42.6	187.6	105.8
37	Cement	13.3	12.8	37.0	20.9	0.9	0.5	0.3	0.2
39	Iron and Steel	182.8	176.2	536.0	302.3	124.2	70.0	994.7	561.1
40	Non-Ferrous Metals	315.6	304.3	916.9	517.1	269.4	151.9	576.4	325.1
41	Fabricated Metal Products	49.9	48.1	144.8	81.7	149.1	84.1	280.7	158.3
42	Non-Electrical Machinery	159.5	153.7	462.9	261.1	479.5	270.4	350.5	197.7
44	Electrical Machinery	106.3	102.5	313.7	176.9	517.5	291.9	388.2	219.0
43, 44-48	Transport Equipment	937.0	903.2	2,735.5	1,542.8	1,212.5	683.9	2,106.6	1,188.3
	Total	3,322.7	3,190.2	9,697.3	5,469.4	5,315.5	2,998.4	10,182.5	5,743.8

/1 Sectoral Shares for foreign exchange allocations were derived by assuming proportionality with 1980 observations.
/2 Foreign exchange used by sector was derived by applying the utilization rate for total foreign exchange allocations to foreign exchange allocated by sector.
/3 Foreign exchange used in the second quarter of 1981 was derived by assuming the same utilization rate as in the first quarter of 1981.

Sources: - SPO, Office of Incentives and Implementation
- Central Bank

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2.57 Under the reform introduced in January 1980, the Temporary Imports Commission has been dismantled and its duties and authorities transferred to TUD. Applications previously made to the Ministry of Industry and Technology are now made to TUD, under provisions differing for imports without payment and imports with payment (the former in the framework of transactions with foreign partner firms).

2.58 In the case of imports without payment, firms obtaining TUD approval under the temporary import regime are allowed to import all inputs described in their proposal, whether included on the Liberalization Lists or prohibited. Customs duties on these goods are deposited with the Customs Administration and returned after fulfillment of the export pledge. In the case of imports with payment, only goods included in the Liberalization Lists may be imported.

2.59 As in the case of the foreign exchange allocation scheme, raw, intermediate and packaging materials used in the production of exports may be imported duty-free. By contrast with the foreign exchange allocation scheme where imports may not exceed 60 percent of the f.o.b. value of the export pledge, the foreign exchange allocation given in the framework of the temporary import regime may reach 80 percent of the pledge. But, the determination of the foreign exchange content is subject to a stricter control under the temporary import regime, with the Ministry of Customs responsible for investigating goods at their importation and before exporting. The wastage allowance is determined by TUD.

Impact of the Scheme

2.60 The sectoral breakdown of foreign exchange allocations under the temporary import regime in 1980 is presented in Table 2.12. In that year, foreign exchange allocations under the regime amounted to US$16.1 million, or 11.5 percent of total foreign exchange allocations with Certificate, which amounted to US$140.8 million (see Table 2.10). In 1980, the iron and steel sector, which accounted for 58 percent of export pledges, received 73 percent of foreign exchange allocations under the temporary import regime. By contrast, the textile sector, which accounted for 34 percent of export pledges, only received 19 percent of foreign exchange allocations in that same year.

5. The Foreign Exchange Retention Scheme

Evolution of the Scheme

2.61 Prior to 1979, exporters had access to 25 percent of their net foreign exchange earnings to import, subject to the relevant customs duties, intermediate inputs and equipment used in export production. In April 1979, the foreign exchange allocation was raised to 50 percent of net foreign exchange earnings and exporters were allowed to transfer these rights to their suppliers. In May 1980, the scheme was extended to include exporters of fresh fruits and vegetables and Turkish contractors abroad, though these were allowed to retain only 10 percent of their net foreign exchange earnings. Moreover, exporters were allowed to transfer their rights not only to their own suppliers but to any industrial user.

Table 2.12: TEMPORARY IMPORTS WITH PAYMENT, 1980
(in US$ thousands)

Sectors	Export Pledge	Foreign Exchange Allocation
Iron & Steel	15,723.5	11,849.0
Chemicals	427.2	194.1
Machinery	27.4	12.5
Plastic Products	890.0	500.2
Metal Products	61.4	31.4
Textiles	9,128.0	3,130.1
Automotive Industry	1,014.7	423.7
TOTAL	27,272.2	16,141.0

Source: SPO, Office of Incentives and Implementation

Impact of the Scheme

2.62 Table 2.13 summarizes the evolution of the foreign exchange retention scheme between 1979 and the first four months of 1981. The share of eligible exports 1/ under the retention scheme increased from 35 percent in 1979 to 61 percent during the first four months of 1981, reflecting changes in export composition and the extension of the scheme beyond industrial exports to include exports of fresh fruits and vegetables. In the same period, the share of foreign exchange transferred under the retention scheme in eligible exports declined from 11 percent to 7 percent. Part of the explanation is that the rate applicable to net foreign exchange earnings was only 10 percent for fresh fruits and vegetables exports as against 50 percent for industrial exports.

6. Incentives to Export-Oriented Investments and Income Tax Reductions for Exporters

Incentives to Export-Oriented Investments

2.63 Before the January 1980 reform, investment incentives were provided in support of a development strategy that emphasized import substitution activities. Following the 1980 reform, some reorientation of priorities has been effected, with greater emphasis being placed on export-oriented activities. At the same time, the authority for granting investment incentives has been centered at TUD, which is responsible for issuing Investment Encouragement Certificates on the basis of detailed investment proposals. In the case of export-oriented investments, Encouragement Certificates specify the amount out of production that the firm will export. The incentive measures include remissions of customs duties on investment goods, investment allowances, and interest rebates on medium and long-term credits. In the case of export-oriented investments, the investment allowance is 50 percent as compared to the general rate of 30 percent 2/

Income Tax Reduction for Exporters

2.64 Since 1981, industrial exporters with annual export revenues in excess of US$250,000 have been allowed to deduct up to 20 percent of their annual export revenue from taxable income during the first year. In subsequent years, the deduction is 30 percent on increments in exports and 15 percent on the original amount. One-fourth of these deductions are provided in addition to trading firms. Furthermore, the deductions are extended

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1/ Note: Eligible exports are equated to industrial exports in 1979. In 1980, the estimate is derived by adding exports of fresh fruits and vegetables from May to December to industrial exports. For the first 4 months of 1981, the total of industrial exports and exports of fresh fruits and vegetables has been retained. Foreign exchange transactions of Turkish contractors abroad were not included in the computation of the base for eligible exports.

2/ For a detailed analysis of investment incentives, see Chapter 4, para 4.67 to 4.76.

Table 2.13: FOREIGN EXCHANGE RETENTION: 1979-FIRST FOUR MONTHS 1981
(in US$ thousand)

Period	Total Exports	Eligible Exports	Share of Eligible Exports in Total Exports (in percent)	Foreign Exchange transferred under Retention Scheme	Retention Rate (in percent)
1979	2,261,195	785,083	34.7	83,812	10.7
1980	2,910,122	1,523,681	52.4	135,738	8.9
January-April 1981	1,337,482	816,249	61.0	53,299	6.5

Sources: - Central Bank
- SPO

to exporters of fresh fruits and vegetables and marine products, as well as to foreign exchange earnings of companies engaged in tourism, while construction companies abroad are fully exempted from the income tax. The benefit to exporters is however reduced as a result of the withholding tax applied to deductions from taxable income on account of exports. 1/

7. Estimation of the Combined Export Subsidy and Export Exchange Rate

Combined Export Subsidy

2.65 Appendix tables 1 through 4 present the estimation of the combined export subsidy in the 16 selected industrial sectors from 1979 to the second quarter of 1981.

2.66 The subsidy component of export credit has been calculated by applying the interest subsidy rate to export credit used by sector in each period of observation. For the calculation of the subsidy component of the tax rebate scheme, it has been assumed that the tax rebate ratio oberved in 1980 and in the first quarter of 1981 exactly compensates for the indirect taxes paid on inputs, thereby yielding a zero net rebate in those two periods of observation. In 1979, the subsidy component of the tax rebate has been derived as the difference between the average tax rebate rates and the corresponding rates for each branch in 1980. In the second quarter of 1981, the subsidy component of the tax rebate has been estimated by the 5 percent increase in tax rebate rates in effect since May 1981, without adjusting for the additional rebates received by large exporters. In turn, the estimation of the subsidy component of the Foreign Exchange Allocation and Foreign Exchange Retention Schemes has been carried out by using average ratios of the parallel to the official exchange rates. 2/ 3/ Finally, the subsidy component of the duty exemption in effect since 1980 on imports of intermediate inputs by exporters holding a Foreign Exchange Certificate has been estimated by average nominal tariff protection

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1/ The method of calculation used is explained in para 2.67 below.

2/ Monthly average exchange rates from IMF, International Financial Statistics, have been retained as estimates for the official exchange rate. Monthly average estimates from MEBAN Securities have been used as estimates for the parallel market exchange rate.

3/ In the second quarter of 1981, in the absence of data for May and June, the base for the calculation of the foreign exchange retention scheme has been estimated by retaining the retention rate observed in the January-April 1981 period.

coefficients on intermediate inputs in the industrial sector (see Section C, para. 2.92). The subsidy element of the temporary import regime has not been taken into account in the calculations. Nor do the figures make allowance for increased incentives to export-oriented investment.

2.67 The subsidy equivalent of income tax reductions on exports has been estimated on the assumption that one-fifth of profits are distributed to shareholders. With withholding tax rates of 33.3 percent on distributed profits and 20 percent on undistributed profits, the average withholding tax on reductions from taxable income on account of exports will be 22.67 percent compared to the corporate income tax rate of 50 percent, i.e. a difference of 27.33 percent. Calculating with a deduction of 20 percent from taxable income, the subsidy will equal 5.47 percent on industrial exports. Since the corporate income tax for 1981 is payable in the second quarter of 1982, this amount needs to be discounted in order to obtain present values. Discounting at the non-preferential interest rate of 70 percent a year, the present value of the subsidy will be 2.84 percent in the first quarter of 1981 and 3.22 percent in the second quarter.

2.68 In the four periods of observation, the combined export subsidy has been estimated both including and excluding the foreign exchange premium implicit in the foreign exchange allocation and retention schemes. Excluding the foreign exchange premium, the weighted average export subsidy was 14.0 percent in 1979. It was 9.8 percent under the third estimating hypothesis, excluding both the foreign exchange premium and the subsidy component of the indirect tax rebate. After declining to 8.2 percent in 1980, the combined subsidy increased to 9.9 percent in the first quarter, and to 11.1 percent in the second quarter, of 1981. This evolution is practically entirely due to changes in export subsidies across sectors rather than to changes in export shares, as shown by comparisons with weighted average subsidy rates of 8.3 percent, 9.9 percent and 10.9 percent estimated in 1980 and the first and second quarter of 1981 on the basis of 1979 export shares. Similar considerations apply to export subsidy rates including the foreign exchange premium that averaged 27.1 percent in 1978, 9.0 percent in 1980, 11.0 percent in the first quarter of 1981, and 11.6 percent in the second quarter of 1981.

2.69 Among the most important export products, in 1979 the average subsidy rate exclusive of the foreign exchange premium was 15.4 percent for textiles and clothing, and 6.3 percent for processed food. Average subsidy rates in 1980 fell to 8.7 percent for textiles and clothing but increased to 7.6 percent in the case of processed food.

2.70 In the first quarter of 1981, The largest increases in export subsidy rates were shown for cement, reaching 27.4 percent compared to 6.8 percent in 1980, for non-ferrous metals, from 15.8 percent to 36.9 percent, and for transport equipment from 14.3 percent to 24.4 percent in 1981. By contrast, declines were registered for textiles and clothing, rubber and plastic products, fabricated metal products, non-electrical machinery and electrical machinery.

2.71 Between the first and the second quarters of 1981, average export subsidy rates increased substantially for textiles and clothing (from 6.5 to 11.7 percent), for paper and paper products (from 7.2 to 11.0 percent), for iron and steel (from 9.1 to 21.2 percent), for fabricated metal products (from 8.1 to 15.5 percent) and for electrical machinery (from 19.2 to 29.2 percent). By contrast, average export subsidy rates declined in the case of leather and fur products, chemicals, cement, non-ferrous metals and transport equipment.

2.72 Table 2.14 shows the evolution of the shares of specific export subsidies in the combined export subsidy from 1979 to the second quarter of 1981. In all four periods, export credit accounted for the largest share in the combined export subsidy, with 36 percent in 1979, 79 percent in 1980, 53 percent in the first quarter of 1981 and 51 percent in the second quarter of 1981. In turn, the share of indirect tax rebates fell from 15 percent in 1979 to 0 percent in 1980 and in the first quarter of 1981, and increased to 2 percent in the second quarter of 1981. The combined shares of foreign exchange allocation and retention schemes declined from 48 percent in 1979 to 9 percent in 1980, and, after a temporary rise to 10 percent in the first quarter of 1981 fell again to 4 percent in the second quarter of 1981. In turn, the share of duty exemptions, which were first introduced in 1980, accounted for 11 percent of the combined export subsidy in that same year, 12 percent in the first quarter of 1981 and 16 percent in the second quarter of 1981. Finally, the subsidy equivalent of income tax reductions, introduced in January 1981, accounted for 26 percent of the total in the first quarter, and 28 percent in the second quarter, of 1981.

2.73 The evolution of the combined export subsidy over the four periods of observation can be explained by comparing the evolution of the subsidy base and subsidy rates for each type of subsidy. As shown in Table 2.15, the decline in the combined export subsidy (excluding both the foreign exchange premium and the subsidy component of indirect tax rebates) between 1979 and in 1980 is essentially due to a decline in the volume of export credit with respect to total manufactured exports, from 59.6 percent in 1979 to 31.9 percent in 1980. This decline more than offsets the increase in the subsidy component of export credit, from 16.5 percent in 1979 to 22.5 percent in 1980, resulting in a net decline in the ratio of export credit subsidy to total manufactured exports from 9.8 percent in 1979 to 7.2 percent in 1980.

2.74 The ratio of export credit to the volume of manufactured exports declined further in 1981. This decline was more than offset, however, by the rise in the rate of credit subsidy, the increase in the tax rebate rate, the higher share of exports benefiting from tax exemptions and, in particular, the introduction of income tax reductions for exporters. At the same time, for more recent periods, the estimates understate the extent of export subsidization because they exclude the additional tax rebate provided to large exporters as well as incentives to export-oriented investments.

Table 2.14: SHARES OF SPECIFIC EXPORT SUBSIDIES IN THE COMBINED EXPORT SUBSIDY: 1979 SECOND QUARTER 1981
(In percent)

	1979	1980	First Quarter 1981	Second Quarter 1981
Export Credit	36.2	79.3	52.5	50.8
Indirect Tax Rebate	15.3	0.0	0.0	1.9
Foreign Exchange Allocation	27.1	3.8	4.9	2.5
Foreign Exchange Retention	21.3	5.6	5.3	1.6
Duty Exemption	0.0	11.4	11.5	15.6
Income Tax Reduction	0.0	0.0	25.8	27.6
Total	100.0	100.0	100.0	100.0

Table 2.15: EXPORTS SUBSIDIES: SUMMARY EVOLUTION 1979-SECOND QUARTER 1981
(In Percent)

	1979			1980			First Quarter 1981			Second Quarter 1981		
	Ratio of Subsidy Base To Total Manufactured Exports	Ratio of Subsidy To Subsidy Base	Ratio of Subsidy to Total Manufactured Exports	Ratio of Subsidy Base To Total Manufactured Exports	Ratio of Subsidy To Subsidy Base	Ratio of Subsidy To Total Manufactured Exports	Ratio of Subsidy Base To Total Manufactured Exports	Ratio of Subsidy To Subsidy Base	Ratio of Subsidy to Total Manufactured Exports	Ratio of Subsidy Base To Total Manufactured Exports	Ratio of Subsidy To Subsidy Base	Ratio of Subsidy To Total Manufactured Exports
Export Credit	59.6	16.5	9.8	31.9	22.5	7.2	19.7	29.4	5.8	19.4	29.9	5.8
Indirect Tax Rebate	78.5	5.3	4.1	64.6	0.0	0.0	57.9	0.0	0.0	6.4	3.3	0.2
Foreign Exchange Allocation	13.6	54.1	7.4	7.2	4.7	0.3	8.4	6.4	0.5	11.8	2.4	0.3
Foreign Exchange Retenion	10.7	54.1	5.8	10.7	4.7	0.5	9.2	6.4	0.6	7.3	2.4	0.2
Duty Exemption	13.6	0.0	0.0	7.3	14.2	1.0	8.4	15.1	1.3	11.8	15.3	1.8
Income Tax Reduction	-	-	-	-	-	-	100.0	2.8	2.8	100.0	3.2	3.2
Total	-	-	27.1	-	-	9.0	-	-	11.0	-	-	11.6
Total, Excluding Foreign Exchange Premium	-	-	14.0	-	-	8.2	-	-	9.9	-	-	11.1

Source: See Text Tables

Export Exchange Rate

2.75 The index of the export exchange rate vis a vis Turkey's trading partners has been estimated by adding the export subsidy rates (both including and excluding the foreign exchange premium) for 1979, 1980, and the first and second quarter of 1981 to the nominal exchange rate (Table 2.16). Adjusting further for relative prices at home and abroad, we find that, between 1979 and 1980, the real export exchange rate vis-a-vis Turkey's major trading partners depreciated to a considerable extent, despite the reduction observed in the export subsidy rate between these two periods. This is due to the fact that the depreciation of the Turkish lira, estimated at 28 percent (Index A) and 46 percent (Index B) in real terms between 1979 and 1980, more than offset the 18 percentage points reduction in the subsidy rate (including the foreign exchange premium) during the same period. The real export exchange rate depreciated even more between 1979 and 1980 if estimation is made with the export subsidy excluding the foreign exchange premium; 22 percent utilizing Index A and 39 percent utilizing Index B.

2.76 In turn, between 1980 and the first quarter of 1981, the appreciation of the real exchange rate partially offset by increases in export subsidies induced an appreciation of the real export exchange rate by 7 percentage points (Index A) and by 4 percentage points (Index B), when using the export subsidy rate including the foreign exchange premium, and by 8 percentage points (Index A) and by 4 percentage points (Index B) when using the export subsidy rate excluding the foreign exchange premium.

2.77 Between the first and the second quarters of 1981, too, the appreciation of the real exchange rate of the lira vis-a-vis Turkey's major trading partners and the rise in the export subsidy rate exerted opposite forces on the real export exchange rate, with the two effects approximately balancing each other. After June 1980, however, the exchange rate appreciated to a considerable extent in real terms (Tables 1.4 and 2.1) while the export subsidy schemes did not undergo changes.

8. Recommendations

2.78 Between 1979 and 1980, foreign exchange policy assumed increased importance in influencing the competitiveness of Turkish exports on foreign markets. In the first and second quarter of 1981, export subsidies assumed a greater role, but this tendency has subsequently been reversed. It would be desirable to place increasing reliance on the exchange rate in the future.

Table 2.16: ESTIMATION OF THE REAL EXPORT EXCHANGE RATE
(Base 1979 = 100)

Period	Nominal Exchange Rate vis-a-vis the US Dollar	Index of the Exchange Rate 1979 = 100	Export Subsidy Role	Index of the Export Exchange Rate	Index of Relative Prices vis-a-vis Turkey's Trading Partners		Index of the Real Exchange Rate vis-a-vis Turkey's Trading Partners		Index of the Real Export Exchange Rate vis-a-vis Turkey's Trading Partners	
					A	B	A	B	A	B
Hypothesis I: Export Subsidy Coefficient In cluding Foreign Exchange Premium										
1979	31.078	100.0	27.1	127.1	100.0	100.0	100.0	100.0	100.0	100.0
1980	76.038	244.7	9.0	267.0	191.5	167.9	127.8	145.7	109.7	125.1
First Quarter 1981	94.589	304.4	11.0	337.9	258.6	218.7	117.7	139.2	102.8	121.6
Second Quarter 1981	102.914	331.1	11.6	369.5	281.7	239.4	117.5	138.3	103.2	121.2
Hypothesis II: Export Subsidy Coefficient Excluding Foreign Exchange Premium										
1979	31.078	100.0	14.0	114.0	100.0	100.0	100.0	100.0	100.0	100.0
1980	76.038	244.7	8.2	264.8	191.5	167.9	127.8	145.7	121.3	138.3
First Quarter 1981	94.589	304.4	9.9	334.5	258.6	218.7	117.7	139.2	113.5	134.1
Second Quarter 1981	102.836	330.9	11.1	367.6	281.7	239.4	117.4	138.2	114.5	134.7

Source: See text tables

Notes: A: Ministry of Commerce
B: Istanbul Chamber of Commerce

2.79 First of all, with the proliferation of subsidies, their effects on particular export products are difficult to gauge, whereas the impact of exchange rate changes is easily ascertainable. The effects of exchange rate changes are also automatic and do not require the administrative procedures involved in granting subsidies which may discourage small and medium-sized exports. At the same time, export subsidies are subject to retaliation under GATT rules and developed countries may apply retaliatory measures once Turkish exports substantially increase in value. Finally, subsidies to export value tend to encourage the use of imported inputs in export activities, while exchange rate changes bear on value added in exports. This is because a devaluation raises the domestic currency equivalent of the export price, as well as that of the price of imported inputs, thereby encouraging the use of domestic inputs.

2.80 In the case of some of the subsidy measures, the Turkish authorities have attempted to take account of differences in value added in exports on a case-by-case basis. With the increasing number of exporters, however, case-by-case decision-making encounters increasing difficulties and the simplification of the procedures applied becomes necessary.

2.81 The first candidate for reducing export subsidies is the preferential export credit that provides subsidies of over 30 precent to exporters who have access to such credits. Also, as noted in Chapter 3, credit subsidies should be granted on the basis of value added in exports. In turn, it would be desirable to establish a medium-term credit facility, complemented by an export credit guarantee scheme, so as to permit Turkish firms to better compete abroad in exporting durable goods, since foreign firms generally provide medium-term credits and benefit from credit guarantee schemes. As a first step towards this goal, export credit and insurance schemes in effect in other countries should be reviewed.

2.82 Existing regulations on the partial deductability of the value of new exports, and of increments in exports, from taxable income would also need to be modified. The present system tends to discourage small exporters by imposing a minimum export value of $250,000 for manufactured exports. One may further envisage reducing the extent of this subsidy for all exporters.

2.83 As regards the tax rebate on exports, it would be desirable to eliminate the second additional 5 percent rebate provided to firms that export more than US$15 million a year. A first step in this direction is being taken by limiting the application of additional rebates to amounts above the lower limits cited in para. 31. One may further welcome the intention expressed by the Government to calculate the rebates on the basis of value added in exports. At the same time, it would be desirable to provide the additional rebate also on the exports of fruits and vegetables that may be considered an 'infant activity' in Turkey.

2.84 Parallel with reductions in export subsidies, it would be desirable to extend the free trade treatment of exports. In this connection, one may welcome proposed legislation to make the importation of prohibited items for export production automatic, to eliminate tariffs on machinery used in export production and to exempt domestic inputs used in export manufacture from production taxes. It is further recommended to

extend the privilege of duty-free importation to all producers of domestic inputs used in export production. Early passage of legislation on the establishment of free trade zones would also be desirable.

2.85 Placing increased reliance on the exchange rate would improve the profitability of agricultural exports that are presently discriminated against in favor of manufacturing products. As discussed below, further changes in incentives to agriculture would be desirable so as to approach world market price relations with respect to products as well as inputs.

C. Measures of Import Protection in Industry

2.86 Since the end of the 1950's, Turkey has followed an import substitution strategy which has provided considerable protection to domestic industry through a system of import licensing, import quotas, and restricted access to foreign exchange, in addition to tariffs.

2.87 The tariff rates applied on general imports have only been subject to minor modifications since the last revision of the Customs Code in 1973. However, the introduction and the subsequent modification of special tariff rates on EEC imports has led to a duality in the structure of tariff protection in Turkey.

2.88 Annual import programs have itemized commodities under the free import list (Liberalization List I), the restricted list (Liberalization List II), the Quota list, the EEC consolidated list, and the list including imports under bilateral clearing arrangements. Furthermore, until January 1980, the Central Bank determined the amount of foreign exchange available for import transfers, and thus controlled allocations of foreign exchange.

2.89 In January 1980, import regulations were simplified and commercial banks were allowed to retain a higher proportion of foreign exchange deposited with them. Reforms introduced in January 1981 carried further the liberalization process, in particular through the abolition of the Quota list and the transfer of some items from the restricted list to the free import list.

1. Tariff and Tariff-type Measures

Evolution of the Tariff Structure

2.90 Under an Additional Protocol to the 1963 Agreement of Association, signed between the EEC and Turkey in November 1970, Turkey agreed to eliminate customs duties over a period of 12 years on a list of commodities amounting to about 50 percent of its imports from the EEC (List 1). These include chemical fertilizers and some other chemical products, lead, zinc, copper, nickel and their products, as well as rubber products and electronic products. For the remaining imports (List 2), tariffs were to be eliminated over a period of 22 years.

2.91 Customs duties on commodities on List 1 were reduced by 10 percent, and on List 2 by 5 percent on January 1, 1973. A second round of reductions of 10 percent on List 1 items and 5 percent on List 2 items occurred on January 1, 1976. These reductions were to be followed by a series of annual reductions starting January 1, 1978, leading to the elimination of tariffs on List 1 items by 1985 and on List 2 items by 1995. However, after the reductions undertaken in January 1976, further scheduled tariff reductions have been postponed sine die. Currently, Turkish authorities are considering the possibility of resuming tariff reductions on imports from the EEC.

Estimation of Nominal Tariff Protection

2.92 Average nominal tariff protection coefficients (NTP)1/ in the manufacturing sector have been estimated on the basis of the tariff schedule in effect since 1976, both for the general tariff rates and the special rates on EEC imports.2/ NTP coefficients derived from the general tariff schedule vary from 1.09 for iron and steel to 3.00 for processed tobacco products. Sugar refining, alcoholic beverages, clothing, leather and fur products, footwear and plastic products have NTP coefficients higher than 2 (Table 2.17). The weighted average nominal tariff protection coefficient estimated on the basis of the special EEC reduced rate is 1.44 as compared to 1.53 for the general tariff, i.e. a difference of 6 percent (Table 2.18). The differences are in the 10 - 12 percent range for other food processing, clothing, footwear, wood furniture and fixtures, pharmaceutical products, cement and non-electrical machinery; they reach 24 percent for motor vehicles. However, the NTP coefficient for iron and steel is higher for imports from the EEC than for general imports. This is due to the fact that the base for applying the EEC reductions is constituted by a reference tariff which far exceeds the general tariff in effect in the case of most iron and steel products.

1/ The nominal tariff protection coefficient is defined as one plus the ad-valorem tariff rate. For example, if the tariff is 20 percent, the NTP coefficient will be 1.20. Due to tariff exemptions, collected tariffs are lower than the scheduled tariffs. The ratio of tariff collections to total imports excluding inputs into export production, was 13.7 percent in 1980; data for individual commodity groups are not available.

2/ Note: The NTP coefficients have been derived in three steps. For each 4-digit SIC category, simple average tariff rates were calculated on the basis of tariffs for 6-digit customs nomenclature items. Weighted average tariff rates were then derived for each 2-digit input-output category by weighting 4-digit SIC average tariff rates by the corresponding values of output in 1979. Finally, weighted average tariff rates were derived for aggregate input-output categories defined for comparability with the 16 sector breakdown retained for the estimation of the combined export subsidy coefficient. For the calculation of the special rates on EEC imports, tariffs on imports from the 6 original EEC countries have been retained in the analysis.

Table 2.17: NOMINAL TARIFF PROTECTION IN THE MANUFACTURING SECTOR

I-O Sector Code	Sector	Nominal Tariff Protection Coefficient	
		General Tariff	EEC Tariff
11	Slaughtering & Meat Preservation	1.672	1.661
12	Fruits & Vegetable Canning and Preserving	1.679	1.679
13	Vegetable & Animal Oils & Fats	1.424	1.357
14	Grain Mill Products	1.394	1.363
15	Sugar Refining	2.053	2.031
16	Other Food Processing	1.630	1.436
17	Alcoholic Beverages	2.079	1.914
18	Non Alcoholic Beverages	1.375	1.325
19	Processed Tobacco	3.000	2.800
20	Ginning	1.200	1.160
21	Textiles (excl. ginning)	1.754	1.648
22	Clothing	2.005	1.820
23	Leather and Fur Products	2.128	1.938
24	Footwear	2.000	1.800
25	Wood Products	1.366	1.325
26	Wood Furniture and Fixtures	1.850	1.680
27	Paper and Paper Products	1.577	1.504
28	Printing and Publishing	1.267	1.198
29	Fertilizers	1.203	1.163
30	Pharmaceutical Products	1.268	1.147
31	Other Chemical Products	1.430	1.333
32	Petroleum Refinery	1.300	1.177
33	Petroleum & Coal Products	1.160	1.098
34	Rubber Products	1.423	1.343
35	Plastic Products	2.188	2.069
36	Glass & Glass Products	1.635	1.560
37	Cement	1.691	1.501
38	Non Metallic Mineral Products	1.684	1.524
39	Iron and Steel	1.091	1.192
40	Non Ferrous Metals	1.296	1.234
41	Fabricated Metal Products	1.555	1.470
42	Non Electrical Machinery	1.428	1.289
43	Agricultural Machinery	1.303	1.243
44	Electrical Machinery	1.418	1.299
45	Shipbuilding and Repairing	1.300	1.264
46	Railroad Equipment	1.238	1.157
47	Motor Vehicles	1.506	1.217
48	Other Transport Equipment	1.491	1.424
49	Other Manufacturing Industries	1.526	1.369

Source: Mission Estimates

Table 2.18: NOMINAL TARIFF PROTECTION IN THE MANUFACTURING SECTOR
(By aggregated I-O Sector)

I-O Sector Code	Sector	1979 Output (TL Million)	Nominal Tariff Protection Coefficient	
			General Tariff	EEC Tariff
11-16	Food Processing	139,226.5	1.638	1.538
17-18	Beverages	13,604.4	1.908	1.771
21-22	Textiles & Clothing	149,838.6	1.760	1.652
23	Leather & Fur Products	5,095.3	2.128	1.938
27	Paper & Paper Products	19,242.0	1.577	1.504
29-31	Chemicals	102,686.2	1.370	1.318
34	Rubber Products	18,220.8	1.423	1.343
35	Plastic Products	17,289.4	2.188	2.069
36	Glass & Glass Products	9,349.5	1.635	1.560
37	Cement	20,219.0	1.691	1.501
39	Iron & Steel	77,838.3	1.091	1.192
40	Non Ferrous Metals	24,497.0	1.296	1.234
41	Fabricated Metal Products	38,342.6	1.555	1.470
42	Non Electrical Machinery	37,442.8	1.428	1.289
44	Electrical Machinery	43,217.4	1.418	1.299
43, 45-48	Transport Equipment	76,936.9	1.443	1.232
	Weighted Average		1.532	1.442

Source: Mission Estimates

Estimation of Effective Tariff Protection

2.93 Effective tariff protection (ETP) coefficients 1/ have been estimated on the basis of input-output relationships derived from a 1973 input-output matrix in a 64 sectoral breakdown, of which 39 sectors produce tradeables. The technical coefficients used in the estimation express, for each input-output sector, direct plus indirect use of tradeable inputs, after completing the decomposition of non-tradeables into their tradeable and value added components.

2.94 ETP coefficients estimated from the general tariff are slightly lower than 1 in the case of cotton ginning, fertilizers, and iron and steel (Table 2.19). This result indicates that the tariff structure has a net discriminatory effect for the three input-output categories. It is consistent with the presence of reverse tariff escalation through the input-output chain for these categories. For example, in the case of cotton ginning, a tariff rate of 20 percent on output compares with an average tariff rate of 21.5 percent on intermediate inputs. The tariff rate for fertilizers is on average 20 percent on output as against an average tariff rate of 22.6 percent on intermediate inputs. Finally, in the case of iron and steel, the average tariff rate on output is 9.1 percent compared with an average tariff rate of 9.3 percent on intermediate inputs.

1/ Note: The effective tariff protection coefficient is equal to one plus the effective tariff protection rate. In turn, the effective tariff protection rate is equal to

$$\frac{ti - \sum_j a_{ji} t_j}{1 - \sum_j a_{ji}}$$

where t_i = weighted average nominal tariff rate on tradeable output category i;

t_j = weighted average nominal tariff rate on tradeable input category j;

a_{ji} = technical coefficient expressing direct plus indirect use of tradeable input category j in the production of output category i.

Table 2.19: EFFECTIVE TARIFF PROTECTION IN THE MANUFACTURING SECTOR

I-O Sector Code	Sector	Effective Tariff Protection Coefficient	
		General Tariff	EEC Tariff
11	Slaughtering and Meat Production	3.731	3.824
12	Fruit and Vegetable Canning and Reserving	2.221	2.225
13	Vegetable and Animal Oils and Fats	1.758	1.532
14	Grain Mill Products	1.605	1.749
15	Sugar Refining	2.909	2.894
16	Other Food Processing	2.247	1.580
17	Alcoholic Beverages	2.316	2.069
18	Non Alcoholic Beverages	1.335	0.912
19	Processed Tobacco	3.846	3.555
20	Ginning	-0.081	0.737
21	Textiles (excl. ginning)	2.092	1.908
22	Clothing	2.064	1.848
23	Leather and Fur Products	2.800	2.451
24	Footwear	2.005	1.783
25	Wood Products	1.524	1.459
26	Wood Furniture and Fixtures	2.304	2.013
27	Paper and Paper Products	1.698	1.616
28	Printing and Publishing	1.137	1.072
29	Fertilizers	0.953	0.962
30	Pharmaceutical Products	1.214	1.077
31	Other Chemical Products	1.424	1.323
32	Petroleum Refinery	1.411	1.229
33	Petroleum and Coal Products	1.006	0.960
34	Rubber Products	1.388	1.307
35	Plastic Products	2.813	2.675
36	Glass and Glass Products	1.714	1.644
37	Cement	1.888	1.640
38	Non-metallic Mineral Products	1.795	1.607
39	Iron and Steel	0.996	1.147
40	Non-Ferrous Metals	1.304	1.243
41	Fabricated Metal Products	1.923	1.705
42	Non-Electrical Machinery	1.469	1.292
43	Agricultural Machinery	1.254	1.261
44	Electrical Machinery	1.461	1.305
45	Shipbuilding and Repairing	1.309	1.263
46	Railroad Equipment	1.387	1.090
47	Motor Vehicles	1.565	1.205
48	Other Transport Equipment	1.584	1.481
49	Other Manufacturing Industries	1.557	1.325

Source: Mission Estimates

2.95 Among these three product categories, only cotton ginning and fertilizers have an effective protection coefficient lower than 1 under the special EEC tariff, with estimates of 0.74 and 0.96 respectively. In the case of iron and steel, the ETP coefficient estimated on the basis of the special EEC tariff is 1.15, as a result of the higher NTP coefficient on output observed in the case of the special EEC tariff for this product category.

2.96 An ETP coefficient higher than 3 is estimated in the case of slaughtering and meat production as well as for processed tobacco, both under the general tariff and the special EEC tariff The coefficients are between 1.5 and 3.0 for 22 sectors in calculations based on the general tariff and for 17 sectors in calculations based on the special EEC tariff. The ETP coefficients estimated on the basis of the general tariff increase by more than 20 percentage points under the special EEC tariff for other food processing, non-alcholic beverages, railroad equipment and motor vehicles.

2.97 Table 2.20 presents weighted average ETP coefficients for the 16 industrial sectors. For these sectors, an overall ETP coefficient of 1.75 is estimated under the general tariff (average NTP = 1.53) as compared to an ETP of 1.58 under the special EEC tariff (average NTP =1.44). ETP coefficients range from 1.00 for iron and steel to 2.81 for plastic products under the general tariff, and from 1.13 for transport equipment to 2.68 for plastic products under the special EEC tariff.

2.98 Among the 16 industrial sectors under study, ETP coefficients exceed 2 in the case of food processing, beverages, textiles and clothing, leather and fur products, and plastic products, under the general tariff estimation. The ETP coefficients estimated on the basis of the general tariff decrease by more than 10 percentage points for food processing, beverages, leather and fur products, cement, fabricated metal products, non-electrical machinery, electrical machinery and transport equipment, under the special EEC tariff estimation.

2. The Import Regime

Evolution

2.99 From the end of the 1950's, Import Programs itemized the commodities eligible for importation under each of two lists: the Liberalization List, providing for free importation, and the Quota List. Commodities not enumerated on either list were not legally importable, unless a specific authorization was issued by the Government.

2.100 The first Import Program was promulgated in September 1958, the second in February 1959 and the third in August 1959. Thereafter, Import Programs were issued semi-annually.

Table 2.20: EFFECTIVE TARIFF PROTECTION IN THE MANUFACTURING SECTOR
(by Aggregated I-O Sector)

I-O Sector Code	Sector	1979 Output (TL million)	Effective Tariff Protection Coefficient	
			General Tariff	EEC Tariff
11-16	Food Processing	139,226.5	2.282	1.995
17-18	Beverages	13,604.4	2.078	1.789
21-22	Textiles & Clothing	149,838.6	2.091	1.907
23	Leather & Fur Products	5,905.3	2.800	2.451
27	Paper & Paper Products	19,242.0	1.698	1.616
29-31	Chemicals	102,686.2	1.321	1.229
34	Rubber Products	18,220.8	1.388	1.307
35	Plastic Products	17,289.4	2.813	2.675
36	Glass & Glass Products	9,349.5	1.714	1.644
37	Cement	20,219.0	1.888	1.640
39	Iron & Steel	77,837.3	0.996	1.147
40	Non Ferrous Metals	24,497.0	1.304	1.243
41	Fabricated Metal Products	38,342.6	1.923	1.705
42	Non Electrical Machinery	37,442.8	1.469	1.292
44	Electrical Machinery	43,217.4	1.461	1.305
43, 45-48	Transport Equipment	76,936.9	1.490	1.128
	Weighted Average		1.749	1.581

Source: Mission Estimates

2.101 In 1964, the Liberalization List was divided into Liberalization List I, consisting essentially of raw materials and spare parts not competing with domestic production, for which importation remained free, and Liberalization List II, consisting of intermediary and final goods manufactured in Turkey, for which a licensing scheme was instituted. In 1969, the validity of the Liberalization Lists was extended to the full year, while the Quota List was issued under the mid-year Import Program. Between two-thirds and three-quarters of all imports entered under the Liberalization Lists and the Quota List, taken together (Table 2.26).

2.102 Other categories of imports are the "Bilateral Agreement Imports", the "Self Financed Imports" and, since 1971, the "European Community Consolidated Import List". The Bilateral Agreement List, issued separately from the Import Program, enumerates the items eligible for importation from countries with which Turkey has bilateral trade agreements. However, no item is eligible for importation under the Bilateral Agreement List unless included on one of the lists of the Import Program. Self-financed imports are mainly goods imported in connection with investments made under project aid.1/ In September 1971, Turkey freed from quantitative restrictions goods covering about 35 percent of its imports from EEC in 1967, by establishing a consolidated list of "Liberalized Imports from the EEC". The elimination of quotas on all imports from EEC was to be achieved over a period of 18 years by gradually extending this list according to a timetable; further liberalization has been postponed however for the time being.

2.103 Imports under Liberalization List I: Imports of raw materials and spare parts not competing with domestic production have been allowed freely under Liberalization List I. Under the 1981 Import Program, imports under Liberalization List I are projected at US$1.5 billion against total imports of US$9.0 billion, or 16.7 percent. By comparison, imports under Liberalization List II are projected at US$6.3 billion, or 70.0 percent of the total under the Program. Within the latter, crude oil account for 39 percent of total imports.

2.104 Imports under Liberalization List I are subject to an import permit, which is given by the Central Bank to authorized banks after deposit of a guarantee. In the case of imports realized by payment against letters of credit, the Central Bank requires that the TL equivalent of the required foreign exchange be deposited at an authorized bank. In the case of payment against goods or documents, a supplementary guarantee is required on the TL equivalent of the transaction.

2.105 The validity of the import permits was 6 months until 1981. Under the 1981 Import Program, banks have been authorized to grant extensions of import permits up to 8 months, while under "force majeure" conditions, the Ministry of Trade can do so up to 12 months.

1/ See Krueger, A: Foreign Trade Regimes and Economic Development: Turkey; Columbia University Press, New York, 1974, pp. 137-138.

2.106 Imports under Liberalization List II: Imports under Liberalization List II are subject, in addition to the import permit given by the Central Bank, to an import license which may be obtained from the Trade Ministry for goods under List IIA, from the Ministry of Industry and Technology for goods under List IIB, and from the Ministry of Energy and Natural Resources for petroleum products, classified under List IIC. In 1981, Liberalization List IIA contained 231 items, mainly chemicals, paper products, glass and glass products, and appliances. In the same year, Liberalization List IIB contained 566 items, mainly intermediate goods from the chemical, iron and steel, non-ferrous metals and fabricated metal products industries, as well as some parts and accessories. List IIC, containing 16 items, pertained to crude oil and its derivatives.

2.107 Import licenses are given on the basis of estimates of productive capacity made by the Chamber of Industry. Guidelines for capacity estimation call for one shift system and 300 working days a year, except for products such as cement where technology requires additional shifts. Firms planning to increase the number of shifts must apply to the Ministry of Industry for a revision of their estimated productive capacity in order to obtain import licenses for the necessary intermediate inputs.

2.108 Under the 1981 Import Program, about 200 items which were previously included in on List II were transferred to List I. The total value of imports for these items has been estimated on the basis of 1980 Customs data at US$284 million or 3.8 percent of total imports in that same year. Appendix Table 5 presents the sectoral breakdown of the items by the 2-digit customs nomenclature category. The main product categories affected by the transfer are chemical products (US$30 million), tanning and dyeing extracts (US$25 million), and machinery and mechanical appliances (US$24 million).

2.109 Imports under the Quota List: Until 1981, both commodity-specific and user-specific quotas were in effect in Turkey; commodity-specific quotas were further allocated between industrialists and importers. Industrialists were limited to use the commodity subject to quota in their own production, and imports under licenses granted under the quota could not legally be resold. By contrast, imports under importers' quotas could be made for the purpose of resale without processing. User-specific quotas were of two general types: (i) those covering the import needs of particular types of assemblers and manufacturers; and (ii) investment goods quotas. Under the first category, a quota was set aside for the importation of goods required in the production process, with firms operating under these quotas being subject to domestic content requirements. Investment goods quotas were set for private sector investments and for public sector investments, respectively.

2.110 Under the 1981 Import Program, quota lists have been abolished. About one-third of the items subject to quotas have been transferred to Liberalization List I. The total value of imports for these items has been estimated at US$63.9 million, or 0.8 percent of total imports in that

year. Appendix Table 6 presents the sectoral breakdown of the items transferred by 2-digit Customs Code category. The main product categories affected by the transfer are electrical machinery and equipment (US$20.9 million), chemical products (US$15.9 million) and machinery and mechanical appliances (US$10.0 million).

2.111 The remaining quota items have been transferred to Liberalization List II. The total value of imports for these items in 1980 is estimated at US$630 million, or 8.3 percent of total imports in that same year. As shown in Appendix Table 7, imports valued at US$44 million have been transferred to Liberalization List IIA, subject to the licensing authority of the Ministry of Trade, while US$685 million worth of imports have been transferred to Liberalization List IIB under the licensing authority of the Ministry of Industry and Technology. The main product categories affected by the transfer are machinery and mechanical appliances (US$129 million), vehicles other than railway and tramway (US$127 million), and artificial resins and plastic materials (US$111 million). Finally, certain items, mainly miscellaneous chemical products, have been cancelled, for a total value of US$63 million.

2.112 Imports under the Miscellaneous List: Imports allowed under the Miscellaneous List are classified by end-use. They pertain to investment goods in the public and private sectors, materials required to be imported by exporters holding Encouragement Certificates, and goods imported for "urgent needs". The importation of these goods is conditional upon obtaining a Domestic Production Position Certificate from the Ministry of Industry and Technology, which certifies the need for import in the absence of an adequate domestic production capability.

2.113 Imports of Items Not Included on the Lists: The importation of items not included on the lists is de facto prohibited, unless specific authorization is issued by the Government. Although a comprehensive list of these items has not been compiled, several durable and non-durable consumer goods do not appear on either list. For example, among durable consumer goods, motor cars (Customs Category 87.02.11), washing machines (Customs Category 85.12.50) and TV sets (Customs Category 85.15.20) are not included on the lists.

2.114 Guarantee Deposits: Foreign exchange allocations are made following the deposit of a cash guarantee with the Central Bank, which varies according to the type of imports (industrial or commercial) and the list under which the importation is undertaken. Table 2.21 shows the evolution of the guarantee deposit rates from 1958 to 1981 by import list and by type of imports. Guarantee deposit rates remained relatively low until mid-1963, when they were raised from 10 percent to 30 percent on the Liberalized List and from 10 percent to 20 percent on the Quota List. In 1965 the rates were raised to 70 percent on Liberalization List I and 100 percent on Liberalization List II; they reached 90 percent and 150 percent on Lists I and II respectively in 1969, while rates of 20 percent and 50 percent were in effect on industrialists' and importers' quota lists in the same year.

Table 2.21: RATES OF GUARANTEE DEPOSITS ON IMPORTS
(in Percent)

Year	Liberalization List I		Liberalization List II		Quota List	
	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial
1958	-	-	-	-	-	20
1959	10	10	-	-	-	10-15
1960	10	10	-	-	-	10
1961	10	10	-	-	-	10
1962	10	10	-	-	-	10
1963	10-30	10-30	-	-	10	10-20
1964	30	30	30	30	10	30
1965	70	70	100	100	10	30
1966	70	70	100	100	10	30
1967	70	70	100-125	100-125	10	30
1968	70	70	100-125	100-125	10	30
1969	90	90	120-150	120-150	20	50
1970	90	90	150	150	20	50
1971	50	50	40	40	20	25
1972	50	50	40	40	20	25
1973	25-50	25-50	10-20	10-20	5	10
1974	20	20	10	10	5	10
1975	20	20	10	10	5	10
1976	20	20	10	10	10	10
1977	20	20	10	10	10	10
1978	30	30	15	15	10	10
1979	25	40	25	40	25	40
1980	15	30	10	20	10	20
1981	10	20	10	20	-	-

Sources: Krueger A: Foreign Trade Regimes and Economic Development: Turkey, Columbia University Press, New York, 1974, p 288.

Central Bank.

2.115 The rates were lowered to 50 percent on List I and 40 percent on List II in 1971, and to 25 percent and 10 percent during the second half of 1973. They remained relatively stable until 1978, when they were raised to 30 percent and 15 percent on Liberalization Lists I and II respectively. In 1979, guarantee deposit rates were increased under every instance, with the exception of those applicable to industrial importers under Liberalization List I, which were reduced from 30 to 25 percent.

2.116 In 1980, guarantee deposit rates were lowered across all categories by 10 to 20 percent, and further reductions occurred in 1981. Guarantee deposit rates are at present 10 percent for industrial importers and 20 percent for commercial importers, both for imports under Liberalization Lists I and II. However, the guarantee is 1 percent for temporary imports, petroleum products, electrical energy, fertilizers, sugar, oil seeds and processed oil, medicine products, parts for the assembly industry, and investment goods under the Miscellaneous List. The importation of cast iron and certain iron and steel products is subject to a guarantee of 10 percent for both industrial and commercial importers.

Impact

2.117 The evolution of imports by source from 1978 to the second quarter of 1981 is shown in Table 2.22. In 1978, imports under the Liberalization Lists amounted to US$3,200 million, or 69.6 percent of total imports in that year. After a slight decrease in 1979, the share of imports under the Liberalization Lists increased to 73.0 percent and 80.5 percent of total imports in 1980 and in the first quarter of 1981, respectively. This evolution was, however, largely due to the increase in the share of oil in total imports. Thus, the share of non-oil products imports under the Liberalization Lists declined from 39.3 percent of total imports in 1978 to 33.2 percent in 1979, 34.0 percent in 1980 and 32.1 percent in the first quarter of 1981. At the same time, the share of non-Program imports in total imports declined from 12.0 percent in 1978 to 7.5 percent in the first quarter of 1981. In turn, between the first and the second quarters of 1981, the share of imports under the liberalization lists declined from 80.5 percent to 72.1 percent, largely as a result of the decline in the share of oil imports from 48.4 percent to 31.7 percent over the same interval. By contrast, the share of non-program imports increased from 7.5 percent to 12.6 percent over the same interval, following the increase in project credits from US$132 million in the first quarter to US$225 million in the second quarter of 1981.

2.118 After increasing their share in total imports from 17.0 to 19.2 percent between 1978 and 1979, imports under the Quota List represented 14.3 percent of total imports in the course of 1980. Despite the abolition of the Quota List in January 1981, available data 1/ for the first qurter of 1981 show US$253.8 million of imports under the heading "Import Goods Under Allocations", compared with US$212.6 million for imports under the Quota List in the first quarter of 1980. The comparable estimate for the second quarter of 1981 is US$289.0 million. 2/

1/ See EBA Newsletter, June 11, 1981.

2/ See EBA Newsletter, August 25, 1981.

Table 2.22: IMPORTS BY SOURCE: 1978-FIRST QUARTER 1981
(US$ Thousands)

Import Category	1978	Percentage Share	1979	Percentage Share	1980	Percentage Share	First Quarter 1981	Percentage Share	Second Quarter 1981	Percentage Share
Liberalization Lists	3,200,495	69.6	3,396,608	67.0	3,660,054	73.0	1,850,012	80.5	1,540,643	72.1
of which:										
Crude & Petroleum Products	1,395,183	30.3	1,712,004	33.8	1,956,765	39.0	1,112,810	48.4	676,753	31.7
Other	1,805,313	39.3	1,684,604	33.2	1,703,289	34.0	737,202	32.1	863,910	40.4
Quota List	783,641	17.0	973,632	19.2	717,437	14.3	253,750	11.0	288,994	13.5
Bilateral Agreements	63,900	1.4	109,194	2.2	100,475	2.0	22,571	1.0	37,966	1.8
Program Imports	4,048,036	88.0	4,479,434	88.4	4,777,966	89.3	2,126,333	92.5	1,867,623	87.4
NATO-Infrastructure	11,700	0.3	10,617	0.2	15,049	0.3	2,931	0.1	5,265	0.2
Private Foreign Capital	22,500	0.5	70,970	1.4	27,601	0.6	15,472	0.7	10,142	0.5
Project Credits	393,879	8.6	356,269	7.0	409,310	8.2	132,081	5.7	224,658	10.5
Imports with Waiver	119,762	2.6	123,325	2.4	75,748	1.5	20,369	1.0	18,081	0.8
(a) Waiver	(107,137)	(2.3)	(108,396)	(2.1)	(n.a.)	(-)	(n.a.)	-	(n.a.)	-
(b) Grants	(12,625)	(0.3)	(14,929)	(0.3)	(n.a.)	(-)	(n.a.)	-	(n.a.)	-
Others	3,147	0.1	28,817	0.6	10,780	0.2	810	0.0	11,596	0.5
Non-Program Imports	550,988	12.0	589,998	11.6	538,488	10.7	171,633	7.5	269,742	12.6
Total	4,599,024	100.0	5,069,432	100.0	5,016,454	100.0	2,297,996	100.0	2,137,365	100.0

Source: EBA Newsletter, various issues.

Comparison of Implicit and Tariff Protection for Selected Manufacturing Products

2.119 Table 2.23 presents a comparison of nominal tariff protection coefficients and nominal implicit protection coefficients derived from comparisons between domestic and border prices for 13 selected manufactured products in 1980.1/ In the case of comparisons between domestic and CIF import prices, the ratio of implicit to tariff protection coefficients ranges from 1.01 for motorcycles and 1.09 for shock absorbers to 3.15 for brass products (M58) and 3.21 for brass products (M53). In turn, in the case of comparisons between domestic and f.o.b. export prices, the ratio of implicit to tariff protection coefficients ranges from 1.03 for gate valves to 2.48 for brass bibcocks. The ratio is in the 1.30-1.55 range for portland cement, trucks, minibuses and pickups.

3. Recommendations

2.120 The reforms introduced in the framework of the 1981 Import Program represent an important step toward the liberalization of imports in Turkey. The abolition of the Quota List, the transfer of items from Liberalization List II to Liberalization List I, and the reduction of the guarantee deposit rates are of relevance in this respect.

2.121 However, further steps could be taken over the medium-term to carry on the liberalization process begun with the 1981 Import Program. First, it would be necessary to establish a comprehensive list of the items that are not included in the Liberalization Lists, and whose importation is effectively prohibited. Next, a timetable should be announced on the transfer of items from this list to Liberalization List II, and from Liberalization List II to Liberalization List I, with priority given to liberalizing the importation of intermediate products and machinery. The aim should be to eliminate quantitative import protection over a period of five years.

2.122 Furthermore, a tariff ceiling should be established, to be attained in annual installments over the transitional period of five years. The tariff structure would also need to be revised in order to reduce inter-industry differences in tariffs and to avoid cases of reverse escalation, when the tariff is higher on the principal input than on the product itself.

1/ Another set of ratios between domestic and border prices, not prepared under a comparable basis, is presented in Chapter 6 (Table 6.4).

2.123 The tariff ceiling may be set at 30 percent. The ceiling should apply to luxury goods as well, lest their domestic production be encouraged. At the same time, the consumption of luxuries may be restricted by the use of excise taxes that apply equally to imported and to domestically produced goods.

2.124 Additional incentives may be granted to infant industries on a temporary basis and on a degressive scale. To the extent possible, infant industry incentives should be provided in the form of production or investment subsidies rather than tariffs so as to encourage exporting. This is of particular importance in the electrical and non-electrical machinery, machine tool, and electronics industries, which may be regarded infant industries in Turkey, because the exploitation of economies of scale will not generally be possible in the confines of domestic markets.

D. The General Structure of Production Incentives

1. The Bias Against Exports

2.125 Table 2.24 shows average export subsidy coefficients and average nominal tariff protection coefficients for the 16 industrial sectors, together with estimates of the tariff-induced bias against exports. The measure of the bias against exports is defined as the ratio of the average nominal tariff protection coefficient to the average export subsidy coefficient 1/, less one. A positive estimate therefore indicates discrimination against exports, while a negative result shows net incentives in favor of exports.

2.126 The results indicate the existence of an anti-export bias in the 16 industrial sectors combined in all four periods of observation. An anti-export bias was estimated for each of the 16 industrial sectors, with the exception of electrical machinery in 1980, non-ferrous metals and transport equipment in the first quarter of 1981, and iron and steel and non-ferrous metals in the second quarter of 1981. The extent of the bias is generally lower for engineering sectors, including fabricated metal products, non-electrical machinery, electrical machinery and transport equipment, for which it remains less than 40 percent in each observation period. By contrast, a large bias is estimated in the case of food processing, beverages, textiles and clothing, and leather and fur products, for which estimates in excess of 40 percent are obtained in each period of observation. The extent of the average bias increased from 31.3 percent in 1979 to 33.0 percent in 1980, but declined afterwards to 31.2 percent in the first quarter, and to 29.8 percent in the second quarter, of 1981. However, under import licensing, this estimate does not provide an appropriate indication of the bias against exports since tariffs underestimate the extent of import protection. In fact, increases in the real export exchange rate point to improvements in export incentives while exchange rate changes do not affect the rate of import protection under licensing.

1/ The estimate of the average export subsidy excluding the foreign exchange premium has been retained.

Table 2.23: NOMINAL IMPLICIT PROTECTION COEFFICIENTS (NPC) AND NOMINAL TARIFF PROTECTION COEFFICIENTS (NTP) FOR SELECTED MANUFACTURED PRODUCTS

Tariff Code	Product	Domestic Price	Import Price (CIF)	Export Price (FOB)	Nominal Implicit Protection Coefficient	Nominal Tariff Protection Coefficient	Ratio Implicit-Tariff Protection
74.03.11 (II)	Brass (MS 53)	615 TL/p	145TL/p		4.240	1.320	3.21
74.03.11 (II)	Brass (MS 58)	645 TL/p	155 TL/p		4.161	1.320	3.15
87.06.93 (II)	Shock Absorbers	1,177 TL/p	884 TL/p		1.331	1.225	1.09
87.09.40 (NL)	Motorcycles	38,371 TL/p	24,700 TL/p		1.553	1.540	1.01
25.23.12 (NL)	Portland Cement	6,707 TL/T		3,770 TL/T	1.779	1.200	1.48
73.40.10 (NL)	Pig Iron Casting	140 TL/leg		73.7 TL/leg	1.900	1.675	1.13
84.61.00 (II)	Brass Bibcocks	340 TL/p		81.9 TL/p	4.151	1.675	2.48
84.61 (II)	Gate Valves	295 TL/p		171.6 TL/p	1.719	1.675	1.03
84.61 (II)	Wash Basin Mixers	4,416 TL/p		1,622 TL/p	2.723	1.675	1.63
84.61 (II)	Chrome Bibcocks	851 TL/p		222 TL/p	3.833	1.675	2.29
87.02.21 (NL)	Trucks	3,030,000 TL/p	1,782,000 TL/p	1,782,000 TL/p	1,700	1.225	1.39
87.02.21 (NL)	Minibuses	1,380,000 TL/p	737,700 TL/p	737,700 TL/p	1,868	1.225	1.52
87.02.21 (NL)	Pickups	1,128,000 TL/p	700,900 TL/p	700,900 TL/p	1,609	1.225	1.31

Source: Mission Estimates

Note: II: item belonging to List II
NL: not included in the lists.

Table 2.24a: ESTIMATION OF THE TARIFF INDUCED BIAS AGAINST EXPORTS

I-O Sector Code	Sector	1979 Nominal Tariff Protection Coefficient 1/	1979 Export Subsidy Coefficient	1979 Tariff Induced Bias Against Exports 2/	1980 Nominal Tariff Protection Coefficient 1/	1980 Export Subsidy Coefficient	1980 Tariff Induced Bias Against Exports 2/
11-15	Food Processing	1.538	1.044	0.473	1.538	1.076	0.429
17-18	Beverages	1.771	1.000	0.771	1.771	1.001	0.769
21-22	Textiles and Clothing	1.652	1.111	0.487	1.652	1.087	0.520
23	Leather and Fur Products	1.938	1.106	0.752	1.938	1.032	0.878
27	Paper and Paper Products	1.504	1.000	0.504	1.504	1.000	0.504
29-31	Chemicals	1.318	1.087	0.213	1.318	1.029	0.281
34	Rubber Products	1.343	1.207	0.113	1.343	1.111	0.209
35	Plastic Products	2.069	1.959	0.056	2.069	1.170	0.768
36	Glass and Glass Products	1.560	1.139	0.370	1.560	1.056	0.477
37	Cement	1.501	1.090	0.377	1.501	1.068	0.405
39	Iron and Steel	1.192	1.000	0.192	1.192	1.082	0.102
40	Non-Ferrous Metals	1.234	1.111	0.111	1.234	1.158	0.066
41	Fabricated Metal Products	1.470	1.181	0.245	1.470	1.292	0.138
42	Non-Electrical Machinery	1.289	1.104	0.168	1.289	1.180	0.092
44	Electrical Machinery	1.299	1.063	0.222	1.299	1.336	-0.028
43, 45-48	Transport Equipment	1.232	1.216	0.013	1.232	1.143	0.078
	Weighted Average	1.442	1.098	0.313	1.442	1.084	0.330

Source: See text tables.

1/ EEC Tariff Estimation was retained.

2/ The tariff induced bias against exporters is defined as $\frac{1 + ti}{1 + si} - 1$ where ti = tariff rate and si = export subsidy rate.

Table 2.24b: ESTIMATION OF THE TARIFF INDUCED BIAS AGAINST EXPORTS (continued)

First Quarter 1981			Second Quarter 1981		
Nominal Tariff Protection Coefficient 1/	Export Subsidy Coefficient	Tariff Induced Bias Against Exports 2/	Nominal Tariff Protection Coefficient 1/	Export Subsidy Coefficient	Tariff Induced Bias Against Exports 2/
1.538	1.091	0.410	1.538	1.122	0.371
1.771	1.028	0.723	1.771	1.042	0.700
1.652	1.065	0.551	1.652	1.117	0.479
1.938	1.105	0.754	1.938	1.044	0.856
1.504	1.072	0.403	1.504	1.110	0.387
1.318	1.104	0.194	1.318	1.072	0.229
1.343	1.033	0.300	1.343	1.045	0.285
2.069	1.079	0.918	2.069	1.127	0.836
1.560	1.060	0.472	1.560	1.086	0.436
1.501	1.274	0.178	1.501	1.055	0.423
1.192	1.091	0.093	1.192	1.212	-0.017
1.234	1.369	-0.099	1.234	1.259	-0.020
1.470	1.081	0.360	1.470	1.155	0.273
1.289	1.083	0.190	1.289	1.118	0.153
1.299	1.192	0.090	1.299	1.292	0.005
1.232	1.244	-0.010	1.232	1.154	0.068
1.442	1.099	0.312	1.442	1.111	0.298

E. Production Incentives: Industry vs. Agriculture

2.127 The system of production incentives in Turkey has discriminated against agricultural exports, in particular through overvalued exchange rates and government policies that have chiefly benefitted import substituting crops, such as wheat and sugar beets, to the exclusion of potential foreign exchange earners, such as horticultural products and livestock.

2.128 On the basis of 1978 data, the average effective protection coefficient (EPC) in agriculture is estimated at 1.40 percent. Among non-traditional exports, the EPC is lower than 1 for livestock (beef: 0.97) and citrus fruits (0.79). By contrast, among non-traditional exports, the EPC is highest in the case of olives (3.89), sugar beet (3.15), rye (2.51), pulses (2.31), fresh grapes (2.22), and rice (1.26). Among traditional exports, EPCs lower than 1 are estimated in the case of tobacco (0.66), and hazelnuts (0.37), while an EPC superior to 1 is obtained in the case of raisins (2.03). 1/

2.129 These results contrast with the weighted average effective tariff protection (ETP) coefficient for the 16 industrial branches retained in the analysis, estimated at 1.75 on the basis of the general tariff and at 1.58 on the basis of the EEC tariff. Among the 16 industrial branches, ETP coefficients lower than 1 were observed in three cases only under the general tariff, namely cotton ginning, fertilizers and iron and steel, while an ETP higher than 1 was estimated in the latter case under the special EEC tariff. These estimates, however, represent a lower bound for protection, as quantitative measures raised protection levels across industrial branches.

2.130 The policy measures recommended in this Chapter, by lowering effective protection in the industrial sector, would reduce discrimination against agriculture in Turkey. At the same time, policy recommendations presented in Chapter 6, which would bring domestic prices in agriculture in line with world market prices, would reduce discrimination in favor of import substituting crops as against export crops.

1/ See Chapter 7, Table 7.13. Comparison of effective tariff protection coefficients for 1980 in industry is made with 1978 effective protection coefficients in agriculture, as protection levels have changed little since.

Appendix Table 1a: ESTIMATION OF THE COMBINED EXPORT SUBSIDY
IN THE MANUFACTURING SECTOR: 1979
(TL Million)

I-O Sector Code	Sector	Export Credit Used			Indirect Tax Rebate			Foreign Exchange Allocation Used			Foreign Exchange Retained		
		Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy
11-16	Food Processing	954.0	16.50	157.4	1,566.8	4.1	64.2	131.3	54.1	71.0	379.2	54.1	205.1
17-18	Beverages	0	16.50	0	128.8	1.1	1.4	0	54.1	0	61.4	54.1	33.2
21-22	Textiles & Clothing	7,814.7	16.50	1,289.4	11,595.8	4.3	498.6	1,037.7	54.1	561.4	1,240.8	54.1	671.3
23	Leather & Fur Products	898.0	16.50	148.2	1,045.9	4.2	43.9	0	54.1	0	150.3	54.1	81.3
27	Paper & Paper Products	0	16.50	0	32.3	8.7	2.8	0	54.1	0	10.5	54.1	5.7
29-31	Chemicals	420.9	16.50	69.4	760.9	5.9	44.9	144.2	54.1	78.0	84.9	54.1	45.9
34	Rubber Products	84.2	16.50	13.9	11.1	9.3	1.0	102.5	54.1	55.5	7.2	54.1	3.9
35	Plastic Products	308.6	16.50	50.9	53.1	8.5	4.5	19.2	54.1	10.4	5.7	54.1	2.1
36	Glass & Glass Products	926.0	16.50	152.8	720.1	10.4	78.5	67.3	54.1	36.4	117.7	54.1	63.7
37	Cement	701.5	16.50	115.7	1,290.7	9.7	125.2	12.8	54.1	6.9	138.1	54.1	74.7
39	Iron & Steel	0	16.50	0	21.3	6.0	1.3	176.2	54.1	95.3	104.7	54.1	56.6
40	Non Ferrous Metals	308.6	16.50	50.9	145.3	0	0	304.3	54.1	164.6	48.9	54.1	26.5
41	Fabricated Metal Products	196.4	16.50	32.4	127.4	4.8	6.1	48.1	54.1	26.0	19.2	54.1	10.4
42	Non Electrical Machinery	252.6	16.50	41.7	400.8	16.3	65.3	153.7	54.1	83.2	42.9	54.1	23.2
44	Electrical Machinery	56.1	16.50	9.3	118.9	6.6	7.8	102.5	54.1	55.5	15.9	54.1	8.6
43, 45-48	Transport Equipment	1,108.3	16.50	182.9	463.3	6.6	30.6	903.2	54.1	488.6	90.6	54.1	49.0
	Total	14,029.3		2,314.9	18,482.5		976.1	3,203.1		1,732.8	2,517.5		1,362.2

Source: See text tables

Appendix Table 1b: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: 1979 (continued)

(TL Million)

Duty Exemption			Export Subsidy		Excluding Foreign Exchange Premium And Indirect Tax Rebate	Manufactured Goods Exports	Export Subsidy Rate	
Base	Rate	Subsidy	Total	Excluding Foreign Exchange Premium			Total	Excluding Foreign Exchange Premium
131.3	0	0	497.7	221.6	157.4	3,543.7	14.0	6.3
0	0	0	34.6	1.4	0	574.0	6.0	0.2
1,037.7	0	0	3,020.7	1,788.0	1,289.4	11,595.8	26.0	15.4
0	0	0	273.4	192.1	148.2	1,404.4	19.5	13.7
0	0	0	8.5	2.8	0	98.5	8.6	2.8
144.2	0	0	238.2	114.3	69.4	793.8	30.0	14.4
102.5	0	0	74.3	14.9	13.9	67.2	110.6	22.2
19.2	0	0	68.9	55.4	50.9	53.1	129.8	104.3
67.3	0	0	331.4	231.3	152.8	1,100.0	30.1	21.0
12.8	0	0	322.5	240.9	115.7	1,290.7	25.0	18.7
176.2	0	0	153.2	1.3	0	978.9	15.7	0.1
304.3	0	0	242.0	50.9	50.9	457.1	52.9	11.1
48.1	0	0	74.9	38.5	32.4	179.0	41.8	21.5
153.7	0	0	213.4	107.0	41.7	400.8	53.2	26.7
102.5	0	0	81.2	17.1	9.3	148.6	54.6	11.5
903.2	0	0	751.1	213.5	182.9	846.6	88.7	25.2
3,203.1		0	6,386.0	3,291.0	2,314.9	23,532.2	27.1	14.0

Appendix Table 2a: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: 1980

(TL Million)

I-O Sector Code	Sector	Export Credit Used			Indirect Tax Rebate			Foreign Exchange Allocation Used			Foreign Exchange Retained		
		Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy
11-16	Food Processing	3,271.6	22.53	737.1	6,948.2	0	0	224.0	4.7	10.5	1,109.2	4.7	52.1
17-18	Beverages	24.1	22.53	5.4	73.5	0	0	0	4.7	0	472.4	4.7	22.2
21-22	Textiles & Clothing	11,041.4	22.53	2,487.6	27,166.0	0	0	1,768.5	4.7	83.1	3,482.8	4.7	163.7
23	Leather & Fur Products	553.3	22.53	124.7	1,050.5	0	0	0	4.7	0	418.1	4.7	19.7
27	Paper & Paper Products	0	22.53	0	189.3	0	0	0	4.7	0	29.6	4.7	1.4
29-31	Chemicals	649.5	22.53	146.3	2,201.5	0	0	247.7	4.7	11.6	655.7	4.7	30.8
34	Rubber Products	264.6	22.53	59.6	669.3	0	0	176.2	4.7	8.3	85.1	4.7	4.0
35	Plastic Products	312.7	22.53	70.5	462.9	0	0	32.9	4.7	1.5	49.5	4.7	2.3
36	Glass & Glass Products	529.2	22.53	119.2	2,002.5	0	0	117.3	4.7	5.5	254.0	4.7	11.9
37	Cement	962.2	22.53	216.8	2,099.0	0	0	20.9	4.7	1.0	342.6	4.7	16.1
39	Iron & Steel	745.8	22.53	168.0	65.9	0	0	302.3	4.7	14.2	268.7	4.7	12.6
40	Non Ferrous Metals	721.7	22.53	162.6	1,422.6	0	0	517.1	4.7	24.3	152.2	4.7	7.2
41	Fabricated Metal Products	793.8	22.53	178.8	555.2	0	0	81.7	4.7	3.8	69.3	4.7	3.3
42	Non Electrical Machinery	1,299.0	22.53	292.7	698.9	0	0	261.1	4.7	12.3	187.1	4.7	8.8
44	Electrical Machinery	1,202.8	22.53	271.0	587.8	0	0	176.9	4.7	8.3	93.5	4.7	4.4
43, 45-48	Transport Equipment	1,683.9	22.53	379.4	2,592.5	0	0	1,542.8	4.7	72.5	403.9	4.7	19.0
	Total	24,055.6		5,419.7	48,785.6			5,469.4		256.9	8,073.7		379.5

Source: See text tables

(0294I) p.5 and 6

Appendix Table 2b: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: 1980 (continued)

(TL Million)

Duty Exemption			Export Subisdy		Manufactured	Export Subsidy Rate	
Base	Rate	Subsidy	Total	Excluding Foreign Exchange Premium	Goods Export	Total	Excluding Foreign Exchange Premium
224.0	21.1	47.3	847.0	784.4	10,366.8	8.2	7.6
0	18.1	0	27.6	5.4	4,415.1	0.6	0.1
1,768.5	18.7	330.7	3,065.1	2,818.3	32,549.9	9.4	8.7
0	26.6	0	144.4	124.7	3,907.9	3.7	3.2
0	15.0	0	1.4	0	277.1	0.5	0
247.7	11.9	29.5	218.2	175.8	6,127.6	3.6	2.9
176.2	16.4	28.9	100.8	88.5	795.2	12.7	11.1
32.9	24.5	8.1	82.4	78.6	462.9	17.8	17.0
117.3	12.1	14.2	150.8	133.4	2,373.9	6.4	5.6
20.9	10.4	2.2	236.1	219.0	3,201.5	7.4	6.8
302.3	12.4	37.5	232.3	205.5	2,511.2	9.3	8.2
517.1	12.0	62.1	256.2	224.7	1,422.6	18.0	15.8
81.7	13.1	10.7	196.6	189.5	647.9	30.3	29.2
261.1	8.5	22.2	336.0	314.9	1,748.8	19.2	18.0
176.9	12.9	22.8	306.5	293.8	873.5	35.1	33.6
1,542.8	10.4	160.5	631.4	539.9	3,774.9	16.7	14.3
5,469.4		776.7	6,832.8	6,196.4	75,456.8	9.1	8.4

Appendix Table 3a: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: FIRST QUARTER 1981

(TL Million)

I-O Sector Code	Sector	Export Credit Used			Indirect Tax Rebate			Foreign Exchange Allocation Used			Foreign Exchange Retained		
		Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy
11-16	Food Processing	1,113.2	29.39	327.2	2,540.7	0	0	277.3	6.4	17.7	567.5	6.4	36.3
17-18	Beverages	0	29.39	0	125.3	0	0	0	6.4	0	124.3	6.4	8.0
21-22	Textiles & Clothing	1,169.7	29.39	343.8	11,721.1	0	0	899.4	6.4	57.6	1,277.9	6.4	81.7
23	Leather & Fur Products	310.0	29.39	91.1	0	0	0	72.2	6.4	4.6	132.3	6.4	8.5
27	Paper & Paper Products	35.3	29.39	10.4	27.4	0	0	0	6.4	0	21.7	6.4	1.4
29-31	Chemicals	641.2	29.39	188.4	756.5	0	0	38.7	6.4	2.5	233.4	6.4	14.9
34	Rubber Products	0	29.39	0	181.8	0	0	15.0	6.4	1.0	49.3	6.4	3.2
35	Plastic Products	0	29.39	0	32.3	0	0	100.5	6.4	6.4	44.9	6.4	2.9
36	Glass & Glass Products	169.1	29.39	49.7	387.4	0	0	42.6	6.4	2.7	160.6	6.4	10.3
37	Cement	845.5	29.39	248.5	1,008.4	0	0	0.5	6.4	0.0	92.6	6.4	5.9
39	Iron & Steel	253.7	29.39	74.6	67.0	0	0	70.0	6.4	4.5	122.8	6.4	7.9
40	Non Ferrous Metals	775.1	29.39	227.8	722.1	0	0	151.9	6.4	9.7	66.3	6.4	4.2
41	Fabricated Metal Products	28.2	29.39	8.3	369.4	0	0	84.1	6.4	5.4	33.9	6.4	2.2
42	Non Electrical Machinery	140.9	29.39	41.4	566.3	0	0	270.4	6.4	17.3	108.5	6.4	6.9
44	Electrical Machinery	49.3	29.39	14.5	205.0	0	0	291.9	6.4	18.7	29.3	6.4	1.9
43, 45-48	Transport Equipment	1,515.0	29.39	445.3	1,998.6	0	0	683.9	6.4	43.8	220.4	6.4	14.1
	Total	7,046.3		2,071.0	20,707.3		0	2,998.4		191.9	3,286.9		210.3

Source: See text tables

Appendix Table 3b: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: FIRST QUARTER 1981 (continued)

(TL Million)

Duty Exemption			Income Tax Reduction			Export Subsidy		Manufactured Goods Exports	Export Subsidy Rate	
Base	Rate	Subsidy	Base	Rate	Subsidy	Total	Excluding Foreign Exchange Premium		Total	Excluding Foreign Exchange Premium
277.3	21.1	58.5	6,182.1	2.84	175.6	615.3	561.3	6,182.1	10.0	9.1
0	18.1	0	1,354.3	2.84	38.5	46.5	38.5	1,354.3	3.4	2.8
899.4	18.7	168.2	13,920.4	2.84	395.3	1,046.7	907.3	13,920.4	7.5	6.5
72.2	26.6	19.2	1,441.0	2.84	40.9	164.3	151.2	1,441.0	11.4	10.5
0	15.9	0	236.7	2.84	6.7	18.5	17.1	236.7	7.8	7.2
38.7	11.9	4.6	2,542.6	2.84	72.2	282.6	265.2	2,542.6	11.1	10.4
15.0	16.4	2.5	536.9	2.84	15.2	21.9	17.7	536.9	4.1	3.3
100.5	24.5	24.6	489.2	2.84	13.9	47.8	38.5	489.2	9.8	7.9
42.6	12.1	5.2	1,749.0	2.84	49.7	117.6	104.6	1,749.0	6.7	6.0
0.5	10.4	0.1	1,008.4	2.84	28.6	283.1	276.8	1,008.4	28.1	27.4
70.0	12.4	8.7	1,338.0	2.84	38.0	133.7	121.8	1,338.0	10.0	9.1
151.9	12.0	18.2	722.1	2.84	20.5	280.4	266.5	722.1	38.8	36.9
84.1	13.1	11.0	369.4	2.84	10.5	37.4	29.8	369.4	10.1	8.1
270.4	8.5	23.0	1,181.9	2.84	33.6	122.2	98.0	1,181.9	10.3	8.3
291.9	12.9	37.7	319.2	2.84	9.1	81.9	61.3	319.2	25.7	19.2
683.9	10.4	71.1	2,400.4	2.84	68.2	642.5	584.6	2,400.4	26.8	24.4
2,998.2		452.6	35,791.6		1,016.5	3,942.4	3,539.7	35,791.6	11.0	9.9

Appendix Table 4a: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: SECOND QUARTER 1981
(In TL Million)

I-O Sector Code	Sector	Export Credit Used			Indirect Tax Rebate			Foreign Exchange Allocation Used			Foreign Exchange Retained		
		Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy	Base	Rate	Subsidy
11-15	Food Processing	1,771.3	30.23	535.5	174.1	3.33	5.8	253.0	2.4	6.1	537.4	2.4	12.9
17-18	Beverages	0	30.23	0	7.1	3.33	0.2	0	2.4	0	49.0	2.4	1.2
21-22	Textiles and Clothing	4,156.3	30.23	1,256.4	1,366.7	3.33	45.5	1952.2	2.4	46.9	1,347.8	2.4	32.4
23	Leather and Fur Products	28.3	30.23	8.6	146.3	3.33	4.9	27.3	2.4	0.7	104.6	2.4	2.5
27	Paper and Paper Products	56.5	30.23	17.1	5.1	3.33	0.2	0	2.4	0	11.7	2.4	0.3
29-31	Chemicals	169.6	30.23	51.3	116.0	3.33	3.9	336.9	2.4	8.1	190.3	2.4	4.6
34	Rubber Products	0	30.23	0	17.0	3.33	0.6	26.5	2.4	0.6	16.1	2.4	0.4
35	Plastic Products	0	30.23	0	11.7	3.33	0.4	392.3	2.4	9.4	75.1	2.4	1.8
36	Glass and Glass Products	405.2	30.23	122.5	58.7	3.33	2.0	105.8	2.4	2.5	174.8	2.4	4.2
37	Cement	358.2	30.23	108.3	348.9	3.33	11.6	0.2	2.4	0.0	454.6	2.4	10.9
39	Iron and Steel	772.8	30.23	233.6	51.4	3.33	1.7	561.1	2.4	13.5	128.0	2.4	3.1
40	Non-Ferrous Metals	216.8	30.23	65.5	51.0	3.33	1.7	325.1	2.4	7.8	62.6	2.4	1.5
41	Fabricated Metal Products	131.9	30.23	39.9	53.9	3.33	1.8	158.3	2.4	3.8	62.2	2.4	1.5
42	Non-Electrical Machinery	301.6	30.23	91.2	62.8	3.33	2.1	197.7	2.4	4.7	64.3	2.4	1.5
44	Electrical Machinery	301.6	30.23	91.2	21.6	3.33	0.7	219.0	2.4	5.3	46.1	2.4	1.1
43, 45-48	Transport Equipment	753.9	30.23	227.9	589.9	3.33	19.6	1188.3	2.4	28.5	222.4	2.4	5.3
	Total	9,424.4		2,849.0	3,082.2		102.6	5,743.8		137.9	3,547.0		85.1

Source: See text tables

Appendix Table 4b: ESTIMATION OF THE COMBINED EXPORT SUBSIDY IN THE MANUFACTURING SECTOR: SECOND QUARTER 1981

(TL Million)

Duty Exemption			Income Tax Reduction			Export Subsidy		Manufactured Goods Exports	Export Subsidy Rate	
Base	Rate	Subsidy	Base	Rate	Subsidy	Total	Excluding Foreign Exchange Premium		Total	Excluding Foreign Exchange Premium
253.0	21.1	53.4	6,481.2	3.22	208.7	822.4	793.4	6,481.2	12.7	12.2
0	18.1	0	1,059.2	3.22	34.1	35.5	44.3	1,059.2	3.4	4.2
1952.2	18.7	365.1	19,560.6	3.22	629.9	2,376.2	2,296.9	19,560.6	12.1	11.7
27.3	26.6	7.3	1,788.3	3.22	57.6	81.6	78.4	1,788.3	4.6	4.4
0	15.0	0	222.5	3.22	7.2	24.8	24.5	222.5	11.1	11.0
336.9	11.9	40.1	2,366.8	3.22	76.2	184.2	171.5	2,366.8	7.8	7.2
26.5	16.4	4.3	339.7	3.22	10.9	16.2	15.2	339.7	4.8	4.5
392.3	24.5	96.1	1,019.7	3.22	32.8	140.5	129.3	1,019.7	13.8	12.7
105.8	12.1	12.8	2,553.2	3.22	82.2	226.2	219.5	2,553.2	8.9	8.6
0.2	10.4	0.0	5,305.3	3.22	170.8	301.6	290.7	5,305.3	5.7	5.5
561.1	12.4	69.6	1,690.9	3.22	54.4	375.9	359.3	1,690.9	22.2	21.2
325.1	12.0	39.0	796.3	3.22	25.6	141.1	131.8	796.3	17.7	25.9
158.3	13.1	20.7	508.2	3.22	16.4	84.1	78.8	508.2	16.5	15.5
197.7	8.5	16.8	1,282.8	3.22	41.3	157.6	151.4	1,282.8	12.3	11.8
219.0	12.9	28.3	461.0	3.22	14.8	141.4	135.0	461.0	30.7	29.2
1188.3	10.4	123.6	3,048.9	3.22	98.2	503.1	469.3	3,048.9	16.5	15.4
5,743.8		877.1	48,484.6		1,561.2	5,612.5	5,389.4	48,484.6	11.6	11.1

Appendix Table 5: ITEMS TRANSFERRED FROM LIBERALIZED LIST II TO LIBERALIZED LIST I

Code No.	Name	$ Value ($1000)
14	Vegetable Plaiting and Carving Materials	8.2
15	Animal and Vegetable Fats and Oils and their Cleavage Products	2,315.4
28	Inorganic Chemicals, Organic and Inorganic Compounds of Precious Metals	18,010.5
29	Organic Chemicals	151,581.2
30	Pharmaceutical Products	1,614.1
32	Tanning and Dyeing Extracts, Tanning and their Derivates	25,203.7
35	Albuminoidal Substances, Glues	201.1
37	Photographic and Cinematographic Goods	3,877.0
38	Miscellaneous Chemical Products	30,430.9
39	Artificial Resins and Plastic Materials	1,106.6
40	Rubber, Synthetic Rubbers, Factice	1,754.7
59	Twine, Cordage, Ropes and Cables	644.1
68	Articles of Stone, of Plaster, of Cement, of Asbestos, of Mica	234.7
73	Iron and Steel	6,445.6
76	Aluminum	306.6
80	Tin	10,871.0
81	Other Base Metals Employed in Metallurgy	26.9
82	Tools, Implements, Cutlery Spoons and Forks	1,537.9
84	Boilers, Machinery and Mechanical Appliances	24,073.9
85	Electrical Machinery and Equipment	593.6
86	Railway and Tramway, Locomotives	0.0
90	Optical, Photographic, Cinematographic Instruments	2,137.1
95	Articles and Manufactures of Carving or Moulding Material	1,359.7
Total		284,334.5

Source: - SPO
- Customs

Appendix Table 6: FORMER QUOTA ITEMS TRANSFERRED TO LIBERALIZED LIST I

Code No.	Name	$ Value ($1000)
09	Coffee, Tea, Mate and Spices	303.1
13	Raw Vegetable Materials of a Kind Suitable for Use in Dyeing or in Tanning	138.7
15	Animal and Vegetable Fats and Oils and their Cleavage Products	464.3
17	Sugar and Sugar Confectionery	0.0
25	Sal, Sulphur, Earths and Stone	0.0
27	Mineral Fuels, Minerals Oils and Products of Their Distillation	21.4
28	Inorganic Chemicals, Organic and Inorganic Compounds of Precious Metals	204.8
29	Organic Chemicals	15.5
32	Tanning and Dyeing Extracts, Tanning and their Derivates	126.8
34	Soap, Organic Surface-active Agents	11.4
35	Albuminoidal Substances, Glues	2.0
37	Photographic and Cinematographic Goods	29.8
38	Miscellaneous Chemical Products	15,875.1
39	Artificial Resins and Plastic Materials	1,938.2
40	Rubber, Synthetic Rubbers, Factice	2,891.6
44	Wood and Articles of Wood	17.7
48	Paper and Paper Board Articles	6,855.8
49	Printed Books, Newspapers, Pictures	57.5
51	Man-made Fibers	272.0
53	Wood and Other Animal Hair	0.0
59	Twine, Cordage, Ropes and Cables	0.3
73	Iron and Steel	371.0
76	Aluminum	9.1
79	Zinc	12.7
82	Tools, Implements, Cutlery Spoons and Forks	125.6
83	Miscellaneous Articles of Base Metal	0.6
84	Boilers, Machinery and Mechanical Appliances	10,106.5
85	Electrical Machinery and Equipment	20,897.7
90	Optical, Photographic, Cinematographic Instruments	2,692.8
91	Clocks and Watches	34.7
92	Musical Instruments	66.2
96	Brooms, Brushes, Feather Dusters	51.9
98	Miscellaneous Manufactured Articles	256.7
Total		63,851.2

Source: - SPO
- Customs

Appendix Table 7: FORMER QUOTA ITEMS TRANSFERRED TO LIBERALIZED LIST II

Code No.	Name	$ Value ($1000)
A.	Under Ministry of Trade	
08	Edible Fruit and Nuts	453.5
09	Coffee, Tea, Mate and Spices	642.4
13	Raw Vegetable Materials of a Kind Suitable for Use in Dyeing or in Tanning	700.7
27	Mineral Fuels, Minerals Oils and Products of their Distillation	465.9
36	Explosives, Pyrotechnic Products	120.5
37	Photographic and Cinematographic Goods	7,285.3
39	Artificial Resins and Plastic Products	576.4
40	Rubber, Synthetic Rubbers, Factice	52.2
48	Paper and Paper Board Articles	238.5
52	Metallized Textiles	56.4
55	Cotton	0.0
57	Other Vegetable Textile Materials	0.0
59	Twine, Cordage, Ropes and Cables	67.0
64	Footwear, Gaiters and the like	1.0
70	Glass and Glassware	66.3
71	Pearls, Precious and Semi-precious Stones	11.3
73	Iron and Steel	502.7
82	Tools, Implements, Cutlery Spoons and Forks	214.4
83	Miscellaneous Articles of Base Metal	203.4
84	Boilers, Machinery and Mechanical Appliances	29,235.3
85	Electrical Machinery and Equipment	18.2
90	Optical, Photographic, Cinematographic Instruments	665.6
91	Clocks and Watches	1,763.3
92	Musical Instruments	317.2
97	Toys, Games and Sports Requisites	7.4
98	Miscellaneous Manufactured Articles	41.9
Total		43,706.9
B.	Under Ministry of Technology and Industry	
25	Salt, Sulphur, Earths and Stone	65.0
26	Metallic Ores	1,548.8
28	Inorganic Chemicals, Organic and Inorganic Compounds of Precious Metals	1,472.0
29	Organic Chemicals	11,877.3
32	Tanning and Dyeing Extracts	10,244.7
35	Albuminoidal Substances	545.5
38	Miscellaneous Chemical Products	52,936.5
39	Artificial Resins and Plastic Materials	110,960.3

13	Rubber, Synthetic Rubbers	155.0
44	Wood and Articles of Wood	65.3
48	Paper and Paper Board Articles	69,347.1
49	Printed Books, Newspapers, Pictures	103.6
51	Man-made Fibres	286.0
54	Flax and Ramie	110.1
59	Twine, Cordage, Ropes and Cables	22,184.4
68	Articles of Stone, of Plaster, of Cement	3,228.8
69	Ceramic Products	6,562.0
70	Glass and Glassware	1,807.5
71	Pearls, Precious and Semi-precious Stones	327.4
73	Iron and Steel	26,901.3
74	Copper	633.5
76	Aluminium	236.3
82	Tools, Implements, Cutlery Spoons and Forks	2,906.3
83	Miscellaneous Articles of Base Metal	174.5
84	Boilers, Machinery and Mechanical Appliances	128,954.1
85	Electrical Machinery and Equipment	67,775.4
87	Vehicles other than Railway or Tramway Rolling Stocks	126,934.6
94	Furniture and Parts	29.6
98	Miscellaneous Manufactured Articles	202.1
Total		648,575.2

C. The below items have been cancelled

28	Inorganic Chemicals	363.4
32	Tanning and Dyeing Extracts	0.0
38	Miscellaneous Chemical Products	52,775.2
53	Wood and Other Animal Hair	0.0
83	Miscellaneous Articles of Base Metal	9.5
84	Boilers, Machinery and Mechanical Appliances	5,662.4
87	Vehicles other than Railway and Tramway Rolling Stocks	3,701.2
91	Clocks and Watches	0.0
Total		62,511.7

(1)	Transfer to List II Total	692,282.1
(2)	Cancelled	62,511.7
(3)	Net Transfer to List II Total (1 minus 2)	629,770.4

Source: - SPO
- Customs

CHAPTER 3

THE FINANCING OF ECONOMIC ACTITIVY

A. The Resources of the Financial Sector

1. Introduction

3.1 The financial sector of Turkey comprises: (a) the banking system; (b) the Social Security System (Social Insurance Agency, Pension Fund, Banks Pension Funds, Army Mutual Fund); (c) private insurance companies; (d) collective savings institutions and credit cooperatives; (e) securities markets; and (f) unorganized money markets. The banking system dominates the entire financial sector. The total consolidated assets of all the banks (Central Bank, deposit money banks and investment and development banks) at the end of 1980 amounted to almost TL 2,500 billion, or about 55 percent of the GNP of that year.

3.2 Among non-bank financial institutions, only the Social Security System has substantial financial assets. However, most of these assets consist either of bank deposits or of bonds issued by the State Investment Bank. The contribution of the Social Security System to the financing of economic activities is therefore automatically included in the analysis of the banking system.

3.3 The securities (or capital) market is the only other segment of the Turkish financial sector which has some significance. But the volume of business transacted in this market in 1980 accounted for only about 1 percent of the total consolidated assets of the banking system. The size of the remaining financial institutions - insurance companies, collective savings institutions and credits cooperatives - is even smaller. The amount of financial resources channelled through unorganized money markets is also said to be small, although it is not possible to estimate it.

3.4 In these conditions, the analysis of the financing of economic activity in Turkey presented below focusses primarily on the banking sector. Nevertheless attention will also be paid to the capital market, which in the future should play a more important role within the financial system. In the discussion, emphasis will be given to the generation of financial resources, the conditions under which they are transferred, and the efficiency of their allocation. Note will further be taken of the implications for monetary policy of the rules under which financial institutions operate.

2. The Supply of Money and its Influence on the Availability of Financing

The Growth of the Money Supply

3.5 The volume of financial resources of the banking system is determined by the stock of money and by other net domestic and foreign liabilities of the system. Table 3.1 shows that, among these influences, the money supply has been the most important, although net foreign liabilities have increased rapidly in recent years.

Table 3.1: SURVEY OF THE BANKING SECTOR OF TURKEY /1
(Billions of TL, year end)

	1977	1978	1979	1980 /4	June 1981
Credits, bonds and participations	441.1	562.7	844.6	1,358.9	1,685.5
Money supply /2	269.5	363.3	578.7	966.0	1,163.8
Other liabilities of the banking sector:					
Bonds	39.3	45.2	51.9	59.9	59.5
Net foreign liabilities	74.9	100.8	160.8	380.6	393.9
Other net domestic liabilities /3	57.4	53.4	53.2	-47.6	68.3
	441.1	562.7	844.6	1,358.9	1,685.5

/1 Central Bank, deposits money banks and investment and development banks.
/2 M_2 (currency in circulation, sight deposits with deposit money banks, deposits of public enterprises and other sectors not belonging to the public administrations in the Central Bank, time deposits with deposit money banks) plus public deposits in deposit money banks.
/3 Including equity.
/4 Provisional figures.

3.6 During the 1971-77 period, the money supply, defined in a broader sense (see Table 3.1) increased at an average annual rate of 27 percent. The money supply increased by 34 percent in 1978 (on the basis of yearly averages), 46 percent in 1979, and 63 percent in 1980. 1/ These results were affected by changes in the monetary base and in the money multiplier.

The Monetary Base

3.7 The monetary base increased at an annual average rate of 31 percent between 1971 and 1977, calculated from year end values. The corresponding growth rates for 1978, 1979 and 1980 were 43 percent, 50 percent and

1/ Due to seasonality, the data reported for the first half of 1981 will not be commented on in the following.

48 percent, respectively. This occurred as the contractionary effects of the decrease of net foreign assets of the Central Bank and of compulsory import deposits were more than compensated by the rapid rise of the Central Bank claims on public administrations, 1/ public enterprises, deposit money banks, and investment and development banks (Table 3.2).

Table 3.2: FACTORS DETERMINING THE MONETARY BASE
(Millions of TL; end of the period)

	1971	1977	1978	1979	1980	June 1981
Net foreign assets	6.7	-65.2	-88.1	-136.9	-368.4	-403.1
Net domestic assets						
Public administrations	14.1	93.1	154.8	263.0	528.9	580.3
excluding decrease in net foreign assets	(13.6)	(75.7)	(98.9)	(n.a.)	(223.7)	(n.a.)
Public enterprises	5.3	45.5	66.0	121.2	177.4	178.9
Deposit money banks	7.4	96.3	125.2	162.9	274.7	309.5
Investment and development banks	1.3	37.1	42.3	48.3	49.8	49.5
Import deposits	-1.6	-46.5	-70.8	-99.5	-99.9	-93.1
Other items, net	-2.8	-8.7	-13.2	-35.3	-83.9	-91.6
TOTAL	30.3	151.6	216.1	323.6	478.5	530.3

Source: Central Bank of Turkey

3.8 Adjusting for changes in the Turkish lira value of foreign liabilities, which have their counterpart in the decrease of net foreign assets, the financing of the consolidated budget deficit by the Central Bank has been the major factor contributing to the increase in the monetary base. This issue will be further examined in paras. 3.81-3.95 and consideration will be given to measures that may be taken to reduce the impact of the budgetary deficits on money supply.

1/ For the definition of public administrations, see Table 3.12.

3.9 Another important factor contributing to the increase in the monetary base has been the credits the Central Bank extended to public enterprises. The main beneficiaries of these credits have been the State Monopolies and the Soil Products Office, although some of the industrial state economic enterprises, too, have received considerable financial support in recent years. In addition to direct credits, the SEEs have benefited from budgetary transfers based on funds provided by the Central Bank to the Treasury. Finally, they have absorbed most of the credits extended by the Central Bank to the State Investment Bank and other investment and development banks. The problems which need to be faced and the solutions which may be adopted to reduce the inflationary effects of the financing of public enterprises will be considered in paras. 3.96-3.104. Chapter 6 provides further discussion of the financing of the manufacturing SEEs.

3.10 The loans of the Central Bank to deposit money banks reflect mainly the operation of selective credit policies. These loans are to a large extent oriented towards the financing of agriculture, the financing of medium- and long-term credits, and the financing of export credits. In several cases the implementation of selective credit policies is entirely dependent on credits provided by the Central Bank at low interest rates, thus limiting the freedom of action of the Central Bank. The problems created by such a situation, and possible solutions, will be analyzed in paras. 3.105-3.144.

Reserve Requirements and the Supply of Money

3.11 The multiplier of the monetary base has undergone substantial fluctuations in recent years (Table 3.3), thereby creating difficulties for the conduct of monetary policy. These fluctuations find their origin in variations both of the ratio of currency in circulation to total deposits ($\underline{c}$) and of the ratio of the required reserves of deposit money banks in cash or as deposits in the Central Bank to total deposits ($\underline{r}$).

3.12 Variations of the ratio of currency to deposits are determined by the preferences of households and enterprises. They can not therefore easily be controlled by the monetary authorities. In turn, variations in the ratio of reserves to total deposits depend on the regulations established by the authorities as regards liquidity and reserve requirements as well as on the compliance of the banks with such regulations.

3.13 Liquidity reserves are held in the form of vault cash, free sight deposits with the Central Bank, Treasury bills and government bonds. The minimum ratio of liquidity reserves to total deposits (with the exclusion of interbank deposits) is 10 percent in the case of small banks, 12 percent in the case of medium sized banks and 15 percent in the case of large banks. The liquidity ratio has been a convenient device to create a captive demand for government securities by deposit money banks, even though the yields of these securities are not attractive.

3.14 Required reserves consist of deposits which banks have to maintain in the Central Bank. They equal 35 percent of sight deposits and 30 percent of time deposits, with lower ratios applying to the deposits which are used to

Table 3.3: MULTIPLIER OF THE MONETARY BASE
(Billion TL; year end values)

	1977	1978	1979	1980	June 1981
Monetary base	151.6	216.1	323.6	478.5	530.3
Reserve requirements on Convertible TL Deposits	8.9	10.2	12.3	3.5	n.a.
Corrected monetary base (B)	142.7	205.9	311.3	475.0	n.a.
M_2	243.5	328.0	527.8	881.9	1,059.6
Public deposits in deposit money banks	26.0	35.3	50.9	84.1	104.2
Money Supply defined in a broader sense (M)	269.5	363.3	578.7	966.0	1,163.8
Currency in circulation (C)	63.0	93.8	143.7	221.9	230.1
Total deposits included in M (D)	206.5	269.5	435.0	744.1	947.4
Reserves of deposit money banks (R)	79.7	112.0	167.7	253.0	291.3
c = C : D	0.305	0.348	0.330	0.298	0.243
r = R : D	0.386	0.416	0.386	0.340	0.307
Multiplier k = M : B = (1 + c) : (c + r)	1.889	1.764	1.858	2.033	n.a.

Source: Central Bank of Turkey

extend credits receiving preferential treatment under the selective credit policy. Since July 1, 1980, these ratios have been as follows: (a) medium and long term credits for investments in priority sectors as indicated in the General Incentives Tables, 5 percent; (b) medium and long term credits for investments in underdeveloped regions, 0 percent; (c) housing credits by the Real Estate and Credit Bank, 5 percent; (d) credits to small enterprises and artisans by the Halk Bank, 20 percent; (e) credits for manufactured goods exports, 5 percent; and (f) medium term operational and export credits, not

included in the above categories, 10 percent. The Central Bank pays interest rates of 8 percent and 16 percent on the reserves required against sight and time deposits, respectively. After the payment of a levy to the Differential Interest Rate Rebate Fund (2 percent) and of the financial transactions tax (15 percent), the net earnings of money banks on reserves held against sight and time deposits are 6.8 percent and 11.9 percent respectively (see notes to Table 3.8).

3.15 Banks which do not comply with the regulations on reserve requirements must pay a penalty rate of 35 percent on the deficiency, which after the inclusion of the transactions tax of 15 percent and of the interest which would be earned on the reserves corresponds to a total cost of 47 percent for reserves against sight deposits and 52 percent for the reserves against time deposits. Such costs do not however impose an adequate penalty, given the fact that the marginal cost of financial resources derived from deposits has been in the order of 50 percent, as explained in para. 3.40. It is therefore not surprising that on July 1, 1981 the deficiencies on required reserves amounted to 37 billion TL, which corresponds to more than 15 percent of total required reserves. A large part of the deficiency had its origin in the Agricultural Bank, which belongs to the public sector and is the largest bank in Turkey.

3.16 The system of required reserves has made it possible to mobilize, at a comparatively low cost for the Central Bank, a substantial proportion of the financial resources collected by deposit money banks for the financing of budgetary deficits, public enterprises, and selective credits. In turn, the lower ratios required against deposits used for preferential credits have made these credits more attractive to the banks. At the same time, regulations on reserves increase considerably the cost of financial intermediation (a point which is analysed in paras. 3.39-3.42) and they mean that the multiplier of the monetary base is comparatively low and may be subject to substantial fluctuations.

3.17 The fluctuations of the monetary multiplier arising out of variations in the ratio of reserves to deposits are due to: (a) the differences in the minimum required reserves ratios imposed on sight deposits and time deposits and variations in the amounts of those two types of deposits; (b) the special reductions of required reserve ratios on deposits which are used to extend some types of selective credits, and the variation in the amounts of those credits; and (c) changes in the extent of non-compliance of reserve requirements by deposit money banks. The possibilities of controlling the supply of money and conducting monetary policy would improve considerably if these different sources of instability of the money multiplier were corrected. It would therefore be desirable to reduce the disparity between the different reserve ratios and to enforce the stricter observance of reserve requirements by the banks.

3.18 In order to achieve the stricter observance of reserve requirements by the banks, the penalty rates on deficiencies would need to be increased. If such penalty rates were not sufficiently effective in the case of public sector banks, complementary forms of action might be necessary.

3.19 The elimination of lower reserve ratios for preferential credits would reduce variations in the money multiplier and would offer further advantages as described in paras. 3.114-3.117. However, the difference of 5 percent points between the existing ratios for sight and time deposits may be maintained as they reflect differences in the "moneyness" of these deposits.

3. Interest Rates and the Demand for Money

The Demand for Money

3.20 In recent years the demand for money expressed as a percentage of GNP declined substantially, as shown in Table 3.4. The increase of the velocity of the circulation reflected essentially the flight from money caused by accelerating inflation and the persistance of strongly negative real interest rates. In 1979 and 1980, the tightness of monetary policy was another contributing factor as increases in the money supply became insufficient to accomodate price rises due to adjustments of controlled prices, wage increases, and the devaluation of the exchange rate. As a consequence of credit scarcity, economic agents accumulated large amounts of arrears vis-a-vis each other. That process has in a certain way replaced one of the normal functions of money, thus contributing to a pronounced increase in its velocity.

3.21 The figures in Table 3.4 are much influenced by the behaviour of deposits of business enterprises (commercial sight deposits). The ratio of these deposits to GNP during the second half of the 1970's exceeded the average for the first half. This was due to the practice of banks to require the holding of compensating balances in the form of commercial sight deposits for a certain proportion of their loans (reaching often 30 percent). While it is impossible to estimate what have been the proportions of the required and the voluntary deposits in the total amount of commercial sight deposits, the analysis of the demand for money will become more meaningful if commercial sight deposits are subtracted from M_2, as it is done in the last line of Table 3.4. With this correction, the ratio of M_2 to GNP is shown to have declined by one-half between 1971-75 and 1980, thereby limiting the ability of the banking system to perform its function of financial intermediation.

3.22 The decline in the demand for currency was comparatively moderate as these balances are kept mainly for transactions purposes. By contrast, the demand for savings sight deposits fell from an average of 9.1 percent of GNP in 1971-75 to 3.7 percent in 1980. This decline is expalined by the fact that savings sight deposits are not used extensively for payment in Turkey and the real interest rates on these deposits were kept at strongly negative levels. Thus, nominal interest rates on savings sight deposits were 2.5 percent in the early seventies, 3 percent from October 1974 until July 1980 and 5 percent since July 1, 1980 as compared with average inflation rates close to 20 percent in the period 1972-77 and 53 percent, 64 percent and 107 percent in 1978, 1979 and 1980, respectively.

Table 3.4: DEMAND FOR MONEY
(percentages of GNP) /1

	1971-75	1976	1977	1978	1979	1980
1. Currency	5.9	5.6	5.9	6.0	5.2	4.0
2. Commercial sight deposits	4.4	5.7	6.1	5.7	5.2	4.7
3. Savings sight deposits	9.1	8.5	8.3	7.2	5.4	3.7
4. M_1 (1) + (2) + (3)	19.5	19.8	20.4	18.9	15.9	12.4
5. Time deposits	5.7	4.5	3.7	3.0	2.7	2.7
6. M_2 (4) + (5)	25.2	24.3	24.1	21.9	18.6	15.1
7. Public deposits	2.7	2.8	2.6	2.3	1.9	1.5
8. Total (6) + (7)	27.9	27.1	26.7	24.2	20.5	16.6
9. M_2, less commercial sight deposits (6) - (2)	20.8	18.6	18.0	16.2	13.4	10.4

/1 The average demand in a given year was calculated as the geometric average between the values at the beginning and at the end of that year.

Source: Central Bank of Turkey

3.23 Demand for time deposits fell particularly markedly from 5.7 percent of GNP in 1971-75 to 2.7 percent in 1980. The interest rates paid on these deposits were subject to ceilings fixed by law until July 1980. From that date until January 1981 ceilings determined by a gentlemen's agreement among banks were in force. Subsequently, however, owing to the scarcity of loanable funds resulting from a tight monetary policy and the increased competition from non-bank financial intermediaries, the agreement began to break down and interest rates paid on time deposits were substantially increased.

3.24 Real interest rates on six month time deposits averaged -30 percent in 1978 and 1979, and about -45 percent in 1980. In February 1981, nominal interest rates were raised to 42 percent in six month deposits and to 50 percent in one year deposits, compared to rates of 12 percent and 20 percent, respectively up to June 1980. In July 1981, interest rates on six-month deposits were increased further to 50 percent. In turn, in the second half of 1981, the rate of inflation was slightly below 35 percent a year.

Table 3.5: INTEREST RATES ON DEPOSITS
(percentages)

	10/1/74	4/1/78	5/1/78	3/1/78	7/1/78	9/27/80	1/1/81	2/9/81	7/9/81
Public	1.0	0	0	0	0	0	0	0	0
Commercial	0	2.0	0	0	0	0	0	0	0
Savings /1									
0-3 months	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0
3-6 months	6.0	6.0	8.0	8.0					45.0
6-12 months	6.0	9.0	12.0	12.0	15.0	15.0	32.0	42.0	50.0
12-24 months	9.0	12.0	20.0	20.0	33.0	33.0	40.0	50.0	50.0
2-3 years	/2	16.0	22.0	22.0	34.0	34.0	40.0	50.0	50.0
3-4 years	/2	20.0	24.0	24.0	35.0	35.0	40.0	50.0	50.0
more than 4 years	/2	/2	/2	/2	36.0	36.0	40.0	50.0	50.0
Certificates of deposits issued to bearers									
6 months					15.0	15.0	32.0	40.0	50.0
6-12 months					33.0	33.0	40.0	50.0	50.0
12-24 months					34.0	34.0	40.0	50.0	50.0

/1 As from 7/1/80 deposits in foreign exchange by emigrant workers have been receiving an additional 5 percentage points. Previously, they were receiving an additional 10-15 percentage points.
/2 Interest rate determined between the bank and the depositor.

Source: Central Bank of Turkey

3.25 The freeing of interest rates after July 1980 increased the demand for time deposits. While the amount of total time deposits deflated by the average of the consumer price indexes of Ankara and Istanbul declined by about 33 percent from December 1979 to June 1980, this decline was offset by an increase of the same of magnitude in the following six months. In the first nine months of 1981 a further increase of about 150 percent was recorded as against price increases of 19 percent. This result is to some extent due to a

shift from sight to time deposits, induced by the larger difference in their respective interest rates. Nevertheless, it appears that the increase in time deposits contributed to the growth of money demand (M_2) in real terms. Thus, the fact that the real value of currency in circulation plus savings deposits increased by 19 percent from December 1980 to June 1981 seems to be a clear sign, when contrasted with the experience of earlier years, that more attractive interest rates for time deposits are stimulating the overall demand for money by households (See Table 3.6). And, apart from increasing the proportion of the savings of households channelled through the banking system, the volume of these savings is likely to have risen in consequence of the new interest rate policy.

Table 3.6: CURRENCY AND BANK DEPOSITS /1

	Dec. 1978	Dec. 1979	June 1980	Dec. 1980	June 1981
Billion TL					
Currency in circulation	113.7	182.9	202.2	278.6	294.5
Commercial sight deposits	86.0	154.5	175.5	286.0	278.5
Savings deposits	147.3	225.3	250.1	370.5	528.8
Sight	103.3	142.6	160.8	193.5	192.7
Time	44.1	82.6	89.3	177.0 /2	336.1 /1
Others	35.7	52.7	52.8	89.0	110.6
Indices (Dec. 1978 = 100)					
Cost of living index /2	100.0	176.7	275.0	319.3	354.4
Time deposits deflated by the cost of living index	100.0	97.1	67.0	99.0	215.4
Currency in circulation plus savings deposits deflated by the cost of living index	100.0	87.3	62.0	71.9	85.7

/1 Including certificates of deposit.
/2 Average of the cost of living indices of Ankara and Istanbul with the base adjusted in such a way as to produce the value 100 in December 1978.

Source: Central Bank of Turkey

3.26 The continuation of these developments in the future will bring substantial benefits for the development and stabilization of the Turkish economy. It will provide more savings for domestic investment, thereby contributing to modernization and the acceleration of growth in the Turkish economy. Furthermore, it will permit a larger expansion of bank credit for given balance of payments and inflation targets, and thereby ease the situation in productive sectors whose levels of activity depend on the amount of credit available.

3.27 With an inflation rate of 35 percent, real interest rates on six months and one year time deposits are 11.1 percent. However, after the payment of the withholding tax of 25 percent, after-tax real yields become 1.9 percent; yields would increase to 3.7 percent under the planned introduction of the withholding tax to 20 percent.

The Taxation of Interest Rates on Time Deposits and Certificates of Deposit

3.28 It is apparent that the tax on the part of interest earnings which offsets the effects of inflation on the real value of the time deposits is in fact a tax on capital. At the same time, the burden of the tax on the cost of financial intermediation is greater in situations of high inflation, when the need to stimulate savings becomes particularly acute. For instance, the 25 percent withholding tax adds 12.5 percentage points to the cost of bank intermediation of funds from one year time deposits when the interest rate is 50 percent, and only 5 percentage points when a lower inflation rate makes it possible to maintain the same after tax real return with a nominal interest rate of 20 percent.

3.29 In order to avoid taxing capital, it is suggested that the tax on interest earnings from time deposits be limited to the real value of such earnings. For purposes of taxation, real earnings may be defined as the excess of the nominal interest rate over the inflation rate. At the same time, changes in inflation rates require flexibility in interest rates paid on time deposits.

3.30 At present, banks show great reluctance in accepting time deposits with fixed interest rates for periods exceeding six months. This reluctance is understandable in view of the risks that would arise if inflation and consequently interest rates would decline substantially during the period of the deposit. One way of avoiding that difficulty is to introduce certificates of deposit with indexed interest rates and maturities of 1 to 4 years. The formula for the indexation of interest rates in certificates of deposit should be the same which is applied to bond interest rates, as explained in paras. 3.71-3.77.

B. The System of Financial Intermediation

1. The Structure of the Banking System

The Central Bank

3.31 As shown in Table 3.7, the size of the Central Bank within the financial sector is comparatively large and it has been growing faster than other banking institutions. This is explained by: (a) the preference of the population for maintaining a large proportion of its money balances in currency issued by the Central Bank (Table 3.4); (b) the high rates of reserves which deposit money banks are required to maintain with the Central Bank; and (c) the concentration in the Central Bank of a high proportion of the foreign liabilities of the banking system. In turn, the Central Bank plays an important role in financing the budget deficits of the public administration and of some SEEs and in implementing selective credit policies.

Deposit Money Banks

3.32 Deposit money banks alone are entitled to receive deposits from the public. In June 1981, there were 40 such banks, of which 11 were public. Most of the public sector deposit money banks were specialized in particular activities. This was the case of the Agricultural Bank (T.C. Ziraat Bankasi) the Estate Credit Bank (Istanbul Emiyet Sandigi), the People's Bank (T. Halk Bankasi, specialized on credits to handicrafts and small traders), the Maritime Bank (Denizcilik Bankasi), the Sumerbank (specialized in financing mining activities of the public sector), the Housing Bank (T. Emlak Kredi Bankasi) and the Provincial Bank (Iller Bankasi, specialized in financing local administrations). In June 1981 there was 29 private deposit money banks, of which 4 were foreign, but more foreign banks have been established since then. More than 80 percent of the business transacted by private deposit money banks is concentrated in the six largest banks. All the others, including the foreign banks, are comparatively small. Several of them are local banks with only 1 or 2 offices.

Investment and Development Banks

3.33 Investment and development banks include two public institutions--the State Investment Bank and the Tourism Bank--and three private banks, of which the Turkish Industrial Development Bank (TSKB) is the largest. The State Investment Bank receives most of its resources from bond sales to the Social Security System and concentrates its activity in financing the investments of state economic enterprises. The Tourism Bank is very small. The private development banks get most of their resources from foreign loans (provided by the World Bank, the European Investment Bank and other official financial institutions) and use these resources essentially to provide medium and long term loans to private enterprises.

Table 3.7: THE TURKISH BANKING SYSTEM
(end of the year figures)

	1975			1980			June 1981		
	Number of Banks	Total Assets /1 Billion TL	Total Assets /1 Percentage of Total	Number of Banks	Total Assets /1 Billion TL	Total Assets /1 Percentage of Total	Number of Banks	Total Assets /1 Billion TL	Total Assets /1 Percentage of Total
Central Bank	1	122.4	29.2	1	1,387.6	43.7	1	1,627.2	40.5
Deposit Money Banks	38	242.0	57.7	38	1,588.2	50.0	40	2,173.2	54.1
Public	10	125.9	30.0	10	790.5	24.9	11	1,034.7	25.8
Private	28	116.1	27.7	28	803.0	25.1	29	1,138.5	28.3
National	23	107.6	25.6	24	756.2	23.8	33	1,060.8	26.4
Foreign	5	8.5	2.0	4	46.8	1.5	6	77.7	1.9
Investment and Development Banks	4	55.2	13.1	5	200.1	6.3	5	215.9	5.4
Public	2	48.8	11.6	2	146.8	4.6	2	145.7	3.6
Private	2	6.4	1.5	3	53.3	1.7	3	70.2	1.7
TOTAL	43	419.6	100.0	44	3,175.9	100.0	46	4,016.3	100.0

/1 Consolidated for inter-deposit money bank transactions and for inter-investment and development bank transactions.

Source: Central Bank of Turkey.

Main Problems of the Turkish Banking System

3.34 The main problems of the Turkish banking system have been: (a) insufficiency of competition; (b) narrow specialization of some of the most important public banks; and (c) high costs of intermediation of the banks. The insufficiency of competition was until July 1980 mainly the result of the legal regulation of interest rates. The situation has however improved since then and particularly since the cartel agreement for fixing deposit interest rates broke down in the beginning of 1981.

3.35 The specialization of most of the public deposit money banks and of development and investment banks has created fragmented markets, thereby hindering competition. In addition, it has negatively affected the efficiency of the allocation of financial resources.

3.36 The high cost of the intermediation of the banks has adversely affected savings and investment and given rise to distortions. It has been due a large part to the taxation of interests from deposits and bank loans and the high liquidity and reserve requirements imposed on the banks. Another important factor has been the contribution of high operating expenses and profits of the banks.

2. The Cost of Intermediation of the Banking System

The Spread Between Average Deposit and Lending Interest Rates

3.37 On the basis of the structure of deposits and of their respective interest rates in September 1981, the average yields for depositors, after the payment of the withholding tax, was of about 19 percent. In turn, although costs are low for export credits and other types of subsidized credits, on non-preferential credits they usually exceed 50 percent and may approach 70 percent, depending on the proportion of the loan proceeds which is kept as non-interest bearing compensating deposits required by the banks. 1/ This large spread adversely affects savings and investments and raises the financial costs of the firm.

3.38 Several factors contribute to the large spread between the net returns to depositors and the gross costs to the borrowers: (a) the withholding tax of 25 percent on the interest from deposits; (b) the liquidity and the reserve requirements imposed on deposits and the low interest rates earned by banks on the funds allocated to these reserves; (c) the contributions to the Differential Interest Rate Rebate Fund which apply to most bank credits; (d) the financial transaction tax levied on practically all the revenue earning operations of the banks; and (e) the high margin for operating costs of the banks. The taxation of interest from deposits was considered in paras. 3.28-3.29; the remaining factors will be taken up in turn.

1/ Table 3.19 shows the cost of a one-year non-preferential loan to be 49 percent; the holding of a 30 percent compensating balance would raise this cost to 70 percent.

The Cost Effects of Liquidity and Reserve Requirements

3.39 The effects of the liquidity and the reserve requirements, calculated on the assumption that the banks fully comply with these requirements, on the cost of the funds from deposits available for non-preferential lending by large banks are shown in Table 3.8. 1/ The table further shows that, in late 1981, the cost of funds available for lending was -15 percent on commercial and public deposits, -5 percent on saving sight deposits, 67 percent on three months time deposits, and 76 percent on six month and one year time deposits. This compares with interest rates of 36 percent on short-term loans.

3.40 It can be concluded that the marginal cost to the banks of the funds obtained through time deposits much exceeds the marginal revenue from non-preferential credits. This means that the banks are not maximizing profits when they accept time deposits under present conditions. If they continue to compete for these deposits, this is because they give higher priority to the enlargement or maintenance of their market share than to short-run profit maximization. While they can afford this policy because, with the low interest rate for sight deposits, their average costs are still below the average returns, it is clearly unsustainable in the long run. This is the case, in particular, since in the first nine months of 1981 practically the entire increase on deposits with the banks consisted of time deposits and certificates of deposits. The continuation of this tendency would have adverse consequences by (a) increasing the cost of credit to borrowers; (b) creating pressures to reduce the interest rates paid on time deposits; and (c) increasing the risk of bankruptcy for the weaker banks, with damaging effects for the stability and the extent of competition within the Turkish financial system.

1/ The calculations of Table 3.8 can be explained by considering for instance the case of a six month time deposit of 1,000 TL. The annual interest as such a deposit would be 500 TL. After the deduction of the liquidity and the reserve requirements, large banks can use only 550 TL of such a deposit for general credits. It can be roughly assumed that on average the liquidity requirement consists half of cash and free deposits in the Central Bank (for which no interest is paid) and half of Treasury bills with an average yield of 28 percent free of taxes. The earnings on the liquidity requirement corresponding to a deposit of 1,000 TL are therefore approximately 150 x 0.5 x 0.28 = 21 TL. The required reserves receive an interest of 26 percent from the Central Bank, which after the payment of a levy of 2 percentage points to the Differential Interest Rate Rebate Fund and of the transactions tax of 15 percent on the interest earnings of the bank corresponds to a net yield of 20.4 percent. The reserve of 300 TL required on a one year deposit of 1,000 TL provides thus a revenue to the bank of 300 x 0.204 = 61 TL. After deduction of the interest earned on the liquidity and reserve requirements, the net cost of the 550 TL available for general credits, out of a one year time deposit, is therefore 500 - 21 - 61 = 418, which corresponds to a rate of 76 percent. (The calculation takes the case when banks fully conform to their reserve requirements.)

Table 3.8: COSTS OF FUNDS FROM DEPOSITS WHICH MAY BE USED FOR NON-PREFERENTIAL CREDITS

	Unit	Commercial and Public Deposits	Saving Sight Deposits	Three Month Time Deposits	Over Six Month Time Deposits
1. Amount of deposit	(TL)	1,000	1,000	1,000	1,000
2. Liquidity requirement /1	(TL)	150	150	150	150
3. Reserve requirement	(TL)	350	350	300	300
4. Available for lending (1)-(2)-(3)	(TL)	500	500	550	550
5. Interest rate paid by the bank	(%)	0	5	45	50
6. Average net yield on the liquidity requirement /2	(%)	14	14	14	14
7. Net yield on the reserve requirement /3	(%)	15.3	15.3	20.4	20.4
8. Interest cost (1)x(5)	(TL)	0	50	450	500
9. Earnings on the liquidity requirement (2)x(6)	(TL)	21	21	21	21
10. Earnings on the reserve requirement (3)x(7)	(TL)	54	54	61	61
11. Total cost of funds available for lending (8)-(9)-(10)	(TL)	-75	-25	368	418
12. Rate of total cost of funds available for lending (11):(4)	(%)	-15	-5	67	76

/1 Liquidity requirement for large banks.

/2 Average net yield of the liquidity requirement on the assumption that half of that requirement consists of currency and non-interest bearing deposits at the Central Bank and half consists of Treasury bills with an interest rate of 28 percent, free of tax.

/3 Net earnings on reserve requirements:

	Commercial, Public and Sight Savings Deposits	Time Deposits
1. Interest rates on reserve requirements	20%	26%
2. Levy to the Differential Interest Rate Rebate Fund	2%	2%
3. (1)-(2)	18%	24%
4. Transactions tax: 15% of (3)	2.7%	3.6%
5. Net yield: (3)-(4)	15.3%	20.4%

3.41 The situation may be improved by reducing the burden imposed on the cost of credit by the liquidity and the reserve requirements. One way of achieving this objective is to reduce the ratio of required reserves. But this alternative would increase the money multiplier, making it more difficult to conduct monetary policy in a non-inflationary way. A more appropriate procedure would be for the Central Bank to pay higher interest rates on reserves against time deposits. These rates should in principle be equal to the rates paid by the commercial banks to their depositors.

3.42 In turn, one may eliminate interest on reserves against sight commercial deposits and sight savings deposits, which at present have a net yield of 15.3 percent and provide a profit to the banks if we disregard the operational and administrative costs of collecting and processing these deposits. The elimination of the interest rates paid by the Central Bank on reserves against sight deposits, together with increases of the interest rates on reserves against time deposits, would correct the distortions, which at present strongly affects the comparative profitability of the two types of deposits.

Contributions to the Differential Interest Rate Rebate Fund

3.43 Under existing regulations, deposit money banks have to make the following contributions to the Differential Interest Rate Rebate Fund: (a) interest earnings on short term export credits and on long term priority credits over 5 years are subject to a levy of 10 percent of those earnings; (b) interest earnings on all other types of bank credits are subject to a levy of 15 percent; (c) interest received from the Central Bank on required reserves is subject to a levy of 2 percent; and (d) the Central Bank must transfer to the Fund 10 percent of its earnings from credits to SEEs.

3.44 The resources of the Fund are used to grant subsidies to borrowers and to banks for several types of preferential credits, including short term credits to exports, credits to agriculture, some medium term credits housing credits, credits to small traders and artisans and commercial banks' credits to SEEs. Thus far, the revenues of the Fund have exceeded its expenditures and a substantial balance of unused resources has accumulated. A reduction of the levy on interest earnings derived from non-priority credits has come into effect on January 1, 1982. Further reductions may be contemplated in the course of a reconsideration of the mechanisms of credit subsidization that is taken up in Section C below.

The Financial Transactions Tax

3.45 The financial transactions tax is levied on interest earnings received by the banks. Export credits and some other specific financial operations are however exempt from the tax. Although the rate of the tax has been recently reduced from 25 to 15 percent, its impact on the cost of credit continues to be important. Since the tax is levied on nominal interest earnings and not on real values, its negative effects on investment and on savings tend to be particularly strong in situations of rapid inflation. An example will help to clarify the distortive effects of that tax. If the

inflation rate was 20 percent and the nominal rate inclusive of the transactions tax was 32 percent, the borrower would pay 6 percent as net real interest rate and 4.8 percent of the loan as tax. If the inflation rates was 40 percent, in order to achieve an after tax real interest rate of 6 percent, the nominal interest rate would have to be 56.9 percent and the tax would correspond to 8.5 percent of the loan. In the first case the tax would increase the real interest cost by 80 percent; in the second case, it would increase the cost by 140 percent. While the financial transactions tax is an important source of fiscal receipts, equalling about 4 percent of total tax revenue, its detrimental effects on rates and on borrowing recommend its elimination.

Operating Costs

3.46 The legal regulations of interest rates that were in force until 1980 gave the banks the possibility of maintaining high costs of operation. Under these regulations, interest rates on deposits were strongly negative in real terms and the margin between deposit and lending interest rates was very large. Since interest rate competition was not possible and since the business of attracting deposits was highly profitable, banks resorted to non-price competition in the form of heavy advertising, the building of luxurious instalations, and the opening of many branches, resulting in overstaffing. As a result, operating costs become very high. A rough way of assessing such costs is to express them in percentage of the total volume of business as measured by total assets, as it is done in Table 3.9.

3.47 Comparable ratios for selected OECD countries are presented in Table 3.10. The comparison between the two tables shows that the costs of banking operations in Turkey were abnormally high in 1977 and have been rising in subsequent years. The best way to achieve the gradual reduction of these costs is to stimulate competition among banks and between banks and other financial institutions.

The Stimulation of Competition in the Banking System

3.48 There is need to ensure active competition in financial markets, so as to minimize the risk that, under the present conditions of credit scarcity, the proposed reduction of the withholding tax on interest from deposits, the payment of higher interest rates on required reserves against time deposits, and the elimination of the transactions tax on interest from banking loans would raise profits for the banks. Under competition, the banks and other financial institutions are forced to pay attention to the efficiency of their operations and to the reduction of their costs while keeping their profits at moderate levels. In turn, the benefits of the reduction of the costs of intermediation are transmitted to savers and to borrowers, with consequent increases in savings and investment and gains in economic efficiency.

Table 3.9: OPERATING COSTS AND PROFITS OF DEPOSIT MONEY BANKS
(Billions of TL and percentages)

	Unit	1977	1978	1979	1980
1. Personnel Expenses	TL billion	14.8	24.2	40.4	72.5
2. Other expenses	"	10.6	14.6	19.5	39.5
3. Total operating costs	"	25.4	38.8	59.9	112.0
4. Profits	"	3.4	4.0	3.9	20.3
5. Total costs plus profits	"	28.8	42.8	63.8	132.3
6. Volume of business /1	"	383.7	525.4	749.3	1,213.4
Ratios:					
7. Operating costs to volume of business	%	6.6	7.4	8.0	9.2
8. Operating costs plus profits to volume of business	%	7.5	8.1	8.5	10.9
9. Personnel expenses to total operating costs	%	58.3	62.4	67.4	64.7

/1 Geometric average of total assets (without interbank deposits) at the beginning and the end of the year.

Source: Central Bank of Turkey

Table 3.10: OPERATING COSTS OF COMMERCIAL BANKS IN SEVERAL OECD COUNTRIES (in percent)

	Ratio of operating costs to the volume of business		Ratio of operating costs plus profits to the volume of business		Ratio of staff costs to operating costs	
	1975	1977	1975	1977	1975	1977
Denmark	3.1	2.9	4.9	4.4	72.2	68.7
France	2.4	2.2	3.4	3.1	65.2	65.8
Netherlands	2.8	2.4	3.9	3.5	66.0	64.8
Norway	3.7	3.5	4.9	4.7	59.2	59.2
Switzerland	2.5	2.4	4.5	4.3	67.4	66.7
USA	2.2	2.5	3.4	3.8	53.5	52.9
Greece /1	2.4	2.5	3.1	3.7	81.3	83.6
Spain	3.0	3.6	3.1	3.7	77.0	78.1

/1 4 largest banks.

Source: J. S. Rewell - "Interest Rate Margins and the Costs of Intermediation", OECD, Paris, 1980.

3.49 Since 1980 substantial progress has been made in introducing more active competition on the Turkish banking system. For one thing, the legal regulations of interest rates were eliminated in June 1980, except as regards sight deposits. For another thing, the cartel of banks became progressively less operative as competition from small banks and from bond dealers increased.

3.50 It is too early to judge if, after these changes, competition became sufficiently strong to induce substantial improvements in the operating efficiency of the banks. The authorities should therefore maintain the competitive situation of the banking sector under close scrutiny and should be prepared to take appropriate measures in the event that the reduction of the charges on the banks does not lead to commensurate changes in interest rates. These measures may include:

a. Forbidding the banks from the public sector to participate in cartel type agreements. However, in order that they contribute significantly to competition, the average efficiency of public sector banks should not be lower than that of private banks at present--a condition which does not appear to be satisfied at present; and

b. Introducing legislation against restrictive business practices by the banks if cartel type agreements or other actions that would distort or hinder the action of the mechanisms of competition were to emerge again;

In any case, it would be desirable

a. to accept applications for the establishment of new domestic banks and of subsidiaries of foreign banks, provided that appropriate conditions are met;

b. to allow the diversification of specialized banks. This would have several advantages: it would expose the specialized banks to more competition from other banks, both in attracting deposits and in granting credits, and would therefore stimulate them to reduce their operating costs; it would improve the efficiency in the allocation of resources, which at present is hindered by the artifical segmentation of the market; it would strengthen the financial stability of the specialized banks, since it would allow them to spread their risks over a larger range of operations and of economic sectors; and it would create conditions for the exploitation of economies of scale in the banks' operations. (Permitting the diversification of specialized banks, which are mostly in the public sector, is compatible with the establishment of specialized banks in the private sector, such as merchant banks and wholesalers. Such banks can play a useful role in a diversifying economy and they should be given exceptions from the minimum capital requirements of TL 4 billion, established by the Ministry of Finance); and

c. to develop capital markets, along the lines which are analysed in the following.

3. The Development of the Capital Market

The Regulation of Capital Markets

3.51 The capital market in Turkey is very small. The stock exchange does almost no business at present; bonds and stocks traded are placed generally through securities dealers.

3.52 A new law on the capital market was passed in July 1981. The main objective of the law is to provide greater security to savers who buy shares and bonds and to encourage them to participate in the equity of companies or to contribute to their long term financing by subscribing bonds. In order to attain this objective, the new law has established the conditions for a more effective organization and control of the issue and trade of financial assets. The relevant provisions include: the creation of a Council for the Control and Regulation of Capital Markets, which will set the requirements for and approve all public issues of private bonds and stocks; the regulation of the activites of the intermediaries; and the establishment of rules for the creation of investment corporations and investment funds.

3.53. It will further be necessary to enforce precise accounting standards and to regulate the activites of auditors, with the purpose of ensuring their adequate professional qualifications and of defining their responsibility for improperly audited financial statements. There is also need to provide for the protection of shareholder minorities in companies with publicly issued shares. Finally, it will be essential to develop and to regulate the stock exchanges for trading shares and bonds.

The Market for Shares

3.54 The issues of shares amounted to TL 372 million in 1978, TL 312 million in 1979 and TL 1,173 million in 1980. Most of the larger companies are closely held by family groups and the supply of shares which can be traded in the market is very limited. The improvements which will result from the capital markets law can however contribute to the dynamization of the market for shares. This is highly desirable, given the need to increase the equity of business firms and to offer a greater variety of financial instruments to savers. Whatever improvements are made, however, it is not likely that the proportion of total private savings channelled to productive enterprises through the share markets will be very substantial in the next few years. This conclusion follows because of the difficulties concerning the correct reporting of the financial situation and profitability of enterprises with publicly issued shares and because the lack of sufficient diversification of supply and demand in the market for equity raises the danger of speculative manipulations by a few buyers or sellers. For these reasons, it is probable that in the near future the most promising perspectives in the securities markets lie in bond issues and in bond trading.

The Bond Market

3.55 The bond market comprises both bonds and bills issued by the Treasury and bonds issued by the State Investment Bank and by private enterprises. Despite rapid increases in recent years (Table 3.11) bringing the total amount of outstanding issues at the end of 1980 to about TL 30 billion, the market for private bonds is very small compared with total deposits in the banking system of TL 742 billion. In turn, most of the Treasury bonds and bills are absorbed by deposit money banks to satisfy liquidity requirements. Similarly, the bonds issued by the State Investment Bank have been placed almost exclusively with the Social Security Institutions on conditions which would not be attractive to private institutions.

3.56 In addition to the regular bond market, operating on the basis of organized bond dealers, there is also an unorganized money market which is not covered by the statistics of Table 3.11. This market, in which interest rates of more than 100 percent are paid to savers and more than 120 percent and even 150 percent are required from borrowers, is very risky. It is expected that the new law of capital markets will induce the intermediaries of unorganized money markets to become organized and to comply with the rules which are indispensable to avoid many of the high risks to which the market are subject.

Table 3.11: BONDS ISSUED
(Billion TL)

	Public Sector					
	Treasury	State Investment Bank	T.E.K. Bank	Total	Private Sector	Total
1977	29.5	20.2	0.4	40.1	1.4	41.5
1978	20.0	15.0	0.5	35.5	2.0	37.5
1979	35.4	7.6	0.4	43.3	4.8	48.1
1980	80.0	8.1	0.8	88.9	17.1	106.0
1981 (Jan.-Oct.)	115.0	-	-	115.0	13.0	128.0

Source: Central Bank of Turkey

Treasury Bonds and Bills

3.57 The securities issued by the Treasury comprise government bonds and Treasury bills. Government bonds were issued in recent years with an interest rate of 20 percent. They had long term maturities but offered the possibility of being cashed by the Central Bank on demand, including all the interest acrrued on a daily basis. The amounts of these bonds held by households and other voluntary purchasers is small. Many of them have been redeemed after the interest rates on time deposits became more attractive.

3.58 The issue of short term Treasury bills started in 1980. They have maturities of 3 and 6 months and generally have an interest rate of 28 percent, net of taxes. The introduction of these bills led to competition with time deposits at commercial banks. Following increases in interest rates on time deposits and on certificates of deposits, however, the Treasury bills are not sufficiently attractive to savers. Correspondingly, only about 10 billion TL of 6-months Treasury bills have been sold to the public and deposit money banks have taken up three-fourth of the outstanding issues to comply with their liquidity requirements.

3.59 In order to expand substantially the amounts of government securities sold on a voluntary basis to households and to other private savers, as suggested below, interest rates must became more attractive. Since one year deposits predominate among time deposits, rates on these deposits may be taken as the benchmark in setting the interest rates on Treasury bonds and bills. At the same time, the sale of government securities should be more aggressive and it should be made not only through the Central Bank and deposit money banks but also through bond dealers.

3.60 An important limitation of Treasury bonds and bills as an instrument of financing budget deficits is that they may be cashed at any moment. This is an inevitable consequence of the fact that there is no secondary market for securities in Turkey. The appropriate way to ensure the liquidity of bonds is to create a secondary market for them rather than to offer guarantees of automatic redemption by the Central Bank at any time.

The Issue of Bonds by Public Enterprises

3.61 Among public enterprises, only the State Investment Bank and to a much smaller extend the T.E.K. Bank (housing bank) have issued bonds in recent years. The bonds issued by the State Investment Bank have been placed exclusively in Social Security Institutions. Their interest rate in recent years has been 20 percent and their maturities have been of 20 years. The possibilities of subscription of State Investment Bank bonds by the Social Security Institutions have declined in recent years with the rapid reduction of the financial surpluses of these institutions. The State Investment Bank may therefore find it useful to find alternative sources of finance in the form of bond issues that may be subscribed by the public. Such funds should be offered with an interest rate much above the level of 20 percent which Social Security Institutions have been forced to accept. This would imply that interest rates on credits of the State Investment Bank to SEEs could not be as heavily subsidized as they have been up to now.

3.62 At the same time, the SEEs should be encouraged to issue their own bonds at competitive rates of interest. Nevertheless, given the poor financial situation of many of the SEEs, it is likely that in some cases there would be no demand for their bonds unless they would be guaranteed by the State Investment Bank or, in exceptional cases, by the Treasury. It may be preferable to assist SEEs by means of such guarantees rather than by interest rate subsidies and by Treasury grants and loans, which bring heavier burdens to the budget.

Interest Rates on Private Bonds

3.63 Until July 1, 1981 the issue of private bonds was constrained by legal ceilings imposed on interest rates. The ceilings of 28 percent on bonds with a maturity up to 3 years and of 32 percent on bonds over 5 years were maintained without any change since July 1980, despite the substantial increases in interest rates on time deposits which took place since then. If those ceilings had been strictly observed, the bond market would have been completely paralyzed. But the legal regulations were circumvented by the practice of selling bonds at discounted prices, so that the effective interest rates on private bonds were in fact determined by the market.

3.64 Given this situation, the elimination of ceilings or bond interest rates was much overdue. Such elimination, undertaken in July 1981, was accompanied by the introduction of a system of indexation of interest rates, which is described in paras. 3.71-3.77.

Maturities of Private Bonds

3.65 Bonds issued by private companies usually have maturities of 3 or 5 years. The issuing companies are however committed to redeem 3 or 5 years bonds which are presented to them after one or two years, respectively, following the date of issue. In these conditions, in effect the maturity of all private bonds is variable and borrowers have only the guarantee of a minimum maturity of 1 or 2 years. During the initial period of 1 or 2 years, bonds can also be cashed at bond dealers although with some penalties for the holders.

3.66 The present system has important shortcomings: it implies that the guaranteed maturity of debts incurred through the issue of bonds is extremely short; it may give rise to sudden problems of liquidity for the debtor companies or for bond dealers, particularly if there are substantial changes in interest rates; and it involves limitations and costs as regards the possibilities of bond holders of converting them into cash in the short run. As noted in regard to Treasury bonds, the best solution to ensure liquidity for bonds is to establish a secondary market.

Conditions of Competition between Bond Dealers and Banks

3.67 The practice of price discounts on issues of private bonds has made it possible for bond dealers to pay more attractive interest rates than those of time deposits in banks and at the same time to earn good profits. Thus, for instance, bond dealers were offering in the first semester of 1981 interest rates of 53 percent on six month funds and 60 percent on one year funds, as compared with 42 percent and 50 percent for six months and for one year time deposits, respectively. The interest rates offered to savers by bond dealers may have influenced the decisions of the banks to increase substantially interest rates on time deposits at the beginning of 1981.

3.68 Banks however complain that bond dealers have benefitted from unfair conditions of competition, because they do not have to bear the costs of reserve requirements and because in the past they have not been subject to the financial transactions tax. The complaint concerning the costs of reserve requirements is undoubtedly valid, as can be concluded from the results presented in Table 3.8, and provides an additional justification for the payment of adequate interest rates on the reserves required against time deposits that would eliminate this distortion. In turn, the distortions resulting from the financial transactions tax have been eliminated by recent legislation which has extended the incidence of this tax to the interests received by bond dealers. There are however legal disputes in this area and bond dealers continue to claim that the transactions tax does not apply to their operations. The best solution would be to eliminate the financial transactions tax altogether as proposed in para. 3.45.

Secondary Market for Bonds

3.69 As noted above, the creation of a secondary market for bonds would be essential to provide them with a satisfactory degree of liquidity without having recourse to the existing system of early redemption. The establishment of this market would encourage the introduction of medium and long-term bonds; it would make it comparatively easy for savers to transform their bond holdings into cash at any moment; it would reduce the costs that savers have to bear in the purchase or sales of bonds; and it would enlarge their choice among different financial instrument.

3.70 With specified exceptions, all trading of publicly issued bonds and shares should occur exclusively on the Stock Exchange. This would permit focusing all trading in one place, thereby increasing liquidity and depth in the market and permitting all buying and selling interests to interact. Investors would thus be assured of obtaining the best prices and execution for their orders.

Indexation of Interest Rate

3.71 Since there are great uncertainties as regards future inflation rates in Turkey, it would be practically impossible to issue bonds with effective medium or long term maturities if interest rates were fixed. Given the close correspondence that must be maintained between inflation rates and interest rates, the issue of bonds with maturities of several years and fixed interest rates would involve high risks for the borrowers and for the savers. In a secondary market the prices of medium and long term bonds with fixed interest rates would fluctuate widely, each time there would be changes in the interest rates prevailing in the market.

3.72 The problem has been dealt with by the recent introduction of a system of indexed interest rates. Under this system, the interest rate at the time of the issue of the bonds (i_1) is determined freely while in subsequent years it varies with the rate of inflation so as to maintain the real interest rate constant. The interest rate i_n for the n-th year after the issue of the bonds is given by the formula

$$1 + i_n = (1 + i_1)\left(\frac{1 + P_{n-1}}{1 + P_o}\right)$$

where P_o and P_{n-1} are the inflation rates of years 0 (the 12 months preceding the date of issue of bonds) and year n-1. The "real interest rate" r_n in year n, defined on the basis of the inflation rate of the preceding year, is given by

$$1 + r_n = \frac{1 + i_n}{1 + P_{n-1}} = \frac{1 + i_1}{1 + P_o} = 1 + r_1$$

3.73 The formula has however some dangers in situations of declining inflation. Since indexation is based on past rather than on expected inflation, when inflation is declining substantially the real cost of interest payments measured on the basis of past inflation rates may increase very sharply. This, in turn, may have feed-back effects on inflation, thus making it more difficult to reduce it further in subsequent periods.

3.74 The ideal solution would be to use expected inflation rates rather than past inflation rates in the indexation formula. But expected inflation rates can never be predicted accurately and savers or borrowers would lose confidence in the system if the forecasting errors were considerable. One possible solution would be to announce interest rates at the beginning of each period on the basis of the expected inflation rate and to adjust at the end of the period the interest payment by adding or deducting an amount corresponding to the difference between the expected inflation rate used in the indexation formula and the inflation rate actually recorded.

3.75 Thus, if the expected inflation rate at the beginning of year n was P_n^*, the provisional interest rate announced for that year would be

$$1 + i_n = (1 + i_1)\left(\frac{1 + P_n^*}{1 + P_1}\right)$$

At the end of year n an interest supplement would be paid or deducted on the basis of a rate given by

$$d_n = \frac{1 + i_1}{1 + P_1}\,(P_n - P_n^*)$$

3.76 At the same time, the indexation of the principal would be preferable to the indexation of the interest rates. Following the setting of interest rates by the issuer, the indexation of the principal would take place at the end of each year on the basis of the inflation of the preceding 12 months. The indexation of the principal would have the advantage of avoiding the problems of liquidity borrowers have to face when they are required to pay high nominal interest rates and would avoid the shortening of the effective maturity of the loans that occurs under indexed interest rates.

3.77 The indexation of interest rates may however have practical advantages. In particular, it is less likely to engender the extension of indexation to wages and prices, which would increase resistance against future reductions of inflation.

C. The Utilization of Financial Resources

1. Allocation of the Domestic Financial Assets of the Banking Sector

3.78 Changes in the financial claims of the banking system (comprising the Central Bank, deposit money banks and investment and development banks) on public administrations, public enterprises, private enterprises and households are shown in Table 3.12. The increase in the ratio of these assets to GNP until 1977 and its subsequent decline reflect the expansionary monetary policy followed in the first period and the tightening of monetary policy in the following three years. It further appears that the financing requirements of the public sector, comprising the public administration and the public enterprises, were the main driving force behind the expansion of credit and other domestic financial assets of the banking system up to 1977 and that the restrictive monetary policy of subsequent years affected the public sectors much less than the private sector. (It should be remarked in this context that it is more meaningful to take the total claims on public administrations and on public enterprises together than each of them separately because of the transfers which take place from the Treasury to SEEs).

Table 3.12: DISTRIBUTION OF THE TOTAL DOMESTIC FINANCIAL ASSETS OF THE BANKING SECTOR
(year end)

	1975	1976	1977	1978	1979	1980	June 1981
	Percentages of the total financial assets of the banking sector						
Claims on Public Administrations	19.7	18.3	22.5	26.6	28.7	35.9	35.0
Claims on Public Enterprises	28.1	32.9	33.0	31.1	31.1	24.9	23.2
Claims on Private Enterprises and Households	52.1	48.7	44.4	42.3	40.1	39.2	41.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Percentages in relation to GNP						
Claims on Public Administrations	9.0	9.5	12.5	13.4	13.1	14.0	n.a.
Claims on Public Enterprises	12.8	17.1	18.5	15.7	14.2	9.7	n.a.
Claims on Private Enterprises and Households	23.7	25.3	24.8	21.4	18.3	15.2	n.a.
Total	45.5	51.9	55.7	50.5	45.7	38.9	n.a.

Definitions:
(a) the public administrations comprise the General Budget Administrations, some of the Annexed Budget Administrations, Local Administrations and some other Public Institutions;
(b) public enterprises comprise state economic enterprises, some of the Annexed Budget Administrations, including in particular the State Monopolies, and other enterprises controlled either by the central government or the local authorities;
(c) private enterprises and households comprise incorporated and unincorporated private business firms and households.

Source: Central Bank of Turkey

3.79 Thus, the rates of domestic financial resources utilized in the public sector in relation to GNP increased from 21.8 percentage in 1975 to 31.0 percent in 1977, while that for the private sector increased only from 23.7 percent to 24.8 percent. Under the impact of the tightening of monetary policy in the subsequent three years, the ratio declined by 7.3 percentage points in the public sector and 9.6 percentage points in the private sector between 1977 and 1980. Correspondingly, the combined shares of public administration and of public enterprises in the total financial claims of the banking sector rose from 47.9 percent in 1975 to 55.5 percent in 1977 and again to 60.8 percent in 1980. The data point to the existence of a "crowding out" of financing to the private sector by the borrowing requirements of the public administration and the public enterprises. Such "crowding out" has had a negative influence on private investments, adversely affecting the prospects for the future growth of the economy. This conclusion follows despite a small improvement in the first half of 1981, when the combined shares of public administration and public enterprises declined to 58.2 percent of the total assets of the banks.

3.80 In the following, the problems involved in financing public administrations and public enterprises will be examined. Subsequently, issues relating to selective credit policies will be taken up, with special attention given to medium term credits, agricultural credits and export credits.

2. The Financing of Public Administrations

The Sources of Finance for the Consolidated Budget Deficit

3.81 The financing of public administrations can be analysed on the basis of two different sources of data: the statistics compiled by the Central Bank (Table 3.13) and the budgetary accounts organized by the Ministry of Finance (Table 3.14). It would be difficult to establish a correspondence between these two sources. For one thing, there are problems created by the lack of coincidence between the budgetary year, which runs from March 1 to the end of February, and the calendar year, on which the Central Bank statistics are based. For another thing, the coverage of the two sources is different. For instance, the consolidated budget includes the State Monopolies under the heading "Annexed budgets", while in the Central Bank statistics these are classified as public enterprises; in turn, the Central Bank statistics include local authorities, which are not covered by the consolidated budget.

3.82 In spite of these discrepancies, the two sources of information usefully complement each other. The consolidated budget represents the dominant part of the borrowing needs of public administrations, which have been covered mainly by Central Bank credits to the Treasury. The purchase of government bonds and of Treasury bills by deposit money banks has been another source of finance, although less important than Central Bank credits. The contributions of foreign credits and of bonds placed outside the banking system have been negligible.

Table 3.13: THE FINANCING OF PUBLIC ADMINISTRATIONS BY THE BANKING SYSTEM
Amounts outstanding in billions of TL; year end figures

	1977	1978	1979	1980	June 1981
Central Bank	83.5	139.4	249.2	563.6	674.2
Credits	45.2	56.6	91.7	188.7	234.6
Bonds	0.1	0.1	1.0	1.0	0.1
Other	38.3	82.8	156.5	373.9	439.5
Deposit Money Banks	23.7	32.3	41.6	62.9	79.8
Credits	7.5	9.7	10.9	10.3	14.4
Bonds	16.2	22.6	30.6	52.6	65.4
Investment and Development Banks	1.8	1.5	1.7	1.8	2.9
Total	109.0	173.3	292.5	628.3	756.9

Source: Central Bank of Turkey

3.83 Aside from credits, the Central Bank has accumulated large amounts of other claims over the public administrations, as shown in Table 3.13. These claims represent essentially the responsibility of the Treasury for the foreign exchange losses on Central Bank liabilities expressed in foreign currency and for the exchange rate guarantees provided to convertible Turkish lira deposits shown in Table 3.2. Such losses have not been recorded in the consolidated budget.

3.84 The credits provided by the Central Bank to the Treasury earn an interest rate of 0.75 percent. Until recently, reliance on such credits for financing the budget deficit has been a major factor of money creation. Efforts have been made since the beginning of 1980 to lessen reliance on this method of inflationary financing. Thus, ceilings on the expansion of Central Bank credits to the public sector have been imposed.

Table 3.14: CONSOLIDATED BUDGET
(Billions of TL)

	1977	1978	1979	1980	1981 /1	1981 /2	1982
Revenues	188	288	507	860	1,485	1,485	2,002
Expenditure	240	340	595	1,063	1,561	1,525	2,062
Personnel	75	116	190	335	444	n.a.	n.a.
Other current	23	40	70	162	331	n.a.	n.a.
Investment	50	64	95	167	338	n.a.	n.a.
Transfers	92	120	240	399	447	n.a.	n.a.
Budget deficit	-52	-52	-88	-203	-76	-40	-60
Advance payments	-5	-15	-1	-23	-20	-30	-16
Deferred payments	15	6	43	38	-42	-10	-40
Cash deficit	-42	-61	-46	-187	-138	-80	-116
Financed by:							
Central Bank	31	36	35	109	108	85	50
Other domestic borrowing, net	13	14	34	60	62	60	65
Foreign resources	-1	0	5	6	-	-33	5
Changes in holdings of deposits and currency and others	0	-2	-11	-22	-33	-32	-4
Errors and ommissions	-1	13	-17	34	-	-	-

/1 Original estimate.
/2 Revised estimate.

Source: Ministry of Finance of Turkey

Financing the Public Deficit Outside the Central Bank

3.85 The observance of the ceilings on the expansion of Central Bank credit to the public sector requires the reduction of the consolidated budget deficit and/or the financing of a larger proportion of that deficit from sources outside the Central Bank. The results achieved until now with regard to each of these alternatives have been far from satisfactory.

3.86 Despite a decline of about 10 percent of public expenditures in real terms, the cash deficit of the consolidated budget of public administrations reached 4 percent of GNP in the fiscal year 1980/81 as tax revenues decreased 15 percent in real terms. In turn, according to the projections made in December 1981, the deficit of the consolidated budget in fiscal year 1981/82 would be about 1.2 percent of GNP.

3.87 The Central Bank financed 58 percent of the cash deficit of the consolidated budget of public administrations in fiscal year 1980/81 at an interest rate of 0.75 percent. Central Bank financing would approximately equal the reduced deficit for fiscal year 1981/82 and it is projected to finance one-half of the total in 1982/83, representing a decrease by over one-half in absolute terms compared to 1980/81. At the same time, borrowing from outside the Central Bank, mostly in the form of Treasury bills acquired by deposit money banks in complying with their liquidity requirements, would remain approximately unchanged.

3.88 The decline in the deficit of public administrations, and in the financing of this deficit by Central Bank, represents a welcome change compared to earlier years. This is because the financing by the banking system, and particularly by the Central Bank, of large budgetary deficits hinders the conduct of monetary policy and reduces the availability of funds to the private sector. Thus, there is the risk that ceilings to credit expansion will not be maintained and that the excessive growth of money supply will jeopardize the objectives of fighting inflation and correcting the balance of payments deficit. If, alternatively, a strict control of credit expansion is maintained in spite of large borrowing requirements for the budget, there is the danger of "crowding out" of credit to the private sector. This "crowding out" will operate not only in a system which guarantees absolute priority to the satisfaction of the Treasury borrowing needs, but also in a system under which the Treasury would compete without special privileges for the limited credit resources available. In this last hypothesis, interest rates might rise so much that private investments with satisfactory rates of returns could not be financed, with a negative impact on the future growth of the economy.

3.89 In such conditions, the Turkish authorities need to continue to attach the highest priority to the reduction of the budget deficit. While improvements are projected as a result of the reduction of the inflation rate, which in the last few years eroded fiscal revenues, there is further need for limiting public investment and economizing on public consumption expenditures.

3.90 Another requirement is that public authorities rely much less on credits provided by the Central Bank to finance the budgetary deficit. Since these credits have been granted at an interest rate of 0.75 percent at a time of very high inflation, they have been a powerful instrument used by the government to collect, through the Central Bank, the inflationary tax levied on banknote holdings and on bank deposits. Apart from the distortions created by the inflation tax, this procedure contributed to a rapid expansion of the monetary base.

3. The Financing of Public Enterprises

The Financing Needs of State Economic Enterprises

3.96 In the second half of the 1970's there was a rapid expansion of the financial needs of state economic enterprises to finance their losses, their investments in fixed capital and the increase in their working capital. As shown in Table 3.15, the total financing requirements of those enterprises rose from TL 47.7 billion in 1975 to 308.1 in 1979, which corresponds to an increase of 80 percent in real terms, using the wholesale price index as deflator. In 1979 these requirements amounted to 14 percent of GNP. This was a very high ratio if one takes into account that in 1979 the total consolidated financial assets of the banking system equalled only to about 50 percent of GNP and that the gross domestic savings rate was of about 20 percent.

3.97 Following substantial increases in the prices of most of the state economic enterprises, their losses in real terms were reduced by more than half in 1980. However, the real value of their investment expenditures continued to increase. In 1980, as well as in subsequent years, these expenditures have been subject to upward revisions.

3.98 In the absence of revised estimates for accounts receivable, it is not possible to indicate the total financial requirements of the state economic enterprises for 1980 and beyond. Excluding this item, financing needs increased from TL 230 billion in 1979 to TL 372 billion in 1980 and to TL 544 billion in 1981, with a projected decline to TL 492 billion in 1982 that is however subject to revision. Also, the reported losses would have been much higher if adjustments were made for the effects of inflation and for indirect subsidies, such as subsidies on interest rates, on the operating results. Thus the figures for depreciation in Table 3.15 are based on historical costs which became obsolete after the inflation of recent years and, in most cases, bear no relation to present replacement costs (see also Chapter 6).

3.99 It can be concluded that it will be necessary to pursue the efforts made to improve the profitability of SEEs, with the aim that they finance an increasing proportion of their investments from internally generated resources. Given the constraints imposed by the objective of stabilizing the economy, it will also be necessary to scale down the investment program of SEEs, since otherwise there is the risk that these investments will crowd out more efficient investments of the private sector.

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Table 3.15: FINANCING OF STATE ECONOMIC ENTERPRISES
(Billions of TL)

	1975	1976	1977	1978	1979	1980 /1	1980 /2	1981 /1	1981 /2	1982 /1	1982 /2
(1) Investment in fixed capital and stocks	38.2	50.6	62.9	80.6	171.7	322.5	459.2	432.7	534.1	433.0	539.8
(2) Losses before taxes	4.4	16.9	36.2	52.0	75.5	61.1	23.1	4.5	6.6	38.0	-47.1
(3) Taxes	1.1	1.3	1.6	1.8	3.6	10.1	14.6	37.9	36.8		49.2
(4) Increases in accounts receivable	8.6	21.9	28.7	32.7	77.6	-18.1					
(5) Total (1)+(2)+(3)+(4)	52.3	90.7	129.4	167.1	324.4	375.6					
(6) Minus depreciation	-4.6	6.2	-12.1	-20.1	-16.3	-21.3	-23.2	-28.3	-33.9		-50.2
(7) Total outside resources needed	47.7	84.5	117.3	147.0	308.1	354.3					
(8) Transfers and subsidies	23.5	36.0	76.6	58.1	98.9	163.4				290.0	
(8.1) Budgetary transfers	10.5	18.4	31.7	40.0	83.4	148.4)					
(8.2) Transfers from the petroleum fund	2.6	1.1	1.9	3.7	7.0	12.2)	149.4	248.5	238.2	239.0	242.6
(8.3) Subsidies and other items, net	10.4	16.5	43.0	14.4	8.5	2.8				51.0	
(9) Borrowing	12.8	39.1	37.4	53.7	130.7	104.3				103.0	
(9.1) From the Central Bank	5.9	21.5	23.2	19.0	54.1	51.6	49.8	40.0	22.2	40.0	20.0
(9.2) From the State Investment Bank		11.7	10.3	9.1	14.4	17.4	16.2	25.5	26.7	25.0	33.8
(9.3) From other sources	6.9	5.9	3.9	25.6	62.2	35.3				38.0	
(10) Changes in accounts payable	11.4	9.2	3.4	35.1	78.5	86.6					
(11) Total resources provided (8)+(9)+(10)	47.7	84.3	117.3	147.0	308.1	354.3					

/1 Original estimate
/2 Revised estimate

Source: Ministry of Finance

Sources of Finance for Public Enterprises

3.100 As shown in Table 3.15, a large proportion of the financial needs of the SEEs has been covered by transfers and subsidies from budgetary sources. These transfers and subsidies have been an important cause of the budgetary deficits of recent years, accounting for 15 percent of the total expenditures of the consolidated budget in 1979 and in 1980, with a share of 14 percent projected for 1981 and 1982. Part of the subsidies and transfers were designed to compensate certain SEEs for the fact that they had to supply products and services at prices which did not cover their costs. Notwithstanding the general price increase which occured in January 1980, this continues to be the case with the Soil Products Office and some other state enterprises which are involved in the purchase of agricultural products and in guaranteeing minimum support prices to producers. In other cases, subsidies and transfers are granted to compensate for losses and to finance new investments. The analysis of the system of subsidies for manufacturing SEEs is presented in Chapter 6. The only point to be stressed here is that efforts are necessary to reduce the amounts of subsidies granted to SEEs since, without sufficient progress in this, it will be difficult to reduce the budgetary deficit to levels consistent with the objectives of reducing inflation, of increasing domestic savings and of improving the efficiency in the allocation of resources. In this connection, one may welcome the recent decision of the Treasury to limit budgetary transfer to the SEEs to TL 233 billion in fiscal 1982, even if this amount will not be sufficient to provide the funds to finance the investment program approved by the SPO.

3.101 The increase in the amounts of accounts payable has become another important source of finance for SEEs in recent years, as shown in Table 3.15. To some extent this increase reflects the rise in the nominal value of debts resulting from inflation. However, it is in part a consequence of the comparatively tight monetary policy of recent years that affected the financing of state enterprises. The resulting accumulation of arrears by the SEEs vis-a-vis their suppliers has transferred the financial burden to these suppliers and, since in most cases interest are not paid on arrears, provided the SEEs with subsidies born involuntarily by their suppliers. In these conditions, an important objective should be to reduce the level of the debts of public enterprises to their suppliers.

3.102 Credits obtained directly from the Central Bank by means of Treasury guaranteed bills have also been an important source of finance for some public monopolies and state economic enterprises. This has been particularly the case of enterprises which intervene in the purchases of agricultural products, like the Tobacco Monopoly, the Soil Products Office, the Sugar Factories, the Tea Industry and the Fish and Meat Industries (Table 3.16). Since 1980 the Central Bank has also granted credits to SEEs purchasing electricity, coal and agricultural equipment.

Table 3.16: CLAIMS OF THE BANKING SECTOR ON PUBLIC ENTERPRISES
Amounts outstanding at the end of the period
Billions of TL

	1977	1978	1979	1980	June 1981	Nov. 1981
Central Bank	46.5	67.6	123.7	180.2	193.9	233.8
State monopolies	15.2	21.4	28.1	35.7	51.5	60.8
Soil Products Office	18.6	21.5	25.5	40.2	30.6	63.7
Sugar Factories	6.0	9.4	15.5	29.6	29.2	28.6
Tea Industry	3.3	5.6	11.1	12.9	12.8	12.8
Meat and Fish Industry	2.2	4.2	7.0	10.2	17.9	18.3
Others	1.2	5.5	36.5	51.6	51.9	49.6
Deposit money banks	36.2	40.4	78.0	136.7	174.4	
Credits	30.1	33.7	65.1	117.4	158.1	
Participations and others	6.1	6.7	12.9	19.3	16.3	
Investment and development banks	77.8	94.9	114.5	118.7	133.6	
Credits	74.9	90.8	109.3	117.4	132.8	
Participations and others	2.8	4.1	5.2	1.2	0.8	

Source: Central Bank of Turkey.

3.103 All the credits of the Central Bank to public enterprises have had short term maturities, in general 9 months, but in fact many of them have not been repaid on their maturities. Their interest rate in recent years has been only 10 percent. The shares of credits to public enterprises in the total credits and other financial claims of the Central Bank were 16.9 percent in 1978, 19.5 percent in 1979 and 16.5 percent in 1980. Those credits were therefore an important factor in the expansion of money supply and consequently an obstacle to the control of that supply.

3.104 The granting of subsidized credit to the SEEs by the Central Bank has been a method of providing these enterprises with privileged access to finance at very low interest rates. Credits to these enterprises by deposit money banks and by investment and development banks have also been subsidized. A high proportion of credits of deposit money banks to public enterprises consists of loans of the Sumerbank and of the Etibank to their own affiliated

enterprises at preferential rates. Furthermore, SEEs receive from the Differential Interest Rate Rebate Fund an interest rate subsidy of 5 percentage points on their credits from private banks, and the banks which grant those credits receive from the same Fund subsidy of 1 percentage point. Finally, the credits of investment and development banks to SEEs consist essentially of loans for investment granted by the State Investment Bank, with maturities of 20 years and interest rates of 21.5 percent. Recommendation for abolishing the subsidization of interest rates to public enterprises are made in Chapter 6.

4. General Comments on Selective Credit Policies

Selective Credit Policies in Turkey

3.105 The widespread use of selective credit policies is one of the most important features of the Turkish financial system. Selective credits are provided to agriculture, exports, state economic enterprises, housing, small artisans and traders, certain types of investment, regional development, local authorities, tourism, maritime navigation, etc. Credits are provided through a complex set of instruments, includings: (a) low interest rates on credits and rediscount by the Central bank; (b) levies and subsidies on interest rates paid to and received from the Differential Interest Rate Rebate Fund; (c) differential reserve requirements on bank deposits, related to the types of credits on which the funds from these deposits are used; (d) minimum ratios imposed on banks as regards the proportions of certain selective credits in their portfolios; and (e) channelling of financial resouces on particularly favorable terms through specialized institutions like the Agricultural Bank, the State Investment Bank, the Halk Bank, the Tourism Bank and others.

Justifications for Selective Credit Policies

3.106 It can be argued that selective credit policies have been an inevitable consequence of the system of legal ceilings or lending rates which was maintained until June 1980. Since these ceilings constrained interest rates to levels lower than those which would prevail in a free market, a process of credit rationing became inevitable. Problems of credit rationing became much less important following increases of interest rates to more realistic levels, particularly since the beginning of 1981. At the same time, under the restrictive credit policy followed, certain types of credits (for instance to smaller clients) and certain types of loans (for instance longer term loans) may be affected more seriously than others, favoring the application of selective credit policies.

3.107 Another justification for selective credit policies has been that financial markets do not allocate credit according to their social productivity, because of the prevailing disparities between market and social costs and returns. It has thus been claimed that one of the basic aims of selective credit policies is to offset the consequences of such disparities.

3.108 However, more often than not, disparities between private and social costs and returns have been due to government interferences with the price mechanism. In such cases, it will be preferable to eliminate price controls

themselves or to bring the controlled prices to more realistic levels than to compensate the distortions which result from them by subsidizing interest rates.

3.109 The existence of externalities provides another frequent justification for selective credit policies. The problem is that in practice there are enormous difficulties to measure adequately external economies and diseconomies. The experience with economic planning in Turkey and in most industrializing countries illustrates such difficulties very clearly. Many of the investments included in the Development Plans which were supported by subsidized credits, by high protection, and by fiscal incentives, have produced very low social rates of return. Moreover, interest rate subsidies are not the most adequate instrument to compensate external economies. For one thing, their cost may be higher than that of other methods of support. For another thing, they tend to stimulate capital intensive industries and production processes.

3.110 Other arguments in favor of selective credit policies are based on the lack of correspondence between the maturity pattern of bank loans and social time preference, which is for instance reflected in the commercial banks' favoring short term credit over medium and long term loans. In the past this preference has been due in large part to the interest rate regulations and to the uncertainties regarding future inflationary trends. With the development of competition in the banking sector, interest rates will tend to reflect more closely the risks as perceived by the lenders and this should encourage the flow of financial resources to medium and long term uses. Nevertheless, these flows may not be sufficient to provide for all legitimate needs for subsidies to medium and long term credits for investments.

3.111 Finally, the imperfections of the credit market in Turkey may provide a basis for certain types of subsidized credits. Banks and some of the largest borrowing firms of the private sector belong to the same economic groups. Also, one finds evidence of the "security syndrome", with preference given in the distribution of credits to large borrowers, who are well known by bank managers and who can provide sufficient guarantees for their loans.

The Costs of Selective Credit Policies

3.112 It must be recognized, however, that controls cannot always prevent leakages of subsidized credits to purposes for which they were not intended. Also, subsidized credits may displace other forms of finance which would otherwise be available. Their effects on the real allocation of resources may consequently be more limited than it would appear on first sight.

3.113 At the same time, selective credit policies in Turkey have involved considerable costs. They include: the maintenance of high reserve requirements in deposit money banks; the charges resulting from the insufficient level of interest rates on reserves against time deposits; the costs to the Central Bank of low interest rates on its advances and rediscounts; the levies on lending interest rates which are paid to the Differential Interest Rate Rebate Fund; the losses of the Social Security

Institutions caused by the low interest rates on the bonds which those institutions are forced to buy from the State Investment Bank; and costs born directly by the Treasury.

3.114 Interest rate subsidies or compulsory reserve ratios for certain types of assets held by the financial institutions do not have an impact on the budget, but nevertheless involve social costs. These include distortions in the efficiency of financial and other resources; interference with the conduct of monetary policy; costs associated with the implementation and the supervision of controls, both for the authorities and for the institutions which have to comply with the regulations; and the excess of the costs of specialized institutions over those of general purpose banks. Also, the system of selective credits has reduced competition among financial institutions and has limited ability of the Central Bank to pursue monetary policy objectives.

3.115 For these reasons, recourse to selective credit policies should be moderated. In many cases alternative incentives, such as tax benefits or subsidies, may be preferable. In the following, recommendations will be made for improving the system of selective credits in Turkey.

Improvements in the System of Selective Credits

3.116 First, the cost of selective credit policies should be substantially reduced. Such a reduction could be achieved by limiting selective credits to a narrower range of operations and by reducing the incidence of the interest rate subsidization. This is a necessary condition for eliminating the distortions resulting from the insufficient interest rates paid on required reserves, the existence of differential reserve requirements, and the pressures for the excessive expansion of the money supply. The reduction of the scope and extent of interest rate subsidies would also limit leakages into other sectors and would improve the allocation of financial resources by reducing incentives to capital-intensive activities and by correcting the distortions created by large differences of interest rates paid on different types of credits.

3.117 Second, the dependence of the system of selective credits on Central Bank rediscounts and on differential ratios of reserve requirements should be reduced. It would be preferable to base the mechanism of credit subsidization on subsidies from the Differential Interest Rate Rebate Fund. Under this alternative, the cost of subsidization would become clearer and would be more easily controlled. Also, the adverse effects of selective credits on the conduct of monetary policy would be alleviated.

3.118 One should further reduce the specialization of the banking system, as in para. 3.50. In particular, it would be advantageous to give the specialized banks possibilities to compete for instance by issuing bonds with maturities over one year. The increase in competition would bring benefits in the operating efficiency of banks and would create wider possibilities of choice for the users of selective credits.

3.119 In principle, selective credit policies should be contracted or medium and long term credits, credits to agriculture, and creditsto exports. These will be discussed in the following.

5. Medium and Long-Term Credits

The Existing System of Medium and Long-Term Credits

3.120 Medium and long-term credits for investment are granted by deposit money banks and by investment and development banks. Deposit money banks are required by law to allocate at least 20 percent of their portfolio to medium and long-term credits. Most of the banks are able to fulfill this requirement by granting medium term credits to enterprises belonging to the same holding. Enterprises which are not closely related to one of the deposit money banks do not have however have the possibility to obtain medium and long-term credits from commercial banks. The current practice is to renew successively, on their maturities, a large proportion of short term credits, which thus are in fact transformed into medium term credits.

3.121 Among investment and development banks which distribute medium and long-term credits, the most important are the State Investment Bank (Devlet Yatirim Bankasi), whose activity is exclusively that of financing investments of state economic enterprises, and the TSKB (T. Sinai Kalkinma Bankasi) which specializes in medium and long term credits to private manufacturing firms. However, their influence on project selection is limited, in view of the fact that the proportions of total investment, both of the public and of the private sector, which are financed by them are comparatively modest. Moreover, their share has declined in recent years. The proportion of credits granted by investment and development banks in the total credits of the banking system to the productive sector (public and private enterprises and households) fell from 24.9 percent in 1978 to 16.1 percent in 1979.

3.122 The decline of the relative position of investment and development banks has been due to the constraints these banks face in mobilizing financial resources. They can not receive deposits and their bond issues have been insignificant as shown in Table 3.11. Correspondingly, they have been dependent essentially on foreign loans, Central Bank credits, Treasury loans to the State Investment Bank and bonds subscribed by the Social Security System, whose financial possibilities are however becoming exhausted.

3.123 The investment credits granted by the State Investment Bank have long term maturities and lately their interest rate has been 21.5 percent. The interest rates on credits granted by TSKB vary according to the nature of the credits, the sources of funds used, and the amounts of interest rate subsidies. At the end of the first half of 1981, representative rates were 13.1 percent for loans expressed in foreign currency, when exchange risk is borne by the borrower; 22.3 percent in medium term credits for export oriented projects in underdeveloped regions receiving an interest rate subsidy of 40 percent; 32 percent in medium term credits for general investment credits with an interest rate subsidy of 25 percent; and 48 percent in non-subsidized medium term credits for working capital. At the same time, the incentives to

the banks for granting medium and long term credits have included preferential rediscount rates, lower required reserves ratios, and interest rate subsidies paid by the Differential Interest Rate Rebate Fund.

Table 3.17: LIABILITIES OF INVESTMENT AND DEVELOPMENT BANKS
Billion TL; end of year

	1977	1978	1979	1980	June 1981
Foreign liabilities /1	11.3	16.6	30.2	53.1	56.2
Liabilities to the Central Bank	35.8	41.7	47.2	48.7	48.3
Liabilities to Public Administrations	4.6	6.4	5.5	8.8	16.5
Liabilities to the Social Security System	38.0	43.3	49.7	56.5	56.0
Other liabilities	14.9	16.4	30.0	34.5	38.9
Total	104.6	124.4	162.6	201.6	215.9

/1 Foreign liabilities in billions of dollars: 1977: 0.58; 1978: 0.65; 1979: 0.85; 1980: 0.59.

Improvements in the System of Medium and Long-term Credits

3.124 In the area of medium and long-term credits one would need to deal with the following problems: (a) the creation of possibilities for attracting more financial resources to the investment and development banks; (b) the establishment of unambiguous rules for adjusting periodically interest rates on medium and long-term credits in accordance with changes in inflation rates, and (c) the extent and the method of subsidization of medium and long-term credits.

3.125 As regards the attraction of financial resources to the development and investment banks, the best solution would be to encourage these banks to become more active in issuing medium and long-term bonds, to be placed directly in households and other non-financial agents. These bonds would have indexed interest rates in the way described in paras. 3.71-3.77. At the same time, in becoming more active in the issue of bonds, the development and investment banks would contribute to the development of capital markets.

3.126 The issue of bonds is of particular importance for the State Investment Bank because of the declining contributions of the Social Security System. However, if the State Investment Bank will obtain a substantial

amount of its resources by issuing bonds with competitive interest rates, its loans to state economic enterprise will have to be made in conditions closer to those of the market.

3.127 The subsidization of interest rates on medium term credits should follow the general rules discussed in para. 3.116. First, while there may be good reasons to maintain subsidies for certain types of investment credits, these should be moderate in order to avoid excessive costs and risks of leakages; second, the subsidies should be based on contributions from the Differential Interest Rate Rebate Fund and not on low-cost credits granted by the Central Bank, the Treasury or the Social Security System; and third, if certain investments require more substantial subsidies, it may be preferable to grant cash subsidies related to pre-defined objectives rather than to subsidize interest rates, which distorts the combinations of productive factors used.

6. Agricultural Credits

3.128 The shares of agricultural credits in the total credits granted by the banking system to public and private enterprises and households were 23.9 percent in 1971, 22.6 percent in 1975 and 20.0 percent in 1980. The comparable percentages for the contribution of agriculture to GNP were 29.5 percent in 1971, 29.0 percent in 1975 and 21.7 percent in 1980.

3.129 The agricultural credits comprise credits to public enterprises which intervene in the market for agricultural products with the purpose of guaranteeing agricultural support prices (State Monopoly for Tobacco, Soil Products Office for cereals, Tea Industry, Meat and Fish Industry, and Milk Industry); credits for agricultural support granted by Agricultural Sales Cooperatives and financed by the Agricultural Bank; and other types of credits, granted by Agricultural Credit Cooperatives and financed mainly by the Agricultural Bank or granted by commercial banks. Practically all the credits to the above public enterprises, and more than two thirds of the credits financed by the Agricultural Bank and deposit money banks, have been refinanced by the Central Bank. In recent years, the Central Bank has thus financed directly or indirectly more than 80 percent of agricultural credits.

3.130 The high dependence of agricultural credits on Central Bank financing is a consequence of the system of interest rate subsidization for agricultural credits which has been in force. The interest rates for agricultural credits which were in force in the first half of 1981 are shown in Table 3.18. If one considers that the interest rates on preferential bank credits were at least 50 percent, it is apparent that the subsidies have been at least 40 percentage points on agricultural credits to the Soil Products Office and other public enterprises and 20 to 25 percentage points on agricultural credits financed by the Agricultural Bank and refinanced by the Central Bank at very low rediscount rates.

Table 3.18: INTEREST RATES AND REDISCOUNT RATES ON AGRICULTURAL CREDITS
May 1981

I.	Interest and Rediscount Rate of The Central Bank		
	1. Short term credits to the Soil Products Office and other public enterprises		10.0%
	2. Rediscount rates on credits granted by the Agricultural Bank		
	2.1 Short term credits to Agricultural Credit Cooperatives and Unions		19.5%
	2.2 Short term credits to Agricultural Sales Cooperatives		17.5%
	2.3 Medium and long-term agricultural credits		18.75%
	3. Rediscounts on credits granted by other banks		
	3.1 Short terms and medium term agricultural credits		26.00%
	3.2 Long term agricultural credits		28.75%
II.	Costs to the Borrower of Credits Financed by the Agricultural Bank		
	1. Short term credits		
	Interest rate	22.0%	
	Transaction tax	3.3%	25.3%
	2. Medium term credits		
	Interest rate	24.0%	
	Transaction tax	3.6%	27.6%

3.131 The system of subsidization involves important negative consequences. First, the fact that it is based almost exclusively on cheap Central Bank credits creates conflicts with the objectives of monetary policy. These conflicts were especially serious in 1980 when the Soil Products Office was at risk of being forced to interrupt its purchases of cereals at a critical moment, if the ceilings to the expansion of Central Bank domestic assets were not increased.

3.132 Second, the fact that agricultural credits financed by the Agricultural Bank are very cheap as compared with other types of credit makes their supply scarce in relation to demand. A process of rationing thus becomes inevitable. Borrowers will often try to get more credit than they need for their agricultural operations and there will be inevitably leakages into other uses. In time, other borrowers will not be able to get all the agricultural credit they need and will forced to use more expensive types of credits. In particular, small farmers often have to address themselves to unorganized money markets where lenders have been charging interest rates in excess of 100 percent.

3.133 These difficulties could be corrected to a large extent if the recommendations made concerning changes in selective credit policies were applied to agricultural credits. Specifically, it would be desirable to introduce the following changes:

(a) There should be more competition for the Agricultural Bank in the field of agricultural credits. Benefits established in favor of agricultural credits granted by the Agricultural Bank, should be extended to the same types of credits granted by other banks. More competititon would benefit farmers both by offering them wider possibilities of choice and by creating pressures towards greater efficiency in agricultural credit operations.

(b) The subsidization of agricultural credits should be substantially reduced. Medium and long-term agricultural credits should be subsidized in accordance with the rules and priorities established for medium and long-term credits in general and consideration should be given to eliminating the preferential treatment of short term agricultural credits while ensuring access to credit to all agricultural producers.

(c) The system of subsidization should be based on contributions from the Differential Interest Rate Rebate Fund and not on automatic access to rediscounts from the Central Bank at low interest rates.

7. Export Credits

The System of Export Credits

3.134 Exporters obtain export credits from the banks to finance the production, purchase, storage, packaging and transportation of goods for export. The schemes for export credits in effect are described in Chapter 2.

3.135 The borrowers who receive short term export credits benefit from the following incentives: (a) the interest rate charged is in general 22.5 percent (and it may be even lower) as against 36 percent for nonpreferential credits; (b) the interest is exempt from the financial transactions tax levied on other credits; (c) the contribution to the Differential Interest Rate Rebate Fund is 10 percent of the interest charged, as against 15 percent for other credits; and (d) the borrower receives from the Differential Interest Rate Rebate Fund a subsidy of 35 percent of the interest rate charged on credits for industrial exports and of 25 percent on other export credits.

3.136 The total effect of these incentives is shown in Table 3.19. It is apparent that cost of short term export credits is at least 25 percentage points lower than for nonpreferential short term credits (the calculation excludes the cost of holding compensating balances). For export credits with a maturity of 12 months and covering 80 percent of export value, the subsidy is 24 percentage points.

Table 3.19: INTEREST COSTS TO THE BORROWER OF EXPORT CREDITS AS COMPARED WITH GENERAL CREDITS (December 1981)

	Non-Preferential Credits (one-year)	Export Credits
Interest rate charged by the bank	36.0%	27.0%
Contribution to the Interest Rate Rebate Fund	5.4% /1	2.7%
Commission	2.0%	2.0%
Transactions tax	5.7%	-
Subsidy from the Interest Rate Rebate Fund	-	-9.5% /2
Total Cost	49.1%	22.3% /2

/1 The levy accruing to the Interest Rate Rebate Fund declines to 10 percent as of January 1, 1982.

/2 For industrial exports; for other exports, the subsidy from the Interest Rate Rebate Fund is 5.33 percent and the total cost to the borrower is 21.12 percent.

3.137 The banks which grant export credits receive substantial incentives, whose purpose is to increase their willingness to provide such credits. These incentives include: (a) the legal requirement according to which export credits must account for at least 15 percent of the total credits of each bank, (b) the automatic refinancing by the Central Bank of 65 percent of the value of the export pledge or of the letter of credit or of the maximum of exports of the last three years at a rediscount rate of 18.5 percent, when the interest rate charged by the bank is 22.5 percent and (c) the reduction of the required reserves ratio to 5 percent or 10 percent with regard to funds used in industrial exports and other exports, respectively, as against normal ratios of 35 percent and 30 percent.

3.138 The margin of 6 percent (including a 2 percent commission) which the banks get on the part of their export credits which is refinanced by the Central Bank corresponds roughly to the operating expenses involved. In turn, the benefit the banks derive from the reduction of required reserves is approximately the same as the loss resulting from the interest rate of 22.5 percent on export credits compared with 36 percent on general credits.

Problems Raised by the Existing System of Export Credits

3.139 There are valid reasons for providing incentives to exports in the form of export credits. Even with an adequate exchange rate policy, exports may need some subsidization in order to offset the bias against them resulting from the protection of industries which rely mainly or exclusively on the domestic market. Also, the infant industry argument may justify granting differential benefits to new exports of industrial goods. However, the system of export credits presently applied in Turkey has various shortcomings.

3.140 To begin with, the total subsidies granted to borrowers are excessively high and do not appropriately reflect Turkey's economic interest in subsidizing value added in exports. Also, the high subsidies may have led to leakages of export credits to domestic operations. Finally, the strong dependence of the system of export credits on rediscounts in the Central Bank create risks of the excessive expansion of the monetary supply.

Export Credits and Monetary Policy

3.141 The total amount of export credits granted by the Central Bank increased 28 percent from December 31, 1980 to April 24, 1981, while all other Central Bank credits to productive activities (excluding short term advances to the Treasury but including credits to public monopolies and State Enterprises) increased only 3 percent. The expansion has been so rapid that in May 1981 the Central Bank was forced to delay the rediscounting of export credits. This was however only the first sign of the difficulties which would have to be faced in monetary policy if the Central Bank continued undefinitely to finance 65 percent of the value of exports. If exports continue to grow rapidly, as it is expected, export credits cannot grow at the same rate without serious risks of an excessive expansion of the monetary base.

3.142 A possible way to deal with this problem is to change periodically the percentage of the value of export credits which can be refinanced by the Central Bank in accordance with the requirements of the control of money supply. It would further be desirable to replace the contribution of low rediscount rates for the subsidization of export credits by an increase of the subsidies granted by the Differential Interest Rate Rebate Fund, in line with recommendations made earlier in regard to all selective credits. At the same time, as suggested in Chapter 2, rates of subsidization of export credit should be reduced.

The Incidence of Subsidies to Export Credits

3.143 An additional consideration is that the export subsidies granted through low interest rates on export credits are related to the value of exports rather than to value added. As a consequence, the effective rate of subsidization of value added varies widely and in an inverse proportion with value added. Thus, a subsidy of 24 percent on the value of exports corresponds to an effective rate of subsidization of 120 percent on exports with a value added share of 20 percent but only 30 percent on exports with a

value added share of 80 percent. The system thus tends to give greater benefits to exports which bring a smaller contribution to the balance of payments and to the expansion of domestic production.

3.144 In order to avoid these distortions, it would be desirable to relate export credits to value added in exports. A possible solution is described in the Annex to the present Chapter. This solution has the following characteristics: (a) the banks would continue to receive incentives (although different from those being applied at present) designed to stimulate them to finance 80 percent of the value of exports, with maturities corresponding to the average cycle of production up to the date of export; (b) only a certain proportion of the export credits, proportional to value added in exports would be subsidized so as to provide approximately equal rates of effective subsidization of value added in exports; (c) interest rate subsidies on the proportion of export credits be subsidized would be paid from the Differential Interest Rate Rebate Fund; (d) the amount of the export credits to be subsidized would be determined every three or six months by applying the percentages determined under (b) to the value of actual exports during the preceding 3 or 6 months.

A System of Subsidized Export Credits Related to Value Added

The following procedure may be utilized to extend export credit subsidies in relation to value added to exports and the length of the period of production:

(a) The amount of the export credit would be set so as to equal a proportion of export value (for instance 80 percent as at present) that is sufficiently high to cover production needs. The maturity would equal to the average length of the period from the beginning of production to the time of export. The banks would continue to receive incentives sufficient to maintain their interest in export credits. These incentives would consist of preferential access to rediscount and, if necessary, a subsidy of 2 or 3 percentage points from the Differential Interest Rate Rebate Fund.

(b) A certain proportion of the amount of the export credit mentioned in a. would benefit from a uniform rebate of the interest rate, which would be paid by the Differential Interest Rate Rebate Fund. That proportion would be calculated in accordance with the methods explained below.

(c) The part of the export credits which would not be subsidized would pay the same interest rate which is applied to general credits with the same maturity. Both the subsidized and the nonsubsidized part of the export credits would benefit from preferential access to rediscounting in the Central Bank but the rediscount rates would not be subsidized.

(d) The interest on export credits would be calculated and paid at the end of three (or six) months.

(e) At the moment of the quarterly (or half yearly) payment of interest, the exporter would be required to present proof of the amounts of foreign currency sold to the Turkish banking system in the previous three (or six) months as a result of his export activities.

(f) All exported products would be classified in several categories, based on value added in exports. A possible solution would involve five categories with value added shares of 75-100 percent, 55-75 percent, 40-55 percent, 30-40 percent, and 23-30 percent. Exports with value added at less than 23 percent would not receive credit subsidies. Value added is defined as the difference between the f.o.b. price of the exported products and c.i.f. cost of the direct and indirect imported inputs, including the amortization of imported equipment.

(g) A very rough estimate of average value added, based on the industrial statistics of the sector producing that product, will suffice. It is only in cases where value added is on the borderline between two different categories that a more careful calculation will be needed. In the cases of some industrial goods, it would be necessary to specify not only the products but also their processes of production (as it is done in the rules of origin applied in free trade areas). Thus, for instance, cloth produced from imported yarn might fall in a lower category than cloth made from domestic yarn.

(h) The Government would publish lists of goods classified in each category. In elaborating the lists, criteria other than value added may also be introduced, distinquishing between new materials and manufactured goods and separating infant activities within the latter.

Table A 3.1: EXAMPLE FOR EXPORT CREDIT SUBSIDIZATION /1

Categories of products (1)	Share of value added in the export price /2 (2)	Ratio of subsidized export credits in relation to exports during the previous 3 months /2 (3)	Annual interest rate subsidy as percentage of annual value of exports /3 (4)	Effective rate of subsidization as percentage of domestic value added /4 (5)
I	75%-100%	47%	7.0%	9.3%-7.0%
II	55%-75%	35%	5.2%	9.4%-6.9%
III	40%-55%	25%	3.8%	9.5%-6.9%
IV	30%-40%	19%	2.8%	9.3%-7.1%
V	23%-30%	14%	2.1%	9.1%-7.0%

/1 Based on a subsidy of 15 percentage points on the interest rate of one-year export credits.

/2 The limits of the percentages of domestic value added in each category and the percentages of column (3) have been determined in such a way as to provide effective rates of subsidization on value added of approximately 7% to 9% cf. in column (5).

/3 If the rebate on annual interest rates is 15 percentage points, the maturity of the export credits is 1 year and if the exports of a given year are denoted by X, the annual interest rate subsidy as a percentage of annual exports for goods of Category 1 with 100 percent value added is: $(0.47x \; X \; x0.15) : X = 0.07$.

/4 The intervals of column (5) are determined by dividing the percentages of column (3) by the limits of the intervals of value added in column (2).

Table A3.1 shows the ratio of subsidized credits in different categories in the case of 3 months export credits that will provide an effective rate of subsidy of approximately 20 percent on value added (If the subsidized export credits had maturities of six months, their amount would be calculated by dividing the ratios shown in (3) of the table by 2.)

The administrative complications involved in the proposed system would be easily manageable. The case of agricultural products, raw materials and homogeneous industrial goods like cement, steel, and petrochemicals, value added ratios can be determined from technical coefficients for a wide range of manufactured goods.

Subsidization would be based on actual exports, thus reducing the risks of leakages of the subsidized credits to nonintended purposes. This is the reason why it is suggested that interest be paid at the end of each quarter (or each six-month period) and that subsidized export credits should have maturities of 3 months (or 6 months) and be based on the export receipts of the previous 3 months (or 6 months). However, in cases of exports with large seasonal fluctuations, it would be preferable that the maturity of the export credits cover the entire export season and that the amount of such credits would be determined at the end of the same season.

CHAPTER 4

THE SYSTEM OF TAXATION AND INVESTMENT INCENTIVES

Introduction

4.1 Turkey is currently in the midst of a far reaching reform of the tax system, involving approximately twenty-four tax bills that have been implemented or are under active consideration by the authorities. The motivation of the reform is the wish to rectify perceived inadequacies of the tax system. With the important exception of the personal income tax, the tax system was not an elastic source of revenue, while the elastic personal income tax and other characteristics of the tax system have resulted in increasingly uneven burdens being placed on different sectors and groups of income recipients that have affected compliance and was not conducive to increased work effort. Nor has the system of indirect taxes been conducive to efficient resource allocation, including the promotion of exports. Finally, investment incentives have generally favored capital-intensive activities.

4.2 This chapter examines some of the issues posed by the present tax system and investment incentives as they bear on the industrialization and trade strategy and on the general modernization of the economy. Also, an assessment is undertaken of the reforms so far implemented and proposals for further reforms are made. In the chapter, direct and indirect taxes and investment incentives are separately considered.

A. The Tax System

1. Overview

4.3 After rising from 15.6 per cent in 1970 to 19.2 per cent in 1977 (slightly below the average of 19.6 per cent for a sample of 20 middle income countries), the tax to GNP ratio in Turkey has declined to 16.9 per cent, owing in part to the inelasticity of indirect taxes and in part to the elimination of the import stamp duty (Table 4.1). For the period as a whole, the elasticity of the tax system with respect to GNP was 1.0, which, in the absence of major tax adjustments during the period, approximates the built-in elasticity. Within this average, the personal income tax had an elasticity of 1.2 during the period, reflecting the effects of "bracket creep" under rapid inflation. There was a further slight increase in the GNP share of the tax on banking and insurance transactions, but shares in GNP of all other indirect taxes declined. In particular, the domestic production tax dropped from 1.7 per cent of GNP to 1.2 per cent of GNP; the tax on monopoly products, or excises, from 1.4 per cent to 0.7 per cent of GNP; the production tax

Table 4.1. Turkey: Tax Revenue as a Per Cent of Gross National Product, 1970-80

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	Period Elasticity 1/
Taxes on income	5.5	5.9	6.1	6.9	6.9	8.1	8.9	10.0	10.8	10.3	10.3	1.2
Personal income tax	4.5	5.0	4.8	5.2	5.3	6.3	7.0	7.9	8.4	8.4	8.6	1.2
Corporate income	1.1	0.8	0.9	1.0	0.9	1.0	1.0	0.9	1.3	0.8	0.8	1.0
Other	--	0.1	0.3	0.7	0.8	0.8	0.9	1.2	1.0	0.9	0.8	...
Taxes on wealth	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.8
Taxes on goods	4.1	4.5	4.2	4.0	3.1	3.9	4.0	3.4	3.0	2.9	2.4	0.8
Domestic production tax	1.7	1.5	1.7	1.4	1.3	1.4	1.6	1.5	1.4	1.4	1.2	0.9
Petroleum tax	0.5	0.6	0.6	0.5	0.3	0.4	0.2	0.1	0.1	0.1	--	0.2
Tax on monopoly products	1.4	1.4	0.8	1.1	0.6	1.3	1.4	0.8	0.7	0.8	0.7	0.8
Retail sales tax	--	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.9
Other	0.6	0.8	0.8	0.8	0.7	0.6	0.7	0.8	0.6	0.4	0.4	...
Taxes and fees on services	1.9	2.0	1.9	1.9	1.7	1.9	2.0	2.0	1.9	1.6	1.8	1.0
Banking and insurance tax	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	0.9	0.8	1.0	1.1
Stamp duty	0.7	0.6	0.6	0.7	0.6	0.7	0.8	0.8	0.7	0.6	0.6	1.0
Other	0.4	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	...
Taxes on imports	3.8	3.8	3.9	3.8	3.4	3.7	4.0	3.6	3.3	3.0	2.1	0.9
Customs duties	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.7	0.5	0.5	0.5	0.8
Production tax on imports	0.9	1.0	1.0	1.0	1.0	1.0	1.4	1.1	0.8	0.6	0.8	0.9
Production tax on imported petroleum	1.0	1.0	1.1	1.0	0.7	0.8	0.6	0.7	0.4	0.3	0.2	0.5
Import stamp duty and other	1.0	0.9	0.8	0.9	0.8	1.0	1.1	1.1	1.6	1.6	0.6	...
Total tax revenue	15.6	16.3	16.2	16.8	15.3	17.7	19.0	19.2	19.1	17.8	16.9	1.0

Source: Turkish authorities.

1/ Buoyancy determined by regressing log of revenue on log of GNP and estimating the coefficient of the GNP term.

on imported petroleum from 1.0 per cent to 0.2 per cent of GNP; and customs duties from 0.9 per cent to 0.5 per cent of GNP. Finally, the elimination of the customs stamp duty reduced the ratio of import taxes to GNP by 1.0 percentage points.

4.4 As a result of these changes, the contribution of direct taxes to total tax revenue increased from 37.2 per cent in 1970 to 62.1 per cent in 1980, with a corresponding decline in the contribution of indirect taxes. In particular, the share of indirect taxes on domestically produced goods declined from 26.4 per cent to 14.2 percent and that of taxes on imports from 24.2 per cent to 12.3 per cent (taxes on services account for the remainder).

2. Direct Taxes

4.5 This category comprises the personal and corporate income taxes, taxes on capital gains, taxes on the ownership of real estate and motor vehicles, and inheritance and gift taxes. Because of their importance, the following discussion concentrates on personal and corporate income taxes, with further attention given to capital gains taxation.

Personal Income Tax

4.6 In 1976, the last year for which detailed statistics are available, the personal income tax was paid by 4.1 million persons. One fifth of taxable income recipients filed annual returns, one seventh paid according to the lump sum assessment scheme, while the remaining two thirds, principally wage and salary earners, had their taxes withheld at source. Around 30 per cent of personal income taxes collected originated from those filing annual tax returns and 65 per cent from employees; those assessed according to the lump sum scheme, principally small businesses, artisans, and professions, hardly paid any tax. Among those filing annual tax returns, the principal contribution was made by unincorporated businesses. The contribution of agricultural income earners was negligible and only small amounts were generated by taxing income from immobile (mainly rentals), and from mobile (principally dividends and interest), capital.

4.7 The relatively high share of the personal income tax on wages and salaries reflects both rapid inflation and lack of adjustment of the tax schedule. Until 1981, there was virtually no adjustment in brackets, tax rates or the size of deductible personal allowances, all of which remained at the levels shown in Table 4.2. Consequently, inflation and real income growth pushed the average taxpayer into ever higher brackets. In 1980, a worker earning US$2,000 per annum had 60 per cent of his wage withheld. In order to avoid the resulting increase in real tax burdens, employees and employers relied increasingly on nontaxable in-kind payments, including allowances for clothing, housing, and so forth. Keeping the tax schedule unchanged in the fact of massive inflation is bound to have adversely affected work effort. And while these adverse effects were partly alleviated by the proliferation of

Table 4.2. Turkey: Individual Income Tax Rate Schedule

(In Turkish liras)

Former Schedule			New Schedule 1/		
Taxable income	Marginal tax rate 2/	Average effective tax rate 3/	Taxable income	Marginal tax rate 2/	Average effective tax rate 3/
	(In per cent)			(In per cent)	
0 - 2,500	10.0	10.0	0 - 1,000,000	40.0	40.0
5,000	15.0	12.5	3,000,000	45.0	43.3
10,000	20.0	16.2	5,000,000	50.0	46.0
25,000	25.0	21.5	10,000,000	60.0	53.0
55,000	35.0	28.9	15,000,000	70.0	58.7
115,000	45.0	37.3	25,000,000	75.0	65.2
265,000	55.0	47.3	above 25,000,000	66.0	66.0
490,000	60.0	53.1			
715,000	65.0	56.9			
1,000,000	68.0	60.0			
above 1,000,000	60.0	60.0			

Memorandum:

	Tax-free minimum allowances Old (TL)	New (TL)
General allowances (per year)	1,800	7,200
Special allowances for wage and salary earners	1,900	54,000
Total allowances	3,600	61,200

1/ Effective 1981 fiscal year.

2/ Applied to the increment in bracket limits. Since taxable income is shown on a cumulative basis, the increment in bracket limits is obtained by subtracting adjacent taxable income levels.

3/ This is determined by applying the marginal tax rates to the corresponding taxable income slabs in a given level of taxable income so as to obtain the total tax liability. The latter is then divided by total taxable income.

in-kind payments, they represented a retrograde step in the modernization of the economy. In-kind payments also involved an economic cost by limiting the workers' choices.

4.8 In January 1981, the individual income tax schedule was reformed. Deductible allowances have been increased from a maximum of TL 3,600 to TL 61,200 (Table 4.2). Income brackets have been redefined, with the first bracket now corresponding to the entire bracketed range of the replaced schedule. However, the initial marginal tax rate has been set at 40 per cent, much exceeding the initial rates to be found in other middle-income countries. The legislation specifies a one percentage point annual reduction in tax bracket rates for the next five years. This will reduce the beginning marginal rate to 35 per cent and the top rates to 70 per cent for incomes up to TL 25 million and to 61 per cent above that level.

4.9 It is estimated that the January 1981 reform will reduce by one third the effective tax burden on wage and salary income from the present 60 per cent to around 40 per cent. The tax relief is linked to moderation in wage and salary increases that is expected to dampen the rise in wage costs to employers in 1981. Calculations of the change in tax burden resulting from the reform are shown in Table 4.3 for three wage and salary levels. A worker earning the minimum wage of TL 61,200 per annum will escape taxation, whereas formerly he would have paid 27.5 per cent of his income. Those earning the average wage in higher-wage industries will also enjoy a reduction in tax burden. However, high income earners will be subject to a higher tax burden than under the former schedule.

4.10 The virtually tax exempt status of small businesses and professions that are subject to lump sum taxation has been eliminated, by revising tax criteria, including presumptive income limits, to better accord with the inflation that has occurred. Although roughly the same number of small businesses pay lump sum taxes as the number of persons who file annual returns, the average effective tax paid by the former was only TL 260 in 1976 compared to TL 13,274 paid by the latter. According to the new tax provisions, incomes between TL 50,000 and TL 225,000 will be subject to lump sum taxation at 40 per cent of assessed income, with the minimum amount paid being TL 15,000. It is estimated that additional revenue generated from this source will amount to TL 30 billion as against the less than TL 0.5 billion that used to be collected annually.

4.11 Unincorporated businesses, farmers, and private professions with incomes above the newly specified limits of lump sum taxation file annual declarations. However, they will now also be subject to advance tax payments in five categories, ranging from TL 50,000 to TL 600,000. The liability for advance payment will be determined by special tax commissions on the basis of information on the size and location of the business and earnings capacity of the taxpayer. The advance payments themselves will be

Table 4.3. Turkey: Tax Burden of the Personal Income Tax: Some Examples 1/

	Former Schedule		New Schedule	
	Tax (In TL)	Tax Burden (In per cent)	Tax (In TL)	Tax Burden (In per cent)
1. Minimum wage (TL 61,200 per annum)	16,805	27.5	--	--
2. Average wage in higher-wage industries (TL 155,000 per annum)	56,472	36.4	37,520	24.2
3. High income (TL 25 million)	15,000,000	60.0	--	65.2

1/ These are constructed for a single income earner using the rates and exemptions stated in Table 4.2.

made in three equal installments in March, June, and November. The introduction of installment payments will permit avoiding the long lag of about 18 months that formerly characterized the earning of income and collection of tax to considerable benefit to the taxpayer in an inflationary environment. 1/

4.12 Three sets of measures have been introduced to increase the taxation of agricultural income. First, the tax criteria applied to farmers have been redefined, greatly reducing the number of small farmers who will remain tax exempt. Income declarations are now required of all farmers who own more than one tractor, or a harvester, or land exceeding a certain size, or annual sales receipts exceeding TL 500,000 per annum. Second, whereas formerly 70 per cent or more of sales receipts was deductible to provide for the costs of generating income, the maximum

1/ For the deleterious effect of collection lags on government revenue, see S.N. Erbas, "Effects of Inflationary Finance on Tax Revenue Under Progressive Tax Structures with Collection Lags: An Application to Turkey." Unpublished, International Monetary Fund, Washington, D.C., April, 1981.

tax of 40 per cent on assessed income is excessive both from the viewpoint of ensuring compliance and the self-financing of investment for businesses that have limited access to capital markets.

4.17 The potential number of taxpayers required to make annual declarations has been greatly increased and it would be desirable to make appropriate administrative provisions to ensure compliance. The system of advance payments for such taxpayers, while designed to generate substantial additional revenue in 1981, imposes a risk on traders and others whose incomes are subject to substantial fluctuations, and who have limited access to credit markets. Consideration should be given to the adoption of an averaging system that more closely corresponds to the profit or income cycle over the year.

Corporate Income Tax

4.18 Formerly, the corporate income tax was paid by companies and cooperative societies at a rate of 25 per cent. In addition, a 20 per cent withholding tax was levied on the remaining profits, irrespective of whether or not distributed, thereby adding 15 percentage points to the corporate tax rate. Finally, a 3 per cent fiscal balance tax was levied on profits, resulting in an aggregate corporate income tax rate of 43 per cent. These taxes have now been consolidated into a 50 per cent corporate income tax rate that is to apply to the 1981 assessment year. However, state economic enterprises (SEE) continue to be subject to a preferential rate of 35 per cent.

4.19 The recent reform has also modified the tax treatment of dividends. Under the previous system, dividends were subject to a 20 per cent withholding tax, which could be credited against the tax liability on the dividends. This device for reducing the double taxation of dividends has now been modified to provide more favorable treatment to distributed profits in excess of TL 2 million (about US$15,000 at the exchange rate in effect in December 1981) per taxpayer and to effectively exempt amounts below this threshold from the individual income tax. To the dividends received is added the imputed corporate tax component (50 per cent). The tax liability is computed on the resulting amount, against which the imputed corporate tax component is credited. The effect, taking account of the new personal income tax schedule, is to reduce somewhat the effective rate of tax on dividends.

4.20 It is hoped that the more favorable treatment of paid-out dividends will encourage closely-held corporations to go public, raising more funds through equity issues. In addition, in order to promote the establishment of corporations, the law exempts from tax any increase in book values resulting from the conversion of an unincorporated business into a corporation, thereby providing a one-time relief from capital gains taxes. Profits earned through participation by a corporation in another corporation are also exempted from corporate income tax. At the same time, the period for which losses could be deducted from

corporate income has been reduced from 5 years to 3 years. The system of depreciation allowances, which involves a straight line depreciation balance method over a period of 8-10 years, has been retained. As before, accelerated depreciation allowances are provided with the approval of the Ministry of Finance for circumstances such as double shift operations.

4.21 Several issues are raised by the present state of the corporate income tax structure. The tax in its present form does not appear satisfactory from the point of view of promoting industrialization. This is because it is not neutral as between different forms of business organizations.

4.22 Although there is merit in promoting broader-based corporations to facilitate the development of capital markets and to spread risks, unincorporated businesses are likely to pay a tax rate of 40 per cent, below the 50 per cent corporate tax rate. Reducing the corporate tax rate to 40 per cent would equalize the two rates at levels comparable to those in other middle-income countries. The same rate should be applied to the SEEs as there is no rationale for them to pay lower taxes. Also, corporations could be subjected to a scheme similar to the advance payments scheme for unincorporated businesses. There is at present a substantial lag between the assessment year and the time taxes are finally paid.

4.23 A legislative proposal to equalize corporate income tax rates at 40 per cent has, in fact, been made. The proposed reduction in the rate for private business can be expected to promote saving and risk taking. While the more attractive treatment of distributed earnings should increase the availability of risk capital, corporations will have to continue to rely to a considerable extent on self-financing. At any rate, the propensity to save is probably higher on the part of corporations than on distributed profits.

4.24 A matter of urgency is the treatment of depreciation in the present inflationary environment as inflation cost accounting is lacking. As a consequence, true profits, reckoned on the basis of maintaining plant, equipment, and other income-generating assets, are overstated. The inflation-induced reduction in the real financial liabilities of the firm provides only a partial offset because of the dominance of self-financing. The taxation of these "phantom" profits involves taxing capital and discriminating against longer lasting investment. This is of particular importance as receipts from corporate income taxes more than tripled in 1981.

4.25 To avoid these adverse consequences, it would be desirable to calculate depreciation on a replacement cost basis. Replacement cost is, however, difficult to define in cases when exact substitutes for the capital good to be replaced are not available, owing to intervening technological progress. A possible solution would be for the authorities to determine appropriate price indices for different categories of capital

goods. Regulations to this effect are in preparation and their introduction is of considerable urgency. At the same time, revaluation profits should be exempted from taxation.

4.26 Consideration should further be given to the appropriate treatment of inventories. The widespread use of the First-In-First-Out (FIFO) method of valuation understates the costs of using and replenishing inventories in an inflationary environment. As is done in the United States and several other countries, firms should be allowed to use the more appropriate Last-In-First-Out (LIFO) method of valuation. This results in the affected inputs being valued at their current procurement costs, thereby more accurately reflecting the influence of inflation on the costs of production and thus avoiding the overstatement of profits.

3. The Social Security System

4.27 In 1980 around 27 per cent of the employed labor force was covered by various social insurance schemes. The major institutions involved are the State Pension Fund, which provides coverage for civil servants, the Social Insurance Institution for private sector and other public sector employees, and a similar institution for the self-employed. Contributions are assessed as percentages of the payroll or earnings and are payable by the employer and the employee. The benefits provided are for work injury, sickness and maternity, disability, old age, and death. No unemployment benefits are available.

4.28 Owing to the financial difficulties of the social security funds, contribution rates were raised in 1981. For employers, rates were raised from a range of 14.5 to 20 per cent to a range of 18.5 to 24 per cent. As is indicated in Table 4.4, using 1975 data, contribution rates for employers in Turkey are on the high side compared to other middle-income countries. Since these social security contributions are essentially payroll taxes, they increase the cost of labor to the firm. Contributions paid by employees have also been raised from 7 per cent to 9 per cent of earnings.

4.29 In a context where it is desirable to improve international competitiveness and also to increase employment, it is important to restrain the rise in wage costs. Insofar as higher social security contributions are a causative factor, it may be necessary to reduce the contribution rates. This is especially desirable since it can be expected that, as the modernization of the economy proceeds, additional forms of social security, particularly to provide for some unemployment relief and more comprehensive medical benefits, will be demanded. It may be accomplished by improving the management of the social security system, reducing certain benefits, and financing some of the social expenditures from general budget. At present the social security funds are owed large sums of money by employers, amounting to some TL 20 billion in 1980. Furthermore, some of the benefits, particularly with regard to retirement, appear excessively generous. Thus, a worker who

Table 4.4. Turkey: International Comparison of Social Security Rates Borne by Employers, 1975

(Per cent of payroll)

	Turkey	Greece	Israel	Taiwan	Mexico	Turkey (1981)
Disability, old age, and death	7.0	8.5	2.9	6.4	3.8	11.0
Sickness and maternity	5.0	4.5	0.4	--	5.6	6.0
Work injury	0.5-6.0	0.5-1.0	0.7-4.0	--	0.2-5.6	1.5-7.0
Unemployment	--	2.0	0.8	--	--	--
Family allowances	--	1.0	1.4	--	1.0	--
Total	12.5-18.0	16.5-17.0	6.2-9.5	6.4	9.6-15.0	18.5-24.0

Sources: Social Security Programs Throughout the World, 1975, U.S. Department of Health, Education and Welfare, and State Planning Organization.

pays premia for 14 years can retire after 25 years of service with a nontaxable pension amounting to 60 per cent of salary. Finally, on the question of financing from the general budget, see below.

4. Indirect Taxes

4.30 Several of the proposed measures will reduce the amount of revenue generated from direct taxes. Correspondingly, increased reliance would need to be placed on other sources of revenue. The proposed introduction of a value-added tax provides such an opportunity. This will be discussed below, following an analysis of existing indirect taxes.

4.31 A wide variety of indirect taxes are levied on domestically produced goods and services, imports, and consumption. Ranked in terms of revenue, the most important indirect taxes are the domestic production tax that is levied at the manufacturer's level on items produced locally, the banking and insurance transaction tax (financial transaction tax), the production tax on imports and the tax on monopoly or excisable products, such as tobacco and alcoholic beverages (Table 4.1). There is a retail sales tax levied on services and on certain luxury goods

that was introduced in 1970, but this has not been a major source of revenue and currently amounts to less than one-tenth of the tax on monopoly products. Energy-related taxes, particularly the petroleum taxes, were an important source of revenue in the early 70's but have since suffered a large decline.

4.32 Despite the wide variety of indirect taxes, the range of goods and services covered is narrow. In order to raise revenue, tax bases, particularly imports, are subject to multiple taxation. Although the majority of rates are of an ad valorem nature, important items, such as petroleum products, are largely subject to specific duties. The discussion that follows emphasizes production and sales taxes, energy-related taxes, the banking and insurance financial tax, and considers the VAT reform proposal.

Production Taxes

4.33 The production taxes are levied on four specified lists of items. The first three comprise domestically produced items while the fourth list consists of a range of imported manufactured goods that compete with domestic production (Table 4.5). 1/ The first list includes produced inputs such as cement, textile yarns, synthetics, and various metals that are subject to rates ranging from 12.5 per cent for cement and wood products to 75 per cent on valuable stones that enter into the production of luxury items. The second list is made up essentially of consumer durables (motor vehicles, watches, stereophonic equipment), subject to rates varying from 5 to 40 per cent, while the third list includes a variety of excisable commodities sold either by the private sector or through state monopolies. Rates for items on the third list range from 5 per cent for soft drinks to 70 per cent for alcoholic beverages. Finally, the fourth list consists of imported items that are fabricated from inputs specified in list 1 and some other items, and are subject to rates ranging from 10 per cent for imported items manufactured out of cement to 60 per cent for fur based products.

4.34 The rationale for the system of production taxes, which has remained essentially unchanged since its inception in 1957, is to avoid the cascading of tax rates that resulted from the prior system of turnover taxes by providing different treatment to successive production categories (stages of production). In cases like motor vehicles, some of whose inputs, such as metal goods or rubber, are subject to indirect taxation, rebates are provided roughly in the amount of the taxes paid on inputs. In order to ease tax administration, the rebates are given on a product-by-product basis, according to specified schedules that impute input contents. Different schedules are provided for items intended for domestic consumption and for exports.

1/ In the revenue classification adopted in Table 4.1, certain tax components, namely, the monopoly tax and the production tax on imports of the production law have been taken out in order to better show the nature of the tax.

Table 4.5. Turkey: The Production Tax 1/

		Tax Rate (In per cent)
I.	Inputs	
1.	Cement, fire bricks; and wood products	12.5
2.	Metals	
	a. Iron industrial group	12.5 - 15.0
	b. Copper industrial group	30.0
	c. Other industrial metals	30.0 - 50.0
3.	a. Petroleum group	TL 0.05-1.62/kg.
	b. LPG	TL 0.40/kg.
4.	Electricity and gas	(TL 0.1-0.3/Kwh)
5.	Rubber and synthetics	25.0
6.	Furs; bones, horn, etc.; and valuable stones (jewelry)	75.0
7.	Paper and paper board; and glass	15.0 - 50.0
8.	Textile materials (yarns)	12.0
9.	Toilet articles	15.0 - 30.0
II.	Finished Products	
1.	Gun powder, guns, explosive materials (ammunition)	25.0
2.	Matches	(TL 6/1,000 sticks)
3.	Vehicles	5.0 - 15.0
4.	Clocks	20.0 - 40.0
5.	Audio equipment	10.0 - 20.0
6.	Photograph and cinema equipments	18.0
7.	Ceramic products	20.0 - 40.0
8.	Tires (rubber); specified medical supplies; detergents and other specified chemical agents; pressed boards and specified wood products; specified construction material; and household appliances	4.0
III.	Coffee, Cacao, Glucose, Cola Drinks (with or without alcohol)	
1.	Coffee	TL 50/kg.
2.	Cacao, cacao oil	30.0
3.	Drinks with or without alcohol which are produced by the private sector	5.0 - 70.0
4.	Glucose	25.0
5.	Monopoly products, tobacco, alcohol, drinks, etc.	70.0
6.	Cocoa concentrate	40.0
7.	Salt	10.0
IV.	Imports	
1.	Finished products from cement and fire bricks; and wood products	10.0
2.	Metal goods	18.0 - 25.0
3.	Rubber goods	25.0
4.	Goods made of paper and hard boards	15.0
5.	Goods made of glass	18.0
6.	Textile products	12.5 - 18.0
7.	Furs; accessories from animal products; and accessories from valuable metals and stones	60.0
8.	Coffee and cacao products	25.0
9.	Goods and materials in specified customs tariff schedule	15.0 - 35.0

1/ As amended in the Law of April 1981 effective from May 1, 1981. The law provides discretionary authority to lower the rates by a maximum of 80 per cent and subsequently to restore up to the original rates.

4.35 The production taxes levied on imported items that are specified in the fourth list provide additional protection to domestic substitutes. The protection accorded is not directed at specific commodities but rather at the kinds of commodities that can be produced from the specified inputs, an approach that is intended to promote higher stages of processing. The production taxes on imports are levied in addition to the customs duties, stamp duties, wharf duties, quotas, and administrative regulations, and their implications for protection are assessed together with these other elements in Chapter 2 of this report. Here, the general remark may be made that it is more appropriate from an efficiency standpoint for the protective element of the production taxes (i.e., rates in excess of the production taxes levied on domestically produced commodities) to be incorporated in the tariff structure.

4.36 Effective from 1981, regulations on production taxes have been amended, involving increases in the range of items covered in certain of the lists, particularly list II, and some downward adjustments in the rates levied, with the net revenue effect for 1981 estimated as a loss of TL 9 billion. (These rates have been incorporated in Table 4.5.) Rebating schedules applicable to exports have also been revised. They are examined in Chapter 2 of the report.

4.37 Despite the recent changes, production taxes continue to have several shortcomings. Being limited to specific product categories, the production tax is not sufficiently broad based; the specific rates applied do not vary with inflation; and new products are not covered. At the same time, producers are required to maintain invoices for certain products on the list but not for others, thereby raising possibilities for substitution and evasion.

4.38 Furthermore, rebates do not fully cover taxes paid on imports used in production for domestic use. And, the rebates are not provided at the time of outlay but long after the sale of the product. Consequently, the manufacturer is placed at a disadvantage with respect to foreign competitors.

4.39 Reliance on specific taxes may also lead to unintended distortions affecting input and product mix. Thus, for certain lines of production based on glass inputs, the existence of plastics or paper products that are substitutes and are subject to different rates of tax, may induce substitution in favor of the lowest taxed items. And, in the absence of automatic rebating, taxing the input component raises the cost of domestically produced capital goods compared to imports.

4.40 Avoiding the aforementioned problems will require a comprehensive reform involving the abolition of much of the production tax law. Scope for this is provided on the lines of the currently envisaged value-added tax (VAT). This will be examined subsequently.

The Sales Tax

4.41 The retail sales tax is applied on the basis of two lists of specified activities or commodities. The first list comprises services such as those provided by restaurants and nightclubs, while the second list consists of additional services and consumer durables such as audio equipment, furs, furniture, carpets. Until the recent reform in May 1981 the tax was collected according to two schedules, the first providing for lump sum taxes (varying for different types of establishments), or, at the choice of the establishment, ad valorem rates ranging from 10 to 15 per cent on sales, that the establishment could apply in order to cover the lump sum payment. The second schedule had rates varying from 1 to 30 per cent that were levied on the basis of vouchers issued for each purchase, with firms required to fully remit proceeds to the tax authority.

4.42 The sales tax has been reformed by simplifying the two schedules and levying a tax of 3 per cent. However, the tax is still levied on specific lists of items that renders the administration of the tax difficult and generates distortions such as substitution in consumption of nontaxed items. Approaches to the resolution of the problems associated with the sales tax are dealt with in the section on the introduction of the VAT.

Energy-related Taxes

4.43 Energy-related taxes are levied, essentially on a specific basis, on the ownership of motor vehicles, the purchase of motor vehicles, various petroleum products, both domestically produced and imported. An ad valorem duty on imported petroleum is also levied. With the exception of the latter, revenue receipts from these sources have not kept pace with inflation, essentially the result of not adjusting the specific duties.

4.44 Table 4.6 provides an international comparison of the retail prices of gasoline and shows the extent of the disparity in prices charged in Turkey and in several Western European countries. Until recently, the retail price of gasoline in Turkey was one half or less of the prices charged in most Western European countries. In part, this reflected the influence of controlled prices that governed domestic production, but the disparity in taxes levied was also significant.

4.45 The artificially low prices may have contributed to increases in energy consumption in Turkey after the first oil shock in 1974. Between 1973 and 1978, the volume of oil imports increased by 68 per cent. Even if some offset is allowed for the decline in domestic production that occurred during the period, the volume increase is still over 50 per cent.

Table 4.6. Turkey: International Comparison of Retail Prices of Regular Gasoline

(In U.S. dollars per U.S. gallon)

	Turkey	Germany	Greece	Israel	Italy	Portugal	Spain
1970 consumer prices	0.46	0.58	0.64	0.51	0.78	0.74	0.53
Of which: taxes	0.21	0.42	0.40	0.35	0.61	0.08	0.31
1971 consumer prices	0.39	0.66	0.76	0.64	0.92	0.75	0.57
Of which: taxes	0.22	0.45	0.45	0.45	0.72	0.04	0.31
1972 consumer prices	0.42	0.75	0.76	0.54	0.99	0.79	0.60
Of which: taxes	0.23	0.54	0.45	0.38	0.77	0.09	0.33
1973 consumer prices	0.42	1.18	0.88	0.62	0.99	0.85	0.78
Of which: taxes	0.23	0.83	0.18	0.43	0.76	0.10	0.39
1974 consumer prices	0.75	1.27	1.70	1.26	1.69	1.41	1.16
Of which: taxes	0.27	0.77	0.50	0.35	1.15	0.46	0.38
1975 consumer prices	0.72	1.25	1.66	1.45	1.66	1.63	1.14
Of which: taxes	0.26	0.78	1.01	0.31	1.13	0.61	0.37
1976 consumer prices	0.63	1.39	1.59	1.64	1.74	1.87	1.21
Of which: taxes	0.23	0.79	0.91	0.60	1.13	0.88	0.33
1977 consumer prices	0.58	1.44	1.81	1.84	2.06	1.78	1.39
Of which: taxes	0.21	0.87	0.93	0.80	1.48	0.77	0.34
1978 consumer prices	1.31	1.68	1.99	1.36	2.16	1.93	1.53
Of which: taxes	0.24	0.99	1.12	0.42	1.56	1.01	0.41
1979 consumer prices	1.32	2.09	2.79	2.32	2.44	2.17	2.29
Of which: taxes	0.27	1.13	1.17	1.03	1.61	1.14	0.47
1980 consumer prices	2.09	2.46	2.85	...	3.08	3.14	2.81
Of which: taxes	0.14	1.23	0.99	...	1.89	1.64	1.05

Source: U.S. Department of Energy, International Petroleum Annuals for various years.

4.46 The retail price of gasoline in Turkey was substantially increased after January 1980, reducing the differences vis-à-vis Western European countries. Nevertheless, considerable differences remain, pointing to the need for increases in taxes for purposes of conservation. The same purposes may be served by taxing large automobiles more heavily and through tax incentives for energy saving to industry and households. A step in this direction was recently taken through increases in the specific taxes on the purchase and use of motor vehicles, ranging from 4 to 10 times of the amounts formerly levied. In order to avoid frequent recourse to discretionary actions, it would be more appropriate for these rates to be expressed in ad valorem terms, particularly for the vehicle purchase tax. Consideration may also be given to increasing taxes on household durables. Additional incentives to promote energy conservation could be provided in the form of investment incentives.

The Banking and Insurance Financial Tax

4.47 The general rate of the banking and insurance financial tax, levied on gross receipts such as interest on loans, commissions, and fees was 25 per cent until December 1980. A special rate of 20 per cent was applied to rediscounting operations while foreign exchange transactions were subject to a low nominal rate. Among the exemptions provided are proceeds from intrabank transactions, profits from equity in fully-owned nonbanking institutions, profits from equity in financial institutions, interest receipts on treasury bond holdings, receipts from guaranteed lending to small businesses, life and export insurance premia, and credits granted on projects with an export guarantee under the investment incentive provisions.

4.48 With effect from May 1981, the financial tax on banking and insurance has been reduced to 15 per cent. Nevertheless, it continues to raise the costs of financial intermediation that both hampers savings in financial assets and impedes the efficient functioning of the financial system as discussed in Chapter 3. Although an important source of revenue, its abolition would be desirable.

The Value-added Tax Proposal

4.49 For several years, there has been support for the introduction of a value-added tax (VAT), essentially on the lines adopted by the EEC countries, in order to overcome the difficulties associated with the production tax and the sales tax. The proposal is currently at an advanced stage of formulation and the authorities have indicated a desire to introduce the VAT in 1982.

4.50 The proposed VAT is of the consumption type based on the so-called credit system, whereby a rate is applied to the total sales of the enterprise with credit given for VAT paid on inputs. The intended coverage is comprehensive, including all industrial and agricultural

production, imports, commerce, the liberal professions, and services such as posts and telecommunications. In principal, all enterprises that are currently not exempt from income tax liabilities would be covered. The major exemptions to be admitted are exports of goods and services, banking and insurance, extension services for agriculture, the construction of sea, air, and railway vehicles, and a variety of social and cultural activities. The proposed basic rate of tax is 10 per cent, with a 9 per cent rate to be applied to the sales of retailers subject to the lump sum income tax scheme, and a 13 per cent rate to enterprises engaged in other services that are subject to lump sum taxes. At the same time, unlike common practice in the EEC countries that provides for full rebating of taxes paid on investment goods in the year of purchase, a tax credit phased over five equal yearly installments is proposed.

4.51 It is intended that the VAT substitute for parts of list I (excluding petroleum products and liquefied gas), as well as for lists II and IV of the production tax (see Table 4.5), but not for list III that comprises excisable or monopoly commodities. Other taxes to be substituted are the sales tax and the taxes on posts and telecommunications, transport services, betting pools, and sugar production.

4.52 The VAT would have the important benefit of neutrality as it would apply equally to all final sales. This would help eliminate existing distortions that interfere with production and consumption patterns, and it would facilitate border tax adjustments in compliance with GATT requirements. Finally, the proposed treatment of investment goods would be more systematic than at present.

4.53 The success of the VAT will, however, depend on its being introduced in an appropriate fashion. The authorities plan to introduce the VAT by January 1, 1984. In view of the complexity of the VAT, there will be need to allocate considerable administrative and other resources for this purpose.

4.54 Appropriate administrative arrangements will be necessary to ensure that the VAT is satisfactorily implemented. This may in turn require a postponement of the implementation date. In the process of transition, steps could be taken to prepare for the introduction of the VAT. To begin with, production taxes should be placed on a fully ad valorem basis and consideration should be given to broadening the base of the retail sales tax. Furthermore, the protective element embedded in the production or sales taxes on selected imports should be removed and incorporated in the tariff structure, so as to clearly demarcate the revenue and protective functions.

5. The Revenue Effects of Alternative Tax Schemes

4.55 Some estimates of the revenue effect of the tax reform program currently under way are presented in Table 4.7. The comprehensive nature of the reform and the volatility of the inflation rate make it particularly

difficult to estimate these revenue effects, which should, therefore, be treated with caution. In terms of revenue, the most important reform is that of the individual income tax. The reform adjusts downward the tax burden on wage earners but more than compensates by imposing a system of advance payments on unincorporated business, the revenue benefit of which, however, is of a one shot nature; the new agricultural tax; inflation induced adjustments in the lump sum taxes; and a higher withholding rate on interest and dividends paid out. At the same time, some downward adjustments in indirect taxes have been made (see Table 4.7).

4.56 In attempting to increase the tax burden on unincorporated businesses and farmers, who virtually escaped taxation in the past, the reform essentially establishes new levies that will make considerable demands on the tax administration. In anticipation of this, several important amendments have been made to tax procedural laws. Businesses are now required to display publicly signs indicating the amount of tax paid. So-called local committees, whose purpose is to determine tax liabilities, have been reformed to include greater official representation. Standards have also been set for acceptable bookkeeping and accounting, both to facilitate tax assessment and collection and to pave the way for the VAT.

4.57 The law has also been amended to avoid undue delays in the settlement of tax conflicts, that formerly took up to six years. Penalty interest rates on unpaid taxes have been increased from 32 to 43 per cent for the first year and from 24 to 36 per cent for the following years, and the 100 per cent ceiling over four years has also been abolished. Nevertheless, the penalties are still overly low compared to interest rates and in effect make the postponement of tax payments profitable.

4.58 The tax reforms recommended in this chapter include, inter alia, reductions in bracket rates and inflation indexing of the individual income tax; inflation cost accounting for both unincorporated and corporate business; reductions in the corporate profit tax rate on private business; reduction in interest and dividend withholding rates and avoidance of taxes on real capital; abolition of distortionary taxes such as the banking and insurance financial tax, the domestic production taxes (except for excisables) and the sales tax. Such adjustments would involve substantial losses in revenue. The abolition of the aforementioned indirect taxes alone would result in a loss in revenue amounting to about 4.0 per cent of GNP, while reductions in direct taxes may result in a further loss of revenue amounting to 2-3 per cent of GNP.

4.59 In order to make up for this revenue loss, new taxes of a less distortionary nature will need to be substituted, preferably in step with the replacement or modification of some of the old taxes. The most appropriate solution is to introduce a comprehensive VAT that has been planned by the Government. Taking note of the limited exemptions and

Table 4.7. Turkey: Estimated Revenue Effect of Tax Changes in 1981

(In billions of Turkish liras)

	1980 Collections (Provisional)	1981 Estimated effect of new measures	1981 Estimate (total revenue) 1/	1982 Budget (total revenue) 1/
Individual income tax	385.7	140.0	646.9	721.5
Of which:				
Advance payments	...	(170.0)	...	...
Lump-sum taxes	...	(30.0)	...	...
Agricultural taxes	...	(50.0)	...	...
Withholding tax on movable and inmovable capital incomes	...	(20.0)	...	...
Other measures	...	(10.0)	...	...
Transfer to wage earners	...	(-140.0)	...	...
Corporate income tax	37.1	15.0	126.0	130.0
Capital gains on tax	...	-0.8	4.2	7.0
Fiscal balance tax	34.9	-9.0	49.0	56.0
Motor vehicles tax	3.0	6.0	8.0	7.0
Inheritance and gift tax	2.1	-0.2	4.0	3.7
Domestic production tax	54.2	9.0	82.9	88.0
Production tax on import	35.1	--	56.0	67.9
Sales tax	5.2	6.0	6.0	6.7
Motor vehicles sales tax	3.0	10.0	7.5	8.0
Real estate purchase tax	11.7	1.0	13.4	15.5
Banking and insurance ta	42.9	-7.5	75.0	75.0
Building construction ta	0.5	2.0	1.2	4.2
Stamp duty	27.3	26.0	47.5	60.0
Fees	6.3	35.0	15.6	18.5
Other	98.2	--	183.8	170.5
Total tax revenue	747.2	236.0	1,327.0	1,459.5

Sources: "Recent Amendments in the Turkish Tax System," General Directorate of Revenues, Republic of Turkey, Ankara, February 1981, for estimated effect of changes; and Turkish authorities for other data.

1/ Inclusive of new measures shown in the second column.

exclusions to the VAT proposal and applying the basic rate of 10 per cent, suggests a potential revenue of 6-9 per cent of GNP. Additional revenue would also be forthcoming from higher energy-related taxes. Hence, in addition to the indirect taxes, mainly on production and sales, that the VAT proposal replaces, there is scope for implementing reforms of the system of direct taxes on the lines outlined earlier and also for the abolition of the financial tax on banking and insurance. Consequently, it would be possible to transfer the financing of some of social expenditures to the general budget.

B. Investment Incentives

1. Overview

4.60 In order to promote investment in activities and areas regarded as desirable, a number of incentives are granted. Until the change in policy stance in 1980, investment incentives were provided in support of an investment strategy that emphasized heavy state involvement and concentration on capital-intensive industries and processes. This was part of an inward-oriented strategy that initially involved the substitution of imported consumer goods and, as such opportunities were exhausted, the substitution of imported inputs and capital goods. 1/ Moreover, foreign investment was effectively discouraged and, for a country of Turkey's size and potential, cumulative foreign direct investment at the end of 1979 was a mere US$228 million (Table 4.8).

4.61 The sectoral distribution of investment certificates or licenses issued in 1979 for domestic investment (Table 4.9) showed a bias in favor of manufacturing, which accounted for 93 per cent of the total. Despite the considerable potential in agriculture, its share amounted to only 2 per cent, while services that include tourism and supportive activities such as trading and banking accounted for another 2 per cent of the total. The share of mining was also about 2 per cent and that of energy was negligible.

4.62 A number of features resulting from the change in policy on investment incentives in 1980 should be noted. In order to simplify cumbersome administrative procedures, the basic authority for granting incentives to domestic investment has been centered in a newly created Office of Incentive and Implementation (TUD) in the State Planning Organization (SPO). Incentives for foreign direct investment, which are generally the same as those for domestic investment--although certain of of the conditions governing their use differ--are now under the authority of a Foreign Investment (Promotion) Department in the SPO.

1/ This process appears characteristic of inward oriented economies with the result that progressive stages of substitution involve increasingly more capital intensive forms of investment. See B. Balassa, "Incentives Policies in Brazil," World Development, Vol. 7 (1979), pp. 1023-42.

Table 4.8. Turkey: Foreign Investment Under the Encouragement Scheme

(In millions of U.S. dollars)

Period	Amounts	Cumulative
pre-1960	17.3	17.3
1961-70	88.2	105.5
1971-73	91.8	197.3
1974	-7.7	189.6
1975	15.1	204.7
1976	8.9	213.6
1977	9.2	222.8
1978	11.7	234.5
1979	-6.4	228.1
1980 1/	33.0	261.1
1981	110.0 2/	459.1

Source: S.P.O.

1/ Approximately 85 per cent of the investment shown is financed through drawing down of blocked accounts arising from unguaranteed suppliers credits.

2/ Estimate.

Table 4.9. Turkey: Sectoral Breakdown of Investment Licenses Issued Under the Domestic Incentive Law, 1976-79

(In billions of Turkish liras)

	1976		1977		1978		1979	
	Value	% share	Value	% share	Value	% share	Value	% share
Agriculture	0.7	1.1	1.0	0.5	2.2	1.5	2.2	2.4
Mining	2.0	3.0	2.4	0.6	10.4	7.0	2.0	2.1
Manufacturing	53.0	80.2	190.4	68.9	129.1	87.2	80.1	93.0
Energy	0.4	0.6	76.9	27.7	1.4	0.9	0.3	0.3
Services	10.0	15.1	6.2	2.3	5.1	3.4	2.1	2.2
Total	66.1	100.0	277.0	100.0	148.1	100.0	86.7	100.0

Source: S.P.O.

4.63 There have also been changes in the incentive measures and in conditions that need to be satisfied for investment incentives to be granted. At the same time, some reorientation in priorities has been effected, with greater emphasis being placed on export-oriented activities, agriculture, and tourism. In the discussion that follows, domestic and foreign investment incentives are considered separately. The discussion concentrates on the procedures for granting the incentives and the nature of the incentives. Recommendations for generalizing and simplyfing investment incentives are also made.

2. Domestic Investment Incentives

Procedures and Criteria

4.64 The process for obtaining incentives is begun by submitting three copies of a project feasibility survey providing basic financial, technical, and economic data to TUD. On checking for consistency with the activities to be encouraged in the General Incentives List (GIL), preliminary approval is granted. Next, a detailed feasibility report is submitted, which the TUD evaluates using criteria such as the balance of domestic supply and demand of the product to be produced, the capacity of the project, the potential for export, and the scope for foreign

exchange savings. On approval of the detailed proposal, an Investment Encouragement Certificate is issued, listing the particular incentives to be provided the project and the special conditions, such as export commitments, to be imposed. This constitutes the basis for issuing the so-called implementation certificates.

4.65 In order to take advantage of the allowances specified in the investment encouragement certificate, a separate application for an Investment Allowance Certificate has to be submitted to the SPO. For relief from customs duties to be granted, a Domestic Manufacturing Situation Certificate is also required. This certificate is obtained from the Ministry of Industry and Technology, essentially establishing that the investment good is not produced domestically, and is then submitted to the SPO for endorsement. In the tourism sector, a Tourism Establishment Certificate has first to be obtained from the Ministry of Tourism and Information, which determines that the proposed project satisfies criteria laying down standards for facilities and so forth, and is then submitted to the SPO for approval, together with the incentive application.

4.66 Exceptions from the criteria laid down are approved on a case by case basis on application to the SPO. If a project is proposed that does not feature in the GIL, the SPO on determining that the project is in the interests of the country can have the activity gazetted in the GIL. In case of a change in plans that involve adjustments in investment outlays of 20 per cent or more from the amount featured in the approved Investment Encouragement Certificate, a separate application has to be made.

Incentive Measures

4.67 The general and specific incentive measures that different sectors and activities are eligible for are stated in the GIL and include remissions of customs duties, investment allowances, and interest rebates. Remission of import related duties on the investment good can be substantial since it includes not only the tariff, but stamp duty, wharfage, etc. Depending on the activity, but only if the item imported is not manufactured at home, either a full exemption or deferrals, involving payments in five equal annual installments, are provided.

4.68 The duty free entry of capital goods tends to encourage capital-intensive industries and production methods. The same conclusion applies to the general allowance of 30 per cent of the cost of approved investment that is limited to fixed capital. It is deductible from taxable income, provided that the size of the project is at least TL 20 million. No carry forward of any excess of the allowance over taxable income is provided. Whereas, formerly, the allowance was limited only to the own equity financed part of the investment, there is now no restriction on the mode of financing. However, a more restrictive condition has been introduced, which requires that the imported capital good be new. In addition, enterprises now have to place a so-called "finance fund" on

deposit with the Central Bank to cover the cost of the approved investment that the firm draws down as the investment progresses. The countervalue of this deposit can also be deducted from taxable income, provided the deposit does not exceed 25 per cent of such income or the total cost.

4.69 The basic investment allowance is modified for particular purposes. A maximum of 60 per cent is provided for investments in underdeveloped regions that are listed in the GIL, and 50 per cent for investments that are export-oriented or engaged in tourism. Turkish engineering and construction firms are granted full exemption from the corporate income tax on any earnings repatriated from activity abroad. Finally, for designated priority sectors, the minimum size of investment that is eligible for incentives is reduced to TL 10 million and to TL 4 million for agriculture.

4.70 The benefit to the firm of the investment allowance depends on the size of the allowance and the extent of the distribution of profits. The following example takes the case of a firm that receives the 60 per cent maximum allowance and distributes one-fifth of its profits to shareholders. With distributed profits being subject to a withholding tax of 33 1/3 per cent, and undistributed profits to 20 per cent, the average withholding tax on the investment allowance will be 22.67 per cent. The incentive provision thus reduces the effective corporate income tax from 50 per cent to 33.60 per cent on profits that correspond to the amount invested (the weighted average of the 22.67 per cent withholding tax on the 60 per cent investment allowance, and the 50 per cent corporate income tax on the remaining 40 per cent of the value of investment).

4.71 Export-oriented investment encouragement certificates carry the particular feature of including export guarantees which specify the amount out of production that the firm will export. A general rule stated in the GIL is that a minimum of 75 per cent of the annual production from the concerned investment has to be exported for a period of five years, with the amount of annual exportation not to fall below a designated amount--US$500,000 or US$250,000 for underdeveloped regions. In 1980, US$1.4 billion of such commitments were undertaken.

4.72 In order to reduce borrowing costs, interest rate rebates to a maximum of 25 per cent are provided on medium and long-term credits for investments that are encouraged. There is some variation in the interest rebates, depending on whether an export guarantee or commitment is made, the location of the project, and its priority classification. As described in Chapter 3, the rebates are paid out from a special fund maintained by the Central Bank that is financed from levying a charge on certain categories of bank loans.

4.73 Another investment incentive is the exemption from the lump sum building construction tax, where the rates levied vary from TL 125 per square meter for constructions up to 25 square meters to TL 1,000 per square meter for constructions exceeding 100 square meters. Finally, projects with an export guarantee are exempted from the banking and insurance financial tax.

4.74 The SPO is empowered to monitor investments that have received encouragement certificates in order to ensure compliance with the conditions imposed. Any failure in compliance can be penalized by the suspension of the incentives provided. However, the follow up procedures are generally regarded as perfunctory. Despite widespread non-compliance, especially with firms' export guarantees, there have been few cancellations or limitations of the incentives provided.

4.75 The GIL lists 14 activities to be promoted in the agriculture sector, 168 activities in manufacturing of which the largest number (25) are in chemicals, 9 activities in the energy sector, and 15 in services ranging from transportation to tourism. Investments in less developed regions and in export activities in these sectors receive additional benefits.

4.76 Some of the characteristics of investment encouragement certificates issued in 1980 and in the first eleven months of 1981 are summarized in Table 4.10. The sectoral distribution of these certificates shows a large increase in the share of agriculture in 1980.

Table 4.10. Turkey: Characteristics of Investment Licenses Issued in 1980 and in January-August 1981 Under the Domestic Incentive Law

Sector	Value of investment (TL billion)		% share		Foreign exchange requirement (TL billion) 1/		Employment content (thousands)		Investment cost per per employee (TL million)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Agriculture	27.6	41.3	13.3	4.5	1.9	1.1	2.4	8.2	11.5	5.0
Mining	3.7	14.0	1.8	1.5	0.9	4.7	1.0	3.7	3.7	3.8
Manufacturing	161.6	429.0	78.0	47.3	61.6	182.0	45.2	52.1	3.6	8.2
Energy	13.7	0.6	6.6	0.1	5.8	0.1	0.1	0.1	137.0	4.9
Services	0.5	422.8	0.3	46.6	--	232.0	1.8	51.6	0.3	8.2
Total	207.0	907.7	100.0	100.0	70.1	419.9	50.5	115.7	4.1	7.8

Source: S.P.O.

Note: (1) year of 1980; (2) January-November 1981.

1/ Converted at Tl 76 to the U.S. dollar in 1980 and Tl 108 to the dollar in January-November 1981. As against the foreign exchange requirement, export pledges of TL 162.2 billion made for a five-year period.

Agriculture's share declined again in the first eleven months of 1981, however, as investment promotion in manufacturing industries and, in particular, in service industries, increased. The foreign exchange requirement of promoted investment for the procurement of plant and equipment, amounts to over two-fifths of total investment value. The employment effect of promoted investments is relatively small compared to the size of the estimated unemployed labor force. Despite attempts on the part of the authorities to promote investment in under-developed regions of Turkey, especially since 1976, there has been limited success. In 1980 and in the first eleven months of 1981, four-fifths of the value of investment permits issued were for the more developed regions.

3. Foreign Investment Incentives

Encouragement of Foreign Investment

4.77. As is noted in Table 4.8, foreign investment in Turkey has been very small. Despite a nominally liberal foreign investment law, neglect by the authorities combined with bureaucratic impediments effectively discouraged foreign investment in the past. These problems were compounded by difficulties associated with profit repatriation, particularly with the onset of foreign exchange crises in late 1977.

4.78 The authorities wish to encourage foreign private investment, with a view to increasing the supply of investible resources, alleviating the foreign exchange burden, and promoting transfer of technology, management, and marketing capabilities. Foreign investors can now invest in any sector that is open to domestic entrepreneurs and receive similar incentives, although they are subject to different conditions. The Foreign Investment Department (FID) issues permits under its own authority for foreign capital participation in an investment of less than US$50 million, provided that the foreign equity share is between 10 and 49 per cent. However, these limitations are merely a screening process and approval for proposals outside of these limits is generally provided on recommendation by the FID to the Council of Ministers.

Guidelines for Foreign Investment

4.79 While practically all sectors listed in GIL are now open to foreign investment, some qualifications do apply. For certain industries, such as food, furniture, buses and lorries, clothing, a commitment is required that a proportion of total production, ranging from 25 per cent for lorries to 60 per cent for furniture, will be exported. In certain sectors that are controlled by public sector ventures, for example, TUMOSAN for diesel engines, TAKSAN for machine tools, and TESTAS for electronic goods, cooperation with these entities is required as a condition for foreign capital participation.

4.80 The general restrictions on equity ratio do not apply to tourism projects that require a capacity of at least 400 beds, with a minimum of 60 per cent allocated to foreign tourists. Investments involving Turkish workers abroad who contribute at least 25 per cent of the outlay are

freed from any restriction on the foreign equity share. This also applies to all investments involving capital participation from the Middle East oil-producing countries, provided the project can generate exports to that region.

4.81 Any deviations from the conditions and values specified in the law, for example, involving capacity expansion, are approved by the FID on a case-by-case basis. In the case of participation of foreign banks in existing or newly founded banks, following a preliminary examination by FID, its recommendations are submitted to the Council of Ministers for decision after consultation with the Ministry of Fiinance and the Ministry of Commerce.

4.82 Foreign investment in Turkey amounted to $33 million in 1980 and approximately $110 million in 1981. Ninety per cent of foreign investment is in electrical machinery, vehicles, and food industry, and about one half of the foreign capital originates in Germany and France. About 85 per cent of foreign investments, however, involve using non-guaranteed trade arrears from blocked accounts with the Central Bank, arising from outstanding unguaranteed foreign trade credits. Despite the liberalization and streamlining of procedures, the economic slowdown and uncertainties as regards the repatriation of capital and earnings have caused investors to take a wait-and-see attitude before committing additional resources from abroad.

4. Policy Recommendations

4.83 The substantial streamlining of procedures that has been effected has contributed to increases in investment applications. Nevertheless, there is scope for further improvements in the process of granting investment incentives. The procedures involve a large number of certificates of various kinds and despite a salutory reduction in processing lags, the inconveniences involved can be substantial. Furher efforts should, therefore, be made to reduce the nuisance effects of some of the bureaucratic procedures.

4.84 Despite attempts by the authorities to change priorities and in particular to favor exports, agriculture, and services such as tourism, some of the procedures tend to favor domestic market oriented manufacturing. This arises from dependance on the domestic supply-demand technique for assessing the desirability of a project, and is accentuated by requiring that plant and equipment be domestically produced to the extent possible. The latter can lead to high cost production, thereby increasing pressure for further protection from imports.

4.85 Further questions arise concerning the use of a "positive" list, which specify the investments eligible for incentives. While some of the sectoral designations are quite broad and investors may apply for incentives also in sectors that are not included in the list, this involves additional administration and creates uncertainty. The rising number of rejections of applications for incentives also increases uncertainty and may in particular discourage smaller firms from applying.

4.86 A more appropriate solution would be to establish a "negative" list that would designate a limited number of products, which do not receive incentives. This may include cases where foreign market limitations exist, e.g., cotton fabrics, or there is excess capacity in a sector that is oriented towards domestic markets, such as automobiles. At the same time, additional incentives may be provided to encourage those lines of activity such as engineering industries, that may be considered infant industries in Turkey.

4.87 Some of the investment incentives favor capital-intensive activities. The investment allowances apply only to investment in fixed assets, for example, and should be extended to cover investment in working capital. Ideally, a case could be made for replacing investment allowances by tax holidays that do not discriminate between capital and labor and do not provide proportionately greater benefits to less profitable firms than to firms with higher profits. Relief for investment in plant and equipment should take the form of depreciation allowances that relate to economic life, and are appropriately adjusted for inflation so as not to tax real capital.

4.88 In order to avoid a bias in favor of shorter-lived capital, consideration could be given to deducting any excess of the investment allowance over income in future years. The discrimination against smaller firms associated with the minimum size of investment to TL 20 million is inappropriate, particularly from the point of view of promoting employment. Smaller firms are typically labor intensive and in the absence of an investment encouragement certificate they are also denied access to foreign exchange and credit facilities.

4.89 Limiting the investment allowance only to new equipment may hinder the adoption of technologies more appropriate for Turkey's circumstances and consideration could be given to extending the deduction to imports of second-hand equipment. Also, such incentive could be extended to cover the costs of research and development. Finally, consideration should be given to promoting energy-saving processes.

4.90 Providing encouragement to foreign investment can be of benefit particularly if multinational corporations are attracted since these can play an extremely important role in export marketing. Turkey could become attractive to multinational firms as a producer of parts and components, in the engineering industries and for triangular arrangements, with the processing of imports originating in Common Market countries for exportation to the Middle East. It could also benefit from the sale of products through foreign distributors and brand name suppliers.

4.91 Foreign investors are particularly sensitive to political stability, host country attitude toward foreign investors, repatriation of profits and capital. On balance, the incentives provided appear adequate although the remarks made above with regard to domestic investment incentives and administration apply here as well.

4.92 While until recently there were considerable difficulties with the repatriation of capital, under current procedures repatriation is allowed with conversion to foreign currency at exchange rates applying at the time of repatriation. Nevertheless, delays occur in large part because of disputes over the valuation of equity holdings. There have also been difficulties with the repatriation of profits derived from investments undertaken before 1980.

4.93 These restrictions and procedures do not apply to new foreign investments approved by the FID. It would be desirable that improvemenss in procedures be accompanied by promotional efforts abroad. Finally, it would be desirable to eliminate the requirement of cooperation with SEEs as a condition for foreign investment in certain engineering branches.

CHAPTER 5

INDUSTRIAL DEVELOPMENT AND EXPORTS

Introduction

5.1 The main thrust of past industrial development strategy in Turkey has been import substitution. The principal policy instruments have been investment allocation to the State Economic Enterprises and high levels of protection for private industry.

5.2 This strategy produced certain results. Manufacturing production registered an average annual growth of over 10 percent during the 1960-1973 period that compares favorably with other Southern European countries (Table 5.1). The share of the manufacturing in GNP rose from 13 percent in 1960 to 15 percent in 1973. Also, structural change occurred as the proportion of intermediate and investment goods in total value added increased over time. However, in per capita terms, Turkey did not match the performance of other Southern European countries and a variety of structural problems arose: low industrial efficiency; increased capital-intensity; and a strong anti-trade bias (export growth in Turkey in the 1960-1973 period was only 3 percent a year compared to about 12 percent for Greece and Spain).

5.3 These problems resulted in Turkey being caught in an impasse when the original momentum of import substitution was spent. In fact, in response to external shocks suffered after 1973, successive Turkish Governments increasingly relied on foreign borrowing. This permitted maintaining high growth rates for a while but reliance on foreign borrowing undermined Turkey's creditworthiness. With shortages of foreign exchange, growth decelerated and per capita incomes eventually declined. In response to this situation, Turkish policy makers initiated an economic reform involving increased outward orientation, with greater reliance on market forces.

5.4 This chapter examines some of the issues related to industrial development and exports. Apart from providing an overview of the structure and development of manufacturing industries and of manufactured exports, the chapter examines the principal factors affecting the growth of productivity, such as research and development and labor training. It also analyzes the comparative advantage and foreign market possibilities of Turkish industry, with attention given to preferential access to the EEC market and sales in Middle Eastern markets.

Table 5.1: GROWTH IN MANUFACTURING PRODUCTION AND EXPORTS IN FOUR MEDITERRANEAN COUNTRIES

	Turkey	Greece	Portugal	Spain
Growth in Manufacturing Production (%)				
1960-1973	10.2	10.7	9.1	10.2
1973-1976	8.3	4.1	-1.0	3.1
1976-1979	2.1	4.4	6.3 /1	9.5 /1
1973-1979	5.2	4.2	1.9 /2	5.6 /2
Manufacturing Share in GDP (%)				
1960	11	14	27	27
1973	15	18	31	26
1976	15	18	31	25
1979	19	17	33	28
Total Merchandise Export (U.S. $ million)				
1960	321	203	327	726
1973	1,317	1,454	1,862	5,162
1976	1,960	2,558	1,820	8,712
1979	2,261	3,877	3,354	18,196
Growth in Total Merchandise Export (%)				
1960-1973	3.0	11.8	6.4	12.3
1973-1976	1.0	11.5	3.1	7.6
1976-1979	3.8	6.8	14.7	15.3
1973-1979	0.5	8.8	4.3	11.1
Value of Manufactured Exports (US$ million)				
1960	38	19	176	126
1973	245	537	1,297	3,206
1976	493	1,253	1,231	6,035
1979	650	1,612	1,357	13,331
Share of Manufactured Exports (%)				
1960	12	9	54	17
1973	19	37	70	62
1976	25	49	68	69
1979	29	42	40	73

/1 1976-78.
/2 1973-78.

Source: World Development Report, International Trade Statistics, and EPO, World Bank.

A. The Structure and Development of the Manufacturing Industries

1. Sectoral Composition

5.5 As shown in Table 5.2 (the figures exclude enterprises with fewer than 10 workers), a substantial part of manufacturing production in 1979 was still closely linked with primary producing sectors. About 16 percent of manufacturing value added originated in processed food, beverages and tobacco, with an additional 15 percent generated in the processing of minerals and wood. Textiles and apparel, based largely on domestically produced cotton, were the most important sector, accounting for 19 percent of manufacturing value added in 1979; they also provided a large share of Turkish manufacturing exports.

5.6 In terms of growth rates, wood products (10 percent), chemicals (14 percent), non-metallic minerals (11 percent), and engineering products (12 percent) were the leading sectors in the 1967-79 period. Within the latter group, non-electrical machinery grew by 13 percent a year, electrical machinery registered an annual average growth of 16 percent, and transport equipment 10 percent. As a result, engineering industries accounted for 17 percent of manufacturing value added in 1979 as compared to 10 percent in 1967.

2. Ownership

5.7 In 1979, 32 percent of manufacturing value added originated from the public sector, which also provided 36 percent of employment. 1/ The public sector is dominant in tobacco (91 percent of production), petroleum (87 percent) and paper and paper products (60 percent). It also has a large share in basic metals, especially in steel and aluminum. The private sector, on the other hand, is involved primarily in light industries such as textiles and clothing, furniture and wood products, rubber and rubber products, and non-metallic minerals, as well as in engineering industries, such as electrical and non-electrical machinery and transport vehicles.

3. Size Distribution

5.8 On the whole, small (establishments with less than 50 workers) and medium-scale establishments (employing 50-200 workers) are predominant in Turkish manufacturing. 2/ By contrast, large establishments dominate the public sector. While only 7 percent of private establishments employ more

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1/ A fuller discussion is found in Chapter 6.

2/ IBRD: Turkey - Prospects for Small- Medium-scale Industry Development and Employment Generation. 1980

Table 5.2: STRUCTURE AND GROWTH OF MANUFACTURING /1
(constant 1968 prices, million TL))

Sector	Value added			Growth (% per year)			Share in manufacturing (%)		
	1967	1973	1979	1967-73	1973-79	1967-79	1967	1973	1979
Food and Beverages	2,184	3,039	3,391	5.7	1.8	3.7	17.0	13.5	11.5
Tobacco Processing	1,311	1,959	1,415	6.9	-5.3	0.6	10.2	8.7	4.8
Textiles and Apparel (including shoes)	2,017	3,670	5,637	10.5	7.4	8.9	15.7	16.3	19.1
Wood products and Furnitures and Fixtures	141	90	442	-7.2	30.4	10.0	1.1	0.4	1.5
Paper and Paper Products	270	563	472	13.0	-2.9	4.8	2.1	2.5	1.6
Printing and Publishing	206	315	354	7.4	1.9	4.6	1.6	1.4	1.2
Leather and Fur Products	26	7	89	-19.9	150.4	0.8	0.2	0.0	0.3
Rubber Products	450	540	1,091	3.1	12.4	7.6	3.5	2.4	3.7
Chemicals	758	1,531	3,686	12.4	15.8	14.1	5.9	6.8	12.5
Petroleum Refining and Petrol and Coal Products	1,979	3,692	1,828	11.0	-11.1	-0.7	15.4	16.4	6.2
Non-metallic Mineral Products	565	1,058	2,005	11.0	11.2	11.1	4.4	4.7	6.8
Basic Metals	1,028	2,229	2,713	13.8	3.3	8.4	8.0	9.9	9.2
Metal Products	655	833	1,386	4.1	8.9	6.4	5.1	3.7	4.7
Machinery	385	901	1,592	15.2	10.0	12.6	3.0	4.0	5.4
Electrical Machinery	244	585	1,386	15.7	15.5	15.6	1.9	2.6	4.7
Transport Equipment	630	1,508	1,976	15.7	4.6	10.0	4.9	6.7	6.7
TOTAL	12,848	22,520	29,463	9.8	4.6	7.1	100.0	100.0	100.0

/1 Establishments employing 10 or more workers.

Source: SIS and Mission calculation.

than 200 workers, this is the case for about 80 percent of establishments in the public sector, and the average public manufacturing establishment is roughly 10 times the size of the average private manufacturing establishment. 1/

5.9 The data refers to establishments employing more than 10 workers. Between 1970 and 1977 the total number of these establishments increased from 4,819 to 8,537, or by 77 percent. The increase was even larger in the medium (50-200) and small scale industry (10-49) sectors, where the number of establishments rose by 88 percent and 82 percent, respectively.

5.10 Turkey's industry suffers from the problem of uneconomically small size of establishments. The technically optimal scale of establishment exceeds the average size by a factor of ten in ethylene, bricks, and tractors, and by a factor of twenty or more in sulfuric acid and diesel engines. 2/ This is in part the result of the import-substituting strategy applied that permitted small establishments to be set up, often with the duplication of facilities, in the protected domestic market.

4. Regional Distribution

5.11 Istanbul accounted for 42 percent of the total number of establishments, followed by Marmara, Izmir and Ankara regions with 14 percent, 10 percent and 8 percent, respectively, in 1977. 3/ Istanbul also had the highest concentration in most industries, especially in chemicals (62 percent), engineering industries (52 percent) and textiles (47 percent). 4/

5. Capital Intensity 5/

5.12 Calculations of capital-labor ratios are fraught with difficulties due largely to the valuation of capital. In the 1972-75 period, capital intensity was on the average about 50 percent higher in public than in

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1/ K. Ebiri, Z. Bozkurt and A. Culfaz; Capital and Labor in the Turkish Manufacturing Industry. SPO 1977

2/ Ebiri et al op. cit. Table 2.1, p. 28.

3/ 1978-83 Plan, SPO.

4/ IBRD Turkey: "Prospects for Small- Medium-Scale Industry Development and Employment Generation", op cit p. 20 Table 6.

5/ Estimates of capital stock were derived by depreciating existing capital stock and adding new investment to it. A benchmark was provided by the 1965 SPO data on capital stock in "Turkiye Imalat Sanayiinde Sermaye ve Isgucu." (Capital and Labor in Turkish Manufacturing Industry), Ankara, December 1977. The relative efficiency of public and private sectors in terms of comparative use of capital and labor by public and private enterprises between 1963 and 1976 is examined in Anne Krueger and Baran Tuncer, "Estimating Total Factor Productivity Growth in a Developing Country" World Bank Staff Working Paper No. 422. The main findings of the paper are summarized in Chapter 6.

private sector enterprises; the ratio would be even higher if overstaffing in public enterprises was avoided. 1/ Part of the explanation lies in the prevalence of private firms in light industries and engineering that have relatively low capital-labor ratios; these ratios are generally high in intermediate product industries where public firms predominate (Table 5.3).

6. Labor Productivity

5.13 During the 1965-1975 period, average labor productivity (value added per worker) in the private sector increased by 9 percent a year compared with 7 percent a year in the public sector. 2/ Private sector industries with above-average productivity growth rates included engineering, tobacco processing, paper, rubber and petroleum.

5.14 In 1979, private sector exhibited higher levels of labor productivity in all sectors except for wearing apparel (Table 5.4). In manufacturing as a whole, labor productivity was on the average 30 percent higher in the private than in the public sector. However, the public sector paid 32 percent higher average wages and salaries than the private sector.

1/ Ebiri et al p. 25.
2/ Ibid. Comparable series to cover recent period is not available.

Table 5.3: CAPITAL REQUIREMENTS PER JOB IN 1980

Industry	Capital requirements per job (TL million)	Ranking
Crude Oil Extraction	95.2	1
Fertilizer	36.2	2
Oil Refining	30.7	3
Energy	25.7	4
Iron and Steel	17.8	5
Cement	16.1	6
Paper	12.7	7
Flour and Flour Products	8.2	8
Fruit and Vegetable Processing	8.1	9
Skin and Fur	6.8	10
Sugar	6.5	11
Agriculture Machinery	6.1	12
Slaughter House	5.3	13
Beverages	5.1	14
Motorvehicles	5.0	15
Furniture	4.9	16
Textiles	4.8	17
Plastics	4.8	18
Tobacco	4.5	19
Vegetable Animal Fat	4.1	20
Electrical Appliances	3.9	21
Metal Works	3.8	22
Clay Products	3.6	23
Raw Material Extracting	3.5	24
Apparel	2.2	25
Drugs	2.0	26
Stone Extracting	1.6	27
Construction Materials	1.5	28
Shoe	1.2	29

Source: State Planning Organization: "Briefing given to the Council of Ministers on results obtained from Economic Stability Measures" October 24, 1980.

Table 5.4: VALUE ADDED PER WORKER IN MANUFACTURING 1979
(TL Thousand)

Industry	Public	Private
Processed Food	222	348
Beverages	603	689
Tobacco	402	461
Textiles	236	413
Wearing Apparel	339	206
Fur and Leather Products	-	294
Wood and Cork	287	392
Furniture and Fixtures	231	638
Paper	225	638
Printing and Publishing	291	417
Chemicals	881	1,045
Petroleum	2,210	2,380
Rubber and Rubber Products	117	539
Non-Metallic Minerals	291	415
Basic Metals	267	657
Metal Products	1,014	387
Machinery	372	414
Electrical Machinery	231	534
Transport Equipment	312	530
Miscellaneous	250	310
Total	374	482

Source: SPO, Calculated from Tables in Statistical Annex

7. Employment in Manufacturing

5.15 Between 1967 and 1973, the manufacuring sector played an important role in absorbing increments to the labor force, which was growing at 1.2 percent a year during this period. The rate of growth of manufacturing employment has however declined from 4.6 percent a year in 1967-73 to 1.7 percent a year in 1973-79 (Table 5.5). The decline in the rate of growth of manufacturing employment was partially attributable to the slowdown in the expansion of manufacturing value added, from 9.8 percent in 1967-73, to 4.9 percent in 1973-79 (Table 5.2). Another factor was the government's import substituting development strategy, which channelled a large part of industrial investment to capital-intensive industries and projects, particulary in the public sector. Thus, expressed in 1976 prices, the

average capital cost per job created in the manufacturing sector increased from TL 267 thousand during the First Plan period (1963-67) to TL 572 thousand in the Third Plan period (1973-77). 1/

Table 5.5: SECTORAL DISTRIBUTION AND GROWTH OF EMPLOYMENT

	Percent Shares			Annual Growth Rates	
	1967	1973	1979	1967-73	1973-79
Agriculture	77.0	66.1	62.5	-0.3	-0.2
Industry /1	7.9	11.1	11.8	4.3	2.2
Manufacturing	(7.2)	(10.0)	(10.3)	(4.6)	(1.7)
Services	15.1	22.8	25.7	3.9	4.0
Total	100.0	100.0	100.0	1.2	1.2

/1 Includes mining, manufacturing, electricity, gas and water.

Source: SPO.

B. The Development of Exports

1. Manufactured Exports 2/

5.16 Historically, government policies in Turkey were not conducive to export expansion. The strong anti-trade bias of the development strategy applied is demonstrated by the fact that merchandise exports constituted only 4 percent of GNP in 1979, compared to an average of 20 percent for 55 middle-income developing countries. Moreover, exports were largely confined to foods and a few traditional manufactured products such as textiles, and leather products. With some notable exceptions, Turkish firms tended to export occasional surpluses and appeared disinclined to invest with a view to continuing export commitments. Even this modest effort should be largely credited to the private sector, which accounted for about 85 percent of manufactured exports.

5.17 Manufactured exports experienced a period of rapid growth in the early 1970s, following the devaluation of 1970, and their share in total merchandise exports increased from 10 percent in 1970 to 25 percent in

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1/ Turkey: Labor Intensive Industry Project -- Staff Appraisal Report. World Bank, 1981. p. 4, footnote 3.

2/ The composition of industrial exports is shown in Table 5.6. Manufactured exports are defined as industrial exports less food and beverages and petroleum products.

TABLE 5.6: COMMODITY COMPOSITION OF EXPORTS AND CONTRIBUTION TO EXPORT GROWTH, 1972-1980

	Export Values ($mn)			Percent Composition			Percent Composition Industrial Exports		
	1972	1979	1980	1972	1979	1980	1972	1979	1980
Agriculture and livestock	607.4	1,343.6	1,671.7	68.6	59.4	57.4	-	-	-
Mining and quarry products	35.1	132.5	191.0	4.0	5.9	6.6	-	-	-
Industrial Products	242.4	785.1	1,047.4	27.4	34.7	36.0	100.0	100.0	100.0
Food and beverages	87.3	135.0	190.2	9.9	6.0	6.5	36.0	17.2	18.2
Petroleum products	22.3	0.0	38.5	2.5	0.0	1.3	9.2	0.0	3.7
Manufactured products	132.8	650.1	818.7	15.0	28.7	28.1	54.7	82.7	78.1
Textiles	54.8	390.7	439.8	6.2	17.3	15.1	22.6	49.8	42.0
Forestry products	4.9	4.7	8.1	0.6	0.2	0.3	2.0	0.6	0.8
Hides and leather products	21.5	43.6	49.5	2.4	1.9	1.7	8.9	5.5	4.7
Chemicals	11.2	27.2	91.9	1.3	1.2	3.2	4.6	3.5	8.8
Cement	15.2	44.9	39.6	1.7	2.0	1.4	6.3	5.7	3.8
Glass and ceramics	3.7	37.1	35.9	0.4	1.6	1.2	1.5	4.7	3.4
Non-ferrous metals	5.9	14.6	18.3	0.7	0.6	0.6	2.4	1.8	1.7
Iron and steel	7.4	31.1	33.9	0.8	1.4	1.2	3.0	4.0	3.2
Metal products and machinery	4.1	18.1	29.8	0.5	0.8	1.0	1.7	2.3	2.8
Electrical appliances	0.9	4.5	11.5	0.1	0.2	0.4	0.4	0.6	1.1
Motor vehicles	0.3	26.6	50.3	--	1.2	1.7	0.1	3.4	4.8
Others	2.9	7.0	10.1	0.3	0.3	0.3	1.2	0.9	1.0
Total Merchandise Exports	885.0	2,261.2	2,910.1	100.0	100.0	100.0	-	-	-

Source: SPO

1975. Subsequently, the share of manufactured exports declined as the effect of the devaluation was more than offset by faster inflation in Turkey than abroad and exports were further discouraged by the booming and more lucrative domestic market.

5.18 The January 1980 policy reform involved a large devaluation and greater exchange rate flexibility. However, manufactured exports started to rise only after the September 1980 military takeover. They reached $819 million in 1980, representing an increase of 26 percent over 1979. This upward trend accelerated in 1981; in the first seven months, manufactured exports were 106 percent above the corresponding period in 1980, with their share in the total reaching 39 percent.

5.19 Manufactured exports in 1980 accounted for 4 percent of manufacturing production, with textiles representing 54 percent of these exports, followed by chemicals (11 percent) and hides and leather products (6 percent). Although they are still at a very low level, exports of automotive industries, metal products and machinery have grown at a rapid rate since January 1980.

5.20 In earlier years, the markets of the industrialized countries, and especially EEC, absorbed a very large proportion of Turkish exports. From 1977 to 1980, the share of OECD (EEC) markets in Turkey's total merchandise exports declined from 70 percent (50 percent) to 58 percent (43 percent) while that of Middle Eastern countries increased from 13 percent to 22 percent. In the first seven months of 1981, exports to Middle East countries constituted about 42 percent of the total merchandise exports.

5.21 On the assumption that policy measures towards export promotion continue to be implemented, and some of the marketing constraints removed, manufactured exports may increase between 27-30 percent in real terms during 1981-1985 (Table 5.7). 1/ This growth rate is attainable given its present small base and considerable potential for diversification in both products and markets.

1/ In the projections two versions are used--base scenario and an optimistic scenario. The assumptions are given below:

	Average Annual Growth Rate (1981-85)	
	Base	Alternative
GDP	4.1	4.8
Manufacturing production	6.2	6.5
Merchandise exports	19.1	21.3
Manufactured exports	26.9	29.6
Merchandise imports	4.8	6.7

The SPO assumes that manufactured exports would grow at an annual average rate of 30 percent during 1981-83.

Table 5.7: PROJECTIONS OF MANUFACTURED EXPORTS & PRODUCTION
(In millions 1980 TL)

			Projections							
	1980	1981	1982		1983		1984		1985	
			Base	Alt.	Base	Alt.	Base	Alt.	Base	Alt.
Manufacturing Exports	63	103	125	128	146	154	171	185	198	221
Manufacturing Production	1,476	1,546	1,631	1,651	1,742	1,767	1,862	1,891	1,990	2,025
Manufacturing Exports as share of Manufacturing Production (%)	4.3	6.7	7.7	7.8	8.4	8.7	9.2	9.8	9.9	10.9

Source: SPO and Mission Projections

5.22 The share of manufactured exports in manufacturing output is projected to increase to 10-11 percent by 1985 from 4 percent in 1980.

2. Construction Contracts

5.23 The performance of Turkish contractors in the Middle East has been remarkable. During the last two years, the value of construction contracts increased from $2.5 billion to $10 billion; it may reach $15 billion in a few years. These contracts are mostly in Saudi Arabia, Libya, and Iraq, and cover the construction of buildings, roads, irrigation projects and industrial plants (cement).

5.24 Enka Holdings, the largest contracting firm has currently four contracts in Saudi Arabia; a water treatment plant in Riyadh ($50 million); two pumping stations on the Jubail-Riyadh pipeline ($20 million); the water distribution system in Riyadh ($20 million); and a water channel in Jubail ($50 million). In Iraq, Enka has subcontracted work on a sewage system and cement factory ($30 million). In Jordan, its share in the construction of a potash plant is valued at $40 million and it is exporting to Jordan and Iraq this year 7.5 million tons of steel worth $11 million. In Libya, Enka has formed a joint venture with another Turkish company for a $260 million housing project.

5.25 With a three-year average contract period, the gross receipts of Turkish contractors abroad may reach $5 billion a year by 1985. Of this total, profits may account for 10 percent, workers' remittances for 20-25 percent, exports of construction materials 10-15 percent, and various services for 5-10 percent. Profits are not fully remitted to Turkey as most firms are using them to expand their scale of operations. However, once optimum size is reached, considerable repatriation of profits is expected. In addition, overseas contracting helps to alleviate the unemployment problem and workers' remittances contribute to foreign exchange receipts. The use of Turkish labor is likely to be particularly pronounced in Middle Eastern countries and Libya as the scarcity of local labor resources necessitates importing labor.

5.26 Contractors face two major constraints in expanding their overseas operations. One is inadequate working capital financing. The second is the lack of acceptance of Turkish performance bonds by Saudi Arabia, which will not accept the Turkish Central Bank exchange guarantee on Turkish commercial bank performance bonds.

5.27 The first constraint could be relieved through the banking system, possibly with TSKB assistance for foreign working capital requirements. The second constraint can be removed through creation of a guarantee fund, the establishment of which is being negotiated by IFC. The Central Bank in recent months has not only speeded up the process of obtaining commercial bank guarantees but also concluded direct agreement to back Turkish bank guarantees when they were not acceptable abroad. An encouraging sign is that for the first time a Turkish bank - Is Bankasi - is on the approved list of the Saudi Arabian Monetary Agency, albeit with a limit of only $13 million per contract.

C. Investments and Capacity Utilization

1. Changes in Investment over Time

5.28 Investment in manufacturing doubled between 1970 and 1975 but declined afterwards. In 1980, it was 11 percent below the level reached in 1975. In the same year, the share of public sector investments in manufacturing reached 65 percent as compared to 34 percent in 1965 and 40 percent in 1978 (Table 5.8).

Table 5.8: INVESTMENT IN MANUFACTURING INDUSTRY
(In millions of 1976 Turkish Liras)

	1965		1970		1975		1978		1979		1980	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
Public Investment in Manufacturing	2,439	33.8	8,031	42.3	18,127	46.5	15,556	40.1	20,714	56.8	22,560	64.8
Private Investment in Manufacturing	4,775	66.2	10,977	57.7	20,828	53.5	23,182	59.8	15,728	43.2	12,263	35.2
Total Investment in Manufacturing	7,214	100.0	19,008	100.0	38,955	100.0	38,782	100.0	36,442	100.0	34,823	100.0

Source: SPO

2. Private Sector Investment

5.29 Private manufacturing investment declined by nearly one-half between 1978 and 1980. Preliminary data indicate that only in chemicals, where domestic demand is not fully saturated and firms have also been able to find outlets in Middle Eastern countries, and non-metallic minerals, which has been little affected by declining demand, has the level of investment been maintained (Table 5.9). In turn, investment has declined the most in food processing, textiles, iron and steel, and electrical machinery.

Table 5.9: PRIVATE MANUFACTURING INVESTMENT, 1980
(1978 = 100)

Food processing	38
Textiles	47
Chemicals	102
Earthenware	100
Iron and Steel	39
Non-electrical machinery	55
Electrical machinery	24
Transport equipment	84
Other	71
Total	63

Source: TSKB

5.30 One of the reasons for the sharp decline in private investment in the manufacturing sector is the low extent of capacity utilization. In the aggregate, capacity utilization is estimated to have been 56 percent in 1978, 45 percent in both 1979 and 1980. At the same time, the figures tend to understate the extent of capacity utilization since they are based on single-shift working that will not generally be appropriate under conditions of capital-scarcity existing in Turkey.

5.31 As shown in Table 5.10, capacity utilization rates are especially low for copper, sulphuric acid, nitrogen fertilizers and the automotive industry (tractors, trucks, cars and buses). The principal reasons behind low capacity utilization in 1979 were shortages of industrial raw materials, oil and power. The reasons behind the low rate of capacity utilization during the first three quarters of 1980 included shortages of imported inputs caused by scarcity of foreign exchange, depressed domestic demand, labor disputes, affecting especially the textiles, glass and metal working industries, which resulted in the loss of 7.7 million man-days (about 20 percent more than the total for the preceding eight years) during the period, power shortage, and the scarcity of funds.

Table 5.10: CAPACITY UTILIZATION OF SELECTED INDUSTRIAL SUBSECTORS, 1980

	Capacity Utilization Rate 1980	1980 Production as Compared to Previous Peak (%)
Coal	-	72 (1969)
Copper concentrate	27	56 (1974)
Ferrous metals	59	92 (1979)
Sulphuric acid	18	70 (1977)
Cement	62	84 (1977)
Tractors	19	38 (1976)
Trucks	25	40 (1977)
Cars	36	47 (1975)
Buses	42	88 (1975)
Minibus	23	37 (1975)
Lignite	-	100 (1980)
Alumina	69	83 (1977)
Ammonia	67	100 (1980)
PVC	52	93 (1976)
Polythelene	50	54 (1974)
TV	29	42 (1976)
Electric motors	-	29 (1978)
Aluminium	55	64 (1977)
Copper blister	25	50 (1977)
Fertilizer - nitrogen	27	61 (1974)
Fertilizer - phosphate	40	83 (1976)
Ingot	45	88 (1976)

Source: TSKB

5.32 Capacity utilization rates increased in the last quarter of 1980, with an average of 57 percent, and the trend is continuing in the first quarter of 1981. 1/ Nevertheless, the extent of capacity utilization continues to remain relatively low.

5.33 The short-term outlook for private manufacturing investment is not promising. The major constraints include low domestic demand, scarcity of funds and high interest rates. However, the private sector is more optimistic today than it has been in the past several years. The threat of terrorism is practically over and investors are more confident of continuity and stability of economic policies.

1/ Istanbul Chamber of Commerce. "Findings of the ICI study on Industrial Production in 1981" in Review of Istanbul Chamber of Industry, June 15, 1981.

5.34 Improvements in the long-term outlook are reflected by increases in both Investment Encouragement Certificates and Foreign Investment Permits. In the first eleven months of 1981, the government issued TL 908 billion worth of Investment Encouragement Certificates, as against TL 207 billion for the entire year 1980. A similar picture emerges in the case of Foreign Investment Permits which surpassed $300 million in 1981, as against $97 million in 1980.

3. Public Sector Investment in Manufacturing

5.35 Over the years, the public sector investment program 1/ was characterized by weaknesses in project evaluation and preparation, resulting in the poor choice of projects and the underestimation of both investment costs and construction periods. Human and financial resources were spread too thin over too many projects, with an excessively large proportion of unfinished projects and large construction periods.

5.36 In the 1981 Investment Program, the government has reduced the share of manufacturing in total public investment to 21 percent, as against an actual share of 27 percent in 1979. However, the number of projects included in the program is still large. This will necessarily extend the period of completion. Thus, the total project cost of all approved projects is TL 1,877 billion, while the 1981 allocation provides only TL 87 billion (both at 1980 prices). If the projects included in the 1981 Program are to be completed on schedule, TL 632 billion would be required during the 1982-1985 period (at 1980 prices), which considerably exceeds the level warranted by the availability of domestic and foreign resources. It compares with an investment allocation of TL 368 billion for the 1982-1985 period proposed in the Bank's recent report, 2/ which would roughly continue the 1981 level of allocation for the public manufacturing sector. It would thus be necessary to seriously reevaluate some projects which may have dubious and uncertain economic merits. The projects which fall into this category according to the Bank's Public Investment Review, are the Sivas Fourth Steel Mill, the rebuilding of the metallurgical facilities of the Karabuk Steel Mill, the proposed tire factory, the expansion of special steel production at Kirikkale, the construction of the special steel plant at Izmir, the Izmir refinery expansion, the Middle Anatolian project and pipeline, and the Tumosan tractor and diesel engine products. In the 1982 Program the Government has further reduced the share of manufacturing in total investment to about 19 percent. Also the Government has dropped a number of projects including the Sivas Fourth Steel Mill, the special steel production (Kirikkale), the fourth fertilizer complex, the Tumosan integrated diesel engine plant, and several tobacco and electrical machinery plants. In addition, negotiations are underway

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1/ An extensive study covering relevant aspects of Public Sector Investment Program was carried out by IBRD in a report entitled "Turkey: Public Sector Investment Review" December 7, 1981.

2/ Turkey: Public Investment Review, op. cit. Volume II, Chapter 2, page 40, Table 2.3.

with foreign suppliers to delay other projects in the program. Ways are also being explored to considerably lengthen the implementation of the expansion of Middle Anatolian Refinery which is at an advanced construction stage. These have resulted in better completion rates. Out of the 824 industrial projects still in the program, 56 percent are scheduled to be completed in 1982 and another 23 percent in 1983.

5.37 The intrasectoral breakdown of public investment recommended by the Bank's Public Sector Investment Review aims at adopting a strategy under which the public sector concentrate on investment in selected basic industries, and gradually reduce its commitment to various intermediate goods and light industries. Nor is public sector involvement desirable in projects such as the manufacture of tractor and truck engines, where Turkish private investors should be able to provide for domestic and, increasingly, export demand.

D. Factors Affecting Productivity

5.38 Over the past several decades, a wide range of industries have been established in Turkey, first in the public sector and, subsequently in the private sector. There are, at the same time, several factors adversely affecting productivity, the quality of output and, more generally, the growth of manufacturing industries. Apart from the system of protection discussed in Chapter 2, they include: (a) insufficient research and development; (b) inadequate facilities for labor training; (c) deficient technical and management methods (product design and new product development), production planning and work methods, quality control etc.; (d) out-of-date machinery; (e) marketing problems; and (f) level of technology.

5.39 Not all of these problems necessarily apply to every enterprise. Their relative importance varies with the particular industrial activity, size of establishment, and the circumstances of each enterprise. At the same time, the pursuit of an outward oriented strategy would require faster technological progress through research and development, improvements in labor efficiency through labor training, and adequate marketing facilities and institutions. Research and development and labor training aspects will be discussed in this section, while marketing will be taken up in Section F.

1. Research Activities

5.40 Prior to 1960, research and development was entrusted to the universities that carried out little applied research. Industrial research was practically non-existent. Rather, the emphasis was on the transfer of technology from industrial countries. To support such transfers, institutions such as Electrical Power Resources Survey and Development Administration, Mineral Research and Exploration Institute, Sugar Institute and Agricultural Experimental Stations were established by the Government.

5.41 The Turkish Government's technological goals were stated in five year plans after 1960 as follows:

a. In order to achieve the dual purpose of adopting contemporary technologies and creating new technologies to suit Turkey's own requirements, there would be need to establish research and development activities in close collaboration with industry and aiming at results directly related to industrial production;

b. effective cooperation should be secured in the area of scientific and technological research among public institutions, educational institutions, and private establishments; and

c. addition to developing technological cooperation with the advanced industrial countries, an effective and continuous cooperation is desired with countries who are endowed with economic capabilities similar to Turkey's.

5.42 While these objectives were laudable, previous government did little to implement them in practice. As shown in Table 5.11, research and development have a very low share in total GNP, and the ratio has declined over the years.

Table 5.11: R&D EXPENDITURES
(in million TL at current prices)

Year	R&D Expenditures	GNP	R&D / GNP %
1964	247.4	66,829.3	0.37
1969	434.6	117,463.5	0.36
1970	492.0	135,610.2	0.37
1971	554.4	182,359.8	0.30
1972	662.4	214,758.6	0.31
1973	-		
1974	-		
1975	1,218.8	535,711.0	0.23
1976	1,571.5	670,037.8	0.23
1977	2,878.0	870,239.4	0.33
1978	2,761.1	1,288,662.4	0.21
1979	4,919.4	2,178,367.4	0.23

Source: TUBITAK and SPO.

2. The Organization of Research

5.43 The principal source of technical support in Turkey is the Turkish Scientific and Technical Research Council (TUBITAK) established in 1963. TUBITAK is, however, oriented largely towards the public sector and it has not been the source of technological innovations. Also, it lacks specialization and has made little effort to adapt foreign technology to Turkish conditions.

5.44 In the first years following its establishment, research projects supported and/or guided by TUBITAK were largely academic and not directly related to industrial problems. To remedy this deficiency, Marmara Scientific and Industrial Research Institute was set up in 1966 under the auspices of TUBITAK. Over the years, the Marmara Institute has grown considerably and at present it accounts for over 50 percent of the entire TUBITAK's budget. Although the projects undertaken by the Marmara Institute are industry oriented, there is insufficient collaboration with the private sector, and the research stage has not been followed by "pilot plant" and "semi-commercial" stages. In addition, its research activities tend to concentrate on metallurgical and material problems, with practically no support available for the engineering industries.

5.45 Nor has the private sector made significant research and development efforts. There are a few of large engineering consulting firms, but these only engage in tasks related to inventory control, production planning and factory layout, and consider such work as a secondary activity. Also, out of the 25 plants visited by the mission, only one claimed to be spending close to one percent of its profits on R&D. There appears to exist managerial inertia in this area. Plant managers generally seemed unaware of the amount of work that ought to be done in applied research and development to improve products, labor productivity and the organization of work.

Recommendations

5.46 On the example of Korea, the government may contribute to the promotion of technological progress through the establishment of specialized institutes of applied research. Such institutes may play an especially important role on certain engineering branches and in the chemical industry.

5.47 The establishment of applied research institutions would need to be complemented to tax incentives to research and product development by private firms. This should be part of a medium-term plan of science and technology, which would also provide for the further development of technical universities.

3. Labor Training

5.48 Labor efficiency and the general level of training in most industrial sectors are relatively low in Turkey. At the same time, private training facilities are qualitatively and quantitatively inadequate to meet

the requirements. Most establishments visited by the mission appeared to pay little attention to training needs, and few set up effective training programs. Rather, managers prefer to provide on-the-job training. The Labor Ministry also tends to concentrate its efforts on on-the-job training, rather than on general training that would provide transferable skills.

5.49 An exception is in the mining sector, where Etibank has extensive training facilities at Seydisehir, and it also provides financial support to trainees in the form of grants and/or scholarships. At the Seydisehir Practical Training Center 800 persons can be trained annually and the Center has boarding facilities for 400 trainees. Although the training center is not exclusively for Etibank employees, its full capacity has not been used. In 1980, only 124 persons received training at the Center.

5.50 In the traditional workshops, the system of training is often inadequate. In the leather and footwear industry, this is related to the use of old-fashioned and "rule of thumb" methods in tanning and to the failure to introduce modern equipment and methods in shoemaking. There is further need for upgrading in tasks requiring high precision work. For instance, in engineering, there is need to train fitters and machinists to make press tools, dies, jigs and fixtures.

5.51 A program of upgrading industrial skills, supervised by Minister of Industry, started in 1964 with USAID financing. The fields of training included welding, technical drawing, furniture making and woodworking, machinery and sheet metal work. The trainees were semi-skilled workers from the private sector. However, over the years fewer and fewer workers have been receiving such training. In 1977, no program was offered because instructors were unavailable. As USAID financing is gradually decreasing, the program is being curtailed because of inadequate funding.

5.52 Managerial and technical training is done by sending staff occasionally to attend seminars run by universities, commercial organizations and other organization like SEGEM (a joint UNIDO/government program). Such training is also provided by some Turkish consulting groups, but their production and operational skills are relatively low. The National Productivity Center set up by the Government is providing some training facilities, but is constrained by availability of skilled manpower, especially to train personnel of engineering industries.

Recommendations

5.53 Since the benefits of the training may not be fully realized by the firm, the private sector is reluctant to engage in training activities. To encourage such activities, tax preferences may be provided to firms that are undertaking training. Also, there would be need for increased technical education of various levels.

5.54 Efforts made to increase research and training would benefit, in particular, the electrical and non-electrical machinery, machine-tool, and electronics industries, which have been neglected in the past by comparison

to metals where government investment played an important role, and the automotive sector that expanded at high costs in the framework of protected domestic markets. These industries may also receive additional incentives on infant industry grounds. Rather than protection, such incentives should aim at reducing the cost of production, in order to provide low-cost inputs to other industries and encourage exports. One should also examine the feasibility of establishing specialized industrial parks where ancillary activities would be available. Also, the services of foreign engineering consultants may be obtained to review plant layout and the organization of work, with a view to suggesting productivity improvements. In Korea, this is done in the framework of an investment project financed by the World Bank.

E. Comparative Advantage

1. Manufacturing in General

5.55 Turkey's comparative advantage in manufactured exports rests on its natural resources, its labor and some engineering skills and its location. Natural resources yield a variety of agricultural, forestry, and mineral-based products for further transformation. Skilled manpower can be made available, both for engineering and product design and for machine operation. Turkish wages are considerably below those of its European trading partners, and the differences are even larger if account is taken of social security charges that often exceed 50 percent in the EEC countries. The Turkish social security charges are, however, higher than other middle income countries (see Chapter 4).

Table 5.12: WAGES IN MANUFACTURING
(U.S. $/day)

	Turkey	Greece	Korea	West Germany	France	UK
1977	11.14	11.72	5.95	38.38	20.48	23.56
1978	12.68	14.57	8.00	46.72	25.17	29.92
1979	15.64	17.39	10.29	53.95	30.16	38.62

Sources: Turkey: MI Survey (Annual Survey of the Manufacturing Industry)
Other Countries: I.L.O., Bulletin of Labor Statistics, 1981 (I)
IMF, International Financial Statistics, Aug. 1980

5.56 In 1979 average daily wages in manufacturing were $15.6 in Turkey as against $54 in West Germany, $30 in France and $39 in U.K. However, despite rapid increases in Korea, Turkish wages remained above the Korean level. It follows that Turkey's comparative advantage does not lie in the simplest, most labor-intensive, goods, where it cannot compete with East

and South Asia, or in the most capital-intensive products, where it cannot compete with the OECD countries, but in the large range of goods between the two extremes, and increasingly in skill-intensive activities.

5.57 Turkey's location--close to the European, Middle East and North African markets--further gives it an advantage in goods with a relatively high weight-to-value ratio. For similar reasons, Turkey has an advantage in products that require fast delivery. Finally, Turkey benefits from close cultural ties with the Middle East.

5.58 The extent of potential gains from Turkey's comparative advantage in relatively labor-intensive industries vis-a-vis European countries is indicated by data on capital requirements per job reported in Table 5.3. At the one end of the spectrum, capital requirements per job, in million TL, are 95.2 for crude oil extraction, 36.2 for fertilizer, 30.7 for petroleum refining, 25.7 for energy, and 17.8 for iron and steel. At the other end of the spectrum, low capital-labor ratios are observed in shoes (1.2) construction materials (1.5), stone quarrying (1.6), ready-made garments (2.2), electrical appliances (3.9), textile (4.8) and furniture (4.9), beverages (5.1), agricultural machinery (6.1), and processed fruits and vegetables (8.1).

5.59 From Table 5.13, it appears that capital-intensive industries also create relatively few jobs - 203 jobs per TL billion output in petroleum, 398 jobs per TL billion output in chemicals and 480 jobs per TL billion output in basic metals. On the other hand, low capital-intensive industries, such as furniture and fixtures, garments, non-metallic minerals and textiles have high labor-output ratios (1,803 jobs per TL billion for furniture and fixtures, 1,468 jobs per TL billion for garments, 1,247 jobs per TL billion for non-metallic minerals and 1,063 jobs per TL billion for textiles).

5.60 The results lead to the conclusion that significant gains may be obtained in specializing in relatively labor-intensive industries which also create more jobs per unit of output. These are typically non-process industries that do not require very large-scale plants. At the same time, within individual industries, Turkey has advantages in particular products that suit the conditions existing in the country as well as in separable manufacturing operations such as precision work, simple operations of assembly, mixing, or finishing, or the provision of parts and components. The major products for which Turkey has comparative advantages are enumerated below with consideration given to factors that may contribute to export expansion. 1/

1/ The following discussion draws heavily upon various IBRD financed project reports.

Table 5.13: EMPLOYMENT PER TL BILLION OF OUTPUT (JOBS) 1979 /1

Processed food	640
Beverages	824
Tobacco	700
Textiles	1,063
Wearing Apparel	1,468
Fur and Leather Production	1,011
Wood and Cork	894
Furniture and Fixtures	1,803
Paper and Paper Products	653
Printing and Publishing	954
Chemicals	398
Petroleum	203
Rubber and Rubber products	676
Non-metallic minerals	1,247
Basic metals	480
Metal products	1,044
Machinery	859
Electrical Machinery	699
Transport equipment	579
Miscellaneous	1,450
Total	773

/1 Items in Table 5.4 and 5.15 are not identical since the sources of data are different.

Source: State Institute of Statistics.

a. Textiles

5.61 Turkey has comparative advantages in textiles, given its proximity to the EEC, Middle Eastern and African markets, substantial domestic cotton production, and established textile industry. Wage levels are only 20-40 percent of EEC levels, more than offsetting lower productivity.

5.62 For pure cotton textiles, which involve a lower level of technology and skills (particularly in dyeing and finishing), the most efficient mills are able to compete under present conditions. But Turkey should also be able to expand the exports of non-cotton textiles as exposure to foreign markets increases, productivity and efficiency improves, and technical skills to produce needed qualities are obtained. At the same time, exporters will need to have adequate access to imported non-cotton fibers.

5.63 The Turkish spinning industry does not presently fill its EEC quotas as spinning firms find it more profitable to integrate forward into weaving to produce for the growing domestic market. Forward integration of this type should not, however, stand in the way of establishing additional spinning facilities for export. Finally, in the case of fabrics where Turkey is only a marginal supplier with less than 1 percent of cotton fabric imports into the EEC, the upgrading of product lines would permit rapid expansion.

b. Garments and Other Made-Up Articles

5.64 In contrast to textiles, there have been only modest changes in production technology for clothing. Labor productivity in developed countries increased only 0.9 percent a year from 1965 to 1974--less than in any other major group of industries. 1/ Turkey's lower wages, therefore, give it considerable advantage over developed country industries. Also its overland accessibility to Europe allows transit times of two to three days--an important advantage compared to far away clothing exporting countries that have lower wages.

5.65 In view of the "sensitiveness" of clothing exports to EEC, Turkey should develop high quality products, with a high value added component. Apart from the better exploitation of the EEC quota, this is desirable so as to lessen reliance on lower quality items in which some Asian countries have a competitive advantage.

5.66 Men's and boys' shirts, trousers, knitted underwear and T-shirts have been exported by Turkey in recent years, but little has been done about more fashionable goods for ladies and girls, such as jackets, suits, blouses, sport clothes and general knitting and woven outerwear, as well as ladies' underwear. The ladies' clothing market is more demanding in terms of fashion and design, but Turkish manufacturers should be able to begin exporting medium-quality products, eventually leading to a better quality exports. Turkish producers may also cater to the market for baby clothes, where creative designs are at a premium.

c. Furniture

5.67 Turkey possesses extensive forestry resources, with forests occupying 20 million hectares or one-fourth of the total area of the country. 80 percent of forest area has been surveyed, so that there is adequate information about the forest potential of the country. Ample forestry resources combined with low-cost skills could generate sizeable exports of furniture, except for the problems wood-based industries encounter in Turkey.

5.68 The problems of wood-based industries extend from the present forest exploitation techniques to the deficiency of the furniture industry in design and accessories. Most of the lumber is improperly dried through

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1/ IBRD - Turkey: Private Sector Textile Project Report: March 1980.

manually controlled drying kilns, and articles made thereof eventually develop chinks and cracks or tend to warp or split. In the manufacture of chipboard, difficulties have arisen in the procurement of wood adhesive (urea-formaldehyde) due the inability of the domestic production to meet demand and the existence of import limitations. There are also difficulties in the procurement of plastic materials used in conjunction with wood in the manufacture of furniture.

5.69 Besides the inferior quality of the inputs, the industry suffers from problems in furniture design and the poor quality of accessories. These factors have not impeded the growth of the industry as it has been oriented towards the domestic market, but have precluded any significant development in exports. Some of the problems of the wood-based industries can be solved by appropriate investments in infrastructure (forest roads) and improvements in production methods (modern drying kilns, machinery for producing modular furniture), others by the acquisition of technical expertise (rational exploitation of forests), and artistic know-how (industrial and artistic designing), and still others by the importation of high quality inputs and accessories (plastic parts, varnishes, wood adhesives, melamine sheets, sand-paper, as well as handles, hinges, and locks).

d. Leather and Leather Products

5.70 Despite the impressive resource base and labor-intensity, the leather processing industry has not fully realized its potential due to the poor quality of raw materials and structural and production problems. Inadequate feed and diseases as well as damage from thorns, faulty skinning and poor handling after slaughter, especially in rural areas, all contribute to off-quality hides and skins. The industry also suffers from delivery problems, arising mostly from the large number of small producing units, and weaknesses of management and technology. Finally, accessories would need to be upgraded and delivery schedules maintained, for the industry to realize its considerable export potential in footwear, leather accessories, and leather garments.

e. Glass, Ceramics and Sanitary Ware

5.71 The glass, ceramics and sanitaryware industries are well established in Turkey and present further opportunities for exports. Each of these industries is dominated by a single company (Turkiye Sise ve Cam Fabrikalari in glass, Eczacibasi in sanitaryware and Cannakale in ceramics).

5.72 Turkey has been producing good quality glass household ware, glass containers and flat glass. Capacity utilization rates are generally high due to reliance on domestic rather than imported inputs, and exports have been increasing at a rapid rate. In turn, high domestic demand and relatively high profit margins have prevented large scale exports of sanitaryware, but exports could take place in the future. Similar considerations apply to ceramics.

f. Mineral Based Chemicals

5.73 In mining and mineral-based chemicals, Turkey has established comparative advantages in boron minerals (Colemanite, Tinkal and Ulexite), boron chemicals (Borax anhydride, Borax deca hydride, Borax penta hydride, Boric acid and Sodium per borate), chromite, magnesite, marble and baryte. It benefits from the size of the reserves, the quality of the mineral, proximity to consuming markets, relatively cheap labor, which provides advantageous cost/price relations to cater to the growing world markets.

5.74 Against these favorable factors, there are however certain constraints that hinder the development of the sector. To maintain her competitiveness in the international markets, Turkey would need to give more weight to the mechanization and modernization of operations and to the training of the labor force. The sector is also facing financial constraints in creating the necessary capital for modernization and expansion.

5.75 Furthermore, present legislation in general, and the Mining Law in particular, restricts the full participation of private and foreign capital in developing the potential of the sector. The long-pending revision of the Mining Law, and appropriate legislative measures to back-up recent policy changes in expanding the role of private and foreign capital in the sector, are urgently needed.

5.76 Mining and mineral based chemicals industries are dependent upon the availability of a good transport network, including railroads, highways, harbors, shipping and loading facilities. Even today, despite the low capacity utilization in the sector, the existing transportation system creates bottlenecks. The growth of the sector would therefore require the concurrent development of infrastructure facilities.

5.77 The mineral-based chemicals industry is further dependent upon the availability of energy (power and coal). The availability of industrial water is also important for both mining (whenever a concentration operation is necessary) and mineral-based chemical products. Its scarcity and environmental considerations necessitate the recirculation of water. A research and development effort is required for finding appropriate solutions for each particular case. Also, investment requirements for pollution prevention could be substantial and need the careful evaluation of all relevant factors.

5.78 Turkey's potential in minerals and mineral-based chemicals is not restricted to the ores where it has already established a comparative advantage. To further develop Turkey's potential in the sector, an inventory of the known ore reserves with full chemical analysis and the determination of economical "cut-off grade" contents would need to be made, to form the foundation of feasibility studies in this area. In turn, mineral-based chemicals should be evaluated within the framework of chemical sector. TSKB's study 1/, in its present form, is not readily

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1/ TSKB "Study on Chemical Sector" 1980.

applicable for such a purpose. It must be updated and kept current to form a basis for future projections. Furthermore, it should be expanded from its present domestic market orientation to an export orientation.

g. Engineering Industries

5.79 The engineering sector offers good possibilities for Turkey. Export prospects are favorable in products like electrical and non-electrical machinery, machine tools, electronics, foundries, auto parts and appliances etc. The engineering sector comprises numerous intermediate and final goods which can be produced efficiently; it is relatively less capital-intensive and highly skill-intensive, and has strong backward and forward linkages.

5.80 At the same time, the sector exhibits various deficiencies in Turkey today. Some of its common features are: (i) the technology employed is generally lower than that used in Western Europe, with a very limited application of specialized machines; (ii) little purchasing of manufacturing technology, with many companies themselves fabricating all necessary equipment; (iii) little emphasis on product support facilities, for example, quality control, testing laboratories, etc.; (iv) most firms lack any coherent product development plans which is vital for competing effectively in international markets; (v) firms have little interest in competitive product comparisons; and (vi) lack of industrial promotion abroad; and no track record of exporting reliability or capability.

5.81 Also, engineering is clearly a field in which expertise (including the necessary labor skills) is only gradually acquired. It is also one, as regards exports, in which good foreign marketing arrangements are essential. In both respects, as the experience of other countries indicates, collaboration with foreign firms, and particularly subcontracting arrangements, can play an important role.

5.82 Turkey presently exports, on a modest scale, iron and steel castings, conductors and cables and distribution devices for electrical machines, agricultural tools and machines, metal, wood and plastic processing machinery, buses, brake linings, motorcycles, bicycles, filters and valves, sewing machines, ginning machines, hydraulic equipment, twist drills, etc. In the view of the mission, in the longer term, its comparative advantage will increasingly lie in engineering products. In particular potential exists for some parts of the automotive subsector (international subcontracting of assemblies of gearboxes, transmission, instruments and metal pressing), foundry subsector and machine tools subsector which are discussed in the following paragraphs.

5.83 Automotive Subsector: Turkey's main advantage lies in its low labor cost, which could be further reduced if productivity was raised by better plant utilization and reduction in overmanning. Turkish disadvantage lies in the high cost of local material inputs. Also, in trying to break into established markets for vehicles, Turkey suffers the twin disadvantages of offering out-of-date models (except in large buses) and having no network of servicing or spares supply. Turkish tractors have

an additional disadvantage in that too much emphasis has been placed in domestic markets on low h.p. models, while the international market increasingly demands larger models. Turkey's comparative advantage in the longer term, when applied to the automotive subsector, will lie in international subcontracting of assemblies and finished products on behalf of licensors and, in particular, in the production of gearboxes, transmissions, instruments and metal pressings.

5.84 There is need to devise a long-term strategy for the automotive industry in order to avoid further duplication of production facilities and to ensure vertical specialization in efficient plants. In view of the difficulties of consolidating producers that manufacture different cars and belong to different business groups, this may be sought in the direction of specialization agreements, involving the exportation of some parts and components and the importation of others. At the same time, the implementation of public investments in the production of tractors, diesel engines, and commercial vehicles, creating duplication with private facilities, would not be desirable.

5.85 Foundry Subsector: Over the last 15-20 years the foundry industry in Turkey has achieved considerable progress and now produces castings of greater precision, complexity and quality for a variety of end-users. Ferrous-based grey iron castings constitute the bulk of castings produced in Turkey, followed by steel castings and malleable iron castings. Most foundries and certainly all small ones are of the jobbing type, i.e., supplying castings to other firms on the basis of contractual arrangements. Medium size foundries, all in the private sector, account for 75 percent of the grey iron casting capacity and almost all of steel capacity. The average size of large grey iron foundries is slightly over 5,000 tpy which compares favorable with grey iron foundries in the U.K. (4,250 tpy) and Germany (5,800 tpy).

5.86 The foundry industry in Turkey has developed in response to past Government policies which encouraged import substitution in engineering industries. The industry thus caters principally to the needs of the domestic market. Direct casting exports are small, though there has been some indirect export of castings in the form of machinery. Major markets for castings so far have been the Middle East, although EEC holds considerable potential as a market for Turkish castings. There is considerable potential for exports of both rough and machined castings, with the motor vehicle, machine tools, construction machinery, material handling equipment and heavy electrical machinery industries providing the potential sources of demand. Foreign markets could be penetrated through development of international subcontracting linkages with European firms.

5.87 Machine Tools: Turkey's comparative advantage, in possessing a reasonably skilled labor force, ought to be high in this subsector. However the lack of innovative design capability and the small size of the domestic market has so far inhibited the manufacture of machine tools, which find ready markets abroad. Since tools can be sold as part of engineering projects, Turkey's opportunity will be in international subcontracting, whereby machine tools are included with other work

(supplying a maintenance workshop as part of a sugar mill, for example). To be more effective in this area, Turkey would have to broaden its technological base, primarily through licensing agreements while making industrial capacity more adaptable in the design area.

F. Markets and Institutions

1. Marketing Constraints

5.88 The past policy of import substitution has resulted in inadequate private marketing facilities for exports since there was a captive home market. Also, the government has organized only a small number of trade fairs in Turkey and visits to foreign trade fairs. And while it has established an Export Promotion Research Center (IGEME), this mainly engages in documentation on a limited scale (mostly for agricultural exports), and has neither the staff nor the budget for mounting an effective export promotion effort.

2. Export Development and Promotion Center

5.89 To overcome the limitations of IGEME, in 1978 the Government (with assistance from the UN International Trade Center - ITC), proposed to establish a new export promotion center. 1/ While the preparation and implementation of this scheme have been delayed, regulations are being prepared on the establishment of an Export Development and Promotion Center. The adoption of an outward-oriented strategy lends special urgency to the establishment of the Center. In particular, there is need to sponsor or to undertake research to identify promising products and markets; to introduce improvements and standardization of product quality, possibly with the participation of the existing standards institute; and to provide advice and assistance to exporters in regard to the marketing of non-traditional agricultural and manufactured commodities.

5.90 It is recommended that the Center be constituted on a product/industry basis. In other words, it should be based on units with sufficient capability to understand and to appreciate the problems that exporters face, and to provide them with the services they need. It is not necessary for the individual units to develop in-depth expertise of a highly technical nature. What is needed, rather, is a broad marketing orientation with enough practical background to grasp the special nature of problems varying from sector to sector.

5.91 For the Center to be effective, it should have branches abroad, both to identify markets and to solicit orders, on the example of KOTRA in Korea and CACEX in Brazil. Its effective functioning would further require that the private sector is strongly represented on its board of directors.

1/ "Report on Establishment of an Export Promotion Organization in Turkey." May 1979 (Preparatory Assistance TUR/78/026).

3. Export Trading Companies

5.92 A public institution of export promotion can only play a supporting role, however, to private firms. While Turkey's large business groups are capable of mounting an export promotion effort, small and medium size firms can rarely export directly. Correspondingly, trading firms have an important role to play as they do in countries such as Japan and Korea.

5.93 At present, there are twelve trading companies exporting more than $15 million a year. The two largest export trading companies are Enka and Ram. Enka, established in 1974, is the largest company. It serves a number of firms in the private sector, with only 5 percent of its exports coming from the parent company (Enka). In 1981, Enka is expected to have exports of about $100 million as against $30 million exported in 1980. So far, they have been exporting solely industrial products, such as construction materials, processed food, automotive products, textiles and "white goods" (refrigerators, etc.), and only to the Middle East (40 percent to Iraq, 30 percent to Libya). They have three offices in Turkey and five foreign branches, in Iran, Saudi Arabia, Syria, Jordan and Algeria.

5.94 The second largest company is Ram. Its exports in 1981 are expected to reach at least $50 million, two-thirds of which are products of the Koc group. In addition, Ram provides advisory services to smaller exporters and acts as their export agent. Exports have included: industrial and automotive goods (30 percent) and textiles (40 percent).

5.95 In recognizing the need for setting up trading companies in the pursuit of the outward oriented policies adopted in January 1980, the Turkish Government passed a decree in July 1980, which provided the following incentives:

(i) Trading companies are provided with credit from the Export Promotion Fund for one year, up to 90 percent of their export commitment. The collateral requirement is 18 percent of the credit for a first-time exporter; it declines to 15 percent and 10 percent, respectively, for exporters who have realized one, or two, previous export commitments;

(ii) Trading companies are given priority access to foreign exchange for imported inputs (raw, intermediate and packaging materials) used in the production for export as well as for domestic markets, provided the total amount of foreign exchange does not exceed 60 percent of the export commitment;

(iii) Trading companies have full access to the incentives provided under the temporary import regime: duty drawbacks on exports and availability of foreign exchange required to purchase imported inputs. To qualify for these incentives, however, these companies must have a paid-in capital of

TL 50 million, exports in excess of $15 million (50 percent of which has to be manufactured goods) and must increase their exports by 10 percent a year; and

(iv) Since April 1981, export trading companies are provided with export tax rebate in the following manner. If they export less than $4 million, they are subject to general tax rebate. If they export between $4 million and $15 million, they receive an additional 5 percent. If they export more than $15 million, they get a further 5 percent (Chapter 2).

5.96 The export trading companies are potentially a very important part of the Turkish export promotion effort, especially in providing services to small and newly established exporters. At the same time, the government should not confine its encouragement and incentives to large trading companies. In fact, it appears from (iv) above, that large trading companies may be receiving too much incentives.

4. Market Prospects in the Middle East 1/

5.97 In 1963, Turkey exported only $6 million worth of exports to Middle Eastern countries. By 1978, exports to the Middle East reached $322 million, accounting for 14 percent of total exports. This ratio has continuously increased since, reaching 22 percent in 1980 and 45 percent in the first nine months of 1981. The major export markets are Iraq, Libya, Iran and Syria, while the principal export commodities include processed food, textiles and clothing, automotive products, cement and glass. (Table 5.14)

5.98 While the markets of the Middle Eastern oil exporting countries are becoming increasingly important to Turkish firms, exports from Turkey form a negligible proportion of the total imports of these countries. Thus, in 1979, Turkish manufactured exports to the capital-surplus oil-exporting countries (Iraq, Libya, Saudi Arabia and Kuwait) amounted to about $80 million out of their total import bill of manufactured goods of $38 billion. 2/ With the total import demand of oil-exporting countries projected to grow by about 14 percent a year in real terms during the 1980s, 3/ there are considerable possibilities for expansion of Turkish manufactured exports to them.

5.99 The commodities which have considerable potential in the Middle Eastern markets, apart from processed food, fresh fruits and vegetables, include: unsophisticated engineering goods (simple machinery, small

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1/ Includes North African countries.
2/ World Development Report, 1981, Washington, D.C., World Bank, 1981.
3/ Ibid.

rolling mills, reinforcing bars, and manufacturing and assembling of refrigerators) and chemicals. However, one should cautiously interpret the recent upsurge in these exports in light of Iran-Iraq war and the fact that some exports result primarily from depressed domestic demand.

Table 5.14: INDUSTRIAL EXPORTS TO MIDDLE EAST COUNTRIES BY MAJOR PRODUCTS
(In $ millions)

	1978		1979		1980	
	Actual	Share	Actual	Share	Actual	Share
Processed Food	39.8	25.7	47.3	25.0	59.1	19.1
Chemicals	8.8	5.7	25.2	13.3	15.8	5.1
Textiles & Clothing	20.7	13.3	23.4	12.3	49.7	16.1
Iron & Steel & Non-Ferrous Metal Prods.	16.6	10.7	19.9	10.5	28.0	9.0
Appliances & Machinery	9.7	6.2	8.1	4.3	15.5	5.0
Vehicles & Parts	5.9	3.8	19.1	10.1	33.6	10.8
Others /1	53.4	34.5	46.4	24.5	107.8	34.8
1. Total Industrial Exports to Middle East	154.8	100.0	189.4	100.0	309.4	100.0
2. Total Exports to Middle Eastern Countries	322.2		387.2		630.6	
3. Total Merchandise Exports	2,288.2		2,261.2		2,910.1	
4. 1 as percent of 2		48.1		48.9		49.1
5. 2 as Percent of 3		14.1		17.1		21.6

/1 Others = fuel, cement, rubber & plastic products, forestry, glass & ceramics, etc.

Source: Calculated from data supplied by SPO.

5. Market Prospects of Industrial Exports to EEC 1/

5.100 A large part of Turkey's industrial export is directed to EEC countries, with West Germany being the largest trading partner. It is observed, however, that the share of the EEC market in Turkey's industrial exports declined from 50 percent in 1977 to 43 percent in 1980. There are two main reasons for this decline: the rapid growth of exports to Middle Eastern markets described above, and the relative stagnation of textile exports, Turkey's major export item to the EEC. EEC countries provide markets for 90 percent of Turkish exports of cotton yarn, 80 percent of cotton fabrics, 98 percent of T-shirts, and practically all its exports of blouses.

5.101 The Turkey-EEC association 2/ resulted in the signing of the Ankara Agreement in 1963, which gave Turkey Associate Status. An additional protocol and supplementary protocol were signed in 1970 and 1973, respectively. As regards textiles, in 1978 the quotas for the countries which export textiles to EEC were determined under the Multi Fibre Agreement and Turkey was accepted in the status of a preferential country. Quotas were set for the EEC as a whole, but each country could determine its own quota in the framework of bilateral agreements with each exporting country.

5.102 The preferential countries were requested to practice voluntary restraint. The following quantities were proposed for Turkey: cotton yarn 74,230 tons, cotton fabric 3,600 tons, T-shirts 8,400,000 pieces and blouses 2,300,000 pieces 3/; the other items as unrestricted. As Tables 5.15 and 5.16 show, the quota was binding only in 1979 for cotton yarn and in 1976 and 1977 for cotton fabrics. In the case of T-shirts and blouses the quota is far from binding.

5.103 In some individual countries, however, Turkey's exports have reached informal quota limits. In 1979, Turkey's exports of cotton yarn to the United Kingdom surpassed the limit and, upon the proposal submitted by the UK Government, the European Commission established individual quotas on Turkey's exports to the UK for the second half of 1980. Although all countries importing Turkish textile goods are not yet implementing individual quotas, every country, depending on the types of products, require import licenses and are trying to set up limits. Turkey's exports of knitted textiles (T-shirts in particular) to W. Germany had reached two times such limit in 1980.

5.104 The outlook for 1981 is not promising. Turkey no longer faces the same supply constraints as in previous years. At the same time, EEC countries continue to be sensitive to textile and garment imports

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1/ The discussion will concentrate on cotton textiles and engineering goods. Processed food exports will feature in the agriculture chapter.
2/ See Annex 5.1.
3/ Individual country details in Annex 5.1, page 5.

regardless of origin. These restraints may be mitigated by reason of the fact that Turkey has a "preferential entry" status. The EEC parliament considers adopting the principle of giving a greater than average increase of quotas to countries which have special relationships with the EEC. This would particularly help Turkey, provided that it cooperates with the EEC in encouraging industry to observe the informal quotas.

Table 5.15: COTTON YARN PRODUCTION, CONSUMPTION AND EXPORTS
(000 Tons)

Quota 74.2

	1976	1977	1979	1980
Production	288.7	290.0	250.0	235
Consumption	210.1	231.9	167.7	177
Exports	78.6	58.1	82.3	58
Exports to EEC	70	52	74.0	50

Source: TSKB

Table 5.16: COTTON FABRICS PRODUCTION, CONSUMPTION AND EXPORTS
('000 tons)

Quota: 3.6

	1976	1977	1979	1980
Production	186.0	211.8	156.1	161.0
Consumption	180.0	207.2	148.1	158.0
Exports	6.0	4.6	2.0	3.0
Exports to EEC	4.7	3.6	1.6	1.7

Source: TSKB

5.105 With the expansion of domestic supply, the quota may become binding. As mentioned in Section E, Turkey should, therefore, concentrate its efforts towards upgrading the quality of products under the quota system and to shift to higher value products (ready made garments, etc.) not in the quota list. If appropriate measures are taken to upgrade quality and ensure timely delivery, there is every possibility that Turkish textile exports to EEC grow about 10 percent a year in real terms since Turkey's lower wages and its overland accessibility to Europe gives it a decided advantage over other exporting countries that have lower wages.

5.106 While the exports of garments still account for only 5 percent of total production, a nucleus of exporters has established links to European marketing channels. In its Government-sanctioned exporter's union, the industry has a potentially effective institution to take actions for upgrading and expanding exports, including quality control, education and training, and the monitoring of export quotas. Export expansion would be also be facilitated by the greater availability and wider selection of fabrics (especially linings) and of accessory inputs (zips, buttons, sewing thread, etc.) of satisfactory quality and price; as well as by technical assistance in production and export marketing.

5.107 In addition to exports of cotton textiles, subcontracting opportunities exist in the EEC in certain branches of engineering industry such as electrical machinery, non-electrical machinery, machine tools, electronics and automotive industry, Turkey may participate in the international division of labor in the EEC area through the production of parts, components and accessories on a subcontracting basis. In footwear, leather goods and, to some extent, in leather clothing as well, joint ventures with European manufacturers could also be explored. In this way, Turkish manufacturers would obtain speedy intelligence on fashion changes, assistance on design and production methods, and access to retail outlets.

TURKEY - EEC RELATIONS

5.108 September 12, 1963: The Turkey - EEC Relations Agreement was signed in Ankara. The Agreement, which entered into force on December 1, 1964 was based on Article 238 of the Treaty of Rome. It laid down different stages for the development of the association:

- A preparatory stage (1964-1973), during which the Community helped Turkey to strengthen its economy by means of financial aid and tariff quotas opened for tobacco, dried grapes, dried figs and hazelnuts which re-resent 40% of Turkish agricultural exports to the Community;

- A transitional stage enabling a customs union to be established in 12-22 years according to the products;

- A final stage providing the possibility for Turkey to accede to the Community once the economic policies of both partners have been coordinated.

The first financial protocol was signed at the same time as the Ankara agreement. It provided Turkey with aid and loans under special terms totalling 175 million Units of Account (between 1964 and 1969).

5.109 November 23, 1970: The additional protocol, proclaiming the opening of the transitional stage, which would eventually enable the two partners to make progress along the road to a full customs union was signed in Brussels. (It came into force on January 1, 1973). The Second Financial Protocol was also signed the same day, enabling an amount of 210 million Units Account to be commited to Turkey until May 23, 1976. (This amount was raised to 257 million Units of Account following the Community's enlargement).

5.110 January 1, 1973: As called for under the Additional Protocol, Turkey started to carry out reductions in the customs duties for goods of EEC origin. Duties were decreased by 20% for products which must be completely liberalized in 12 years and by 10% for products to be liberalized in 22 years.

5.111 January 1, 1976: Turkey applied the second reduction in duties, as called for under the Additional Protocol.

5.112 Late 1976: Relations between Turkey and the Community were strained because of special problems. While the Association Agreement and the Additional Protocol provided for the gradual introduction of the free movement of workers between December 1, 1976 and December 1, 1986, some Community members refused to go along because of their unemployment

problems. The Community furthermore, was not in a position to satisfy all Turkish requests relating to financial cooperation and the re-examination of agricultural concessions.

5.113 December 20, 1976: At the Association Council meeting, Turkey and the EEC reached a series of partial agreements, to sign the third financial protocol and to adopt preliminary measures in the field of free movement. The Community also showed its willingness to develop its cooperation with Turkey, while accepting that there could be a certain amount of flexibility in the timetable of customs union, in keeping with the specific problems of Turkey.

5.114 January 1, 1977: Turkey postponed the tariff adaptions. Under the Additional Protocol, the first planned alignment of Turkey's external tariff with that of the Community in relation to non-Member States was scheduled to be put into operation on this date.

5.115 February 3, 1977: The Third financial protocol was initialled. It represented a commitment of 310 million Units of Account until December 31, 1981: 90 million were in the form of loans from the European Bank, granted on its own resources, 220 million in the form of loans on special terms granted by the EIB on a mandate from the community.

5.116 March 15, 1977: The Association Committee met to discuss the issue of Turkish cotton yarn exports to the Community. It argued that the rapid volume increase at low-selling prices of these exports was creating difficulties for undertakings in the Nine.

5.117 January 1, 1978: Turkey postponed the application of the third reduction of 10%. (The Turkey - EEC Association Committee agreed in February to this postponement.)

5.118 May 25, 1978: Ecevit paid an official visit to Brussels for talks with senior EEC officials. There, he offered a three-point package: Firstly, the EEC should give Turkey more considerably rights than she allows non-member States, and should stand firm on this principle. Secondly, the EEC should not prevent Turkey from developing into an exporter of industrial products. There will have to be a guarantee that Turkish industrial exports to be Community will not be restricted. Thirdly, Turkish workers' premiums in EEC countries should be transferred to Turkey and the Turkish workers in the Community area should enjoy the same rights as workers from Community countries. Ecevit also proposed new scheme to help develop the Turkish industries: joint investments in Turkey--with Turkish manpower, EEC technology and primarily the petrodollars of oil--rich countries.

5.119 October 29, 1979: Turkey's new premier Demirel announced his government's intention to revitalize Turkey's relations with the community.

5.120 February 6, 1980: The Turkey-EEC Association Council met in Brussels after a break of nearly four years. Turkish foreign minister Hayrettin Erkmen told a press conference that Turkey would apply for membership in the Community before the end of 1980.

EEC Quotas for Turkish Exports of Textile Sector

55.05	Cotton yarn	74,229 tons
55.09	Cotton fabrics	3,618 tons
60.04	T-shirts	8,424 thousand pieces
60.04.20 + 61.04.20	Blouses	2,306 thousand pieces

Breakdown of Quotas According to Countries

55.05	Cotton yarn	Total	74,229 tons
		Germany	25,412 tons
		France	2.454 tons
		Italy	29,949 tons
		Benelux	13,314 tons
		England	2,940 tons
		Ireland	147 tons
		Denmark	13 tons
55.09	Cotton fabrics	Total	3,618 tons
		Germany	1,149 tons
		France	740 tons
		Italy	870 tons
		Benelux	644 tons
		England	159 tons
		Ireland	4 tons
		Denmark	43 tons
60.04	T-shirts	Total	8,424 thousand pieces
		Germany	3,344 thousand pieces
		France	1,362 thousand pieces
		Italy	292 thousand pieces
		Benelux	2,220 thousand pieces
		England	1,072 thousand pieces
		Ireland	32 thousand pieces
		Denmark	102 thousand pieces
60.04.20 + 61.04.20	Blouses	Total	2,306 thousand pieces
		Germany	860 thousand pieces
		France	565 thousand pieces
		Italy	226 thousand pieces
		Benelux	478 thousand pieces
		England	150 thousand pieces
		Ireland	10 thousand pieces
		Denmark	17 thousand pieces

Exports of Cotton Textiles

Cotton Yarn			Tons 1979	Tons 1980
	55.05	Total	82,259	57,929
90%		EEC	74,023	49,685
	55.06	Total	565	536
		EEC	550	506
	55.09	Total	2,000	2,958
79%		EEC	1,569	1,660
	60.04	Total	138	260
98%		EEC	135	107
	60.05	Total	591	710
98%		EEC	578	663
	61.01	Total	405	642
		EEC	358	464
	61.02	Total	2,745	3,160
		EEC	2,520	2,617
	61.02	Total	2,833	2,596
		EEC	1,546	1,364

CHAPTER 6

STATE ECONOMIC ENTERPRISES IN MANUFACTURING

6.1 State economic enterprises in Turkey have been analyzed in the past from two somewhat distinct points of view. Those concerned with macroeconomic issues stress their large losses and consequent financing requirements, which directly contributed to public sector deficits and the growing resort to inflationary finance. Those interested in the development of particular sectors focus on the microeconomic efficiency of the state economic enterprises and their contribution -- or lack thereof -- to economic growth. The two concerns are, of course, related, since microeconomic inefficiency is one cause of the losses that have created macroeconomic problems.

6.2 This chapter is concerned with the microeconomic efficiency of the state economic enterprises in the manufacturing sector. The consequences of the performance of the state economic enterprises as a whole for public finance and inflation were discussed in Chapter 3. The present focus does not mean, however, that central government financial control over state economic enterprises is ignored, but rather that the perspective is the consequence of that control for their efficiency.

6.3 The chapter is divided into four sections. The first discusses the role of state economic enterprises in manufacturing and provides some evidence on their performance; the second examines the extent to which performance is explained by the policy environment that existed until the end of 1979; the third reviews the effects of policy changes since the beginning of 1980; and the fourth considers the agenda for medium term reform.

A. Role and Performance of the State Economic Enterprises in Manufacturing

6.4 According to a recent study, "It is a virtually unanimously-held view in Turkey that SEEs are inefficient." 1/ The evidence on the 1970s presented below, patchy and incomplete though it is, bears out this assessment. First, however, the role of state economic enterprises in Turkey will be considered.

1. The Role of State Economic Enterprises

6.5 Etatism has been defined "as the intervention of the state as a pioneer and director of industrial activity, in the interest of national development and security, in a country in which private enterprise is either suspect or ineffective." 2/ This philosophy has led since 1933, when Sümerbank was founded, to the creation of a number of state enterprises. It was a much debated, and remains an unresolved, question whether the entrepreneurial role of the state was to lapse with the growth of the private sector, either in

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1/ Anne O. Krueger and Baran Tuncer, "Estimating Total Factor Productivity Growth in a Developing Country" World Bank Staff Working Paper No. 422, (Washington, D.C.: World Bank, October 1980) p. 14.

2/ Bernard Lewis, Turkey Today (London: Hutchinson and Company, 1952) p. 49.

particular mature industries or in industrial development as a whole. 1/ In practice, however, while state enterprise has declined in relative importance in some manufacturing industries - textiles and cement, for example - closure of public sector plants or transfer to the private sector has rarely occurred. More important, the state has continued to play an important role in developing new industries such as petrochemicals and fertilizers.

6.6 The fact that the state's role has been in the establishment of new, rather than the absorption of old and worn-out enterprises, as has frequently been the case in the industrialized market economies, has important implications. In the first place, there is no inherent reason why the advance of state enterprise should be seen by the private sector as necessarily threatening - some suggest the contrary. 2/ In the second place, problems of state economic enterprises are not inherited from elsewhere but generated within the state enterprise system itself.

2. Characteristics of Public and State Economic Enterprises and their Place in the Economy

6.7 The enterprises, with which the present report is largely concerned, which shall be referred to as state economic enterprises, are only a subset of the public enterprises in manufacturing as a whole. The state economic enterprises are those established under a special law, 440 of 1964, (which will be further discussed below). Public enterprises further include state monopolies, manufacturing operations conducted by government agencies or by provincial and local government and finally the business undertakings in which the state or state economic enterprises hold a majority of shares but which fall under the corporation laws." The aggregate statistics that are published on public enterprise in Turkey include the state economic enterprises as well as all other kinds of public enterprise, except for those predominantly publicly owned firms that were established under the principal corporate law. Examples in the latter category are Erdemir Steel and Igsas Fertilizer.

1/ "The original authors of etatism could be broadly divided into two ideological categories. On the one hand, a circle of younger intellectuals associated with the magazine Kadro, who acted as a radical ginger group within the ruling RPP during 1932-4, appear to have seen etatism as a permanent and preferable alternative to capitalism.... On the other hand, a more conservative group...appears to have seen etatism as the nursemaid rather than replacement for capitalist development,..." William Hale, The Political and Economic Development of Modern Turkey, (London: Croom Helm, 1981) pp. 55-6.

2/ "The cynics claim that the KIT's (SEEs) are such high cost enterprises that once they are established in a certain line of activity, domestic firms are ensured against price reductions..." (See Anne O. Krueger and Baran Tuncer, "Industrial Priorities in Turkey" in United Nations Industrial Development Organization, Industrial Priorities in Developing Countries: the Selection Process in Brazil, India, Mexico, Republic of Korea and Turkey, (New York: United Nations, 1979) p. 155. Evidence given to the mission on cement pricing bears out the cynics' view.

6.8 Consistent series of data on employment, value added and investment in the private and public manufacturing sectors in Turkey are not available. The partial information that does exist, however, indicates some marked trends. Thus, the share of the public sector in manufacturing employment in the 1970s remained virtually constant at about 36 percent. Meanwhile, its share in value added declined, from 51 percent in 1970 to 41 percent in 1975 and 30 percent in 1979. At the same time, the share of the public sector in fixed investment in manufacturing rose, from 39 percent in 1972 through 1974, to 47 percent in 1976 through 1977, 50 percent in 1978 through 1979, and 60 percent in 1981. 1/ These trends give an indication of the rising relative capital intensity of public sector activity in manufacturing as well as of growing relative inefficiency, as rising capital intensity was not offset by declining labor intensity; in fact, the contrary is true, since the labor intensity of the public sector relative to that of the private sector has been rising in the 1970s.

6.9 Table 6.1 shows the relative shares of the public sector in production, value added and employment in individual industries in 1979. The public sector accounted for more than half of output in tobacco (91 percent), petroleum (87 percent), paper and paper products (60 percent), and printing and publishing (57 percent). Their share is also high in basic metals (46 percent) and beverages (40 percent). (With Erdemir included, the share in basic metals would much exceed one half). At a more disaggregated level, the public sector controls almost all production of steel and alcoholic beverages and more than half of cement, fertilizers and sugar. In turn, there is competition with private enterprises in textiles, apparel, leather products, and machinery and transport equipment.

6.10 Eight enterprises established under Law 440 account for almost all economic activity of state enterprises in manufacturing. These are the Turkish Sugar Corporation (TSF), Sümerbank (which produces largely textiles), the Pulp and Paper Corporation (SEKA), the Petrochemical Corporation (Petkim), the Nitrogen Industry Corporation (Azot), the Turkish Cement Corporation (TCS), the Turkish Iron and Steel Corporation and the Machinery and Chemicals Corporation (MKEK). Most of these enterprises come under surveillance of the Ministry of Industry and Technology. Reference will also be made, where

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1/ These data exclude establishments with fewer than ten employees. Data on employees for 1970 and 1975 are from K. Ebiri, Z. Bozkurt, and A. Culfaz, Capital and Labour in the Turkish Manufacturing Industry, (Ankara: State Planning Organization, 1977) and for 1979 are from unpublished data of the State Institute of Statistics. Data on value added are from K. Ebiri and others, Op. Cit., for 1970 and 1975 and from unpublished data of the State Institute of Statistics for 1979. The data for 1970 and 1975 were in 1965 constant prices which could induce an increasing downward bias in the share of the public sector over time due to the differential effect of price controls. The price controls obtained their greatest effect in 1979, which may partly explain the further rapid decline in the share of the public sector by that date. Data on investment are for all government investment in manufacturing and are in 1976 constant prices. Because of the instability in the share of investment in the public sector from year to year, the figures are for successive three year periods.

appropriate, to Erdemir and Igsas. While other state enterprises exist, for example Tumosan, which aspires to become a giant manufacturer of trucks and tractors, none are of any major importance in manufacturing as yet.

Table 6.1: PUBLIC SECTOR SHARES IN MANUFACTURING INDUSTRY, 1979
(percent)

Industry	Production	Value Added	Employment
Processed Food	37	39	50
Beverages	40	43	46
Tobacco	91	93	94
Textiles	12	13	20
Wearing Apparel	15	22	15
Fur and Leather Products	20	n.a.	24
Wood and Cork	31	34	41
Furnitures and Fixtures	12	17	16
Paper and Paper Products	60	43	69
Printing and Publishing	10	17	23
Chemicals	23	25	29
Petroleum	87	75	76
Rubber and Rubber Products	1	1	0
Non-metallic Minerals	18	15	20
Basic Metals	46	46	67
Metal Products	11	16	7
Machinery	21	26	28
Electrical Machinery	2	3	7
Transport Equipment	14	29	41
Miscellaneous	8	10	12
TOTAL	32	30	36

Source: State Institute of Statistics

3. Some Measures of Performance of State Economic Enterprises in Manufacturing

6.11 The efficiency of an activity from an economic point of view is essentially an amalgam of the technical efficiency with which it is designed, built and operated, and its appropriateness to the conditions, especially factor supplies of the country. At the same time, financial performance can deviate from economic performance to the extent that market prices deviate from shadow prices. With some knowledge of these price deviations, inferences on economic efficiency can be drawn. Financial performance also has importance in its own terms, since it has implications for public finance. Technical, economic, and financial performance are all considered below.

Factor Use in Public Manufacturing Enterprises

6.12 The use of capital and labor per unit of output is a direct indicator of technical and economic efficiency. A recent study provides data on the

relative productivity of capital, labor, and the two combined, reflecting efficiency in factor use in public and private enterprises in 1963 and 1976 (Table 6.2). 1/ In 1963, the public sector's efficiency was below that of the private sector in eight out of fourteen industries. By 1976 this number had risen to eleven, the only exceptions being beverages; textiles, wearing apparel and footwear; and metal machinery.

6.13 In the same period, relative output-capital ratios of public to private enterprises fell in nine industries, relative output-labor ratios decreased in ten, and relative output per unit of total factor input declined in nine. By 1976, the relative use of labor in the public sector per unit of output was higher than in the private sector in twelve of the fourteen industries, the only exceptions being beverages and petroleum and coal. (The latter means little since private production is negligible.) The evidence does, therefore, support the widely held view that there is significant overmanning in public enterprises and that the problem has become worse over time.

6.14 More detailed information on the output-labor ratio in public, mixed and private sector plants in 1978 could be obtained for one sector in which a homogeneous commodity is produced, namely, cement. The average ratio of output to labor in public sector plants is 48 percent below that in private sector plants. A major reason for this result is the relatively small size of the public sector plants. If we control for differences in plant size, output per man seems to have been about 16 percent lower in public than private

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1/ These estimates come from Krueger and Tuncer, "Estimating Total Factor Productivity Growth," pp. 40-45 and especially Table 6. The estimates of the capital stock are of the constant-price value of machinery, equipment, buildings and so on. The unit of measure of labor was the number of workers. The estimates of the relative productivity of capital and labor were derived by assuming that raw material input per unit of output was the same in both public and private plants in any given industry. The estimates of relative output per unit of total factor input employed private sector factor shares. Since output mix and degree of vertical integration can differ between public and private firms in any industry and the assumption of equal raw material inputs can be questioned, the estimates must be treated with great caution.

Table 6.2: RATIO OF PUBLIC TO PRIVATE OUTPUT PER UNIT OF INPUT

Sector	1963 Output per capital	1963 Output per labor	1963 Output per weighted inputs a/	1976 Output per capital	1976 Output per labor	1976 Output per weighted inputs a/
Food	0.212	0.642	0.264	0.825	0.592	0.729
Beverages	3.509	1.577	2.762	3.030	1.876	2.525
Tobacco	1.709	0.684	1.221	0.842	0.923	0.857
Textiles, wearing apparel and footwear b/	0.741	0.805	0.762	1.712	0.641	1.080
Wood and cork products	1.199	0.893	1.068	0.815	0.536	0.700
Paper and products	0.500	1.005	0.597	0.495	0.759	0.550
Chemicals	0.315	0.715	0.369	0.426	0.773	0.446
Nonmetallic minerals	0.978	1.550	1.129	0.812	0.909	0.848
Petroleum and coal	--	--	--	0.630	8.00	0.781
Basic metals	0.605	1.284	0.710	0.220	0.359	0.251
Metal products	0.218	0.818	0.300	0.122	0.733	0.182
Machinery	1.887	1.170	1.631	1.616	0.711	1.063
Electrical machinery	0.670	0.428	0.587	0.318	0.181	0.248
Transport equipment	0.372	0.227	0.313	0.394	0.205	0.313

a/ Weights are factor shares in the private sector as of the years in question.

b/ Because capital stock data were available jointly for textiles and wearing apparel and footwear, any separate estimation of efficiency were biased by the split used, and it was deemed preferable to aggregate the two sectors.

Source: Anne O. Krueger and Baran Tuncer, "Estimating Total Factor Productivity Growth in a Developing Country", World Bank Staff Working Paper No. 422 (Washington D.C.: World Bank, October 1980) Table 6, p. 43.

plants with only a one in eight chance that the difference is statistically insignificant. 1/

Economic Efficiency of Existing State Economic Enterprises in Manufacturing

6.15 After a lengthy analysis of the issue, based on data up to 1972, Walstedt concludes "Industrial growth and employment in Turkey have been much less than could have been realized from the same investments under an alternative strategy. The economic results for many important projects - steel, pulp and paper, fertilizers and petrochemicals, for example - are below...an acceptable economic return."2/

6.16 An equally comprehensive evaluation of economic performance after 1972 is not available. In 1980, however, the Operations Evaluation Department of the World Bank estimated ex post economic rates of return for five subprojects of the State Investment Bank (DYB). (See Table 6.3.) In interpreting these results, it should be emphasized that the evaluation covers a small number of projects that are not representative of public sector investment in manufacturing as a whole. Thus, large new investments in capital intensive sectors are not financed by DYB. Indeed, of the five projects, the two Sümerbank investments were for expansion and modernization and the two SEKA projects involved expansion or balancing investments in existing plants. At the same time, investment usually has very high returns where there are already substantial sunk costs. Nevertheless, only SEKA projects have high economic returns and these depend on its being able to resolve major technical problems still in existence at the time of the evaluation. The evaluations also note that ex post returns were substantially below those estimated ex ante. This indicates both poor technical performance and over-optimistic evaluations by the DYB.

1/ The data on employment and capacity are from the Turkish Cement Corporation. Data on capacity utilization are from Yapi ve Kredi Bankasi, Cement Industry in Turkey, 1980, Table 8. There are thirty-five cement plants in Turkey, fifteen public, six mixed and fourteen private. In the twenty-eight plants for which all the required data were available were thirteen public, four mixed and eleven private. The fitted equation is:

$\ln(O/E) = -1.381 + 0.654 \ln O - 0.173 Dp + 0.074 Dm$

t ratio (-1.43) (9.46) (-1.62) (0.54)

adj.R^2 = 0.8037

where O = plant output
E = plant employment
Dp - public sector dummy
Dm = mixed sector dummy

2/ Bertil Walstedt, State Manufacturing Enterprise in a Mixed Economy: The Turkish Case (Baltimore and London: The Johns Hopkins University Press for the World Bank, 1980) p. 129. The entire issue is discussed in Ibid., pp. 116-27.

Table 6.3: RATES OF RETURN ON SOME DYB SUB-PROJECTS

(percent a year)

Borrower	Establishment	Sector	Financial Rate of Return	Economic Rate of Return [a]
Sümerbank	Malatya (Erdincan)	Cotton Textile	-3	9
Sümerbank	Kayseri (K. Maras)	Cotton Textile	5	9
SEKA	Dalaman	Chemicals	15	14
SEKA	Caycuma	Pulp and Paper	23	17
Azot Sanayii	Kutahya	Plastic Products	2	8

a. With shadow pricing of labor and non-tradable inputs and border pricing of outputs. Economic returns were higher than financial returns largely because of the relatively low domestic prices of the products involved.

Source: Estimates of the Operations Evaluation Department of the World Bank.

6.17 Since ex post economic returns were not calculated for more than a small sample, some more general information is needed. A proxy for economic efficiency is provided by comparisons between domestic and world market (border) prices of output.

6.18 Table 6.4 shows that, in 1981, prices of state enterprise products were above border prices in most cases, especially for intermediate inputs, and that the ratio of domestic to border prices was highly variable. The same variability existed in the early 1970s according to Walstedt, but there were some major changes in specific price relationships between that period and 1981. Coal, fertilizers, and newsprint appear to have become more competitive, but this is probably illusory, since stringent price controls were in effect on all these products in 1981. Omitting these controlled commodities, cotton fabrics, iron ore concentrate, ferrochrome, and calcium carbide seem to have become competitive. Against this, copper, steel products, cement, PVC, and paper have become less competitive over time.

Financial Performance of State Economic Enterprises in Manufacturing

6.19 The overall financial performance of state economic enterprises, their growing deficits and rising investment requirements, have been discussed in Chapter 3. State manufacturing enterprises showed similar performance; information for eight of them being shown in Table 6.5 for 1979. These enterprises accounted for almost all investment and production by state economic enterprises in manufacturing, as has been mentioned in Para. 6.10 above. They also accounted in 1979 for 35 percent of fixed investment by all state economic enterprises and 12 percent of the losses.

6.20 The situation of individual enterprises varied as regards profitability, with Turkish Sugar and SEKA making particularly large losses.

Table 6.4: RATIOS OF DOMESTIC TO BORDER PRICES OF SELECTED STATE ENTERPRISE PRODUCTS, 1970-76 AND 1981

Commodity	Ratio 1970-6	Ratio 1981	Commodity	Ratio 1970-6	Ratio 1981
Coking Coal	1.23/1.38	0.81 a/b/c/	PVC	2.37	2.53 b/
Iron Ore Concentrate	1.24/1.59	0.94 b/	Newsprint	1.37	0.97 d/e/
Copper Blister	1.55/1.63	2.35 b/	Unbleached Kraft Paper	1.37	1.47 e/
Pig Iron	1.31	1.13 b/	Printing and Writing Paper	1.43	1.53 e/
Steel Rounds	1.18	1.79 b/	Cotton Yarn	1.09	0.95 f/
Steel Profiles	1.27	1.57 b/	Cotton Fabric:		
Hot Rolled Steel Sheets	1.17	1.69 b/	type 249 Emprime	n.a. g/	1.04 f/
Cold Rolled Steel Sheets	1.36	1.58 b/	type 151 Raw Cloth	n.a. g/	1.53 f/
Tinplate	1.15	2.67 b/	type 3043 White Sheet	n.a. g/	1.02 f/
Ferrochrome	n.a.	0.66 b/	type 3043 Colored Sheet	n.a. g/	1.00 f/
Calcium Carbide	1.47	0.73 b/	Raw Jute Yarn:		
Cement	0.83	1.04 d/e/	1/4 raw jute yarn	n.a. g/	1.66 f/
Ammonium Sulphate	1.33	0.48 f/	2/10 raw jute yarn	n.a. g/	1.43 f/
Calcium Ammonium Nitrate	0.97	0.45 f/	150x150x6 mm. Tile	n.a.	1.42 f/
Polyethylene	2.38	2.34 b/	Granulated Sugar	2.18	1.55 c/h/

Note: Except where noted, the 1981 comparisons are for the first quarter of 1981. The 1981 Turkish prices include production taxes and have been converted to border prices using an exchange rate of T.L. 103 = US$1. For details of the 1970-6 comparisons see Bertil Walstedt op. cit., table SA.14a. His comparisons were generally for 1972 but dates vary from June 1970 to July 1976.

Source: State Planning Organization and Bertil Walstedt, State Manufacturing Enterprises in a Mixed Economy: the Turkish Case, (Baltimore and London: Johns Hopkins University Press for the World Bank, 1980), table SA.14a.

a. The comparison is for December, 1980.
b. The world price was estimated by the State Planning Organization.
c. The item is subject to official price control.
d. The item is subject to price control.
e. The international price is Turkey's c.i.f. import price.
f. The international price is Turkey's f.o.b. export price.
g. For Walstedt's comparisons, different textile products were used. These were, (with the price ratios in parentheses,) 100 percent cotton 140-centimeter heavy denim (1.63); 100 percent cotton 90-centimeter print (gray) (1.3); 100 percent cotton 130-centimeter print (gray) (1.43), 65/33 polyester and cotton shirting (gray) (1.36), woolen and worsted fabrics (1.2).
h. The source of the international price is unknown. It is estimated for May, 1981.

Table 6.5: GROSS PROFIT (LOSS) AND FINANCING REQUIREMENTS OF STATE MANUFACTURING ENTERPRISES, 1979
(T.L. million)

Corporation	Gross Profit a/b/		Depreciation	Fixed Investment	Total Financial Requirement c/
MKEK	-327	(-)	141	-1,083	-1,269
Sümerbank	1,862	(70)	253	-2,708	-593
Turkish Cement	-979	(360)	144	-776	-1,611
Turkish Iron and Steel	1,654	(-)	721	-13,854	-11,479
SEKA	-4,600	(3 096)	591	-8,755	-12,764
PETKIM	3,935	(-)	879	-13,553	-8,739
Fertilizer (AZOT)	-1,480	(830)	152	-1,666	-2,994
Turkish Sugar	-7,845	(8,339)	314	-3,002	-10,533
Total	-7,780	(12,695)	3,195	-45,397	-49,982
Total for all SEEs	-66,832	(69,962)	16,271	-128,002	-178,563

Note: A source of finance is positive and a use of finance is negative. Tax liabilities, the bulk of which are, in any case not paid, are not included in financial requirements because of lack of information on tax liabilities for the year.

a. The gross profit excludes the liability of government to pay duty losses, which is normally included in state enterprise profits. A positive sign means a profit and vice versa.

b. Duty losses are in parentheses. These represent the liability of government to pay offsetting subsidies for price controls in effect in 1979. Thus profits without price controls are obtained by summing actual profits and duty losses.

c. Excludes financing of stocks.

Source: Ministry of Finance.

The largest investment programs were those of the Iron and Steel Corporation, SEKA and Petkim, which account for 80 percent of the fixed investments of the eight enterprises. No enterprise was self-financing: Sümerbank was closest, with profits plus depreciation paying for eighty percent of fixed investment. The other profitable companies, Petkim and Turkish Iron and Steel, paid for 36 and 21 percent of their investment, respectively, out of profits plus depreciation. The remaining five required financing to pay for collective losses (less depreciation allowances) of T.L. 13.9 billion, plus fixed investments of T.L. 15.3 billion, for a total of T.L. 29.2 billion.

6.21 The allowance for so-called duty losses is supposed to reflect the effects of the price controls that existed in 1979. (Thus, for example, of SEKA's loss of T.L. 4,600 million, T.L. 3,096 is said to be the consequence of price controls.) If the effect of price controls is allowed for, the eight enterprises together made a small profit of T.L. 4.9 billion in 1979, a modest return of 5 percent on equity.

6.22 The financial performance was, in fact, worse than the data indicate because of a number of price distortions, to be discussed further below, that benefit state economic enterprises. In the first place, inflation adjustments were not made in the accounts, with the result that depreciation allowances greatly underestimate current replacement cost and profits on inventories are overstated. In the second place, interest rates paid were strongly negative in real terms, in part because of the prevailing low interest rates and in part because of the interest preferences state economic enterprises enjoyed. Finally, as shown in Table 6.4 for 1981, when most price controls had been lifted, the "uncontrolled" prices, with reference to which duty losses were computed, were in many cases well above international levels. Yet, these uncontrolled prices were equated to production costs. In sum, at international prices, without subsidies and with inflation adjusted accounts, most of the enterprises would have shown much worse financial and economic performance than indicated by the data of Table 6.5.

Export Performance of State Enterprises

6.23 One aspect of economic performance of importance to Turkey is the trade position of the state economic enterprises. Table 6.6 shows the direct imports for operations and investment of eight major state manufacturing enterprises as well as their direct exports in 1980. The cement company was the only one to earn a surplus and accounts for 70 percent of the total exports: Sümerbank and the Sugar Corporation also had exports of some significance. Overall, however, the group ran a deficit of $104 million on operations and $422 million in total. Thus, the foreign exchange losses of these enterprises demanded offsetting surpluses elsewhere in the economy. It should be remembered in this context that these eight corporations, whose combined exports were only $148 million, had absorbed about a third of all investment in manufacturing.

Table 6.6: EXPORTS AND IMPORTS OF MAJOR STATE MANUFACTURING ENTERPRISES, 1980

(US$ millions)

Corporation	Imports			Exports	Balance
	Production Goods	Investment Goods a/	Total		
MKEK	4.8	6.0	10.8	4.1	-6.7
Sümerbank	10.3	42.9	53.2	19.8	-33.4
Turkish Cement	---	18.0	18.0	103.1	85.1
Turkish Iron and Steel	66.8	40.7	107.5	2.3	-105.2
SEKA	26.5	44.9	71.4	---	-71.4
PETKIM	65.0	137.5	202.5	7.7	-194.8
Fertilizer (Azot)	77.6	14.8	92.4	---	-92.4
Turkish Sugar	1.1	13.3	14.4	11.1	-3.3
Total	252.1	318.1	570.2	148.1	-422.1

a. Includes goods obtained under project loans.

Source: State Planning Organization.

Conclusion

6.24 The state enterprises play an important role in the development ideology of Turkey and in the actual development of the country. This is true both overall and in the manufacturing sector, in particular. There is clear evidence that the manufacturing enterprises have been wasteful in use of resources. Similarly, financial performance has been poor despite many covert and overt subsidies. Price controls might have been a partial explanation for poor financial performance in some enterprises but economic inefficiency is the main reason.

B. Causes of Poor Economic and Technical Performance

6.25 Why has economic and financial performance been so poor? The discussion below deals with this issue for the period ending January, 1980. It will cover general economic policy, the legal framework, procedures for government control and public accountability, the price signals faced by state economic enterprises, their management and organization, and the investment and operating decisions which resulted.

1. General Economic Policy

6.26 One reason for the economic inefficiency of many state economic enterprises is the trade regime discussed in Chapter 2. This is more than just a general point, however. In attempting to integrate backwards into the production of the basic, capital-intensive intermediate goods like steel, chemicals, petrochemicals, paper, and non-ferrous metals, the planners have relied almost exclusively on state enterprises, new and old. While state enterprises operate in other industries as well, they are strongly concentrated in the activities in which Turkey does not have a comparative advantage (see Chapter 5).

2. The Legal Framework for State Enterprises

6.27 The most important law governing the enterprises with which this discussion is concerned is 440 of 1964. It is both interesting and important to note that the passage of this law was designed to solve the very same problems that still concern the Turkish authorities: the uncontrolled expansion of investment combined with constant intervention by the government in the day-to-day operations of the enterprises, that had had serious consequences in the 1950s.

6.28 Much of Law 440 preserved the institutions and modus operandi already in existence. The High Control Board that had responsibility for the audit of state economic enterprises continued in operation, for example. The Reorganization Committee established under Law 440 seems to have failed. Also, the most important change of the 1960s, the establishment of a planning framework to control investment, in general, and of the DYB (under Law 441) to finance and appraise state enterprise investment, in particular, failed to achieve the desired rational control over investment, particularly in the late 1970s.

6.29 Apart from Laws 440 and 441, three other laws are important. The first, Law 657, governs the employment of civil servants. While there are some publicly owned or dominated enterprises to which this law does not apply, it covers the managers and many of the staff members of most enterprises established under Law 440. In essence, it guarantees the managers and other staff members of state enterprises security as civil servants, (though not security in their specific jobs). At the same time, it limits pay to Civil Service levels. The other two laws, 274 and 275 govern labor relations and gave workers the right to strike. 1/ The latter right was only used significantly by workers in state enterprises in the 1970s, but with a strong effect.

3. Procedures for Government Control and Public Accountability

6.30 The issue to be dealt with is the procedures under which state economic enterprises operate, namely, the framework for operating, investment and financial control and the system of audit and public accountability.

The Framework for Operating Control

6.31 In the day-to-day operations of the state enterprises the most important immediate influence appears to be the directly responsible Ministry. (For manufacturing enterprises this is usually the Ministry of Industry and Technology.) The Ministry co-ordinates the relationship of the enterprise with other branches of the Government, inter alia advising on the appropriateness of investments proposed to the State Planning Organization and on proposed price changes. The Ministry also reviews the annual program of the state enterprises, receives a monthly report on progress as well as the

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1/ Both laws were passed in 1963. See William Hale, The Political and Economic Development of Modern Turkey, pp. 216-8.

half-yearly reports that go to the Ministry of Finance and the State Planning Organization. More recently, the Ministry of Industry has been giving export targets to the individual enterprises. The Ministry responsible also plays a dominant role in the selection of the Director General and two Assistant Director Generals that make up half the Board of most state enterprises. Of the other three members, one is a representative of the Ministry, one a representative of the Ministry of Finance and one a representative of the Labor Unions. In sum, the Ministry has very great direct and indirect leverage over the enterprises.

6.32 On pricing another body had importance until January 1980, the Price Control Committee. Under the law any commodity judged a "basic commodity" would have its price controlled, a provision that was extended to a very high proportion of state enterprise output.

6.33 The formal system of control was also a vehicle for informal pressures from the party (or parties) in power, from the responsible Minister, from the Prime Minister or Deputy Prime Minister, or from elsewhere in Government. Given the dependence of state enterprises on government for finance and of their managers on support, if they were to maintain their jobs, informal pressures could clearly be of great importance.

The Framework for Investment Planning

6.34 The State Planning Organization (SPO) which comes under a High Planning Council composed of four ministers, the undersecretary of SPO and the heads of three SPO departments, has the main responsibility for formulation of investment programs for industrialization. It has been noted that "These do not always rest on a solid foundation of technical and economic studies, and the projects are often politically or technocratically inspired. Yet once corporated into an annual program the investments become mandatory. In this respect Turkey may be more *dirigiste* than some countries with centrally planned economies." 1/

6.35 The Five Year Plans do not contain project detail, but the input-output analysis underlying them was used to identify likely opportunities and help appraise projects. These are proposed and agreed in the context of annual programs, for which state enterprises prepare five year rolling investment plans. The ideas for individual projects may originate with the enterprises themselves, but this need not be so. The SPO may have its own notion of what is needed, or the Ministry responsible, or - in the past - powerful politicians. The political process was particularly important in the creation of new enterprises. As mentioned by Walstedt, once accepted, a project becomes mandatory for the enterprise, with the availability of finance merely determining how long it takes to complete the investment. Projects are also not evaluated *ex post*.

6.36 Project evaluation by the SPO involved six criteria according to Krueger and Tuncer "(a) value added per unit of capital; (b) the labor-capital

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1/ Bertil Walstedt, *State Manufacturing Enterprises in a Mixed Economy*, pp. 222-3.

ratio; (c) the foreign exchange implications of the investment; (d) the nature of the technology used and the extent to which the proposed investment is of economic size; (e) the marketing aspects; and (f) the location of the project." 1/ The entire process was dominated by the import-substitution point of view. Indeed, Krueger and Tuncer emphasize that the specific appraisal criteria mattered only when there was excess demand for investment funds in relation to plan levels. If there was an inadequate number of proposals, SPO hunted for projects. It is also clear that the criteria diverged from the economically rational. Furthermore, the SPO suffered increasingly from shortages of skilled manpower, in part because of inadequate pay for civil servants. (At the time of writing the SPO had only five people in the project evaluation group of the Sectoral Division. Of its sectoral experts, many were young and inexperienced.)

6.37 It had been hoped that the evaluation of the feasibility and profitability of state enterprise investment by the State Investment Bank would check the uncontrolled expansion that had characterized the period before 1964. In practice, the ability of the State Investment Bank to carry out this task successfully was very limited. One reason is that it was restricted to the finance of a subset of the investments already approved by the SPO in the context of annual programs. In addition, the enterprises concerned knew that funds would be provided from elsewhere, if necessary. An important point in this context is that the Bank became much less important than expected as a source of finance. While it was originally assumed to finance one-third of state enterprise investment, by the early 1970s "about 60 percent of SEE investments [were] self financed, with 20 percent coming from DYB (State Investment Bank) funds and 20 percent from the general budget." 2/ By the late 1970s the DYB share was down to ten percent or so. 3/ Meanwhile, as the profitability of the enterprises deteriorated, the budget and the Central Bank became increasingly important - in 1979, for example, these two sources provided T.L. 137.5 billion, the State Investment Bank T.L. 14.4 billion and own resources of state enterprises T.L.-58.8 billion.

6.38 Apart from the external constraints on the State Investment Bank, its own performance may be queried. The World Bank's sector operations review judged the institution quite harshly in terms of project evaluation capacity and ability to influence subprojects at an early stage. "A review of DYB's appraisals under the Bank's first loan...reveals that these were limited to a rather uncritical review of feasibility studies prepared by the borrowing SEEs. Appraisals ignored management issues and were generally based on overly optimistic price and production assumptions." In this context it should be noted that the State Investment Bank suffered from the same shortages of

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1/ Anne O. Krueger and Baran Tuncer, "Industrial Priorities in Turkey," p. 149.

2/ Ibid., p. 149.

3/ The DYB was supposed to have obtained much of its resources from Social Security Institutions, but these sources increasingly dried up in the late 1970s.

skilled staff as other agencies. The State Investment Bank also did not do ex post economic evaluation of projects. In sum, the State Investment Bank's influence was very limited, affecting largely the timing and design of projects rather than whether they would go ahead, and so was its capacity to finance and to evaluate projects.

The Framework for Financial Control

6.39 In the late 1970s, as state enterprise performance deteriorated, the financial control mechanism was stretched between state enterprise losses, on the one hand, and their investments, on the other, with the two moving in opposite directions. The Ministry of Finance, through its central role in the financial aspects of the Annual Program, bore the main responsibility for managing the situation.

6.40 The annual program for a state enterprise controls both current operations and the financing of desired physical investment. (There can be other physical targets, for example, for employment, output or exports, but these are not so important.) The main emphasis appears to be on the financing of investment. The investment program is, therefore, put in financial terms and then fitted into a program for financial resources and expenditures. A component of the latter is projected profit or loss, of which an independent projection is made, as is a projection of the balance sheet. The sum of the financial requirement of state enterprises to meet losses and investment expenditures is supposed to match overall macroeconomic and budgetary projections.

6.41 Before considering the overall programming of sources and uses of funds, a word should be said about the calculation of profits and losses. Losses due to price controls were apparently computed in relation to actual costs of production and the difference between the revenue required to cover those costs and actual revenue was counted as the "duty loss". The "duty loss" was included as a part of revenue in the profit and loss statement, with a corresponding entry for increased receivables from government. The result of this procedure would seem to have been almost complete absence of cost discipline, since the prices thought to be appropriate benchmarks were simply those at which enterprises could cover their costs.

6.42 In the process of preparing a program for financial requirements, the financing gap could be met from foreign project finance; from the State Investment Bank; from budgetary transfers for "duty loss" payments, "governmental aid," 1/ or capital contributions; or from Central Bank lending. Apparently, the particular forms of finance that were used depended on the financial circumstances of the enterprise rather than on any legal obligation or the purpose for which the funds were to be used. "Duty losses" could, for example, be paid over several years if some other form of finance seemed more appropriate.

1/ "Governmental aid" is for state railways, shipping and the Turkish electrical corporation.

6.43 The aim throughout seems to have been to protect the investment program as far as possible, notwithstanding the consistent underestimation of operating losses due to overmanning, wage rises, price controls and general inflation. In the face of these increasing tendencies to worsened operating performance, the SPO, the enterprises and most of the government remained committed to the investment program. The Ministry of Finance in its semi-annual reviews of the programs and in program and budget preparation could meet this pressure only by increased resort to inflationary finance. One result was diminished financial discipline. Equally important was the fact that erosion of real investment occurred, as resources were absorbed in operating losses. Thus, an official of the SPO estimated that in the late 1970s, while financial investment targets were met, real investment ran at 60 percent of programmed levels. The result was project delay. In sum, the conflict between growing losses and the required finance for investment was resolved by a compromise that generated both accelerated inflation and wasted investment expenditures. The project delays must have further worsened the operating performance of state enterprises, thereby creating a vicious circle.

Auditing and Accountability of State Enterprises

6.44 In order to carry out the functions discussed above - operating and financial control - adequate, timely and useable information is needed. While there is substantial agreement that the information provided by state enterprises is not adequate for these purposes, the subject is not further addressed here. Another issue, however, is that of public audit and accountability.

6.45 For over forty years the High Control Board has had responsibility for audit of state enterprises. These audits address themselves to the limited question: "is the enterprise's operation consistent with the five year plans or annual program?" The report of the HCB is reviewed formally by a parliamentary commission of twelve -- currently a committee appointed by the National Security Council -- and informally by a group consisting of representatives of the enterprise, the HCB, the SPO, the Ministry of Finance and the Ministry responsible.

6.46 The High Control Board is not considered effective. 1/ There are two major problems: the first is the lack of timeliness. Thus, in the summer of 1981 the audits for 1979 were being discussed - one and a half years after the end of the relevant period. The second is the lack of publicity. HCB reports on individual enterprises are never released and the summary report for all state enterprises is both late and provides only partial coverage. (The same applies to the Ministry's of Finance annual report on state enterprises). Furthermore, the programs of individual enterprises, against which their performance might be evaluated, are not publicly available. Thus, the public at large has none of the information required to evaluate the performance of state economic enterprises.

1/ William Hale, The Political and Economic Development of Modern Turkey, p. 93.

6.47 Quite apart from the availability of reports, the basic financial data are almost impossible to interpret, and there is no explicit economic audit. As will be further discussed below, in addition to the failure to adjust for inflation, state enterprises generally faced different prices for output, a different structure and level of employees' remuneration, a different (and generally much lower) cost of capital, and a different corporate tax rate from those facing private enterprises.

Conclusion

6.48 The attitude of government to the state enterprises was indulgent but at the same time interventionist. Financial control was lax; the desire to expand investment over-rode questions about the use of existing assets; investment apraisal was unsatisfactory; and the audit was without great force and involved minimal public scrutiny. There were, in addition, no clear goals for management. It can be stated not too unfairly that the objectives of the enterprises were to carry out the mandated investment program while also attempting to minimize losses, subject to such constraints such as price controls, regional dispersion of activity and mandated over-employment. At the same time, managers operated in an environment of constant interference and were required to carry out approved investments regardless of the circumstances. In consequence, enterprises and their management neither were, nor could reasonably be, held responsible for performance.

4. Price Signals Facing State Economic Enterprises

6.49 The important signals facing the state economic enterprises are prices of output, cost of factors, taxes and subsidies. Distorted price signals can both induce inefficiency and make it difficult to judge economic, on the basis of financial, performance.

Output Prices

6.50 The prices of a number of products were shown in Table 6.4 above for 1970-6 and 1981. Price controls were in effect on most products up to January, 1980; they continued on some products thereafter. Their effect became increasingly severe in the late 1970s, and they were at least a proximate cause of poor financial performance.

Wages

6.51 Allowed to strike and increasingly militant, employees under trade union contracts were successful in raising real wages especially of their less skilled members. Thus, while highly skilled people were underpaid, the reverse became true for unskilled employees. Skill differentials eroded, both among workers subject to collective bargaining agreements and between them and employees under the Civil Service Law 657. For example, in 1980, the average pay for Sümerbank's 7,932 managerial staff, at T.L. 308,000 (US$4,100) a year, was actually below that for the 39,000 workers at T.L. 386,000 (US$5,100). At the same time, pay levels of unskilled workers were above those in the private sector. This latter observation appears to have been true of public sector manufacturing more generally, as is shown in Table 6.7. Given overmanning as well, these relatively high wage levels were certainly a factor behind poor financial performance.

Table 6.7: REAL WAGE LEVEL IN PUBLIC AND PRIVATE MANUFACTURING INDUSTRIES, 1975

(T.L. in 1965 prices)

Industries	Public	Private	Public/Private
Food and Beverages	13,035	9,449	1.38
Tobacco Processing	12,205	6,683	1.83
Textiles and Apparel (including shoes)	13,113	10,544	1.24
Wood Products, Furniture and Fixtures	14,108	12,103	1.17
Paper and Paper Products	18,850	11,683	1.61
Printing and Publishing	14,362	14,570	0.99
Leather and Fur Products	n.a.	7,867	-
Rubber Products	n.a.	14,614	-
Chemicals	18,314	16,813	1.09
Petroleum Refining and Petrol and Coal Products	31,905	20,885	1.53
Non-metallic Mineral Products	15,110	11,729	1.29
Basic Metals	21,340	13,604	1.57
Metal Products	18,287	10,869	1.68
Machinery	17,578	13,430	1.31
Electrical Machinery	14,160	13,819	1.02
Transport Equipment	15,755	13,843	1.14
Total	15,780	11,880	1.33

Source: K. Ebri, Z. Bozkurt, and A. Culfaz, Capital and Labor in the Turkish Manufacturing Industry, (Ankara: State Planning Organization, 1977).

Cost of Capital

6.52 Among the most important subsidies was the low cost of capital. Dividends seem not to be paid on government equity. Loans from the State Investment Bank cost 14 percent a year until recently and budgetary loans still less. 1/ Apparently, no interest was paid on arrears. To give an indication of what low interest rates meant, Sümerbank paid an average nominal rate of 5.5 percent on short and long term borrowing in 1978, a real rate of interest of about -35 percent. Also, as noted in Para. 6.22, depreciation charges were underestimated.

Taxes and Operating Subsidies

6.53 State economic enterprises pay a 35 percent corporate tax rate, against a normal rate of 50 percent. And while they are not able to take advantage of a number of allowances and deductions available to private firms, this fact does not make their situation fully equivalent. This is a moot point, however, since taxes are rarely paid.

6.54 Historically, the most important operating subsidy was that against "duty losses". Its salient characteristic was of its being open-ended, as has been mentioned. At the same time, the enterprises did not always receive what is owed them with any rapidity.

Implications of Distorted Price Signals

6.55 The prices and incentives that faced state economic enterprises diverged sharply from shadow prices. Wages were too high; capital too cheap; and output prices varied in relation to the level of efficiency. In addition, the prices and incentives often deviated from those facing private enterprises. What were the implications? In the first place, it was practically impossible, in any particular case, to judge economic from financial performance. At the same time, more often than not, poor financial performance masked worse economic performance. Secondly, it is difficult to use the data on financial performance to compare private with public sector firms. Thirdly, public sector plants usually had various advantages in competition with private plants, but one that inefficiency of various kinds frequently negated. Fourthly, the ready access to cheap capital probably affected adversely the effort made to finance investment internally. Finally, the open-ended subsidies for "duty losses" and lack of effective financial control and audit rendered prices largely irrelevant as guides to resource allocation.

5. Management and Organization of State Economic Enterprises

6.56 Management selection and motivation became major problems. As inflation proceeded, the salaries of managers and other staff members subject to Law 657 declined in real terms and fell even further behind pay in the

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1/ The Central Bank lent directly at very low rates of interest, recently 10 percent a year, but almost exclusively to enterprises involved in the purchase of agricultural commodities.

private sector. Indeed, the net pay of the Director General of a state economic enterprise might have not been more than $400 a month in early 1981, excluding fringe benefits (20 percent more than an Under-Secretary in the Government). By that time, pay in the private sector for managers and highly skilled technicians exceeded that in the public sector by at least two to as much as five times, and all government agencies, including, for example, the State Planning Organization, the High Control Board, and the State Investment Bank experienced high turn-over of skilled people and unfilled posts.

6.57 Low pay was one reason for high turn-over of managers. Additional factors were the practice of changing most managers with a change of government and demoralization, exacerbated by the extent of day-to-day political interference. Hale quotes the following remark to an American visitor by an employee of one enterprise: "What's the use of an engineer working for a politician? If the answer matters, he tells you what it is. If it doesn't matter, he doesn't want to know it." 1/ The problem of managerial turn-over affected major World Bank projects as well. Thus, the Erdemir steel project experienced five distinct changes in management during the period of implementation, involving not only the Board of Directors but also the project manager. There were changes of management at the Igsas fertilizer project, too.

6.58 An additional problem was lack of incentives, which applied both to managers and workers. For managerial incentives the problem was the contradiction between a vision of state enterprises as independent concerns and the reality that, in many respects, they were no more than departments of state, with their managers commanded, paid, and motivated as if they were civil servants. For managers, moreover, the combination of civil service security with the low salaries meant that there were no real penalties for poor performance.

6.59 A striking feature of the internal organization of state enterprises, even those with many plants, was a high degree of centralization. One reason may have been the need to appear responsive to the host of interventions from above. The day-to-day involvement of the politically appointed and motivated Board of Directors might have exacerbated this tendency. A World Bank report on Sümerbank, for example, remarks that "...although on paper the production units are supposed to be quasi-autonomous profit centers, they have to refer even minor issues to headquarters for decision, with resulting delays. Therefore, individual plant managements have come to concern themselves almost exclusively with day-to-day operations and hesitate to take responsibilities or initiatives for medium or long-term improvements of operations." The mission found a similarly centralized structure in the Turkish Cement Company and SEKA. In the latter, for example, the rules governing the terms of all purchases set low discretionary limits and common prices for sales across plants. The manager of a mill may make purchases on his own up to T.L. 2 million (about US$20,000) only and with his board's permission up to T.L. 8 million (US$80,000). The Director General of SEKA may approve purchases of T.L. 16 million (US$160,000) and above that the decision goes to the Board. Common employment contracts are agreed for all mills and manning norms are

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1/ William Hale, The Political Economy of Modern Turkey, p. 58.

given to each of them. There is no competition among plants.

6.60 A major issue was the quality and timeliness of the information flows required to execute these centralized functions effectively or to monitor performance. 1/ In certain cases the internal information flows were no better than those going outside the enterprise to the government.

6. Investment and Operating Inefficiencies of State Economic Enterprises in Manufacturing

6.61 The environment within which state enterprises operated and their own management and organization have been considered above. It is now necessary to consider the resulting decisions in the areas of investment and operations.

Investment Decisions Affecting State Economic Enterprises

6.62 How did the system of investment selection and financial control work out in practice? One important point is that for the SPO, with its ambitious growth targets, and for management, to whom least cost production was a source neither of reward nor of penalty, there was a powerful incentive to expand, to build empires, rather than to lower costs on existing output through modernization and rehabilitation. In general, the economic efficiency of projects was not a high priority. Furthermore, these ambitious growth targets, combined with inadequate budgetary resources led to the initiation of many more projects than could expeditiously be completed, with serious consequences for project delay. Inadequate project preparation combined with constant management turnover also contributed to delays and cost overruns. Because of such problems, of four major World Bank industrial projects, two, Igsas and Erdemir, had cost overruns exceeding 25 percent, that for Erdemir being 80 percent. The time overrun for Igsas was thirteen months and for Erdemir three years. Similar problems arose with the Akdeniz and Balikesir pulp and paper projects. The Turkish Cement Corporation is currently building seven new cement plants, most of which are experiencing delays. In this context, it may be important that the performance of an enterprise in executing projects had little or no bearing on whether it would get yet more projects. The latter depended rather on sectoral priorities.

6.63 In the selection of the major projects, the bias toward capital intensity in industrialization policy is apparent. Walstedt provides data on the capital intensity of four major projects of the 1970s, the Igsas fertilizer plant, Erdemir steel, and the Antalya and Balikesir pulp and paper projects. He concludes "The capital-output ratios in these new and representative projects are between 1.9 and 2.6 times the average incremental ratio for the decade 1962-72 and the fixed investment per worker is...perhaps

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1/ In the case of SEKA it appeared that while large losses were expected for 1981, nobody was too sure of the full reason. One factor, however, seems to be the failure to allow for inflation in accounts. Thus, in 1979 and 1980 SEKA'S financial accounts were helped by the fact that wood was being priced at 1976 and 1977 prices (on first in-first out principles). In 1981 all wood is being priced at a level three times higher.

ten times as high if allowance is made for inflation." 1/ The consequence of weak project evaluation can also be observed. As will be noted in Section C below, even after some attempt was made to improve project selection for the 1981 investment program, many very questionable projects remained.

6.64 Of specific failures in project design and selection inappropriate scale was particularly significant. Walstedt argues that in pulp and paper "...between 1960 and 1976 technical development was rapid [abroad] and the development program of [SEKA], encompassing two new generations of integrated mills, was out of step with evolving economies of scale in new plants." 2/ In one project, diseconomies of scale alone are said to add ten percent to investment costs. In the case of cement a number of plants were constructed by the Turkish Cement Corporation (TCS) between 1957 and 1965 with capacities of only 85,000 tons a year. Other plants constructed were also small by modern standards, with the result that the average capacity of Turkish state sector cement plants is now 368,000 tons, only fifty percent of the private sector level. 3/ A reason for this policy of small scale plants was regional industrialization, yet Walstedt shows that it would have been more efficient to build larger plants and ship cement to longer distances. 4/ Similar problems of inadequate initial scale seem to have been important in iron and steel and petrochemicals. And while the State Planning Organization put increased emphasis on establishing efficient scale plants in the early 1970s, 5/ the problems re-emerged subsequently in concentrating on capital-intensive intermediate products that have a limited domestic market.

6.65 An issue closely related to that of optimal scale is inappropriate project location and excessive regional dispersion. These are not new problems. Mention might be made of the Karabuk steel mill, which was poorly located in the 1930s for alleged security reasons; of the cement plants referred to above; and also, according to a World Bank appraisal, of textile plants constructed by Sümerbank more recently. Hale argues that "examples of badly...located plants abounded in the 1950s." 6/ It is clear that the objective of regional dispersion of industry militates against that of

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1/ Bertil Walstedt, State Manufacturing Enterprise, p. 106.

2/ Ibid., p. 324. A thorough discussion of the evidence for this proposition is contained in Ibid., Appendix H "Economies of Scale and other Factors Affecting the Competitiveness of the Turkish Pulp and Paper Industry," pp. 324-32.

3/ For sources of data on cement capacity see Para. 6.14.

4/ Bertil Walstedt, State Manufacturing Enterprise, pp. 144-51.

5/ Anne O. Krueger and Baran Tuncer, "Industrial Priorities in Turkey, " pp. 149-50.

6/ William Hale, The Political and Economic Development of Modern Turkey, p. 92.

exploitation of economies of scale. Yet, the former objective became still more important in the 1970s. 1/

6.66 Apart from inappropriate scale and location, there were other problems of project design. Lack of satisfactory plant balance is mentioned in recent World Bank reviews of the industrial sector: the Caycuma unbleached kraft pulp and paper mill, for example, has a chemical recovery boiler too small for the plant, while the Afyon bleached straw pulp mill is able to produce only a third of the pulp it needs, because of limitations in the pulp dryer.

Operating Inefficiencies of State Economic Enterprises

6.67 An important indication of operating inefficiencies was the almost universal failure to reach rated capacity utilization. SEKA, the pulp and paper company, provides a good example. As a World Bank report states, "The existing Aksu plant...was designed to produce 85,000 tons per year of newsprint...However, actual production has never reached much over 70,000 tons per year, and declined in 1979 to 61,000 tons...An analysis of the 24,000 tons of lost production in 1979 indicates that only 20 percent thereof was wholly outside SEKA's control." According to a World Bank evaluation of the public investment program in 1980, the same problem existed in other industries: in steel, for example, capacity utilization in rolling mills in 1979 averaged from 90 percent in Karabuk to 50 percent in Isdemir and as low as 45 percent in Erdemir. In 1980, capacity utilization in the production of nutrient tons of nitrogen by the fertilizer industry was 48 percent and for phosphate 38 percent. In aluminum, capacity utilization is currently only 50 percent. The reasons for these failures are many: poor management, inappropriate project design, weak planning, lack of raw materials or other inputs and so forth.

6.68 Operating inefficiency appeared in other guises as well. Excessive energy use has been an important defect: a recent World Bank report stated that the average use of coke per ton of iron in Turkey was 75 percent higher in 1977 than the average for a dozen major steel producing countries and that unit consumption of fuel oil in 1974 was 33 to 39 percent higher than in Italy, West Germany and the United States. Overmanning was a further problem. In steel, for example, output per man year in most industrialized countries would be at least 200 tons. In Erdemir the figure was 86 tons in 1979 and in Isdemir only 24 tons. It is worth noting that, given the performance of Turkish workers in Germany, it is not any inherent lack of productivity in the work force that is at fault.

7. Conclusion

6.69 It may be concluded that the poor performance of the state economic enterprises had three root causes that, separately and together, appear to explain many of the problems: the adoption of a traditional Eastern European model of central decision-making, with autarky as a goal and mandated investments as a tool; the existence of an open, democratic, (even populist), style of party politics; a pervasive view of state economic enterprises simply

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1/ Anne Krueger and Baran Tuncer, "Industrial Priorities in Turkey," p. 150.

as departments of state rather than independent commercial operations.

6.70 It was the inward-oriented strategy that was responsible for the adoption of an economically inefficient pattern of import substituting investments. The imposition of a mandatory investment program also reduced flexibility in meeting new economic conditions, such as the oil price rises of 1973-4 and 1979-80, or the lack of adequate finance for the investment program.

6.71 It was the political process, combined with the suppressed financial system, that produced inadequate resources for investment. It was also the political process that exacerbated the problems of day-to-day interference, inappropriate investment choice, job insecurity for managers, and unreasonable concessions to the unions on wages and price controls during an inflationary period. 1/

6.72 Finally, it was because the state enterprises were never seen as really independent, but rather as departments of state, that day-to-day intervention was very easy. The prevalence of this view explained the low salaries of managers and lack of incentives and rewards for them (just as if they were civil servants), the absence of an adequate audit, and a desire for secrecy about state economic enterprise performance that led to almost complete lack of effective public accountability.

6.73 It is not surprising, therefore, that investment and operating mistakes occurred and that these, in turn, led to poor economic performance. At the same time, the distorted prices, which included many subsidies, were not sufficient to turn poor economic into satisfactory financial performance.

C. Changes in the Environment of State Economic Enterprises since January, 1980

6.74 Since the beginning of 1980 a series of changes in policy towards state enterprise have occurred and more fundamental change is now under discussion. The significance and effect of the changes that have occurred are discussed in this section. In the next, what is still to be done is weighed against proposals under discussion.

6.75 Changes have occurred in control over prices, investment allocation and finance, capital structure, personnel policy, and in the style of relations between government and individual enterprises. These changes, while not without importance, reveal clearly how far there is still to go.

1. Reform of State Enterprise Pricing

6.76 In January 1980 the Price Control Committee was abolished and almost all state enterprises were formally free to set their own prices. The exceptions were for coal and lignite, electricity for aluminum and ferro-

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1/ Hale cites a leader in the Milliyet newspaper of 27th September, 1980 as saying "the question is, how to reconcile the hard technocratic realities with the virtues and demands of multi-party democracy." (See William Hale, The Political and Economic Development of Modern Turkey, p. 261.)

chrome production, fertilizers, sugar and railway and maritime shipment of goods. The revenue effects of these changes were discussed in Chapter 3 for all the state economic enterprises. Another important impact was on the wholesale price index, which rose by 40 percent in February, 1980 alone, giving an indication of the extent of suppressed inflation in the late 1970s. 1/

6.77 The pricing autonomy of state economic enterprises did not turn out quite as it was assumed. In reality, the enterprises continued to ask for permission, usually via the Ministry responsible, to raise prices and such permission was not always granted. The Ministry of Industry and Technology informed the mission that it operates with an informal price ceiling of tariff inclusive c.i.f. price plus thirty percent and warns the state enterprises that imports may be permitted if their prices exceed that level. Less carefully rationalized price controls also exist. Thus, cement prices are still controlled, partly in order to ensure uniform ex factory prices throughout the country (for reasons of regional development), partly in order to minimize the ability of the private sector to make large profits under the umbrella of the inefficiency of Turkish Cement Company. 2/ Newsprint is another commodity that is controlled de facto if not de jure. According to SEKA, this control accounts for half of its prospective loss for 1981. Informal limits of this kind are particularly troublesome, since the price curbs no longer have the legal status that would normally permit the enterprise to qualify for duty loss subsidies.

1/ See Mustafa Aysan, "State Economic Enterprises and Inflation in Turkey," Isletme Fakultesi Dergisi, volume 9, number 2, 1980, p. 41. A table on that page shows price rises of 400 percent for fertilizers, 300 percent for paper, 100 percent for textiles, 80 percent for sugar, 75 percent for steel and 55 percent for cement.

2/ The cement pricing system in Turkey, jointly enforced by the Government and a producers' cartel, is extremely complex. Ex factory prices are uniform and a flat levy is imposed on all plants (at two rates depending on the age of the plant and its location). Proceeds of the levy are used to equalize clinker costs across Turkey, to provide subsidized finance of bulk cement handling facilities and to subsidize the difference between export and domestic prices. The provincial governors impose price ceilings on cement at construction sites or distribution points. Export prices are also controlled (by the Turkish Cement Producers Association) while export volumes are allocated by the Ministry of Industry and Technology. The system does allow individual producers to benefit from their efficiency, indeed to make excess profits in good times.

Table 6.8: PROGRAM AND ACTUAL FINANCIAL PERFORMANCE OF FIVE STATE MANUFACTURING ENTERPRISES IN 1980

(T.L. million)

	Gross Profit a/		Fixed Investment		Financial Requirements b/	
	Program	Actual	Program	Actual	Program	Actual
MKEK	121	1,026	2,849	2,193	2,584	1,004
Sümerbank	-1,909	2,239	3,222	6,247	4,731	3,363
Turkish Cement	-2,365	921	2,077	4,546	4,275	3,480
Iron and Steel	-7,166	2,074	11,540	19,217	16,663	16,390
SEKA	-42	-325	4,829	13,868	4,046	13,080
Total	-11,361	5,935	24,517	46,071	32,299	37,317

a. Gross profit includes duty losses. A positive sign is a profit and vice versa.
b. Financial requirement is investment less gross profits less depreciation.

Source: State Planning Organization.

6.78 While the price rises that were permitted were no panacea for the ills of the state enterprises, they did make a difference to the financial picture. Table 6.8 reveals that for five important manufacturing enterprises profitability in 1980 far exceeded what had been initially expected, largely because of price rises. Indeed, the Ministry of Industry and Technology announced that all enterprises under its responsibility made operating profits in 1980, except for SEKA. The swing from expected loss to profit of these five enterprises was T.L. 17.3 billion (US$227 million) and only SEKA did worse than expected. It should be noted, however, that financial requirements for investment also soared, partly because of inflation, with the result that the need for outside resources in nominal terms exceeded that programmed. (SEKA's investment cost overrun was the main reason. Without SEKA the financial requirement at T.L. 24.2 billion was T.L. 4.0 billion less than programmed.)

6.79 Price increases have been the main explanation for improved financial performance and can, therefore, be regarded as a successful public finance measure. At the same time, complete price freedom is an undesirable way of solving the financial problems of monopolists and quasi-monopolists. The consequence can easily be reduced pressure to control costs, including investment costs, and a mere shifting of the burden of state enterprise inefficiency from the citizenry as a whole via the treasury to users via high prices. Taxation of viable industries downstream through higher prices could be still worse than subsidization from general taxation.

2. Reform of the Allocation of Investment

6.80 There has been an attempt to rationalize the allocation of investment expenditures towards high priority projects that will bear fruit within a reasonable period of time. The aim of the 1981 program was to allocate funds to projects in infrastructure, especially energy; to projects that improve capacity utilization; and to projects that do not overlap with the private sector. Investment by state economic enterprises is also expected to fall by 4 percent in real terms in 1981 vis-a-vis 1980.

6.81 Nevertheless, the World Bank's "Public Sector Investment Review" raised doubts about the size and allocation of this revised investment program, especially in the light of current priorities. The review indicated that a large number of projects have negligible ex ante returns, including the planned rehabilitation and expansion of the Karabuk steel mill; the Aliaga petrochemical project as a whole; the Izmir special steel factory, the fourth Fertilizer Complex; the Middle Anatolia refinery; the Tumosan tractor project; and the Seydeshir aluminum plant. The combined investment cost of these projects is T.L. 548 billion (US$5.3 billion), or 35 percent of the total proposed investments in public sector manufacturing. Nor can it be assumed that the remaining 65 percent consists of fully satisfactory projects since many projects were not examined in detail. In sum, much inefficiency in the selection of public investments remains.

3. Reform of State Enterprise Financing

6.82 While far from water-tight, the limits on Central Bank finance agreed with the IMF have worked through into a less permissive environment, as has been discussed in Chapter 3. One of the solutions for state economic enterprises as a whole in 1980 was, unfortunately, that of a substantial increase - T.L. 105 billion (US$140 million) - in the balance of net payables and receivables with the private sector, especially contractors. A further large increase is expected in 1981. No interest is apparently paid on these arrears and they have shifted the burden of financing state enterprises' losses and investments onto an already tightly squeezed private sector, thus adding to the burden of higher prices.

6.83 Methods of financing investment have also changed. In 1981 loans for investment were made from the budget to profitable state enterprises via the State Investment Bank (DYB). The latter received T.L. 40 billion from the Treasury over and above T.L. 25 billion available from its traditional sources for this purpose. These funds are lent at an interest rate of 21.5 percent a year, still very low under present circumstances, although higher than the previous rate of 14 percent. Loss-making enterprises continue to receive loans directly from the budget, which avoids damaging DYB's financial position, but from 1981 this occurs only after scrutiny of the project by DYB and under DYB's supervision during implementation. Foreign exchange loans for operational state economic enterprises are also being made available only through the State Investment Bank. Furthermore, in order to permit state economic enterprises to borrow commercially on an increasing scale in future, the Government is studying ways to strengthen their capital structure. Paid-up capital of the operational state economic enterprises increased from T.L. 92 billion in 1979 to T.L. 300 billion in 1980, and is programmed to reach T.L. 460-470 billion in 1981, and the debt/equity ratios of these enterprises have also improved.

6.84 Overall, the cost of capital has remained strongly subsidized. Inter alia, the state economic enterprises receive an interest rate subsidy of 5 percent a year on their loans from deposit money banks from the Differential Interest Rate Rebate Fund. It is an indication both of the ready access that state economic enterprises have had to still cheaper finance as well as of their poor financial position that loans by deposit money banks to state economic enterprises have remained at modest levels. Loans from the State Investment Bank are provided at interest rates 10 percent lower than commercial borrowing. At the same time, given the past low rates of interest on such loans, and the availability of still cheaper sources of finance, such as equity subscriptions and budgetary transfers, the average real cost of funds to state economic enterprises in 1981 was lower still than the cost of their new borrowings. A very rough estimate of the value of the interest rate subsidy to all state economic enterprises in 1981 is T.L. 120 billion, or double their expected gross profits (excluding duty losses).

6.85 The significance of the changes effected so far is still to be seen. What will happen to enterprises that continue to fail to live within their means? Large transfers, for example, in the form of equity infusions to offset the decapitalization created by losses, will negate the effects of these changes. It is also apparent that state enterprises continue to enjoy highly subsidized finance. Moreover, some of the burden of financial stringency is being shifted to the private sector.

4. Reform of Personnel Policy

6.86 Overstaffing has become a major problem for state economic enterprises. For this reason, the 1981 Program decree froze the number and structure of positions for existing operations in each state economic enterprise at their level as of November 30, 1980. New factories opened by a state economic enterprise must first draw on existing staff of that state economic enterprise, and in any case new hiring may not exceed 50 percent of the workforce for the plant. Furthermore, state economic enterprises may not apply to the Ministry of Finance for new positions as in previous years, while vacant posts can only be filled with the permission of the Ministry. Indeed, in ten state economic enterprises accounting for 44 percent of total state economic enterprise employment in 1980, 50 percent of the positions becoming vacant through resignations, retirements or deaths are being automatically cancelled. These steps are expected to cut total employment in operational state economic enterprises by 5 to 6 percent in 1981, following a 1 percent fall in 1980. Finally, early retirement has been facilitated by a decree setting rates of severance pay. Since some 40 percent of the present labor force of state economic enterprises is apparently eligible for retirement in the next five years, consistent implementation of the policy begun this year could lead to a significant reduction in overstaffing in the medium term.

5. The Response of State Economic Enterprises to Changes in the Environment

6.87 Apart from changes in pricing, investment allocation, financial control and personnel policy, state enterprises have been affected by changes in the trade regime, the exchange rate, monetary policy, and the political climate. One effect of these changes has been to take the enterprises somewhat closer to the realities of the market place. Another has been to

release them from the negative effects of politically-motivated interference. So long as the political environment remains as it now is, operating improvements in state enterprises are likely to occur. Much of this is likely to be for the intangible reason that such improvements are what the present government expects and the recently appointed managers of state enterprises know this fact.

6.88 Despite these policy changes, little further improvement can be expected in the state economic enterprises' accounts or in their overall performance in 1981. Two fundamental problems remain in the short term. The first is that, for the managers, the only obvious way out of immediate financial pressures is either to raise prices or to borrow. The freeze on employment levels gives little immediate room for reductions in costs, although in the medium term cost reductions of various kinds are possible. If such reductions are to occur, not only will investment have to be oriented towards that end but management will have to be given greater freedom to control major cost items. The second question is whether managers have any incentive to make the decisions that will lead to cost reductions. The issue of pay structure and reward for managers remains outstanding.

6. Conclusion

6.89 The two most important changes thus far have been higher prices for state enterprise products and, closely related, tighter limits on their access to cheap official finance. One consequence has been improved profitability. Another has, however, been the shifting of the burden of state enterprise inefficiency from the Treasury onto the private sector via both high prices and increased arrears.

6.90 The most important change that has not yet happened is any major reduction in inefficiency. With prices in 1980 generally above world levels and many forms of covert and overt subsidization, including depreciation at historic cost, state enterprises make either small profits or losses. Furthermore, they continue to make a very modest contribution, in general, to the financing of their investment. Yet, much of this "new" investment is really the replacement of existing equipment, for which depreciation provisions have been inadequate.

6.91 In sum, with the removal of previously depressed prices, the performance of state enterprises stands more clearly revealed. While the raising of any prices that were previously below international levels is unquestionably desirable, beyond that the burden of economic and technical inefficiency is merely being reallocated from the Treasury to customers and suppliers.

6.92 What is needed now are changes that will lead to increased efficiency. The achievement of this goal would be helped by greater competition. Increased efficiency, autonomy and reform of market and internal state enterprise structure must go together. In this sense what has happened so far is only a step towards a reform of the state economic enterprises.

D. An Agenda for Reform

6.93 The last major effort at reform occurred in the early 1960s and culminated in the passing of the laws 440 and 441 that still regulate state economic enterprises. In explaining the rationale for these reforms, a World Bank report of 1965 remarked that under the previous law, 3460 of 1938 "the detailed administration of the SEE's was made liable to very considerable control. Responsibility for the appointment of all top managers was given the Council of Ministers; a High Control Board was established to report annually on each SEE's operations and price policy; each SEE was made responsible to a Ministry...; Committees of the Grand National Assembly were to review and criticize their reports. As a result of all this, policy direction and responsibility gradually became diffused between the SEE managers and many branches of the Government."

6.94 "Successful managers were those who became adept at pleasing the variety of agencies which reviewed their operations. The strict control over SEE administration meant that it was not possible to discharge surplus labor; indeed an SEE manager would gain more credit for retaining unnecessary workers...The SEE manager also was subject to political pressure to build plants in particular districts...He, for his part, was anxious to enlarge his empire...So unnecessary capacity was created...Even with high costs, the SEE;s with their monopolistic position had been earning profits to finance their expansions."

6.95 "In the 1950s the profits of the SEE's (as a whole) began to disappear as the Government tried to hold back the cost of living. Then the SEE's began financing both operating losses and their still uncontrolled investment program by borrowing from the Central Bank and from commercial banks and by not paying their taxes due to the Government. Thus the SEE's became the major channel through which Government policy created the rapid inflation of the 1950s."

6.96 It is clear that the problems, from which state economic enterprises suffered in the 1970s, are virtually identical to those which the reforms of almost two decades ago were supposed to solve. This experience shows that the problems of the state economic enterprises are both deep-seated and unlikely to be resolved by modifying the legal framework and organizational structures alone.

6.97 The need is to define the problems to be solved by a reform without going into details, which must be specific to each industry, and without restricting the discussion to questions of reorganization. The starting point has to be how the state economic enterprises will fit into the new outward-looking, market-oriented policy. A successful policy transition for Turkey will be very difficult if state enterprises remain inefficient and tax the rest of the economy *via* high prices or large deficits financed by government.

6.98 The following discussion starts with the rationale for, and the characteristics of, a thorough-going market-oriented reform. It then proceeds to ask how a transition to such a structure might be managed and also what some of the second best options might be. Finally, proposals now under discussion in Turkey will be evaluated.

1. Market Discipline for State Economic Enterprises in Manufacturing

6.99 In the discussion below the advantages and characteristics of a market-oriented system for state economic enterprises in manufacturing are considered.

Framework and Goals

6.100 Many of the problems of state economic enterprises could be resolved if they were made subject to the competitive pressures of the market and the prices they faced were undistorted by subsidies and protection. There are several reasons for taking this approach: firstly, in the context of such a competitive market, profits can be the goal. Without such a single clear goal, the inevitable need to select among conflicting objectives tends to force decisions to rise to the highest political level. At the same time, without an efficient pricing environment, profit maximization will lead to economic inefficiency. Secondly, unless prices are at international levels, downstream industries with a comparative advantage will be penalized. Thirdly, only in such a context is it easy to evaluate managerial performance by the criterion that will also be the goal of the enterprise. Fourthly, the discipline imposed by the profit benchmark provides the best incentive to the enterprise to improve efficiency. Finally, the need to remain competitive will be the strongest possible constraint on excessive wages, excess employment, and featherbedding.

6.101 Changing both the structure of incentives and the goals of state economic enterprises in manufacturing will be very difficult. It would be unsatisfactory, however, to go only part of the way by changing the goal to profits but continuing high protection from imports, subsidization of capital and so forth. Furthermore, it is essential that failure to achieve profitability be penalized not merely by removal of managers but by bankruptcy, if necessary.

Control over Investment

6.102 There is an inconsistency between mandated investment goals and market operation by state enterprises. Nor can an investment, once agreed upon, remain inviolate as economic conditions change.

6.103 At the same time, it is only possible to allow enterprises to expand freely if they (and the suppliers of funds) know that they face market penalties for errors. If all parties believe that government bears the risks, there is a substantial danger of excessive investment (in order to build industrial empires), and inefficient operations. As The Economist wrote recently of British nationalized industry, "Allowed to invest and borrow freely, they would construct yet more state white elephants, for which the markets would put up the money in the certain knowledge that monstrous

misinvestment would never cause them to go bust." 1/ In such a context, project "bankability" has a distorted meaning and meticulous and independent ex ante appraisal of projects is needed. 2/

Finance

6.104 If state economic enterprises were fully autonomous and subject to market discipline, their initial equity capital could be provided by the Government and all further borrowing could come from the capital market without a government guarantee and on exactly the same terms as those facing major private borrowers. In this context there would be no need for any special investment institution like the State Investment Bank.

6.105 As long as the investment decision is not delegated to the enterprises, it would be simplest to combine the roles of project appraisal and finance in one institution. The State Investment Bank and perhaps other public investment banks as well, could carry out these tasks. (Merger of the banking subsidiaries of Sümerbank and Etibank, which are already largely oriented towards finance of their parents, could create one such institution.) In order to carry out these functions, such institutions should charge market rates of interest, which would help them to borrow commercially, and should have the flexibility of form of finance needed by any investment bank, including holding of equity. The intermediaries should also have to compete for the social security and pension funds on which the State Investment Bank now largely relies. There is also the important question of how to approach international capital markets, especially whether to allow state economic enterprises to borrow directly or rather to encourage the intermediaries to borrow as well or instead.

Management and Technical Personnel

6.106 There are four issues: selection of managers; security for managers; accountability of managers; and pay and incentives for managers. With respect to the first three, many of the existing problems of state economic enterprises could be reduced if they had boards that were largely independent of the government and that did not see day-to-day management as their prerogative. The government may select boards whose members have security of tenure and the majority of whom are independent and have wide experience of business problems. These boards could then select the managers and have the sole power of dismissal. If there were also an independent General Assembly for the enterprises, such a body could select auditors as well as some board members.

6.107 Apart from procedures to increase independence, it is certainly important to pay managers a competitive salary and also reward them for successful performance. If this were to be done, the flow of able professionals would not all be one way from state to private enterprise. It

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1/ The Economist, 20-26 June, 1981, p. 12.

2/ One of the arguments for having relatively small individual enterprises is that they are more likely to be allowed to fail than larger ones.

is important in this context to recognize that the problem is not limited to top managers. Adequate pay and a professional environment are equally important, perhaps more so, for middle managers and technicians.

Structure of Enterprises

6.108 A great deal of attention has been paid to the problem of the optimal structure for the enterprises. The relevant issues are: how large should the enterprises be? How many layers of management are needed? How decentralized are they to be?

6.109 An a priori answer to these questions cannot readily be given, especially since the technical characteristics of individual industries, including the potential for economies of scale obviously vary. It would be appropriate to undertake studies of each industry in order to make a plan for enterprise structure. Without prejudging the conclusions of such studies, one would venture that, taking the case of steel as an example, it would be advantageous to retain Erdemir and Isdemir as separate and independent corporate entities, while it would probably be appropriate to separate Karabuk from Isdemir. In turn, the paper mills, cement mills and textile mills could develop more efficiently under separate administrations than under the present monolithic leadership. Lightening the corporate structure would provide an added impetus to competition, facilitate new initiatives, and make possible new combined ventures of public and private enterprise as well as disposal of certain elements of the state holding to the private sector. At the same time, the decentralization of administration would be compatible with joint action in certain areas, research and development or export promotion, for example.

Audit and Public Accountability

6.110 As has been indicated above, the High Control Board has not proved an effective auditor and the Grand National Assembly's (TBBM) Joint Committee on state economic enterprises has not proved an effective general assembly. 1/ It is necessary to arrange the audit of state enterprises so that reports appear more expeditiously than at present, are freely available to the public and are debated by a disinterested group of people that has the power to act.

6.111 The auditing of accounts cannot be done usefully until the prices faced by state enterprises reflect economic reality. The same objective is, of course, important if profit-oriented activities are to be efficient. Apart from the rational pricing of output and inputs, this would necessitate

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1/ See on this issue Mustafa Aysan, "Public Economic Enterprises and International Markets," Istanbul University Publication Number 2801, Faculty of Business Administration Publication Number 119. The translation reads "The control of KITs through the High Control Council attached to the Prime Ministry, which submits its annual report on KITs to the TBMM's Joint Committee, on KITs has not worked well. The main reason for this is that the Prime Ministry has more important responsibilities than the control of state enterprises and the Joint Committee on KITs is subject to political pressures."

adjusting accounts for inflation and making the cost of capital comparable to that facing private enterprises.

Scope

6.112 The purpose of state enterprise and the changes to be made when industries mature are much debated issues in Turkey. The rationale for state enterprise, as the pioneer of new industries, implies that older industries should be passed over to the private sector. In practice, however, empires once established are rarely dismembered.

6.113 Public manufacturing may continue to play a useful role in basic industries, such as fully integrated steel, fully integrated fertilizers, and basic petrochemicals, whose capital requirements are very large. This is not likely to be the case in the engineering industries where private initiative is needed to ensure the flexibility necessary to respond to world market conditions. Finally, there is no particular economic rationale for state enterprise in textiles, leather, shoes, sugar, or cement.

The Role of Government

6.114 While reform on the lines discussed above would reduce the direct role of central government, there would still remain important functions to perform. The government would have to decide how much public finance to provide the enterprises, especially in the form of equity; also, the government should play a role in the selection of the Boards of Directors of the enterprises, including those of the state investment banks; finally, the government would have to be involved in choosing new accounting procedures.

6.115 As firms become more independent financially, formal central control declines and boards of directors become more independent, direct political interference should diminish. Ultimately, however, this is a question of attitude. As long as government officials and politicians see state economic enterprises as their ward, independence will be difficult to achieve.

2. Transition Problems

6.116 The reform of public enterprises will require time. There is also the question of the transitional arrangements required. Furthermore, if the reform cannot be carried out in full, a second best structure needs to be created. These can be discussed together, since many of the transitional arrangements are appropriate second best policies.

Unprofitable State Economic Enterprises

6.117 The question arises what is to be done with existing enterprises that cannot be profitable at world market prices? A division into two categories is needed: those that are profitable in the short run but cannot recover capital costs and those that would make losses even in the short run.

6.118 The problems of firms that cannot recover their capital costs may be resolved through financial restructuring. This might be handled, in mild cases, through the conversion of debt to equity or by debt subordination but more often would also be reflected in the actual writing down of both debt and

equity to make the capital structure reflect the presumptive earning power of assets. If the majority of the state-owned enterprises are organized as public corporations, it may be assumed that the Turkish Government, that is ultimately the Turkish tax-payer, will have to bear the losses resulting from financial restructuring. Yet, the tax-payer, as consumer, will benefit in a similar degree from the price reductions, which are the other side of the same operation.

6.119 Though some ailing enterprises could be cured through financial restructuring, it is clear that there are quite a few state enterprises (or plants or lines of production) that are no longer economically viable. It would not make sense to operate these firms with permanent subsidies. Rather, they should be closed. The resulting social shock, particularly when they are of great importance to a given locality or region, might be absorbed through the attraction of new economic activities to the affected area and through compensation, retraining and relocation of displaced workers.

6.120 In both instances, what is involved is a standard bankruptcy operation with viable operations restructured financially and non-viable operations closed. There is need for establishment of an organizational framework to handle the bankruptcy of state economic enterprises in a disinterested and impartial manner.

Price of Output

6.121 In the case of state economic enterprises where competition cannot be assured, prices should be set periodically at an estimated world market price, allowing for acceptable levels of protection. Price control of this kind is needed during the transitional period of reforming the structure of protection, described in Chapter 2.

Cost of Factors of Production

6.122 The costs of inputs are now very distorted. It would be harmful if an attempt were made to maximize profits with respect to current factor costs, especially since there would be a strong bias towards capital intensity. Wages need to be lower and costs of capital higher.

6.123 The problem with wages could be permanent if both managers and workers are not convinced that the market test will have effect. At the same time, experiments with different sorts of pay systems and incentives for workers are desirable.

6.124 There is a particularly important reason for wage control in the period of transition that Turkey is now undergoing. This is that public sector employees under union contracts are well paid and that, unless they accept reductions in real wages, the state economic enterprises will either have to forego expansion or contract employment because of overall limits on finance available to offset losses and pay for investment. The case of Chrysler Corporation in the United States is an example of an enterprise helped by employee's wage restraint.

6.125 As far as the cost of capital is concerned, it is relatively easy to require the lending institutions to charge market rates. The State Investment

Bank and commercial banks should be expected to do this without delay. Failure to operate profitably at rates facing the private sector is again an indicator of lack of viability.

Control over Investment and Finance

6.126 In the transitional period, careful economic appraisal will be required to the extent that the enterprises continue to operate in a distorted price environment. This applies to investments to be financed by public investment banks as well as to projects included in the investment program of the State Planning Organization.

Audit

6.127 In the transitional period, or for at least as long as financial and efficiency prices diverge, it is also necessary to have ex post economic as well as financial audits. At the same time, there should be an immediate reform in the auditing of state economic enterprises, along with inflation accounting.

Subsidies

6.128 There are three reasons for subsidization. The first is to encourage profit oriented businesses -- public as well as private -- to achieve particular social objectives, like regional development. Specific ex ante incentives are the way to achieve these goals. The second is to subsidize "white elephants" which cannot be closed for political reasons. In the transitional period this may be necessary, but as far as possible such subsidies should also be constrained ex ante. Finally, so long as prices are distorted and economic evaluation is done at shadow prices, subsidies may be required to offset the losses that operations profitable at shadow prices can entail.

Scope

6.129 Even if social and political considerations make it possible to proceed with the privatization of public firms in industries where the private sector can better provide for domestic consumption and exports, it will be a slow process. This is in part because it requires favorable business conditions and in part because the private sector may have little inclination to take-over high-cost, inefficient establishments. At the same time, little purpose will be served if only the most efficient establishments were sold to the private sector.

3. Assessment of Current Proposals for Reform

6.130 The above discussion, cursory though it has had to be, provides some criteria for evaluating the scope and content of current proposals for reform under discussion in Turkey. The government has been giving the issue of state enterprise reform considerable attention. It has established the guiding principles for the reform, has prepared draft reform proposals, and has taken interim measures in regard to personnel. The guiding principles of the reform are unexceptionable. They include:

- minimization of political interference;

- decentralization of decision making, so that enterprises can operate like private firms;

- rationalization of the structure of individual state economic enterprises;

- clarification and concentration of responsibility for control of state economic enterprises; and

- rewards for success, especially for managers of state enterprises.

In the following the practical implementation of these principles in the draft reform proposal will be considered. 1/

Proposals for Structural Reorganization

6.131 The draft reform proposals divide the SEEs into two categories. The first comprise public-utility type SEEs, such as the PTT and railways; they would continue to function under Law 440. The second comprise those SEEs that are to produce goods and services competitively; they would be removed from under Law 440 and function under private enterprise laws. The following discussion deals with the second group of productive enterprises.

6.132 The productive SEEs would be organized into holdings, each of which would have a number of subsidiary companies. In manufacturing, there would be nine holding companies covering the following areas: textiles and clothing, paper, sugar, cement, minerals, fertilizer, iron and steel, machinery and equipment, and bank for workers abroad. Each holding would have a full-time chairman, five part-time board members, and a general manger, all elected for five-year terms by the shareholders' meeting or general assembly to be held annually. The assembly would be concerned with general policy issues; it would appoint the managers of the subsidiary companies; and it would provide overall directives to the subsidiaries.

6.133 The general assembly, to meet annually, would consist of the representatives of the Prime Minister's office, the Ministries of Finance, Commerce, Industry, Agriculture, Customs, and Tourism, the State Planning Organization, the High Control Board, the State Investment Bank, and the subsidiary companies, as well as seven members to be chosen among experienced public and private sector managers and elected for five year terms. Holdings with private shareholders would also have private representatives; SEEs would be encouraged to sell up to 49 percent of their shares of the subsidiary companies to private investors in the form of preferred shares.

6.134 Overall policy guidance for holdings would be provided by a high level governmental Coordination Committee. Furthermore, the performance of the

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1/ Since the mission has not seen these proposals in writing, only a tentative discussion of the main features is possible.

manufacturing SEEs would be monitored by the Ministry of Industry on the basis of preference indicators on a quarterly basis with semiannual reports to be prepared for the use of the government.

6.135 The managers would have responsibility to increase output productivity and profits. Under a recent decree, they and other skilled employees will no longer be subject to Law 657, their compensation has been increased several-fold, and they will receive incentive payments for performance. Finally, the holdings would be self-financing, with budgetary transfers limited to equity infusions for new investments.

6.136 The abolition of the civil service status of managers and skilled personnel and the freeing of their compensation represent important steps in reforming the SEEs. The proposals for increasing the decision-making power of the managers and making them responsible to a general assembly also have considerable merit and are consistent with the requirements considered in Para. 6.93-129. The reform proposals do not clarify, however, the process of decision-making on investment and, by providing several performance criteria, they do not ensure that profitability would be the sole guiding principle for the SEEs. At the same time, the effective responsibilities of the high-level Coordinating Committee and the role of the ministries monitoring the performance are not entirely clear.

6.137 Questions arise further about the proposed management structure, the size of the holdings, and their single-industry coverage. There may be conflict between the chairman and the general manager of the holdings as well as between the management of the holding and that of the subsidiary companies. Also, unless much greater freedom to import competitive products is given, the creation or preservation of single-industry monoliths will not exert competitive pressure on state economic enterprises. Yet, the need for greater competition is a paramount issue in Turkey.

6.138 Finally, having holdings limited to, and monopolizing, public sector production in any one industry is not consistent with the success of more diversified organizations in such developed countries as Japan. Such a structure may make the dynamic process of the birth and decay of firms more difficult and holding company managers may see themselves as controlling the steel or fertilizer business in Turkey rather than as stimulating others to success in the business of making profits. It would, therefore, be better to have more state economic enterprises competing with one another. In this connection, reference may be made to the experience of Hungary where large trusts and horizontal enterprises have been broken up to ensure competition. 1/

6.139 In sum, the changes proposed represent an important step in decentralizing decision-making and integrating the SEEs in the market economy. Further steps would need to be taken, however, to attain these objectives. In particular, there is need to ensure competition in individual industries.

1/ Bela Balassa, "The Economic Reform in Hungary, 1968-81," Washington, D.C. World Bank, January 1982, mimeo.

Proposals for Transferring State Enterprise Units to the Private Sector

6.140 A proposal exists for transferring five profitable Sümerbank enterprises to private ownership via the issue of preferred shares. Since there is a desire to avoid transfer to the larger private holding companies, the shares will be made attractive to smaller savers. They will not carry voting powers, however, and operating control will apparently remain with the state enterprise. In all, given the insignificance of the plants involved and the failure to transfer control of management, this does not seem to be a significant step towards privatization.

4. Concluding Remarks

6.141 Any thorough and successful reform requires change as much in attitudes as in formal structure. As a World Bank report remarked fifteen years ago when reform was last debated: "...Senior SEE managers cannot be expected to assume, overnight, new attitudes to cost and efficiency..." and "...in the main improvement must depend on Turkish efforts and Turkish attitudes. It would be naive not to expect these to be constrained to some extent by past and present positions of the SEE's and deep-seated feelings regarding the social role of the SEE's and their accountability for Parliament." The failure of those reforms gives greater force to these words now, when the issue is again under consideration.

6.142 Note finally that as the above report remarked, "Quite apart from the need for the SEE's to improve their efficiency so as to provide savings, their transformation is a vital aspect of Turkey's modernization. It may be useful, therefore, to repeat the main requirements: that the SEE's be concerned mainly with efficiency and competitiveness and not with providing employment or a subsidized service; that SEE managers be given as much autonomy as possible to achieve this aim but be required to justify their investment proposals under intense scrutiny; that the pay and tenure of managers be adequate to attract the right people and that their selection be based on their qualifications and not on political considerations; that SEE accounting, control and financial reporting should be such as to provide management with adequate and prompt information and to enable outside reviewing agencies to see how efficiently each SEE is performing (whether its costs are low and its prices competitive, whether its capital and labor utilization is improving, whether it holds too many stocks, etc.) The reviewing agencies and the public should learn to ask these efficiency questions about the SEE's and to appreciate that this kind of criteria should be used when judging whether an expansion should best take place by private enterprise or by an SEE." These remarks made fifteen years ago remain relevant for the reform of the SEEs today.

CHAPTER 7

AGRICULTURAL DEVELOPMENT AND EXPORTS

Introduction

7.1 While the support price system, credit subsidies and subsidies to major inputs maintained a flow of resources into agriculture, the inward-oriented development strategy followed by Turkey discriminated against agriculture in favor of industry. Within agriculture, import substituting crops were benefited at the expense of export crops, the bulk of government investment was for capital-intensive projects, and input subsidies to credit, machinery, fertilizer, and water encouraged the expansion of capital-intensive activities and inefficient resource use.

7.2 The fact that agricultural production nevertheless grew at an average annual rate of nearly 3% indicates the advantages Turkey possesses in agriculture. Its considerable land and labor resources, favorable climate, and proximity to expanding markets would permit rapid expansion of production and exports into the future, provided that appropriate policies are followed.

7.3 This chapter will describe the main characteristics of agricultural development and exports in Turkey, analyze the market intervention policies applied, and examine the effects of incentives on market performance. The chapter will further consider the market prospects for agricultural exports and indicate Turkey's comparative advantages in agriculture by using a sector model.

A. General Characteristics of Agricultural Development and Exports

1. Changes in Cultivated Area and Production

7.4 Turkey's agriculture has the potential to produce a rich array of continental products (i.e., cereals, cotton, tobacco and livestock) and Mediterranean crops (fruits and vegetables). This fact reflects the variety of soils and agroclimatic zones in the country, and the threefold role of agriculture as (i) domestic supplier of final consumption goods, (ii) domestic supplier of raw materials for industrial transformation, and (iii) foreign exchange earner.

7.5 Despite the variety of its agroclimatic conditions, Turkey's agricultural sector is greatly specialized (Table 7.1). In 1980, 71% of the cultivated area was devoted to cereals, of which wheat and barley accounted for 85%. None of the other crops account for a substantial part of the total cultivated area, the main categories being industrial crops, including sugar beet, oil seeds, cotton and tobacco, 9% of the cultivated area; olives and grapes, 8%; fruits and nuts, 7%; vegetables, 4%; pulses, 3%; and tea 1%.

7.6 Turkey has, in addition, 21 million ha of natural pastures, which support one of the largest animal population in Europe and the Middle East. This includes 64 million sheep and goats and 16 million cattle and buffalo, as well as 2.5 million horses, donkeys and mules, and 55 million poultry.

Table 7.1: CULTIVATED AREA BY MAJOR CROPS

Crops	Area ('000 ha)	Percentage of Area
Cereals and Pulses	14054	71
Wheat	9350	47
Barley	2700	14
Corn	563	3
Rice	69	-
Pulses	585	3
Others	787	4
Industrial Crops	1856	9
Sunflower	406	2
Sugarbeet	275	1
Cotton	675	3
Tobacco	299	2
Tea	53	-
Others	148	1
Fruits	2870	14
Hazelnuts	430	2
Citrus	73	-
Grapes	760	4
Olives	800	4
Others	807	4
Vegetables	786	4
Fodder	300	2
Total Cultivated Area	19866	100

7.7 Agricultural products in Turkey may be classified into four categories:

(i) import substitution crops: wheat, sugarbeet, sunflower and tea. These products have received considerable encouragement in the last twenty years in the form of price support, the allocation of subsidized inputs, and the provision of extension services, the aim being to increase self-sufficiency;

(ii) traditional export crops: nuts, dried fruits, and tobacco. Turkish exports of these products constitute a sizeable share in world trade. (70% for hazelnuts, about 25% for dry figs, 20% for raisins and 20% for oriental tobacco);

(iii) major export crops: cotton, pulses, roots, and olive oil. This group includes staple exports which are widely traded on the world market;

(iv) fruits and vegetables including root crops (potatoes and onions); and livestock and livestock products.

7.8 Import substitution crops registered the largest increases in terms of cultivated area, production and yield over the 1960-79 period. Area under wheat increased by 22%, compared to a total increase in area under cereals by 6%. Area under sugarbeet increased by some 80%, compared to a total increase of 6% in the area under all industrial crops. Sunflower area increased by over 200% as did the area under tea. The increases in area under these crops were accompanied by large increases in yields (83% in wheat, 57% in sugar beet, 45% in sunflower and nearly 300% in tea during the period under consideration).

7.9 Production increases in traditional export crops were modest, with the exception of hazelnuts, whose production rose by more than 400%. Among major export crops, the production of cotton and roots increased by more than 100%, the production of pulses and olives changed little, and the yields of olive trees decreased by 11%.

7.10 Over the same period, citrus fruit production increased by over 200%, production of non-citrus fruits by 17%, and vegetable production by some 50%. Since the domestic prices of fruits and vegetables are not supported, and government intervention in their production is minimal, the substantial increase in production and in product-specialization within the sector must be attributed to market forces. In this connection, note that the area devoted to fruits, nuts and vegetables (excluding grapes and olives) increased from 4.2% of cultivated area in 1960 to 9.5% in 1979.

7.11 The number of sheep and goats increased by only 10% during the 1960-79 period, while cattle and buffalo increased by 22%. As a result, the production of sheep and goat products (milk and meats) stagnated whereas meat and milk derived from cattle and buffalo increased by 82% and 17%, respectively. The number of horses, donkeys and mules, traditional work animals, declined by 27% during this period. In turn, in the poultry sector a remarkable increase in the number of hens occurred, leading to a rise in egg production of over 200%.

2. Export Performance

7.12 Turkey has become self-sufficient in cereals and pulses. Exports of pulses have assumed importance over time while wheat exports were sporadic and peaked at nearly 2 million tons in 1978, declining

afterwards. This decline is attributable to inappropriate export policies rather than to insufficient domestic supplies. The country remains a

Table 7.2: EXPORTS OF AGRICULTURAL COMMODITIES

	1979 ('000 Tons)	Growth Rate 1970-79 (%)
Cereals & Pulses		
Pulses	686.0	14.5
Wheat	0.5	13.7 1/
Barley	60.8	-25.1
Rye & Other Cereals		
Industrial Crops		
Sunflower	-	-
Cotton	150.6	-7.7
Sugarbeet		-
Dry Fruits		
Edible nuts	138.6	7.6
Dry figs	34.9	2.1
Raisins	75.9	0.8
Others		
Tea	5.7	-3.5
Tobacco	69.6	-0.7
Roots		
Onion & Garlic	78.7	57.4
Potato	129.5	9.4
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Olive Oil	29.6	41.4
Citrus Fruits	131.5	10.8 2/
Oranges	16.2	-5.6
Lemons	79.0	12.1
Grapefruit	0.4	7.9
Mandarins	29.6	198.0
Other Fruits		
Apple	30.0	57.6
Fresh grapes	8.1	-8.7
Stone fruits	1.6	4.8
Pears & quinces	0.4	65.4
Other fresh fruits	23.7	43.3
Vegetables	40.2	62.9
Tomato	25.6	93.9 1/
Eggplant	1.2	40.5 2/

Bellpepper	1.7	88.6 2/
Leeks	4.9	+
Fresh beans	0.4	57.5 2/
Cabbage	0.8	+
Other vegetables	5.1	65.2 2/

marginal importer of edible oil and sugar. Tea exports have declined as a result of low quality production. In order to offset the reduced export possibilities for tea, coffee imports were banned in 1979.

7.13 Except for hazelnuts, traditional exports have stagnated or declined, as have exports of cotton. The exports of most of the other crops have increased to a considerable extent, in particular fruits, other than citrus, and vegetables, while the exports of citrus have increased relatively little. The exports of processed fruits and vegetables form a mixed pattern. Except for tomato paste exports, other exports are small, totalling about 20,000 tons in 1979. Among them, exports of fruit concentrates have increased substantially over time.

7.14 The reported exports of live animals have not increased. However, this is probably due to poor recording of smuggled animals, whose numbers are reputed to have increased in recent years. Exports of meat remain very small, as do exports of fresh and canned fish.

3. Input Use in Agriculture

Regional Patterns of Land Use

7.15 Turkey may be divided into 9 agricultural regions. Tables 7.3 and 7.4 show that the variety of climate and geographical location offer the opportunity for a very diversified set of agricultural activities in these regions. However, Table 7.4 also shows the climatic limitations affecting the largest part of the agricultural area that is dependent on low rainfall and average humidity. These dry areas, comprising all the central plateau and Eastern Anatolia, produce the bulk of cereals, pulses and livestock.

Table 7.3: REGIONAL CROPPING PATTERNS

Region No.	Region Name	Activities
I	Central North	Cereals, Rice, Vegetables, Pulses, Fruits, Tubers
II	Agean	Olives, Grapes, Cotton, Tobacco, Pulses, Tubers, Vegetables
III	Marmara	Sunflower, Rice, Roots, Sugarbeets
IV	Mediterranean	Cotton, Cereals, Citrus, Rice, Vegetables, Pulses

V	North East	Fodder, wheat, Tubers, Pulses, Livestock
VI	South East	Fodder, Cereals, Tubers, Pulses, Vegetables, Grapes, Livestock
VII	Black Sea	Hazelnuts, Tea, Rice, Tobacco
VIII	Central East	Fodder, Cereals, Fruits, Tobacco, Sugarbeets
IX	Central South	Cereals, Sugar beets, Grapes, Pulses, Tubers, Vegetables, Livestock

Table 7.4: CLIMATE

Region No.	Name	(Co) Average Temperature	Average Precipitation mm	Average Relative Humidity %	Number of Days with Snow
I	Central North	11	375	60	22
II	Agean	16	800	65	-
III	Marmara	14	700	70	10
IV	Mediterranean	18	700	62	-
V	North East	7	400	60	100
VI	South East	8-9	450	50	1-80
VII	Black Sea	14	1500	75	10
VIII	Central East	12	400	55	30
IX	Central South	11	350	60	22

Machinery and Irrigation

7.16 An important characteristic of Turkey's agricultural development has been the high capital intensity associated with the use of heavy farm machinery and large irrigation projects, both of which have received generous government incentives in the form of direct subsidies to tractors, negative real interest rates on credit, and very low water charges. The growth of farm machinery has been rapid as the total number of tractors increased from little more than 40 thousand in 1960 to 441 thousand in 1979. Over the same period, the importance of equipment associated with labor intensive techniques of farming like wooden plows, threshing sleds, fanning mills and seed cleaners declined at a rate of 10%-15% a year. In

terms of the capital-labor ratio, the effects of mechanization have been substantial, as the ratio of equipment to labor in the cereal producing areas has increased from $3 to more than $100 per man year in the last two decades.

7.17 Large irrigation projects have also had the effect of increasing capital intensity for selected crops. Average costs per ha of irrigated projects in the past has been about $3,000, but the choice of the cropping pattern and the fact that only about 50% of the area equipped for irrigation is actually irrigated have resulted in capital-output ratios of about 4.

7.18 Table 7.5 documents some of the changes in capital intensity due to the concentration of declining public investment in large irrigation projects and the increasing private investment in mechanization. Incremental capital output ratios appear to be steadily increasing over the years and a substantial rise was registered in the 1973-78 period, reflecting the spurt in mechanization. The orders of magnitude of these sectoral estimates of the ICORs are confirmed by estimates based on project data, which indicate values between 4 and 5 for most irrigation and mechanization projects [1].

Table 7.5: AGRICULTURE: ESTIMATES OF INCREMENTAL CAPITAL OUTPUT RATIOS

Time Period	ICOR a/	ICOR b/
1966-68	1.89	1.88
1968-72	2.27	2.69
1973-78	4.02	4.83

a/ Estimated on the basis of three-year moving averages and one year lag.

b/ Estimated using a three-year lag for public investment (irrigation) and no lag for private (mechanization).

7.19 From a macro-economic point of view, the capital intensity bias of Turkish agricultural growth has had three main consequences: (i) high costs of generating output increases through the use of scarce foreign exchange and domestic savings, (ii) under-utilization of labor, with ensuing inefficiencies, and (iii) implicit discrimination against relatively labor-intensive subsectors like fruits and vegetables, where the country has comparative advantage in light of the availability of cheap labor and favorable climatic conditions.

1/ For example, project completion reports suggest that costs of irrigation projects have averaged in excess of $3,000 per ha. Increases in value added, with a cropping pattern based mainly on cotton and wheat and 50% utilization of equipped area, have averaged $700 per ha.

Labor

7.20 For a middle income country, Turkey has an unusually high proportion of its work force still employed in agriculture (62% compared to 42% in Yugoslavia). Landlessness is a significant factor in rural areas, particularly in the South and Southeastern part of the country where the number of landless families is reported at 20%-30% of total families; it is less in the Northern and Northwestern part (5%-10%) where smaller holdings predominate.

7.21 A high rate of unemployment characterizes both the industrial and the agricultural sectors. Between 1967 and 1977, the total number of unemployed, excluding surplus or underemployed labor in agriculture, has increased both absolutely and relative to the size of the labor force, from 0.6 million in 1967 (4%) to 1.5 million in 1977 (9%). In agriculture, surplus labor during the peak season is estimated at 0.7 million people. These figures indicate the magnitude of the unemployment problem. At the same time labor productivity in agriculture increased at an average annual rate of 8% compared to 11% for the industrial sector. Thus, while the drive for mechanization had a positive impact on labor productivity and production increases, this policy had major although unquantified implications for the displacement of labor in agricultural occupations [1]/. For years, an offsetting factor was the migration abroad of rural workers,which quadrupled over the ten year period under consideration from 0.2 million to 0.8 million. But, with the slow-down of the economy in European countries, this safety valve is now largely closed.

Fertilizer and Plant Protection Chemicals

7.22 Since the early 1960s, growth in the application of chemical fertilizer has been rapid and its use is now widespread. Fertilizer applications per hectare increased from 7 kilograms in 1960 to 23 kilograms in 1970 and 90 kilograms in 1980. In terms of nutrients, total consumption amounts to 1.4 million tons.

Table 7.6: FERTILIZER SUPPLY AND CONSUMPTION 1978
('000 tons nutrients)

Nutrient	Beginning Stock	Production	Imports	Total Supply	Consumption
N	207	271	474	952	776
P_2O_5	100	213	401	714	635
K_2O	8	2	14	24	21
Total	315	486	889	1,690	1,432

1/ The census results for 1980 when available should permit to ascertain the validity of this statement.

Table 7.7: COMPARISON OF OPTIMUM[1/] AND ACTUAL FERTILIZER USE, 1978
thousand tons of nutrients

	Nitrogen		Phosphate	
Crop	Optimum	Actual	Optimum	Actual
Wheat	281	340	255	315
Corn	32	33	20	22
Rye,etc.	12	13	11	12
Rice	43	11	4	6
Barley	44	53	44	54
Sunflower	40	39	35	36
Sugarbeet	44	38	37	33
Tea	15	13	0.1	0.8
Tobacco	15	13	9	10
Cotton	20	56	12	36
Roots	26	16	17	11
Pulses	12	9	21	16
Grapes	17	16	11	14
Olives	15	15	9	9
Vegetables	45	46	25	28
Citrus	10	13	6	8
Hazelnuts	16	28	5	11
Fruits	8	4	5	5
Other	80	13	87	11
	775	773	613	638

1/ As determined by a simulation of the agricultural sector model for 1978, assuming that the fertilizer prices were set at world level.

7.23 Table 7.6 indicates the basic elements of the consumption/supply picture for the various types of fertilizer. Despite increases in domestic production, imports still account for nearly one-half of fertilizer supplies. Imports of raw materials have been increased in recent years, in an effort to reduce foreign exchange costs and to increase the efficiency of the domestic industry which appears to be heavily underutilized.

7.24 Fertilizer consumption has increased very rapidly in part because farmers have purchased it much below cost. At this low price, excess demand conditions have prevailed, and therefore a non-price allocation mechanism has been used to distribute fertilizer to farmers and specific crops. There has been an uneven distribution of available supplies. The Mediterranean and Aegean and Marmara regions, with 37% of the country's rural population, accounted for 52% of total fertilizer consumption in 1978 while the Northern and Southern Regions with 17% of rural population received 8% of fertilizers. This distribution of supplies reflects partly the uneven distribution of the land and partly the political strength of various groups of producers.

7.25 A simulation based on the agricultural sector model presented in Section E shows that the distribution of fertilizer was sub-optimal. In fact, with all other prices held constant, an increase in fertilizer prices to the world level would not substantially reduce total demand for fertilizer nutrients but would redistribute its use from wheat, citrus, nuts and cotton to other crops, such as roots, pulses, and non-citrus fruits (Table 7.7).

7.26 The use of plant protection chemicals increased at an average annual rate of 5.5% between 1960 and 1978. Today's estimated consumption is about 85,000 tons. Plant protection is relatively widespread for cash crops, such as hazelnuts, grapes and cotton in the more developed coastal regions. Apart from these crops, the area covered by plant protection activities represents only a small percentage of the area planted. The consumption of plant protection chemicals has been constrained by limited supplies, which depend on imports for about half of the value of the finished product. Furthermore, although retail prices of plant protection chemicals were controlled by government until January 1980, and often subsidized as well, they received less generous government incentives than fertilizers.

B. Government Intervention in Output Markets

1. Price Support Policy

7.27 Notwithstanding the liberalization measures taken in January 1980, the Government continues to set farmer support prices for 23 major agricultural products, except for fresh fruits and vegetables (Table 7.8).

Table 7.8: AGRICULTURAL SUPPORT PRICES
(in Turkish Lira per kilogram)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Hard wheat	1.03	1.03	1.23	2.15	2.50	2.75	3.50	4.00	5.80	12.00
Soft wheat	1.00	1.00	1.20	2.05	2.40	2.65	2.82	3.15	5.00	10.50
Barley	0.78	0.78	0.92	1.62	1.72	1.72	1.92	2.55	4.72	9.00
Rye	0.75	0.75	0.90	1.58	1.70	1.80	1.90	2.50	4.70	8.50
Paddy (long grain)	2.25	2.50	3.60	4.50	5.00	5.50	6.25	12.00	21.00	35.00
Lentils	-	-	-	-	-	-	-	-	15.00	28.00
Tobacco	11.70	13.20	23.10	31.30	39.15	39.13	44.39	50.60	17.00 60.91	112.23
Sugarbeets	0.20	0.20	0.30	0.40	0.50	0.58	0.63	0.80	1.42	3.08
Seed cotton	3.40	3.75	6.00	8.00	8.00	10.25	10.75	13.75	25.00	50.00
Tea	4.00	4.00	4.50	6.25	7.50	8.50	10.00	(15.50) 12.00	14.50	26.05
Sunflower seeds	2.00	2.20	2.50	3.75	5.50	5.75	6.50	8.50	(16.00)	30.00
Hazelnuts	8.50	8.50	9.70	13.50	14.00	14.50	16.50	21.50	37.50	110.00
Dried figs	2.35	2.60	4.20	5.50	6.00	7.00	8.00	10.50	(45.00) 22.00	50.00
Olive oil	7.80	8.70	17.50	17.50	17.50	18.00	20.00	(12.50) 30.00	-	125.00
Raisins (seed lees)	2.92	2.92	7.00	10.00	10.00	10.50	12.00	17.50	40.00	85.00
Pistachio nuts	11.00	13.00	18.00	25.00	26.50	.	.	23.50 55.00	(45.00) 125.00	300.00
Fresh conoons	-	-	-	60.00	70.00	80.00	100.00	125.00	(150.00) 185.00	800.00

It intervenes in the marketing of these crops through state economic enterprises: the Soils Product Office or TMO, for cereals and pulses, and the Sugar Factories Corporation, or TSF, for sugar beet, state monopolies (tea and tobacco), and by authorizing sales cooperatives to purchase on behalf of Government at support prices (cotton, dried fruits, nuts, oil, mohair and silk cocoons). Other SEEs which pay farm product support prices are the Meat and Fish Organization (EBK) and the Milk Industry Organization (TSEK),but their price support activities are limited to the relatively small quantities they buy and process (about 10% of the total meat and dairy products marketed).

7.28 The government exercises varying degrees of control over different crops and at different levels in the marketing chain. The State has procurement monopoly for sugar beets, and a quasi-monopoly for tobacco and tea; it purchases 70 to 80% of these crops. It has a complete monopoly over the manufacture and distribution of sugar, tea, tobacco and their products. Until recently, the State was the sole exporter of wheat. More generally, however, government control takes the form of partial market intervention by the state trading agencies. At the same time, apart from purchases from farmers, the tasks of these agencies also include the storage, sale and export of commodities subject to government control.

7.29 The share of the public and private sectors in purchases varies from year to year, depending on official price levels compared to free market prices. In 1980, public sector agencies purchased approximately 20% of marketed wheat, 40% of cotton, 20% of pulses, 40% of dried figs and 50% of raisins and hazelnuts. Purchases are made at the support prices, which are set by the Council of Ministers at the beginning of the marketing season for each commodity. Support prices were intended to serve as guaranteed floor prices to the farmer.

7.30 Traditionally, the principal agricultural commodities have been marketed by the SEEs at officially determined prices that were often fixed below cost, with the government absorbing the losses in order to limit increases in consumer prices. This was the case for wheat sales by TMO to domestic millers, of meat sales from EBK's slaughterhouses, and sugar sales from TSF's factories, in particular. Since January 1980, however, authority has been granted to most SEEs to set sale prices according to actual costs. Thus, subsidies on meat sales have been abolished; subsidies on wheat sales have been reduced; and for the first time in mid-1980 production costs were taken into account in fixing the retail price of sugar, which increased from TL 20/kg to TL 50/kg.

7.31 The losses sustained by state trading agencies have been financed by subsidies from budgetary sources and from Central Bank credit. An additional source of subsidies has been the negative real interest rate charged on Central Bank credit to agriculture (See Chapter 3).

7.32 In the past, the price support policy has provided an effective floor to producer prices in the case of commodities for which the government purchased all that is offered by the farmers, such as wheat, or in which state trading agencies had a large share of the market, such as

cotton. This was not the case for livestock products, in which SEEs controlled less than 10% of the market. In recent years of high inflation the price support system has been much less effective. State agencies did not meet their procurement target, not so much because of high domestic prices as a result of local shortages, but because of high inflation rates which quickly eroded the real value of the support prices, thus rendering ineffective the income support objective of government intervention.

7.33 As inflation rates reached 60% in 1979 and 100% in 1980, support prices which were announced shortly before the harvest season, soon fell below market prices. Because of the rigidity of the official price setting systems the Govenment did not respond rapidly enough by increasing support prices. As a result, the state marketing agencies' procurement fell short of the target. The situation became especially problematic in the case of TMO's 1980 wheat purchases, making it impossible to fulfill procurement and export targets. Instead of the planned 3 million tons, TMO eventually procured only 1.7 million, of which 1.4 million were needed to supply the domestic market in order to try to keep bread prices under control. While plans had been made to export 1.5 million tons of wheat, the country exported only about half a million ton.

2. External Trade Policy

7.34 Prior to the January 1980 reforms, the external trade of most agricultural commodities was strictly controlled. Imports of staple commodities were made on behalf of the government by state trading agencies with the ostensible purpose to guarantee the regular supply of those commodities on the domestic market and to establish a reserve stock for preventing abnormal price fluctuations. Exports were limited through licencing where, in the judgment of the Ministry of Commerce, domestic supply was insufficient to meet domestic demand.

7.35 At the same time, due to often excessive support prices in relation to world market prices, which was aggravated by an overvalued exchange rate, exports had to be periodically subsidized. For example, in 1976 olive oil, raisins and cotton, and in 1978 barley could be exported only with the help of export subsidies. Also, in the case of commodities for which state trading agencies were the sole exporters, producer support prices often had to be maintained above world market prices in order to ensure sufficient procurement, with the result that subsidies were needed to export (e.g. wheat in 1978 and 1979).

7.36 Since January 1980, measures have been taken to liberalize exports, but imports have remained strictly controlled. The multiple exchange rate system which discriminated against agricultural exports has been abolished and a unified exchange rate has been adopted. The export licensing system has also been abolished, except for exports to Eastern Bloc countries. Finally, minimum export prices (i.e. below which exports

were not previously authorized) have been abolished for a large number of commodities, and the exportation of wheat and hazelnuts by the private sector has been authorized for the first time. 1/

7.37 To control domestic price increases and also to generate revenues, however, a system of flexible levies on the exports of major agricultural commodities has been established. The so-called Export Funding System, which existed in 1979 for only raisins, figs and tobacco, has been extended to 12 commodities including some key products such as wheat and wheat flour, cotton as well as cotton yarn. In taxing wheat and wheat flour, as well as raw cotton and cotton yarn, at roughly the same level per kg, the Government intended to use the Export Funding System to encourage the exports of processed products. At the same time, the export levies are deposited into a Price Support and Stabilization Fund managed by the Treasury for reallocation in the form of subsidies to agriculture (e.g. to subsidize government procurement of crops and the production and distribution of fertilizers).

7.38 In 1980, the Export Funding System did not operate satisfactorily. For several commodities (e.g. olive oil and wheat), the export funding system combined with high domestic prices actually hindered exports. For example, while domestic prices of wheat were above world prices for most of 1980, a levy of TL 3 per kg was charged on wheat exports (Table 7.9). Consequently, although for the first time private exporters were allowed to enter the wheat trade, no wheat was exported by the private sector in 1980. On the other hand, world market prices for barley exceeded domestic prices by a substantial margin, but no export tax was levied on that commodity. Furthermore, while f.o.b. prices for cotton exceeded domestic prices throughout 1980, a high export levy (TL 41/kg) was imposed in early 1980, thereby curtailing exports. Subsequently, the reduction of the levy to TL 26/kg led to increases in exports.

7.39 The Export Funding System did not work satisfactorily for the traditional export crops either. The intention had been to use the export tax to limit exports in order to avoid losses in foreign exchange earnings from declining marginal revenues. In practice, the export tax was set too low. Consequently, Turkish exporters started competing among themselves and sold at prices sometimes much below those of previous years.

7.40 All in all, despite the Government's intention to promote exports, agricultural exports were disappointing in 1980. The value of exports reached only US$1.5 billion in that year, compared with US$1.4 billion in 1979, and US$1.6 billion in 1978 (Table 7.10). With increased political stability, improvement was shown, however, at the end of 1980 as well as in the first half of 1981.

1/ In late 1980 the exclusive authority to export wheat was returned to TMO. Given the unsatisfactory performance of TMO in 1980, the Government intends to permit wheat exports by the private sector again in 1981.

Table 7.9: COMPARISON OF DOMESTIC AND BORDER PRICES OF MAJOR AGRICULTURAL COMMODITIES, 1980
(TL/kg)

	1980												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
Major Exports													
Lemons													
Wholesale	40.0	40.0	45.0	-	-	-	-		40.0	40.0	40.0	40.0	40.7
FOB export	31.9	30.9	31.3	36.9	39.9	47.0	50.4	52.3	48.4	-	44.5	41.6	41.4
Barley													
Wholesale	6.3	7.2	7.7	7.4	7.7.	9.3	8.4	9.3	11.8	12.5	14.2	16.5	9.9
FOB export	-	-	-	12.5	10.2	10.5	10.4	13.3	12.0	13.2	13.1	13.0	12.0
Wheat													
Wholesale	7.1	12.0	10.2	10.5	11.0	12.7	11.2	12.0	14.0	15.5	15.4	19.0	12.6
FOB export	9.0	9.8	10.8	12.5	12.2	10.4	12.8	17.0	14.6	-	13.6	13.9	12.4
Cotton													
Wholesale	110.0	-	87.0	89.2	97.0	-	115.0	-	115.5	117.0	121.0	124.2	108.4
FOB export	115.0	118.3	116.5	127.5	141.5	145.9	142.7	144.0	141.8	135.2	140.3	147.2	134.6
Tobacco													
Wholesale	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-
FOB export	141.8	224.2	203.0	165.1	189.4	191.6	205.9	193.4	230.4	168.3	262.4	271.2	203.9
Hazelnut													
Wholesale	162.5	165.0	165.0	165.0	165.0	175.0	175.0	175.0	182.5	182.5	187.5	195.0	174.6
FOB export	249.6	225.4	284.2	335.3	325.7	336.1	345.5	327.6	323.2	324.8	320.0	322.4	310.0
Major Imports													
Sugar (crystal)													
Wholesale	20.0	20.0	20.0	20.0	20.0	20.0	20.0	50.0	50.0	50.0	50.0	-	30.9
CIF import	-	-	-	-	65.0	65.0	65.0	72.0	72.0	72.0	72.0	-	69.0

Source: SPO, Central Bank.

April 28, 1981

Table 7.10: MAJOR AGRICULTURAL EXPORTS, CALENDAR YEARS 1976-1980
(in million dollars)

Commodity	1976	1977	1978	1979	1980 1/
Hazelnuts	203.2	251.0	330.9	353.0	370
Cotton	438.1	213.6	352.9	231.8	290
Tobacco	251.3	175.8	225.3	177.9	230
Raisins	52.6	74.9	99.7	114.8	130
Wheat	8.0	59.6	208.3	86.2	40
Citrus	47.8	42.2	43.8	53.4	80
Figs, dry	20.6	25.2	300.9	41.5	50
Olive oil	2.8	35.2	8.7	38.8	5
Barley	36.9	18.6	1.8	0.1	30
Oil seed cakes	19.3	13.7	5.5	---	---
Others 2/	247.4	249.1	294.7	303.5	325
Total	1,320.0	1,159.0	1,602.5	1,400.0	1,550
Total Exports	1,960.8	1,753.0	2,288.2	2,261.2	2,800
Agr. percent of total exports	67	66	70	62	55

1/ Preliminary

2/ Does not include forest and sea products

Sources: State Institute of Statistics
Monthly economic indicators, Ministry of Finance

3. Input Pricing Policy

Fertilizer and Plant Protection Chemicals:

7.41 The government has a virtual monopoly on the production, import and sale of chemical fertilizers, except for raw materials which can be imported under license for domestic manufacture. The Agricultural Supplies Organization (TZDK) is the principal SEE involved in the distribution of fertilizers to farmers. Successive governments have given priority to fertilizer imports in the allocation of foreign exchange and fertilizer is the second largest import after fuel. At the same time, fertilizers benefited from generous government subsidies, which have resulted in inefficient allocation to crops (cf. Para. 7.24-7.25).

7.42 Fertilizer prices have been subsidized in three ways. First, by distributing the commercial product at below cost directly to individual farmers and farmers cooperatives; second, by providing credit at subsidized rates for the purchase of agricultural inputs including fertilizer; and third, by subsidizing domestic manufacturers. As a result, fertilizer prices were kept low and declining in real terms. For example, the official price of ammonium nitrate (26% N) was fixed from 1975 to 1979 at TL 1400 per ton, in spite of a rapidly devaluing currency. By 1979 subsidies to fertilizers amounted to between 60% to 80% of product cost.

Table 7.11: FERTILIZER SUBSIDIES AS A PERCENTAGE OF RETAIL PRICE*

	1979		1980	
	Locally Manfactured	Imported	Locally Manufactured	Imported
Ammonium Sulphate	84	75	59	46
Ammonium Nitrate (2.05)	83	-	67	-
Ammonium Nitrate (26)	68	74	59	45
Normal Superphosphate	85	-	66	-
Triple Superphosphate	78	82	53	42
Diammonium Phosphate	69	66	37	18
Urea	52	59	51	21
Composite (20-20-0)	-	61	49	26

* The subsidies are underestimates since they do not account for distribution costs.

Table 7.12: OFFICIAL RETAIL PRICES OF FERTILIZER IN 1979 and 1980 (TL/ton)

	1979	1st Semester 1980	2nd Semester 1980	% Increase over 1979
Ammonium Sulphate	1100	5500	6000	545
Ammonium Nitrate (2.05)	1100	5500	6000	545
Ammonium Nitrate (26)	1400	6800	7500	536
45Normal Superphosphate	600	4500	5000	833
Triple Superphosphate	1300	10000	12500	961
Diammonium Phosphate	2450	12000	20000	527
Urea	2750	10000	14500	527
Composite (20-20-0)	2450	10000	14000	571

7.43 In 1980, retail prices of fertilizer were raised five to ten times and subsidies to fertilizers were reduced to 20% to 45% of the product cost. Nevertheless subsidies to fertilizers remain substantial, equalling about TL 35 billion (US$460 million) in 1980. The government indicated its intention to phase out the remaining subsidies on fertilizers over the next five years, concomitant with the introduction of cost reducing innovations in TZDK's fertilizer handling and distribution network.

7.44 Unlike fertilizers, the distribution of plant protection materials is largely in private hands, except for copper sulphate and sulphure powder which are distributed by TZDK. Imports of finished products and raw materials, as well as pricing by the private sector, are controlled by the Ministry of Agriculture that plans annual plant protection activities and requirements for materials. The Ministry regulates imports through certification for licensing. Prices are also regulated to allow a fixed margin for importers and exporters. In 1980, the Government eliminated all subsidies on plant protection chemicals.

Water Pricing

7.45 Turkish law explicitly acknowledges the obligation of the users of irrigated water to pay full capital costs (over 50 years, with no interest) and operation and maintenance costs of irrigation projects built by the government. The former are computed after project completion and the beneficiaries are billed annually; the latter are estimated each year by the state hydraulic works (DSI) and submitted for Cabinet approval. However, for various reasons, the Government does not fully recover these costs: (i) inflation erodes capital amortizations, which are fixed in nominal terms and have never been adjusted to compensate for inflation; (ii) except for 1978, water charges have not been set at levels that would cover operation and maintenance costs in full; (iii) collection rates average less than two-thirds of assessments; and (iv) there is no legislation permitting the recovery of on-farm development works.

7.46 In 1980 water charges in the South were as low as TL50 per decare, or US$6 per hectare, and the collection rate only 35%. The large subsidy thus enjoyed by project beneficiaries is detrimental from the point of view of the efficient use of irrigated land and water and is fiscally regressive since their incomes are well above the national average. For 1981, the Government has decided to levy the full cost of operating and maintaining DSI irrigation schemes. Also, TOPRAKSU's on farm-development works will be charged; and private contractors will now be permitted to carry out similar development works under TOPRAKSU's supervision. While this recent set of measures represents a considerable improvement, the resulting water charge may not be sufficiently geared to the efficient allocation of water resources (see para 7.136).

C. Incentives and Export Performance

1. Nominal and Effective Protection

7.47 The complex and continued interventions in output and input markets of most agricultural commodities have led to a substantially distorted structure of costs and prices, compared to international costs and prices. Table 7.13 reports nominal protection coefficients (NPC) equalling the ratio of domestic to border prices, for various commodities for the year 1978 that may be considered illustrative of the situation existing before the January 1980 reforms. The Table also shows effective protection (EPC) coefficients, calculated as the ratio of value added at domestic prices to value added at border prices. Preliminary estimates of NPCs and EPCs for selected crops in 1980 are also presented.

7.48 Government interventions led to the protection of some crops and the taxation of others. Making adjustments for the difference between the shadow exchange rate and the official exchange rate, it appears that most cereals, industrial crops, non-citrus fruits and processed fruits and vegetables were protected while barley, cotton, citrus, fresh vegetables and livestock suffered discrimination. Also, the prices of traditional exports were probably too low, in view of the accumulation of stocks and declining marginal revenues.

2. Effects of Incentives in Exports

Import-Substitution Crops

7.49 The effect of interventions on export performance is difficult to assess in the case of wheat, tea and sugar where the government was a monopoly purchaser and trader. In these cases the government drove a wedge between domestic and world prices, with the producers responding to the former rather than the latter.

7.50 At official exchange rates, the nominal protection coefficient for wheat averaged 1.17 during the seventies (Table 7.14); it exceeded one in years when Turkey was a net exporter of wheat; and it was less than one in years when Turkey was a net importer. This may be explained by the fact that in times of high domestic prices a larger quantity was available for export and the trading agency exported with a loss. At the same time, the consumer price of wheat flour was maintained 13% below the world market price by the use of subsidies.

7.51 Perhaps the most striking examples of the adverse effects of overextended price support policies and monopoly over production and trade are those of tea and sugarbeet. Turkey's exports of tea averaged 9,000 tons over the years 1970-79, declining from over 15,000 tons in the

Table 7.13: NOMINAL AND EFFECTIVE PROTECTION COEFFICENTS IN AGRICULTURE,

	1978*		1980**	
	NPC*	EPC	NPC	EPC
Cereals	1.203	1.52	-	-
Wheat	1.182	1.49	1.008	1.055
Corn	1.500	2.51	-	-
Rye, etc.	1.117	1.45	.844	.529
Rice	1.880	1.77	2.653	3.731
Barley	1.120	1.24	.856	.802
Other Crops				
Sunflower	1.227	1.87	1.457	2.572
Sugarbeet	2.878	3.15	2.549	5.967
Tea	1.640	1.77	.782	.753
Traditional Exports				
Tobacco	.677	0.66	1.151	1.170
Hazelnuts	.427	0.37	.739	.675
Figs *	.429			
Raisins	.888	2.03		
Other Staple Exports				
Cotton	1.000	1.06	0.805	
Pulses	2.049	2.31		
Roots	1.888	2.08		
Olives	2.992	3.89	1.322	1.487
Citrus Fruits	1.380	0.79		
Oranges & Mandarin	1.593			
Lemons & Grapefruit	1.029		0.983	
Non-citrus Fruits	2.50	1.80		
Fresh Grapes	2.90	2.22		
Apples	1.01			
Stone Fruits	2.34			
Vegetables	2.24	1.23		
Tomato	1.07			
Processed Fruits & Vegetables 1/				
Canning and Preserving	1.67	2.14		
Slaughtering and Meat Preservation	1.67	2.03		
Other Food Processing	1.63	2.03		
Livestock				
Beef	1.96	0.97		
Cow milk	1.59	1.38		
Mutton	1.04	1.23		
Ewe milk	1.42	1.23		
Wool	1.38	1.23		
Total	1.26	1.40		

* at the official exchange rate using the support price of TL 10500 per ton for figs, and TL 17,500 for dry, seedless raisins.

** at the official exchange rate using support prices and/or estimates.

1/ For the year 1979. Source: M. Noel, Porduction Incentives in Turkey, July 1981.

Table 7.14: NOMINAL PROTECTION COEFFICIENTS: WHEAT AND COTTON

Year	Exchange Rate	Wheat		Cotton
	TL/kg	CIF	FOB	FOB
1971	14.9	1.03		0.88
1972	14.1		1.50	0.81
1973	14.1		1.39	1.14
1974	13.9	0.86		0.85
1975	14.4	0.83		1.07
1976		1.05		1.31
1977			1.48	0.94
1978			1.21	1.04
1979			1.29	1.20
1980			1.08	0.80
Mean (M)		1.17		1.04

beginning of the period to as low as 25 tons in 1975. In all years during 1971-79, the support price was above the export price. Monopoly procurement at attractive prices, with no restrictions on the number of leaves picked, induced producers to harvest twice the optimal number of leaves, resulting in large stocks (140,000 tons in 1979) of poor quality leaves.

7.52 Price support to sugar beet production led to increases in the output of a product in which Turkey is at a comparative disadvantage. This disadvantage is reflected in the fact that sugar yields per hectare are very low at 3.7 tons per hectare. In addition, 70% of the area under sugar beet is irrigated land which would be suitable for more intensive cultivation. At the same time, while sugar beet prices were supported, sugar market prices were maintained at a fraction of world market prices and much below production costs.

7.53 Under the 1980-81 economic program, various measures were taken in regard to these conditions. In the case of wheat, private exports were permitted for the first time and subsidies to wheat flour were reduced. Also ceilings on acreage under tea and on the delivery of the product have been implemented. Finally, wheat production costs were taken into account in raising the retail price of sugar from TL 20/kg to TL 50 kg in 1980, sugar beet prices were increased by 50% for the 1981 crop and the price was, for the first time, announced prior to the planting season, thereby providing incentives to further increase acreage under the crop.

Traditional Export Crops

7.54 Despite a policy of price support, on balance, the production and exports of the traditional export crops [1]/ (tobacco, hazelnuts, raisins and figs) were taxed throughout the seventies. As a consequence, except for hazelnuts, production and export growth rates were relatively modest. Nevertheless, production was higher than required for optimal exports. As the government was the residual buyer, all excess production beyond what could be exported profitably entered into the stocks. This was the case in particular for hazelnuts and tobacco.

[1]/ The export revenues from these four crops were 47.4% of total revenue from agricultural exports in 1972 and increased to 51.1% by 1979.

7.55 In tobacco, less than one third of the production is used for domestic cigarette production, and the rest is exported. There is not enough cigarette manufacturing capacity in the country to meet domestic demand for cigarettes. Even though the private sector has expressed interest in such a venture, it remains the privilege of the governmental monopoly. The United States is the single largest importer of tobacco, with a share of 50% in Turkey's exports. Stocks with the Turkish Monopoly Administration were 157,000 tons in 1978 and increased to 175,000 tons in 1979, compared to exports of 77,000 tons in 1978 and 70,000 in 1979 1/.

7.56 The expansion of the cultivation of hazelnuts in the non-hill land areas of the Black Sea Coast, which is suitable for the cultivation of field crops, has contributed to accumulation of surpluses in the hands of the sales cooperatives. As in the case of tobacco and tea, where the Government's price support policy does not discriminate sufficiently between varieties and qualities, much of the government stocks consist of poor quality product which are even more difficult to export.

7.57 The government had to dispose of the stocks often at considerable losses. Surplus tobacco, for example, was exchanged in barter trade for fertilizer, machine parts, cigarette filters and raw materials for drugs, which implied discounts up to 30%. Also arrangements were made with Yugoslavia and Bulgaria to manufacture 18,000 tons of filter cigarettes which were re-imported and the costs of which were paid in tobacco at a loss. In turn, surplus hazelnuts were diverted to other uses, for example, the extraction of oil.

7.58 While Turkey has a large share in the world trade of its traditional export commodities, it also faces a small number of large importers. World trade in tobacco is becoming increasingly concentrated in the hands of a comparatively small number of international leaf merchants and large tobacco manufacturers (for example, big tobacco companies like R. J. Reynolds and Ligget Myers, Inc. have subsidiaries in Turkey.) A similar situation exists in the hazelnut market. Although Turkey enjoys a monopoly situation on the producers' side, it is faced with a monopsonistic consumer market, with Germany taking 55% of its exports and the USSR and France accounting for 15% and 7%, respectively.

7.59 In order to limit exports, in the face of the monopsonistic consumer market of the products, it is necessary for the government to intervene in their production and trade. In the case of tobacco, the government has in fact reduced area allotments and imposed ceilings on deliveries. However, increases in support prices in February 1980 at an average rate of 86% were not overly large. But no attempt to reduce acreage under hazelnuts has been made. Finally, as stated inPara. 7.39,

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1/ In fact, Turkey's tobacco exports have not exceeded 77,000 in any of the last five years.

export levies on these commodities were set overly low.

Cotton

7.60 The government intervenes in the cotton market through the activities of the sales cooperatives which purchase raw cotton from the farmers at the official support price. A comparison of domestic and border prices does not show any clear pattern of protection during the seventies (Table 7.14). At the official exchange rate, in four years out of ten, cotton was taxed, in three years it was protected and in three years is was neither taxed nor protected. Over the entire period, average domestic prices approximately equalled average border prices. Nevertheless, because of an increasingly overvalued exchange rate in the later years, cotton was implicitly taxed.

7.61 A comparison of nominal protection coefficients with the volume of exports does not show any clear correlation. Thus, although world market prices were 11% and 31% above domestic prices in 1973 and 1976, respectively, export volumes reached a record of over 300,000 tons in both years. On the other hand, export volumes were modest in years of relatively low domestic prices, such as 1974. These results were due to government interventions in cotton exports, offsetting the penalty resulting from the overvalued lira by means of export subsidies, and discouraging exports in times of domestic shortages.

Livestock

7.62 Government intervention in the meat market is limited to the activities of the EBK, a state economic enterprise. EBK operates 20 large slaughter houses throughout the country, and controls about 10% of the meat market. Until recently, EBK was subsidizing its meat sales in order to control consumer price increases. It was also the sole exporter of meat. Specific restrictions still exist on the exports of live animals, including an export ban from October 15 to May 15 and a limit of 100 tons for each export licence.

7.63 In 1978, both beef and mutton were discriminated against by the system of incentives. Domestic prices were depressed not so much because of the price support policy but because of the overvalued exchange rate (Table 7.13). The result of these policies have been to limit the official exports of beef and mutton, while encouraging the smuggling of sheep and cattle. In 1978, 463 thousand sheep and no cattle were officially exported, while unofficial exports were estimated at some 2 million sheep and 200 thousand cattle.

7.64 Although the smuggling of animals can be seen as a form of resilience of the free market that tends to alleviate the effect of export restrictions, it has had some adverse consequences. Foreign exchange earnings were reportedly used to smuggle luxury goods and weapons into the country. Moreover, smuggling is a high profit but risky enterprise and reduces the price received by farmers.

7.65 Recent measures taken by the government, including the devaluation of the exchange rate, the abolition of official producer prices for cattle and sheep, and the removal of consumer subsidies to beef and mutton, have improved the situation. Nevertheless, they alone will not suffice to ensure a major expansion of livestock exports. In fact, demand and supply projections indicate that the growth of production will be barely sufficient to meet increases in domestic demand for these products. Yet, the potential for rapid increases in livestock products, especially in cattle, exist as the large herd of low productivity could be rapidly upgraded through a program of cross-breeding by artificial insemination. The limiting factor to such expansion appears to be the availability of feed, as recent estimates show that total available feed at 34 million tons TDN falls short of total requirements of 36 million tons TDN. Therefore any program to upgrade the existing herd must be accompanied by increases in the fodder base, through improvements in pasture and introduction of fodder on the fallow area. Moreover, any major expansion in livestock will depend upon the implementation of an effective animal health program.

Other Export Crops: Horticulture

7.66 Unlike other agricultural sectors, Government intervention in the production and exports of fresh horticultural crops has been minimal [1]/. This is reflected by the fact that domestic prices were, on average, equal to FOB prices in this sector (Table 7.15). However, oranges, tangerines and fresh grapes, which are two major fruit exports of Turkey, show nominal protection coefficients greater than one in practically all years. The fact that these fruits continued to be exported may be attributed to export incentives in the form of tax rebates and the availability of subsidized credit. Nevertheless, even with these subsidies, orange and grape exports declined, while the exports of satsumas - a special variety of tangerines that has more favorable prices - increased.

7.67 Among fresh fruits, there has been a trend towards product specialization according to comparative advantage. Production has increased significantly in crops whose exports have risen (lemons, grapefruit, tangerines, apples), while the production of grapes and oranges has stagnated or declined as have their exports. In the vegetable sector, substantial increases have occurred in the production and exports of tomatoes, onions, potatoes as well as in a few other vegetables, albeit from a lower base. In general, therefore, the horticultural sector appears to have responded to price incentives through product specialization.

7.68 Although the question of seasonality is discussed at length in a later section on EEC markets, it may be noted that Turkey appears to have an early season advantage in citrus production that is comparable to that of Spain (but not to Israel, Morocco and South Africa). However, 91% of

[1]/ The only major intervention in this sector has been the imposition of restrictions on imports. While this may seem unnecessary and unusual, it may be noted that other exporting countries including, Greece, Spain and Portugal have had import restrictions of various degrees.

Table 7.15: NOMINAL PROTECTION COEFFICIENTS FOR FRUITS

Year	Lemon and Grapefruit	Oranges and Tangerines	All Citrus Fruits	Fresh Grapes	Fresh Apples	Stone Fruits	Other Fruits	All Fruits
1973	0.92	1.85	1.08	1.74	1.05	1.25	1.05	1.02
1974	1.27	1.53	1.32	1.75	0.95	0.98	0.43	1.17
1975	0.96	1.44	1.06	1.33	0.84	1.41	0.92	0.99
1976	0.96	0.98	0.96	1.33	0.77	1.15	0.67	0.92
1977	1.03	1.15	1.00	1.81	0.92	0.88	0.90	1.12
1978	1.02	1.58	1.16	2.16	1.01	2.32	1.58	1.16
1979	0.86	1.36	1.00	2.31	1.08	1.58	1.30	1.03
1980	0.70	0.78	0.72	0.77	0.60	0.69	n.a.	0.68
Mean								
1973-80	0.97	1.33	1.04	1.65	0.90	1.29		1.01
1973-79	1.01	1.41	1.09	1.78	0.94	0.38	0.98	1.06

orange exports, 89% of mandarin exports and about 65% of lemon exports occur in the main season. The share of the EEC in total citrus exports of Turkey which was nearly 40% in 1965 dropped to 27.6% in 1973 and to 8.5% in 1979. These shifts away from West European markets in general and toward the East European and more recently, the Middle Eastern markets, have been attributed to the high degree of protectionism in the EEC, which is accentuated by the reference price system during the main season. In non-citrus fruits, Turkey does not appear to have an early season advantage, and therefore its exports to the EEC have been minimal. Exports of grapes to the EEC, as with citrus, declined from a share of 70% in 1970 to about 34% in 1979, not only because of EEC restrictions, but also because, as Table 7.15 indicates, grapes have remained non-competitive in the last 8 years.

7.69 Turkey clearly has a comparative advantage in the growing of early season vegetables in the southern regions bordering on the Mediterranean. This advantage has been exploited most remarkably in the production and exports of tomatoes, and demonstrates the benefits to be gained from an export oriented strategy. Total production increased from 2.1 million tons in 1974 to more than 3.5 million tons. While average yields remain low (less than 30 tons per hectare) yields of early season and high quality tomatoes for export have increased to over 40 tons per hectare.

7.70 While government intervention in the price formation process in the horticultural sector has been minimal, the sector has been adversely affected by government support, both in terms of prices and supply of inputs, to other competing crops. The allocation of subsidized fertilizer and chemicals has favored other crops, as well as large farms. Furthermore, the availability of cheap water appears to have led farmers, particularly large farmers (whose major constraint is labor) to divert irrigated land to crops such as wheat, which are assisted by the government's price support system. At the same time, the lack of quality seed and the high prices of certified seed have disadvantaged horticulture.

7.71 The transport sector presents a major bottleneck to increases in the production and exports of fresh fruits and vegetables particularly in the early season when the availability of adequate and timely transportation becomes crucial. Fifty-five percent of fruit and vegetable exports is transported by road to the Middle East, Western Europe and Eastern Europe, and 80% of this is carried by Turkish trucks. Road transportation is protected by legislation and Government regulations that pose an effective barrier to entry. Also, while the use of foreign transport companies is not prohibited, prior approval must be obtained from the Ministry of transport. A near monopoly situation exists and it appears that Turkish companies are able to charge rates up to 90% higher than foreign trucks. Thus, although the cost of transport to the Middle East on Turkish trucks is raised by reason of the fact that the trucks have to return empty, profits are made in the industry. At the same time, Turkish exporters report inefficiency and unreliability as characteristics of the transport system.

7.72 As a consequence, larger exporters own fleet of trucks for operation to the Middle East, and charter sea-vessels directly for sea-transport to these countries. Small exporters, however, find such arrangements difficult to make and they are forced to rely on Turkish transporters.

7.73 Fruits and vegetables exporters enjoyed an indirect tax rebate until 1979 when these incentives were removed. (There are however no export taxes unlike in other sub-sectors of agriculture). At the same time, (a) the export credit system continues (b) the foreign exchange retention scheme has been extended to cover exports of fruits and vegetables; and (c) the foreign exchange allocation scheme has been introduced. These schemes may remove some of the problems exporters have with respect to the poor quality and high price of packing materials (it has been estimated that the price of corrugated cartons was double that of imported cartons). However, the removal of the tax rebate appears objectionable since it is a compensation to exporters for the indirect taxes they have paid.

Fruit and Vegetable Processing Sector

7.74 Table 7.16 indicates the capacity of Turkey's fruit and vegetable processing sector. Except for tomato paste, the industry is small. The raw material handling capacity of tomato products industry is about 700,000 tons of tomatoes, compared to the fruit juice concentrate industry which has a capacity of 220,000 tons, and that of the canning industry which can handle only about 40,000 tons of produce.

7.75 There is underutilization of capacity in all these industries, the problem being most severe in the fruit juice concentrate industry. A number of factors have lead to this situation, including: (a) over-investment in relation to markets and raw material supplies, (b) shortage of raw material supplies arising out of domestic and foreign demand for fresh produce, (c) shortage of working capital and imported tin plate, (d) inadequacies of the incentives for export and exploitation of foreign markets.

7.76 Between 1973 and 1980, production of tomato paste has increased at a rate of 17% per year. On the other hand, exports increased from about 9 thousand tons in 1972 to a peak of 28 thousand tons in 1977 and have since declined to 19 thousand tons in 1980. Capacity utilization reached a peak of 68% in 1974 and has since declined to around 58% in 1980. In 1977, the tomato paste industry supplied 18 thousand tons of paste to Western Europe, 6 thousand tons to the Middle East, and nearly 3 thousand tons to Japan, and Canada. A substantial part of the exports to Western Europe were to the EEC, including 4.6 thousand tons to Italy which experienced a bad crop in 1977. This growth declined to a considerable extent after 1977, however, as indicated in paras. 7.86 and 7.105.

7.77 Data on the fruit juice extraction and fruit puree (paste) industries are extremely sketchy. As pointed out earlier, this industry suffers from an extremely low level of capacity utilization (about 36%).

Table 7.16: Fruits and Vegetable Processing Sector: Capacity Utilization and Performance

	1980 Capacity (tons/year)	1980 Utilization (percent)	Raw Material used in 1980 (tons)	Exports in 1980 (tons)	Value in 1980 ($ 000)
TOMOTO PASTE	110,500	57.8	383,214	18610	11,806.0
Other Tomato Products					
(1) Peeled tomato	10,000	1.0			
(2) Tomato juice	160	100.0			
(3) Ketchup	800	75.0	5340		
(4) Dehydroted tomato	30	90.0			
FRUIT JUICE CONCENTRATES a/	220,000	36.0	79,500		
(1) Citrus concentrates	42,000		15,000	290.7	989.2
(2) Apple concentrates	60,000		21,600		
(3) Others (including pulp)	118,000		42,500	762.8	
of which: sour cherry concentrate	80,000				
CANNING	40,000	57.5	23,100		
(1) Fruits	10,000	30.0	3,000	2,550	1,580
(2) Vegetables	30,000	67.0	20,100	974	689
FREEZING					
(1) Frozen storage	45,551			1,753 b/ (fruit)	1,652
(2) Freezing tunnels	23,775 cubic meters			680 (vegetables)	326

a/ Capacity is in terms of raw-materials that can be handled.
b/ The data is for 1979.

Note: Raw material used is estimated by using capacity utilization data and average conversion ratios for the extracts.

Exports of fruit juice concentrates have increased quite substantially between 1975 and 1980. Citrus fruit concentrates have increased from only 21 tons in 1975 to nearly 300 tons in 1980, a growth rate of 70% per year, while other concentrates' (and puree) exports (mostly sour cherry and peach) have grown from 30 tons in 1975 to about 1,000 tons in 1980. Yet, total quantities produced and exports remain small; in 1980, it is estimated that altogether about 8,000 tons of concentrate was produced.

7.78 Even in 1980, the bulk of citrus concentrate export went to Western Europe, in particular, Austria, Germany and the United Kingdom, while exports of non-citrus concentrates and fruit pulp were to Germany, Canada, and Italy. The Arab market remains unexploited. Most of the concentrates are exported in large refrigerated steel tanks, and are retailed in foreign markets by the importer.

7.79 Data compiled (see Table 7.17) shows that with domestic inflation and severe currency over-valuation, after 1977 Turkish tomato paste exports as well as the exports of other concentrates have become non-competitive. Details of costs of production are available only for the tomato paste industry. According to a TSKB study, the cost of raw material, i.e. industrial tomato is about 44% and 28% of the cost to processors in Greece and Italy. However, in the latter two countries, tomato prices are supported by the Government, and the processors receive a compensation in the form of an export subsidy (48 cents per kilogram in Italy and 27 cents in Greece).

7.80 The price of tin cans in Turkey is about 50% higher than in Italy, Greece and Morocco. About two-thirds of tin plate consumed is locally produced and the rest is imported. (The cif price in 1979 of imported tin plate was $778 ton compared to the price of tin plate sold by the government at $1,020 per ton). The foreign exchange allocation scheme in operation since June 1980 allows for duty-free imports of tin plate, and will reduce the unit cost of tin plate to processors, although processors can import only a part of their total requirements, i.e. the part that can be financed out of their foreign exchange allocation. For the rest, they will continue to rely on domestic supplies.

7.81 Finally, although labor costs as a proportion of total costs in Turkish tomato paste industry (i.e. 22%) is comparable to that of Morocco, it appears that the processing plants use highly automated technologies. The less than full capacity utilization of these machines and the relatively limited use of labor have led to large per unit overheads, generally 50% higher than in Italy and Greece, representing 50% of processing costs, i.e. double that of labor costs. It appears therefore that while the industry has suffered in recent years from a decline in competitiveness associated with inflation and currency overvaluation, structural problems, i.e. costly packaging materials and low labor intensity have hindered its development. Exports of processed fruits and vegetables are therefore crucially dependent on export incentives, such as the tax rebate, subsidized export credit, and the subsidies implicit under the foreign exchange allocation and retention schemes. It has been

Table 7.17: ESTIMATED COSTS OF PRODUCTION OF FRUIT JUICE CONCENTRATE AND PULP, 1980

($ per ton of output)

	Cost of Fruit (1)	Ex-Factory Price (2)	(2-1=3)	Cost of Packaging Materials a/ (4)	Processing Cost (3-4=5)	Processing Cost Per Kilogram (cents) (6)	F.O.B. Price (7)	NPC (2)/(7)
Apple Juice	397.8	1,017.1	619	160	459	45.9	540.9	1.88
Sour Cherry Juice	1,428.7	1,885.3	456	160	296	29.6	2,846.7	0.66
Apricot Pulp	170.1	595.1	425	160	265	26.5	489.6	1.22
Peach Pulp	136.1	581.4	445.3	160	285.3	28.5	546.5	1.06
Citrus Concentrate	n.a.	1,000	n.a.	n.a.	n.a.	n.a.	900.0 b/	1.11
Tomato Paste	206.0 c/	701	497	173	324	32.4	550.0	1.27

a/ The cost of packing in 5 kg tins and wooden cartons containing 6 tins.
b/ Brazilian (Santos) juice concentrate.
c/ Includes a discount of 16% on bulk orders.
d/ 29% of the processing cost is attributable to fuel, 22% to labor, and the rest to depreciation, amortization and other overheads.

Sources: TSKB, Sector Report on Tomato Processing Industry, 1981.
TSKB, Preliminary data, part of an evaluation report of a proposed fruit juice plant, provided by TSKB.
Mission Estimates.

estimated that for the food processing sector, the combined export subsidy rate (incentives of the duty-exemption on imports of raw materials) was 11.7% in 1979; it declined to 9.8% in 1980 largely because of the elimination of the tax rebate.

D. Market Prospects for Agricultural Exports

1. Agricultural Exports to the EEC and the Middle East

7.82 Turkey's geographical proximity to the large EEC markets has made the EEC its major trade partner. As Table 7.18 indicates, the EEC's share in Turkey's exports was substantial in the beginning of the 1960s, particularly for raw cotton, cotton linter, woven cotton fabric, olive oil, edible nuts, raisins, figs, citrus and other fruit, and frozen fish. Over the 1963-79 period the share of the EEC in Turkey's agricultural exports declined in the case of most export crops, including tobacco, cotton and fresh fruits and vegetables, except for dry fruits, and some other staple exports such as pulses and olive oil.

7.83 Tobacco exports to the EEC declined at a rate of about 4% a year during the 1970-79 period, while total exports remained approximately unchanged. Exports of raw cotton to the EEC fell at a rate of nearly 15% a year, double the rate at which its total exports declined. Also, the growth rates of exports to the EEC of most fruit crops have been substantially lower than the growth rates of total exports of these crops, and have in fact been negative for several fruit crops, compared to respectable rates of growth for their total exports. Finally, the growth rate of the exports of tomato paste to the EEC declined at a rate of 22% a year, compared to a growth rate of 14% for total exports. A similar picture obtains for other paste exports.

7.84 The changing pattern of Turkey-EEC trade in agricultural products reflects a number of factors. First, trade agreements between Turkey and the EEC have changed over the last two decades through various amendments to the original Agreement of Association signed in 1963. Thus tariff quotas were established in 1973 for tobacco, raisins, dried figs and hazelnuts, and subsequently for oil-cake, pulses, olive oil, various textiles and, most recently, for tomato and apricot paste. At the same time, by 1978, 37% of Turkey's agricultural exports under quota, including tobacco, raisins, figs and pulses, had zero tariffs, while hazelnuts, olive oil and apricot paste received varying degrees of tariff concessions. Raw cotton stands out as an exception since it is imported duty free into the EEC, while cotton manufactures are subject to tariff-quotas[1]/.

7.85 The EEC's import regulations have been most stringent with respect to fresh fruits and vegetables. These products are subject to a common tariff which may vary seasonally. For all fruits (except grapefruit) of relevance to Turkey and for a few vegetables (tomatoes, potatoes, cucumbers) in addition a variable levy may be imposed in the main season to prevent prices from falling below EEC "reference" prices. For all other vegetables no variable levies can be imposed and seasonal

1/ A tariff quota restricts imports to a quota within which tariff concessions are permitted.

Table 7.18: THE SHARE OF EEC IN AGRICULTURAL EXPORTS OF TURKEY

	1963	1970	1979	EEC Growth Rate 1970-79	Growth Rate of Total Exports
Wheat	0	0	28.7	-	13.7 5/
Wheat flour	0	44.7	12.0	71.9	93.6
Tea	0	0	4.9	-	-3.5
Tobacco	15.9	32.5	24.0	- 3.91	-0.7
Cotton (Raw)	77.0	55.8	29.3	-14.6	-7.7
Cotton (linter) 3/	83.2	82.7	76.0		
Bleached Cotton Yarn 3/	0	73.3	97.6		
Woven Cotton Fabric 3/	88.7	41.0	85.3		
Pulses	27.7	21.4	29.6	19.2 1/	14.5
Olive Oil	95.7	24.5	67.1	85.6	41.1
Roots (i) Potato	0	0	4.0	-	9.4
(ii) Onion & Garlic	12.0	32.9	1.0	6.2	57.4
Edible nuts	57.4	64.3	63.3	7.4	7.6
Raisins	80.3	73.0	72.7	0.8	0.8
Dry figs	63.3	62.3	50.6	-0.2	2.1
Oranges & Tangerines	75.6	35.1	3.8	-17.6	5.6
Lemons & Grapefruits	91.0	62.4	11.1	-5.0	15.6
Apples	0	2.2	0.6	37.1	57.6
Fresh Grapes	72.2	69.5	33.8	-15.7	-8.7
Stone Fruits	83.0	87.9	2.7	-28.7	4.8
Pears	-	100.0	22.0	50.1	65.4
Other Fresh Fruits	70.1	45.8	4.8	39.8	43.3
Tomato	38.0	87.9	0.2	-1.0	93.9
Other Vegetables	n.a.	64.5 2/	31.1	56.6	76.7
Fruit Juice and Conc.	0	0	23.3	-	
Jam and Jelly	39.5	49.8	63.9	2.60	
Frozen Vegetables		100.0	100.0	82.8	8.28
Tomato paste	-	58.0 2/	12.8	-21.5	14.3
Other paste	-	46.6	76.4	-14.6	3.7
Fresh Fish 3/	10.1	11.4	20.1	-3.2	-9.1
Frozen Shell Fish 3/	96.0	65.3	95.8	6.8	2.4
Tinned Fish 3/	-	88.3	20.3 4/	13.6 1/	35.9 1/

1/ Growth Rate refers to the period 1970-78.
2/ 1973
3/ Value shares.
4/ 1978.
5/ 1972-79.

regulation of imports takes the form of seasonal changes in the tariff rate. The EEC tariffs on non-tropical processed fruits and vegetables, including tomato paste, have been quite high at 15% to 30%.

7.86 Second, a shift away from Western Europe has occurred in the horticulture exports of Turkey. In recent years, the Middle Eastern markets have assumed importance, absorbing in 1979 45% of Turkey's exports of oranges, practically all of its exports of apples, 55% of the exports of grapes, 78% of stone fruit exports, and nearly 100% of the exports of early-season tomatoes, potatoes, onions and a few other vegetables. In 1980, 75% of Turkey's tomato paste exports went to the Middle East although processed fruit exports were negligible. Further increase in exports of fresh fruit to these countries will depend on (a) the rate at which demand for these products can be expected to grow and (b) whether Turkey can expand its market share.

7.87 Compared to the EEC markets, the size of the market in the Middle East is small. The capital surplus oil exporting countries, i.e., Iraq, Libya, Saudi Arabia, and Kuwait) have a population of about 30 million in 1980. However, these countries have some of the highest levels of per capita income in the world (over $6,000 in 1980). It is also possible that the import elasticity for fruits and vegetables is higher than for the EEC, particularly since the countries lack a strong agricultural base. Finally, Turkey's share in total imports of horticultural products by the capital-surplus Middle Eastern countries amounts to only about 8% of total tonnage.

7.88 Most Middle Eastern markets appear to be adequately organized, with import trade concentrated in the hands of few buyers. These importers are the area's exclusive traders, own cold storage facilities, refrigerated trucks and subsidiaries that handle the distribution of their goods. Purchases are typically made at fixed prices and payment is on delivery.

7.89 It appears therefore that there is considerable scope for improving Turkey's market share in the Middle Eastern countries in spite of their small population base. In addition, Turkey should be able to export directly to consuming markets instead of allowing third countries to re-export.

2. Prospective Developments

7.90 Two developments will affect Turkey's trade in agricultural products with the EEC. First is the recent entry of Greece into the Common Market and the imminent expansion of the Community to include Spain and Portugal. The effects of the enlargement will be detrimental to EEC imports from third countries in virtually all primary non-tropical agricultural products. Turkey is especially vulnerable because its agro-climatic characteristics are similar to those of the three new EEC countries. Second, the Common Market has signed an agreement to eliminate in stages [1]/ all tariffs on agricultural imports from Turkey by 1987,

[1]/ The first reduction of 30% occurred in 1981.

although the advantages to Turkey will be less than it appears at first sight. This is because: (i) the tariff concessions apply only during the off-season for horticultural produce, (ii) a number of products are subject to various levies and (iii) wherever quotas exist the concessions are applicable only to imports within the quotas. The prospective impact of EEC enlargement and tariff concessions are discussed in the following, with further attention given to market prospects in the Middle East.

Cotton:

7.91 Since raw cotton is imported into the EEC free of duty, market prospects are not altered by either enlargement or tariff concessions. Thus, in view of the favorable prospects for cotton on the world market in general, and the EEC in particular, Turkish exports of raw cotton and also yarn could grow rapidly if Turkey did not discourage exports of raw cotton through the imposition of levies.

Tobacco:

7.92 EEC imports of tobacco from Turkey are subject to a quota; there are no tariffs on amounts imported within the quota. Greece, however, is also a sizeable exporter of oriental leaf; it is the third largest, after Turkey and Bulgaria. Within the Community, Greece can be assumed to increasingly displace other suppliers of oriental leaf, and FAO even hypothesized that the enlarged EEC may become a net exporter.

Livestock:

7.93 The bulk of EEC imports of live cattle, and beef enter under quotas. The global quota is shared by major exporting countries and some developing countries. Since Turkey does not have a quota, and also because trade in animal products in the EEC is carefully controlled for quality and diseases, there exists no scope in the short or medium term for any significant increase in Turkish exports of live cattle or beef to the EEC. However, in view of less severe restrictions on sheep and sheep-meat, there is some scope for future exports of Turkish sheep meat to the community. Nevertheless the major market for Turkish products will continue to be the Middle East, where Turkey has a sizeable comparative advantage first because of its geographic proximity, and second because, of all major livestock producing countries, it is one of the few that can supply meat slaughtered in accordance with Moslem rituals.

Raisins, Figs, Hazelnuts:

7.94 Turkish exports of raisins, figs and hazelnuts have enjoyed duty free entry into the EEC within a fixed quota. The size of the quota for hazelnuts will remain at 25,000 tons while quotas for raisins and figs will be removed in 1981.

7.95 The enlargement of the Community will have little impact on the export prospects for these crops from Turkey. The main concern for the

Turkish government thus remains the achievement of an optimal level of exports, and the progressive diversion of land from these crops to either other nuts (including pistachio) that enter duty free or other crops altogether.

Tea:

7.96 Imports of tea in the EEC account for over one third of world imports, while Greece, Spain and Portugal are small importers and do not grow tea. Turkey does not pay a duty on tea packed in bulk or in packets and on extracts of tea but its exports to the EEC are negligible. The possibilities for tea exports to the EEC therefore further reinforce the need for a price policy that leads to improvements in the quality of tea produced and in the efficiency of its production.

Pulses:

7.97 Pulses enjoy duty-free access to EEC markets. The quotas which were in effect earlier on imports from Turkey have been removed in 1981. Therefore, there appears to be no tariff or quota constraints to increasing Turkey's exports of these commodities to the EEC.

Olive Oil:

7.98 The EEC produces about one-third of world output (almost all in Italy) of olive oil and is about 80% self-sufficient. Imports vary widely to compensate for cyclical fluctuations in output, with Spain as major supplier. Imports are subject to a variable levy, equal to the difference between the import price and the internal EEC price. Special concessions on the variable levy have been granted to Spain, Turkey, Tunisia, Morocco and Greece.

7.99 The application of the higher EEC support levels to olive oil purchased in Spain will create some additional output. And while aids to producers of olive oil are restricted to areas planted prior to October 1978, yields can be expected to increase, particularly in the more fertile olive-growing regions of Spain. Overall, the new Community is likely to be self-sufficient, or even a net exporter with variable levies continuing to be in force. The recent reduction of duties to zero is unlikely therefore to enhance Turkey's export prospects in the Common Market.

Citrus Fruits:

7.100 Table 7.19 shows the the structure of the common external tariff and the special concessions granted to Turkey, inclusive of the 1981 reduction in duties by 30%. Except for grapefruit, which are admitted freely throughout the year, citrus fruits are subject to import tariffs as well as to the reference price system. The structure of protection is designed to protect Italian producers during the main growing season, even though the EEC has a deficit in citrus production.

Table 7.19: EEC COMMON TARIFFS ON CITRUS FRUIT IMPORTS AND CONCESSIONS TO TURKEY

		Common External Tariff (%) 1980-81	Special Concessions to Turkey (inclusive of agreement of June 1980) (%)
Oranges	April 1 - April 30	13	3.6
	May 1 - May 15	6	free
	May 16 - Oct 15	4	free
	Oct. 16 - March 31	20	5.6
Lemons	Throughout the year	8	2.8
Tangerines	Throughout the year	20	5.6
Grapefruit	Throughout the year	free	free

Note: The reference price system is in effect during the months of December to May for oranges, June to May for lemons and November to February for mandarins.

7.101 Turkey has an early season advantage in citrus production that is comparable to that of Spain (which supplies 40% of EEC imports, including practically all of the EEC's early season imports), but it is not comparable to that of Israel, Morocco and South Africa. Over time the share of the EEC in Turkish exports has declined and only in lemons are there significant amounts of off-season exports.

7.102 As shown in Table 7.20, Turkish exports have increasingly shifted to nearby markets in Eastern Europe and the Middle East. This tendency will be accentuated by the enlargement of the Community and in particular, the inclusion of Spain. Although EEC tariffs will be removed by 1987, imports in the main season will be subject to variable levies which will override the tariff concessions. In the off-seasons, Turkey is unlikely to be able to compete with Spain or with the North and South African countries.

Table 7.20: DISTRIBUTION OF CITRUS EXPORTS FROM TURKEY, 1973 AND 1979 (percent)

		Oranges	Lemons	Satsuma	Grapefruit
W. Europe	1973	3.2	34.4	75.4 a/	40.1
	1979	3.0	17.1	64.4 a/	14.8
E. Europe	1973	80.0	70.0	24.5	58.8
	1979	52.6	71.6	26.8	79.4
Middle East	1973	16.4	0.2	0.1	1.1
	1979	44.3	11.3	8.8	5.8
Total		100	100	100	100

a/ Mostly to Austria

Other Fruits:

7.103 Turkey does not appear to have an early season advantage in the production of non-citrus fruits since these are grown largely in the Western and Central areas of the country. The only non-citrus fresh fruit exports to the EEC in the sixties and early seventies were table grapes. However, grape exports declined from 11 thousand tons in 1971 to 3 thousand tons in 1979 as Turkey was unable to compete with Spain even though both faced full Common Market tariff, and were subject to the variable levies in the main season. With the inclusion of Spain in the EEC, the prospects for grape exports have become even less favorable.

Vegetables:

7.104 Just like fruits, vegetables are subject to a higher import tariff during the main EEC production season. However, unlike fruits, most vegetable imports (with the exception of tomatoes and cucumbers) are not subject to variable levies and are only regulated through variations in tariffs (See Table 7.21). Even prior to the latest tariff reductions, some Turkish vegetable exports, including bell peppers, eggplants and green beans, had enjoyed a reduction of about 50% on the common tariff, contributing to the growth of exports of leeks, bell peppers and eggplants to West Europe. (See Table 7.22).

7.105 In 1973, Turkey exported 16 thousand tons of tomato paste to Western Europe, and only about 600 tons to the Middle East. In 1977, when exports peaked, Turkey had exported 18 thousand tons to Europe, and 6 thousand tons to the Middle East. By 1980, Turkey's exports to Europe had fallen to 3.9 thousand tons, of which only 2,500 tons went to the EEC, while the share of the Middle East was nearly 75%. The dramatic decline in the share of Western Europe, which has not been fully compensated by the increase in exports to the Middle East, has been attributed to increasingly difficult access to the EEC.

7.106 Since the new agreement of June 1980, an import quota of 16,500 tons per year has been agreed upon for Turkey within which a gradual (30% in the first year), reduction in tariffs will take place as that, by 1987, all duties will be removed. The replacement of the tariff-reference price system by the quota-tariff system is clearly an advantage. An FAO study 1/ shows that while at present 49% of EEC imports of processed tomatoes are from third-countries (including Morocco, Turkey and Israel), the inclusion of Spain, Greece and Portugal in the EEC will reduce imports from third countries immediately to about 10% of total imports, i.e., about 25-30 thousand tons. Turkey's quota for tomato paste

1/ FAO, Commodity Review and Outlook, 1979-80.

Table 7.21: EEC TARIFFS AND CONCESSIONS TO TURKEY

(inclusive of the June 1980 agreements)

		CCT	Turkey
Tomatoes	May 15 - October 31	18	12.6 a/
	November 1 - May 14	11	7.7 a/
New Potatoes	January 1 - May 15	15	10.5 (Jan. - March)
	May 16 - June 30	21	21
Onions	February 15 - May 15		3.3
	Other times		CCT
Bell Peppers	All the year	9.0	3.1
Eggplant	All the year	16.0	CCT
	January 15 - April 30		4.4
Leek	All the year		9.1
Cabbage	April 1 - November 30	15	10.5
	December 1 - March 31	13	9.1
Cucumbers	May 16 - October 31	20	14.0 a/
	November 1 - May 15	16	11.2 a/
Green Beans	October 1 - June 30	13	13.0-3.6
	July 1 - September 30	17	17.0
	November 1 - April 30	13	3.5 (from Nov.-April)
Green Peas	June 1 - August 31	17	7
	September 1 - May 31	12	11.9
Asparagus	All the year	16	11.2

a/ These imports are subject to the reference price system.

of 16.5 thousand tons (compared to Turkey's exports of about 2,500 tons in 1980) therefore offers to Turkey a substantial share of the residual imports in a market that is highly protected, and where excess supply conditions prevail. The gradual reduction in tariffs should make Turkish exports mor competitive. With the growing Middle Eastern markets in which Turkey already has a share, the prospects for tomato paste exports from Turkey are not bleak, provided the cost structure of the industry is rationalized and competitiveness improved.

7.107 The EEC presently imports 80% of its citrus fruit concentrates and it is projected to continue importing 63% of its requirements from third countries after enlargement. The major suppliers are Israel and Brazil. As Turkish exports of citrus products will not be restricted by quotas and will have the advantage of progressive reduction and eventual elimination of the tariff, they may expand in the future.

7.108 The Middle Eastern market for fruit extracts in general and citrus products in particular is largely unexploited. At the same time, the prospects for sustained growth may be greater in citrus products than in tomato paste or tomato concentrates because of their low levels of consumption at present.

Table 7.22: EXPORTS OF FRESH VEGETABLES FROM TURKEY

(metric tons)

	W. Europe		E. Europe		Middle East	
	1973	1979	1973	1979	1973	1979
Tomatoes	nil	97	nil	660	24	31,546
Potatoes	1,280	40	0	nil	17,473	10,338
Leeks	0	4,913	0	0	0	3
Carrots	0	0	0	0	0	81
Fresh Beans	27	0	0	0	0	412
Bell Peppers	34	1,280	0	0	3	386
Cabbage	0	0	0	0	0	805
Eggplant	16	139	0	0	140	1,059
Other Vegetables	243	183	0	0	9	4,924
Onions	1,014	1,436	0	2,000	1,209	80,826
Total	2,615	8,388	0	2,660	18,859	130,380

E. Agricultural Sector Model

1. Static Simulations

7.109 Because of Turkey's complex agricultural product structure, it is not possible to analyze the question of comparative advantage and appropriate production patterns for each agricultural product in isolation from the others. In order to take into account possible alternatives, we have used a simulation model of the agricultural sector. The model permits examining Turkey's comparative advantage in agriculture and the pattern of production and trade under alternative trade regimes as well as over time.

7.110 The model has been validated by comparing its solution to the base year (1978) statistics for production, consumption, trade, factor use and prices. As shown in Annex 7.2, despite the high level of aggregation, the model solution closely approximates the base year data for the majority of products under consideration. The model, however, predicts a much lower cotton production than the actual level, while the opposite conclusion applies to vegetables. This discrepancy may be related to the fact that the production of cotton is more attractive than that of vegetables to large farmers since cotton is less labor intensive and does not require the close supervision fruits and vegetables need.

7.111 The first experiment to explore the extent of comparative advantage for each product is generated by the hypothesis that world market prices and the equilibrium exchange rate would become fully effective in the base year, 1978. In order to take into account the inevitable rigidities that would limit specialization, the assumption is made that the production of any crop or animal product could not fall to less than 75% of the base year level. The marketing limitations discussed in section D have also been taken into account by assuming less than perfectly elastic foreign demand for traditional exports, roots, pulses and vegetables.

7.112 The results reported in Table 7.23 indicate that a movement to free trade would lead to a 39% increase in agricultural production and a four fold increase in the sector balance of trade. Production increases would be concentrated in feed grains, industrial crops (tobacco and cotton), pulses, vegetables, fruits and ovine products. Except for the minor grains (rye, oats and millets), the production of cereals would decline as would that of other import-substituting crops, such as sunflower, and sugar beet. There would also be a decline in beef and dairy products.

7.113 A comparison of the predicted magnitudes of growth with the domestic resource cost (DRC) ratios shows that a DRC of less than one is a necessary but not a sufficient condition for the expansion of production and there appears to be no connection between the magnitude of the DRC and the predicted amount of expansion or contraction of production. This result underlines the fact that, due to the existence of surplus labor and the under-utilization of mechanical equipment and irrigated land, the shadow prices of most domestic resources in the base year are very low.

Table 7.23: FREE TRADE SOLUTION - EQUILIBRIUM EXCHANGE RATE
(thousand metric tons)

	Production	Consumption	Export	Import	DRC Coefficients Before	DRC Coefficients After
Wheat	13,650 (11.27)	7,786 (-26.79)	3,918		.58	1.53
Corn	974 (-10.15)	1,020 (-5.90)		146	1.59	4.04
Rye, oats and millets	4,432 (+31.6)	870 (-13.60)	3,563		.32	.99
Rice	226 (-34.7)	208 (-14.40)		71	.51	1.59
Barley	3,568 (-19.24)	2,344 (-19.34)	17		.42	1.04
Sunflower	364 (-30.40)	444 (-15.11)		80	.75	1.47
Sugar beet	7,107 (-27.40)	8,800 (-10.11)		1,693	1.17	4.13
Tea (-14.04)	96 (-22.32)	87	9		.38	.73
Tobacco	656 (+100.61)	159 (-36.40)	497		.18	.38
Cotton	358 (+87.43)	159 (-16.75)	199		.65	2.04
Roots	4,050 (-1.46)	3,950 (-3.21)	100		.22	.48
Pulses	1,290 (+36.8)	790 (-4.82)	500		.25	.54
Grapes	3,499 (0.0)	3,151 (-4.43)	348		.42	.79
Olives	827 (-25.02)	1,188 (+7.71)		361	.81	.42

Table 7.23: FREE TRADE SOLUTION - EQUILIBRIUM EXCHANGE RATE (continued)
(thousand metric tons)

	Production	Consumption	Export	Import	DRC Coefficients Before	DRC Coefficients After
Vegetables	17,044 (+29.14)	12,787 (-3.04)	4,258		.81	.79
Citrus	922 (-20.72)	922 (-9.87)			.66	1.58
Hazelnuts	233 (-20.48)	86 (-34.4)	147		.37	1.04
Fruits	3,069 (+24.25)	2,353 (+4.97)	716		.84	1.09
Beef	340 (-12.82)	172 (-51.41)	168		1.54	1.09
Cow milk	3,450 (-12.00)	3,460 (-12.01)			1.43	1.09
Mutton	767 (+45.82)	338 (-32.13)	429			
Wool	125 (+47.06)	60 (-15.5)	64			.39
Ewe Milk	2,995 (+45.81)	2,120 (+3.21)		-	.17 -	.39
Total (at world prices)	(+39.34)		(+412)*		.48	.83

Note: Numbers in parenthesis are % variations with respect to the base solution.

* percentage increase in trade balance.

Table 7.24: FREE TRADE SOLUTION - WITH MINIMUM CONSUMPTION CONSTRAINTS
(thousand metric tons)

	Production	Consumption	Export	Import
Wheat	14,679 (-4.58)	11,743		
Corn	974 (-18.15)	1,183		326
Rye, oats and millets	1,686 (+57.87	957	730	
Rice	226 (-34.68)	239		
Barley	4,735 (+7.17)	3,125		115
Sunflower	364 (-30.4)	485		121
Sugar beet	7,107 (-27.40)	9,075		1,968
Tea	96 (-14.04)	92	4	
Tobacco	656 (+100.0)	211	446	
Cotton	358 (+87.4)	197	161	
Roots	4,006 (-2.53)	3,906	100	
Pulses	1,290 (+36.33)	791	500	
Grapes	3,500 (0.00)	3,151	348	
Olives	827 (-25.02)	1,188		361
Vegetables	17,044 (+29.14)	12,787	4,258	
Citrus	941 (-19.09)	941		

Table 7.24: FREE TRADE SOLUTION - WITH MINIMUM CONSUMPTION CONSTRAINTS (continued)
(thousand metric tons)

	Production	Consumption	Export	Import
Hazelnuts	233 (-20.48)	143	90	
Fruits	3,069 (+23.9)	2,353	707	
Beef	342 (-12.30)	239	103	
Cow milk	3,480 (-11.50)	3,460		
Mutton	767 (+45.82)	356	411	
Wool	125 (+46.08)	61	61	
Ewe Milk	2,995 (+45.81)	2,120		
Total (at world prices)	(+19.95)		(+265)*	

Note: Numbers in parenthesis are % variations with respect to the base solution.

* percentage increase in trade balance.

Changes in these shadow prices, associated with the expansion of production under free trade, are indicated by comparing DRCs before and after the trade induced expansion (at the last two columns of Table 7.23).

7.114 Because the decreases in the consumption of several crops implied by the free trade solution appear excessive, a second set of results is presented in Table 7.24, where the movement of world market prices is limited to the production sector while consumption is assumed to be kept at the base year level by the use of taxes and subsidies. Such a constrained solution would imply a lower, but still substantial expansion of agricultural production (20%) and trade balance (+265%). The ranking of products by predicted changes in production would, however, be very similar to the free trade solution without a consumption constraint.

2. Dynamic Simulations

7.115 Further indications of the impact of alternative trade policies may be obtained by solving the model for a future year. For these simulations, we have selected 1990 as a long term horizon sufficiently far from the base year to permit making the assumption that the adjustments to the free trade pattern would be fully carried out. The calculations assume that GNP increases at 3% per year for the first three years and 4% thereafter and other variables, such as yields and investment, increase at the rates realized in the past decade (for more detail, see Annex 7.1).

7.116 The results shown in Table 7.25 are generally consistent with the static solution results presented above. They imply that a policy of trade liberalization and realistic exchange rates would cause production and exports of tobacco, cotton, fruits, vegetables, and livestock to grow in excess of historical rates. In turn, the production of wheat, barley and roots would not grow or grow at rates below historical rates. Finally, corn, rye, rice, sunflower, sugarbeet, and olive oil would experience a decline. All in all, the growth rate of the agricultural sector could average a yearly rate of 5.7% between the base year (1978) and the projection year (1990), a substantial improvement over the historical record of 3%.

7.117 An examination of the shadow prices of the resource constraints shows that irrigated land is the most tightly binding constraint for the development of Turkish agriculture, while other types of land, as well as labor and machinery, have relatively low marginal productivity. Efficient use of irrigated land is thus crucial to improve agriculture's development performance and should be favored by appropriate price incentives and water charge policies.

Table 7.25: VALUE ADDED: PROJECTED COMPOUND RATE OF ANNUAL INCREASE (%) UNDER FREE TRADE (1990)

Product	Production	Area (or no. of (animals)	Value added per ha (or per animal)	Total Value added	Historical Rates of increase in Production (1975-1980)	(1960-1979)
Wheat	-0.01	-0.82	+3.81	+2.99	+3.59	+4.23
Corn	-0.43	-1.66	+2.21	+0.55	-0.83	+1.80
Rye, oats and millet	-0.92	-2.14	+5.87	+3.73	-4.53	-1.28
Rice	-2.29	-3.47	+1.53	-1.94	+13.33	+2.11
Barley	+2.34	1.09	+2.91	+1.82	+ 4.67	+1.75
Sunflower	-1.79	-2.98	+1.65	-1.33	- 0.24 *	+10.99
Sugar Beet	-1.43	-2.65	+1.78	-0.87	+5.33	+5.87
Tea	+0.43	-0.74	+4.00	+3.26	+18.79 *	+13.53
Tobacco	+7.29	+5.97	+0.49	+6.46	+3.33	+4,22
Cotton	+6.68	+5.36	+2.90	+8.26	-0.87	+4.80
Roots	+0.94	-0.29	+2.49	+2.20	+3.28	+3.98
Pulses	+4.85	+3.56	+2.18	+5.74	+3.73	+3.11
Grapes	+1.35	+0.10	+4.63	+4.73	+0.61	+0.68
Olives	-1.15	+1.92	+4.41	+6.33	+2.38	+1.59
Vegetables	+5.94	+11.67	+8.00	+19.67	+5.04	+ -
Citrus	+2.43	+1.52	+1.52	+3.03	+4.90 **	7.86
Hazelnuts	+0.52	-1.89	+2.48	+0.59	+0.00	+8.02
Fruits	+6.44	+3.80	+6.81	+2.92	+3.74 **	-
Beef	+1.89	+1.74	+0.11	+1.85	-6.41 *	-
Cow-milk					+2.35	-
Mutton	+3.19	+3.19	+0.0	+3.19	-2.25*	-
					+2.13	-
					+2.11*	-
Total		+0.43	+5.25	+5.68		

* 1975-1978
** 1975-1979

F. Recommendations

7.118 It has been noted that agricultural growth was hampered by government policies in the past. To begin with, agricultural exports were taxed through overvalued exchange rates and/or levies and government policies that have chiefly benefited import substituting crops, such as wheat and sugar beets, to the exclusion of potential foreign exchange earners, such as horticultural products and livestock. Also, public capital formation was concentrated in large irrigation projects, neglecting investments in infrastructure while private investments were concentrated in mechanization that received direct and indirect subsidies while other types of investment were neglected. Finally, apart from favoring capital-intensive activities, subsidies to credit, machinery, fertilizer and water encouraged inefficient resource use and often benefited large farmers.

7.119 The 1980-81 policy reforms have brought improvements in several respects. The large devaluation of the exchange rate has provided incentives to exports; reductions in consumption subsidies have led to the more rational pricing of foodstuffs and to lower budget deficits; and increases in the prices of fertilizer and plant-protection materials have encouraged their more efficient use.

7.120 The following recommendations aim at further improvements in the context of Turkey's outward-oriented development strategy. Because in the past excessive emphasis has been placed on income support objectives at the expense of comparative advantage considerations, these recommendations are limited to measures necessary for Turkey to tap the large efficiency gains that are possible from better exploiting the country's agricultural potential. Clearly numerous infrastructural and institutional constraints will need to be addressed to exploit the country's full comparative advantage. These include measures to improve agricultural research, extension, and veterinary services, infrastructure, and marketing information and promotion systems. However, because these are beyond the scope of this report, the following considerations concentrate on market incentive measures pertaining to individual products and major inputs.

1. Product Policies

Wheat, Barley, and Cotton, etc.

7.121 For traded crops such as wheat, barley, and cotton, for which Turkey holds a small share of the world market, there is need for taking additional steps in the direction of freer trade and less government intervention. This would mean further encouraging private sector involvement in foreign trade; letting domestic prices adjust to the trend prices on the world market, with interventions limited to setting guaranteed floor prices that would assure farmers the recovery of costs in years of low world prices. In years of high world prices, on the other hand, an export tax would be levied to keep domestic prices at desired levels, and to generate revenue for the funding of government intervention measures.

7.122 Floor prices should be announced in advance of the planting season and would function as a quasi-insurance to farmers, thereby avoiding income losses and providing inducement to engage in potentially remunerative but risky activities. Floor prices should be fixed at a level much below expected prices so that they would come into play only in years of exceptionally low world market prices.

7.123 Price policies should be complemented with a credit policy capable of providing the farmers with the funds needed to finance input purchases and the holding of stocks at realistic interest rates. In order to further contribute to income stability, a crop insurance system could be introduced to provide a compensation for crop failures and reduce this risk of default. Finally, in order to achieve internal consumer price stability at reasonable prices, sufficient stocks of basic grains should be kept in the country. This may be achieved by the government holding stocks in wheat, while for other crops a system of flexible export levies and reliance on private stocks would be preferable.

Hazelnuts, Raisins, Dry Figs, Tobacco and Tea

7.124 At the producer level the price of traditional exports that face inelastic demand should be maintained at sufficiently low levels, so as to discourage undesirable expansion. At the export level, the price should be maintained at a level sufficiently high to avoid foreign exchange losses from decreasing marginal revenues.

7.125 The government could achieve the desired reduction in producer prices through a sizeable export tax. However, this would be too drastic a measure as a substantial share of Turkey's farming population depends on these crops for their livelihood (10% are reported to depend on hazelnut production). In particular, the perennial crops represent a large investment for the small producers. In the case of these crops, especially hazelnuts and tea, support prices should be reduced in real terms step-by-step over, say, five years to levels consistent with feasible export revenues through gradual changes in export taxes.

7.126 Producers of tobacco can respond to price signals within one year. However, the complete elimination of the tobacco support prices is not an immediate option and adjustments in prices over time should be complemented by the control of tobacco acreage. In the case of hazelnuts, quality standards should be set and marketing improved.

Sugar beet

7.127 Sugar beet is a special case since the procurement and processing of that crop, as well as the distribution of sugar is under state monopoly. Official government policy on sugar has been and continues to be self-sufficiency through import substitution.

7.128 Since our analysis indicates that Turkey has no comparative advantage in sugar production, the appropriateness of this policy should be questioned. While the disadvantages associated with inefficiencies could be corrected by introducing more modern production, storage and processing

techniques, others, such as climatic factors, will persist and hence consideration should be given to alternatives to sugarbeet, such as sugar, corn, groundnuts, and alfalfa.

7.129 Nevertheless, in making policy recommendations one must take into account the existence of the Sugar Factories Corporation that is in charge of processing and marketing of sugar. The Corporation has several large factories which must be treated as a sunk cost. Correspondingly, the Government should continue to procure sugar beets at a price which ensures sufficient domestic production to operate the factories at adequate capacity utilization, with the balance being imported. At the same time no further investment in sugar factories should be contemplated. Finally in order to reduce the costs to the Treasury, sugar should be priced at a level high enough to cover production and distribution costs. This will require further adjustments following recent increases in prices. Subsequent adjustments should be made to reflect increases in production costs.

Livestock

7.130 The remaining restrictions on the exports of live animals should be removed since Turkey holds a comparative advantage for exports to the Middle East markets which prefer to import live sheep. Also, meat exports should be encouraged by the establishment of an adequate cold chain and improvements in transportation. While health regulations limit beef exports to the EEC, frozen lamb is subject to less severe restrictions.

Fruits and Vegetables

7.131 In order to remove the transport bottlenecks, regulations limiting competition within the domestic transport industries should be discontinued and incentives should be provided for them. Also, foreign companies should be encouraged to expand their transport operations in Turkey either directly or via joint ventures with domestic firms. Finally, increases in public investment in roads and ports would be necessary to improve the quality and capacity of the road network, to upgrade port capacity, and to increase port handling equipment, storage capacity and other quay facilities.

7.132 In view of the infant industry nature of fruit and vegetable exports, the recent extension of the foreign exchange retention scheme to these exports and the introduction of the foreign exchange allocation scheme should be complemented by the removal of import restrictions on inputs such as packing material and by the inclusion of fruits and vegetables among products that are eligible for the additional indirect tax rebates.

2. Input Policies

Mechanization

7.133 Further expansion of the use of heavy mechanical equipment may be discouraged by a sales tax related in a progressive way to the horsepower capacity of the machine. Measures should also be devised to encourage and

increase the utilization of tractors and combines through rental and sharing arrangements as well as their replacement with smaller machines. At the same time, the subsidies implicit in the special lines of credit and subsidized loans for tractor purchases should be discontinued.

Fertilizer and Plant Protection Chemicals

7.134 We welcome the intention of the government to remove subsidies in the production and distribution of fertilizers over a five year period. Also, the private sector should be allowed to participate in the trade of these products.

Water Charges

7.135 Government has accepted the principle of raising water charges to more appropriate levels. This would involve, as a first step, recovering the cost of the irrigation schemes. Further steps would need to be taken to link water charges to the more efficient use of irrigated land. The water charges should be made of two parts: (a) a per hectare charge, independent of water use, increasing with the site of the irrigated area owned by the farmer, and (b) a volumetric charge, proportional to the amount of water used by the farmer and calculated as a percentage of value added per hectare of a moderately intensive cropping pattern.

CHAPTER 8

TOURISM

Introduction

8.1 Tourism accounts for more than one-tenth of merchandize exports of goods and services in Turkey. Although arrivals declined from a peak of 1.6 million in the late 1970s to 1.3 million in 1980 due to political and social uncertainties, Turkey should be able to reverse this trend and to increase its share of the Mediterranean tourism market which in total is expected to rise by about 6 percent a year during the 1980s.

8.2 Turkey's tourism assets include competitive prices (notwithstanding the higher cost of the air transport component), an attractive physical environment, with varied scenery, first-class beaches, an excellent climate, and outstanding sightseeing, including very extensive and diverse antiquities, Hittite, Greek, Roman, Byzantine and Ottoman. These are opportunities for touring the country and for "stay-put" beach resort vacations or a combination of both. The beach resort opportunities stretch along Turkey's 7,000 km of coastline, and particularly along the Aegean and Mediterranean coasts where the climate permits a 7-month season and where many of the outstanding antiquities are located.

8.3 These impressive assets have only just begun to be exploited. A measure of the untapped potential contribution of tourism to the Turkish economy is the relatively low ratio of international tourist receipts to merchandise exports and to GNP: 10.1 percent and 0.4 percent, respectively, in 1978. This compares with 21.6 percent and 4.2 percent, respectively, for Greece; 38.4 percent and 3.7 percent for Spain; 26.9 percent and 5.9 percent for Morocco; 35.6 percent and 6.6 percent for Tunisia; and 29.4 percent and 2.3 percent for Egypt.

8.4 This chapter analyses recent trends in international tourist traffic, tourist accommodations, employment, and foreign exchange receipts from tourism in Turkey. Then, on the basis of an examination of Turkey's competitiveness and the domestic resource cost of earning foreign exchange in tourism, the prospects until 1990 are evaluated. Finally, future policies required to achieve such prospects are considered.

A. Recent Trends

1. International Tourist Traffic

8.5 During the 1960s and early 1970s international tourist traffic to Turkey grew rapidly from small beginnings (Table 8.1). From less than 200,000 arrivals in 1963, the number of visitors exceeded one million for

the first time in 1972. After a small setback in 1974 following the first oil crisis, traffic rebounded to 1.5 million in 1975, a somewhat more rapid recovery than in most competing destinations. Arrivals stabilized at 1.6-1.7 million in 1976-1978, but declined to 1.5 million in 1979 and to 1.3 million in 1980, as a result of political and social uncertainties.

Table 8.1: ARRIVALS OF VISITORS, 1963-1980 /a

Year	Arrivals ('000)	Annual Change (%)
1963	198.8	
1964	229.3	15.3
1965	361.8	57.8
1966	440.4	21.7
1967	574.1	30.4
1968	603.0	5.0
1969	694.2	15.1
1970	724.8	4.4
1971	926.0	27.8
1972	1,035.0	11.6
1973	1,341.5	29.6
1974	1,110.3	-17.2
1975	1,540.9	38.8
1976	1,675.8	8.8
1977	1,661.4	-0.9
1978	1,664.2	0.2
1979	1,523.7	-8.4
1980	1,288.0	-15.5

/a Data from State Institute of Statistic until 1971 and from the General Directorate of Security - Section IV thereafter.

8.6 In the late 1970s about one-half of all visitors came from Western European countries (Table 8.2). However, the number of visitors from these countries declined proportionately more than from elsewhere in 1980 and accounted for only 43 percent of the total in that year. This trend is a cause for concern, since the Western European market has been targetted for more rapid growth as it included visitors who are among the higher spenders. The other substantial group of arrivals are from neighboring countries in Eastern Europe and the Middle East. The number of visitors from Eastern European countries has fluctuated considerably in the last ten years, probably reflecting changes in group travel arrangements in the originating countries. Arrivals from individual Middle Eastern countries have also fluctuated considerably, particularly from Iran, although traffic has averaged more than double that in the early 1970s.

Table 8.2: DISTRIBUTION OF FOREIGNERS ARRIVING IN TURKEY, BY NATIONALITY, 1972-80

Nationality	YEARS 1972	1973	1974	1975	1976	1977	1978	1979	1980
Germany	100,672	171,828	139,153	205,766	197,168	202,703	218,122	108,430	155,440
Austria	15,833	16,673	16,477	24,203	23,333	60,786	51,298	40,441	35,508
Belgium	11,141	11,690	7,291	9,567	9,914	23,174	21,581	20,636	12,324
Denmark	9,104	9,836	7,345	6,733	4,936	10,108	6,399	11,389	7,807
Finland	12,474	10,165	6,761	1,575	1,480	4,199	2,978	6,676	5,467
France	72,474	93,253	64,586	113,319	124,209	150,343	140,580	120,406	87,342
Holland	19,497	21,891	13,130	16,042	13,212	34,126	30,107	24,888	19,051
Britain	67,495	100,308	65,975	99,025	90,413	107,821	92,365	70,032	62,192
Spain	2,292	3,128	4,783	4,482	6,543	14,969	23,817	32,358	21,671
Sweden	25,793	22,969	13,751	4,581	7,409	16,183	12,357	16,235	8,452
Switzerland	16,388	16,058	11,127	13,498	13,908	51,010	37,799	30,902	18,024
Italy	54,641	82,828	44,994	85,155	74,357	85,434	88,494	80,957	63,215
Norway	54,641	82,828	2,457	1,143	1,216	4,419	1,760	3,743	2,628
Greece	28,502	41,778	30,578	29,787	38,161	43,870	53,984	59,560	59,106
EUROPE, OECD	436,306	602,185	428,608	614,876	606,257	809,151	789,601	716,451	558,027
U.S.A.	150,329	182,843	91,799	79,970	114,822	165,029	158,689	160,767	118,669
Australia	7,566	10,624	8,297	8,804	10,281	20,490	12,703	9,937	7,617
Japan	1,839	2,588	2,064	3,468	2,464	6,943	4,615	7,392	6,865
Canada	9,481	9,680	6,531	5,015	6,735	19,234	17,982	20,916	11,501
ALL OECD	605,521	807,920	537,099	711,533	740,559	1,020,847	975,590	915,463	702,739
OTHER EUROPE									
Bulgaria	18,491	19,488	25,150	37,017	35,738	42,445	42,043	37,773	59,822
Czechoslavakia	..	..	1,105	2,912	3,271	4,904	4,076	4,894	4,656
Hungary	..	..	6,738	11,652	11,012	14,501	18,763	32,726	36,579
Poland	2,706	6,380	11,757	25,627	39,021	66,751	29,635	30,324	32,549
Romania	3,661	3,812	7,018	15,461	9,284	19,129	18,643	14,387	16,748
U.S.S.R.	1,254	1,285	2,173	1,849	2,243	16,944	16,534	13,013	14,026
Yugoslavia	69,282	76,262	69,487	92,264	84,766	76,417	85,529	102,616	56,561
TOTAL	95,974	107,227	123,428	186,782	185,335	241,095	215,223	205,409	220,941
MIDDLE EAST									
Iraq	4,062	13,394	16,904	26,493	25,997	28,669	16,511	45,985	22,920
Iran	23,190	28,731	46,868	188,576	50,021	94,170	137,401	66,704	109,076
Lebanon	18,432	12,257	19,297	22,712	22,017	25,330	19,447	24,728	15,274
Syria	12,287	18,113	29,349	42,272	34,624	41,296	52,417	44,714	37,909
Jordan	9,663	11,930	16,665	26,582	28,567	30,941	26,802	34,288	28,234
TOTAL	67,634	80,425	129,083	286,348	161,226	220,406	252,570	215,969	213,413
LATIN AMERICA	9,663	11,930	3,254	3,199	4,444	8,069	8,133	19,084	24,964
OTHER	266,406	341,955	317,434	332,745	584,282	170,999	192,653	136,959	125,349
GRAND TOTAL	1,034,955	1,341,527	1,110,298	1,540,904	1,675,840	1,661,416	1,661,177	1,523,658	1,288,060

8.7 No distinction is made in the Turkish arrival statistics as between "tourists" (staying more than 24 hours), "excursionists" (staying less than 24 hours) and "transits" (connecting with onward passage).[1/] About one-third of all arrivals are listed as coming by sea (Table 8.3). These are generally passengers on cruise ships who do not constitute a demand for accommodations and usually stay in port less than 24 hours. Furthermore, a considerable number of border crossings by land, particularly from the Middle East (Iran, Iraq, Syria), are either by day excursionists (primarily for shopping) or transit travellers. Even some of the air arrivals in Istanbul, and possibly Ankara, are thought to be transit passengers. Therefore, less than two-thirds of arrivals would be categorized as "tourists" under the widely-accepted international definition.

Table 8.3: DISTRIBUTION OF FOREIGNERS ARRIVING IN TURKEY BY MONTHS AND MEANS OF TRANSPORT, 1980

Months	Means of Transport				Total	%
	Air	Land	Train	Sea		
January	21,480	27,708	7,233	2,563	59,590	4.6
February	20,661	23,361	4,186	2,762	51,550	4.0
March	24,055	27,694	6,690	8,750	67,229	5.2
April	22,513	32,335	7,640	29,214	91,702	7.1
May	25,660	33,465	7,161	52,712	118,998	9.2
June	26,956	37,197	7,015	47,270	118,438	9.2
July	38,500	53,824	9,830	75,029	177,183	13.8
August	42,792	74,624	13,295	76,352	207,063	16.4
September	32,004	41,649	10,033	67,854	151,540	11.8
October	23,011	46,803	13,691	43,577	127,082	9.9
November	17,584	29,630	5,875	10,371	63,460	4.9
December	16,830	25,446	5,262	6,087	54,225	4.2
TOTAL	312,046	454,316	38,511	423,187	1,288,060	100.0
%	24.2	35.3	7.6	32.9	100.0	

Source: General Directorate of Security - Section IV.

1/ Definitions adopted in 1967 by the World Tourism Organization and the United Nations.

8.8 Of such stopover visitors, more than half arrive by road. This proportion is slightly greater than the average for arrivals from neighboring countries, but it is about 40 percent also for arrivals from Western European countries (Table 8.4). Air arrivals--thought to have the most dynamic demand growth potential--account for 24 percent of all arrivals and 31 percent of arrivals from Western Europe.

Table 8.4: DISTRIBUTION OF FOREIGNERS ARRIVING IN TURKEY BY COUNTRY OF NATIONALITY AND MEANS OF TRANSPORT 1980

Nationality	Means of Transport				Total
	Air	Land	Train	Sea	
Europe OECD	171,044	121,405	11,386	254,192	558,027
Total OECD	208,866	132,233	12,904	348,736	702,739
Other Europe	18,472	144,454	34,946	23,061	220,933
Middle East	17,439	156,254	37,996	1,774	213,463
Latin America	9,818	307	138	14,701	24,964
Other	57,447	21,068	12,527	34,901	125,943
Grand Total	312,042	423,173	98,511	423,187	1,288,042

Source: General Directorate of Security - Section IV.

8.9 A large number of visitors are known to be businessmen, particularly to the major cities, although no precise figures are available. Furthermore, many other arrivals are for the purpose of visiting friends and relatives. It may be assumed that only about one-half of visitors staying more than 24 hours are on vacation. Information on the purpose of visits, and important planning tool, will be developed as a result of a continuing travel survey which the State Institute of Statistics will initiate in late 1981.

8.10 Information on the average length of stay is fragmentary. The Ministry of Tourism estimates the average length of stay in registered accommodations in 1980 at 8.1 days, down from 9.0 days reported to the World Tourism Organization in 1978. However, the latter figure was a substantial increase over the 5.6 days reported in 1970. At the same time, the average length of stay of Western Europeans in registered accommodations at beach areas is known to be longer as most such visitors travel on inclusive air packages lasting two weeks.

8.11 International tourist traffic to Turkey is highly seasonal. The six summer months account for 70 percent of annual arrivals (Table 8.3). In 1980, arrivals in the peak month (August) were 190 percent of average monthly arrivals while in the lowest month (February) they were 40 percent of the average. Since business travel is substantial and is known to be less seasonal than vacation travel, holiday traffic is even more seasonal than the general monthly arrival figures would indicate.

2. Tourist Accommodations

8.12 There were 511 registered accommodation establishments on December 31, 1980, comprising 28,992 rooms with 56,044 beds (Table 8.5). Not all of these are suitable for international visitors, however, by reason of standards, type and/or location. Many of the lower category accommodations do not provide the facilities and services normally expected by most international visitors. They are often geared specifically to the expectations of domestic travellers, either on business or on vacation. Furthermore, about one-third of total capacity is located in parts of the country rarely visited by foreigners. Finally, with a nationwide average size of accommodation establishments of 56 rooms, many are too small to cater to the relatively large groups that constitute a growing element in international vacation travel.

8.13 In any event, only about 30 percent of total occupancy is by international visitors. And the dominance of domestic tourism is even greater than the 70 percent of total registered accommodation occupancy would imply, since there has also been a rapid development of secondary homes in vacation areas, now estimated at 600,000 beds, almost exclusively occupied by nationals.

8.14 The national average bed occupancy in 1980 was 43.5 percent, down from 47.1 percent in 1979 (Table 8.7). The 1980 occupancy rate was the lowest since 1975, reflecting both the down-swing in international visitor traffic and reduced domestic travel. Large hotels in major cities, where business traffic is substantial, achieved annual occupancies just above 70 percent in 1980, compared with occupancies in excess of 80 percent in the late 1970s. Because of such business traffic (and, to some extent, the lesser concentration of domestic traffic), the seasonality in bed occupancy (Table 8.6) is less than in international arrivals (Table 8.3). Accommodation establishments in seasonal resort areas achieved an annual occupancy of 40-45 percent which implies a 70-75 percent average occupancy during the seven-month season and a virtually full occupancy during the peak months of July and August. It may be added that many hotels in resort areas do not operate during the off-season.

Table 8.5: REGISTERED ACCOMMODATION CAPACITY, DECEMBER 31, 1980

Type and Class	Establishments	Rooms	Beds
Hotels:	322	19,680	36,384
Deluxe	11	2,791	5,136
1st	14	1,758	3,385
2nd	36	3,306	6,358
3rd	76	4,515	8,198
4th	185	7,313	13,307
Motels:	99	4,883	9,969
1st /a	51	3,155	6,397
2nd	44	1,614	3,346
Unclassified	4	114	226
Guesthouse:	46	796	1,628
1st	14	278	536
2nd	25	428	890
3rd	7	90	202
Holiday Villages	8	2,659	5,560
A.	5	2,185	4,330
B.	3	474	1,230
Inns	8	441	1,286
Campsites:	22	169 /b	3 /b
1st	3	16	37
2nd	7	n/a	n/a
3rd	12	153	366
Other	6	364	814
TOTAL:	511	28,992	56,044

/a Many of these would be classified as "hotels" in other countries.
/b Does not include 2nd class campsites.

Source: Ministry of Tourism and Information.

Table 8.6: BED OCCUPANCY RATES IN A SAMPLE OF ESTABLISHMENTS, 1975-80 /a

Month	YEAR 1975	1976	1977	1978	1979	1980
January	42.7	39.4	42.5	35.3	38.3	40.2
February	41.8	45.7	48.2	44.5	45.8	41.9
March	43.3	49.4	46.1	46.1	43.4	40.9
April	42.6	57.1	51.3	38.1	42.3	41.8
May	49.5	61.9	55.3	43.9	41.1	39.4
June	49.7	61.0	51.8	35.6	44.0	40.1
July	66.5	69.1	57.1	60.1	56.2	48.1
August	74.2	75.8	70.6	63.1	61.3	58.9
September	56.3	67.2	62.1	53.7	50.8	42.9
October	52.7	67.7	53.3	42.7	43.3	40.5
November	49.8	56.2	52.4	48.1	47.7	42.5
December	47.6	53.2	42.0	40.8	47.3	40.4
	52.3	57.6	53.3	46.3	47.1	43.5

/a Sample includes:

296	establishment,	31.513 beds	in 1975
139	"	16.623 "	1976
157	"	19.034 "	1977
135	"	31.141 "	1978
247	"	31.241 "	1979
239	"	27.977 "	1980

8.15 The only financial results available to the mission are those for six hotels owned by the State Pension Fund and five by the Tourism Bank (Table 8.7). While results for these hotels are not necessarily indicative of the results for the private sector, and the mix of hotel type, location, and size is not fully reflective of the hotel industry as a whole, their financial results demonstrate some general trends in 1980. The weighted average gross operating profit (income before taxes and fixed charges for depreciation and debt service) for the eleven hotels was 15.6 percent of total revenues, as compared with a worldwide average of 26.7 percent 1/. After the payment of fixed charges, relatively little would be left for return on investment.

1/ According to Worldwide Lodging Industry, Horwath and Horwath Internationa 1 (a reputable hotel accounting firm).

Table 8.7: WAGES AND GROSS OPERATING PROFITS AS A PROPORTION OF REVENUES FOR SELECTED HOTELS, 1980

Hotel	Gross Operating Profit	(%) Wage Bill
State Pension Fund		
Buyuk Ankara	35.7	30.2
Macka	5.0	42.5
Tarabya	10.7	42.8
Celik Palas	14.6	38.9
Efes	16.1	45.6
Stad	8.9	40.6
Tourism Bank		
Akcay	8.4	65.2
Carlton	4.4	54.5
Cesme	3.5	64.4
Marmaris	32.2	39.6
Yalova	15.5	55.0

8.16 The ratio of gross operating profit to revenues is generally used as an indicator of operating efficiency. In the case of Turkey, it is also a reflection of the profits squeeze brought about by rising operational costs in the face of restricted revenues. The latter was the result both of lower occupancies and the failure to allow hotel prices to rise with costs. In turn, apart from large increases in energy costs, the most substantial cost increase was in the wage bill.

8.17 There does not appear to be any substantial overmanning in the Turkish accommodations industry as the average ratio of workers per room, 0.85 is consistent with international experience. However, substantial increases in wages and fringe benefits agreed upon during 1980 in the face of slow increases in revenues resulted in an average ratio of wage bill to total revenues for the eleven hotels of 45.8 percent, as compared with the worldwide average of 31.2 percent.[1/] In the face of this heavy cost burden, it is small wonder that gross operating profits were modest and returns on investment even more so. It can be seen from Table 8.7 that the

1/ Op. cit.

two hotels with acceptable gross operating profits, Buyuk Ankara and Marmaris, are the two hotels with wage bills approaching international norms.

8.18 Hotel profitability can only be increased to attractive levels if operating costs, particularly wages, are contained while revenues expand as a result of increased occupancy rates or prices or a combination of both. This would require a careful matching of increases in accommodation capacity to traffic flows and an upward adjustment of prices, taking into account demand elasticity and Turkey's competitive position.

3. Employment

8.19 Employment in tourism in 1980 is estimated at 40,320 at the peak season, of which 22,400 was in accommodation establishments and 17,920 in other tourism enterprises. In addition, there was a considerable number working in activities directly supplying the tourism sector, not the least of which was the construction industry. In all, perhaps 75,000 owed their jobs to the tourism sector.

4. Foreign Exchange Receipts

8.20 Reported foreign exchange receipts from tourism have grown steadily during the last ten years, amounting to US$327 million in 1980, or 11.2 percent of the value of merchandise exports. The series on annual receipts, shown in Table 8.8, must be viewed with caution, however. First, the series is discontinuous because the system, whereby authorized foreign exchange dealers report encashments, was modified in 1975 when the data collecting agency was changed from the Ministry of Finance to the Central Bank. Furthermore, the unofficial, or parallel, market in foreign exchange has greatly declined in importance since January 1980. Thus, while tourist traffic declined by 15.5 percent in 1980, reported foreign exchange receipts increased by 16.3 percent. Increases in average tourist expenditures are unlikely to account for all of this large swing.

8.21 Average daily expenditures per visitor, calculated on the basis of total reported receipts, total visitors (including cruise passengers and other excursionists), and average length of stay, amounted to US$31.3 in 1980 (Table 8.9). In 1979, average daily expenditures, calculated on the same basis, were US$22.6; this compares with similar calculations from Greece, Spain, Morocco and Tunisia of US$21.0, US$21.5, US$18.2 and US$37.6 respectively. 1/

1/ The substantially higher figure for Tunisia reflects a lesser "dilution" of cruise passengers and other one-day excursionists.

Table 8.8: TOURISM RECEIPTS /a AND MERCHANDISE EXPORTS, 1963-1980
($ million)

Year	Tourist Receipts	Merchandise Exports	Tourist Receipts as % of Export
1963	7.7	368.0	2.1
1964	8.3	411.0	2.0
1965	13.8	464.0	3.0
1966	12.1	490.0	2.5
1967	13.2	523.0	2.5
1968	24.1	496.0	4.9
1969	36.6	537.0	6.8
1970	51.6	588.0	8.8
1971	62.9	677.0	9.3
1972	103.7	835.0	12.4
1973	171.5	1,317.1	13.0
1974	193.7	1,532.2	12.6
1975 /b	200.9	1,400.1	14.4
1976	180.5	1,960.0	9.2
1977	204.9	1,753.9	11.7
1978	230.4	2,288.2	10.1
1979	280.7	2,261.2	12.4
1980	326.7	2,910.1	11.2

/a Excludes international fare payments.
/b New reporting system in 1975 and thereafter.

Source: Ministry of Tourism and Information.

Table 8.9: AVERAGE EXPENDITURES BY TOURISTS, 1963-1980
(U.S.$)

Year	Average Per Visit /b	Average Per Day
1963	38.5	
1964	36.3	
1965	38.0	
1966	27.5	
1967	23.0	
1968	39.9	
1969	52.7	
1970	71.2	12.7 /c
1971	67.9	
1972	100.2	
1973	127.8	
1974	174.4	
1975 /a	130.0	
1976	107.7	
1977	123.3	
1978	140.1	15.6 /c
1979	184.2	22.7 /c
1980	253.6	31.3 /c

/a New reporting system in 1975 and thereafter.
/b As reported by Ministry of Tourism and Information.
/c Mission calculation based on sample survey reports by Ministry of Tourism on average length of stay.

8.22 Because there are relatively few imports required either in hotel investment or operations, virtually no foreign capital repayments, very few foreign employees, and a limited number of foreign management contracts, foreign exchange leakage from gross receipts from tourists is very low by international standards. It is estimated at 8 percent, so that added value retained in the economy is relatively high.

8.23 Expenditures by tourists accrue not only to the accommodation industry, but also to a number of other economic activities. Little data has so far been collected on the pattern of tourists' expenditures, but the State Institute of Statistics is planning to initiate a periodic and continuing sample traffic survey which will include data collection for this purpose. A 1977 sample survey in and around Izmir indicated that, for tourists staying in registered accommodations, 25 percent of expenditures were on accommodations, 32 percent on food and beverages, 25 percent on shopping, 10 percent on entertainment, 5 percent on internal transport and 3 percent on other items.

5. Domestic Resource Costs of Earning Foreign Exchange from Tourism

8.24 The domestic resource cost of earning foreign exchange from international tourism in 1980 is estimated to amount to TL 65.6 per US dollar compared to an average exchange rate of TL 76.04 to the US$ (the calculation and a detailed explanation is set down in Annex 8.1). The results demonstrate that this cost is markedly lower than for many other foreign-exchange earning activities and that therefore the tourism sector should receive attention in the future development of the economy.

8.25 Since there was a setback in international tourism in Turkey in 1980, occupancy rates and foreign exchange receipts were untypically low, while capital and land costs were fixed and labor costs were not completely variable (because of employment tenure). Accordingly, in years when capacity utilization is greater, the domestic resource cost of earning foreign exchange would be correspondingly lower.

B. Prospects Until 1990

1. Competitiveness

8.26 While air transport costs are higher, accommodation prices in Turkey tend to be lower than alternative Mediterranean destinations, and the resulting inclusive package prices are broadly comparable with those for such destinations. Table 8.10 provides information on inclusive prices for a two-week stay, comprising accommodations, half-board in 3- or 4-star hotels and return flight for July-August 1981 as listed in German, French and UK tour operators' brochures for Cesme, Kusadasi and Marmaris in Turkey, and for similar resorts in Greece, Cyprus, Yugoslavia, Tunisia, Morocco, Spain, Canaries and Portugal. From Germany, Turkey is fully competitive with Greece, Cyprus, Spain, Canaries and Portugal and the more expensive vacations to Tunisia and Morocco (offering higher category

hotels) are within the price range for vacations in Turkey; only Yugoslavia is cheaper. While the French agency is not operating to Turkey this year, all the vacations offered elsewhere the Mediterranean are priced equal to, or more than, the German price to Turkey. In the case of the UK, most minimum prices for vacations elsewhere are below that for Turkey (except for Cyprus and Portugal), but maximum prices (offering higher category hotels) approach, or exceed, the price range for Turkey.

Table 8.10 PACKAGE PRICES TO COMPETING MEDITERRANEAN DESTINATIONS, JULY-AUGUST 1981
(Two weeks, half board in 3- or 4-star hotels and return flight)

Country	TUI (Germany)	Jet Tours (France)	Thompson (U.K.)	Cosmos (U.K.)
Turkey	659-814 /f	--	662-779 /g	--
Greece /a	607-1025	950-1180	632-920	662-701
Cyprus	636-978	--	--	837-940
Yugoslavia /b	489-648	702-736	443-598 /h	561-595
Tunisia	488-916	672-1121	545-699	506-653 /i
Morocco	535-875	727-879	595-664	621-747
Spain /c	683-1103	--	483-690	508-687
Canaries /d	654-873	849-898	568-839	588-754
Portugal /e	755-1030	--	554-1058	823-834

/a Crete/Rhodes
/b Dalmatia
/c Coksta del Sol
/d Tenerife
/e Algarve
/f Cesme or Kusadasi
/g Cesme or Mamaris
/h 11 nights only
/i full board

8.27 Thus, vacations in the higher category hotels in Turkey are already cheaper than vacations at such hotels at competing destinations. Since the prices of most vacations in Turkey include scheduled flight arrangements while those elsewhere are by less expensive charter flights, once traffic volumes justify charter operations to Turkey, inclusive vacation prices to Turkey will be fully competitive for vacations in all categories of hotels. It is estimated that the use of air charters would reduce inclusive vacation prices by about US$50 and US$80 from Germany and the UK, respectively, expressed in terms of 1981 prices.

2. Increasing Turkey's Market Share

8.28 Turkey's share of the Mediterranean stopover tourism traffic 1/ was about 1.2 percent in 1979. 2/ If total such traffic increases, as forecast, at an average annual rate of 6 percent for the next ten years, total regional arrivals would amount to 138.9 million in 1990. If by then Turkey were able to increase its market share from 1.2 percent to 1.6 percent, stopover arrivals in Turkey would total about 2.2 million, requiring an average annual increase of about 9 percent. An increase of this magnitude is modest by the standards of other Mediterranean countries at a similar stage of tourism development and can be attained, and even surpassed, if appropriate policies are followed. Nor would it create cultural dislocations, given the large size of the country and the importance of domestic tourism.

3. Required Investments

8.29 In order to achieve this result, additional accommodation capacity, together with other tourism facilities and related infrastructure, would be required, supported by a vigorous and successful marketing campaign.

8.30 By 1990, about 60 percent of the 2.2 million stopover visitors, or 1.3 million, may be expected to stay in registered accommodations. 3/ Assuming that the average length of stay in registered accommodations remains unchanged at 8.1 nights (the 1980 figure), the 1.3 million arrivals in registered accommodations would occupy 10.7 million bednights. If international traffic in 1990 represented 50 percent of total occupancy, foreign and domestic occupancy together would amount to 21.4 million bednights. Further assuming that the average annual bed occupany of 57.6 percent achieved in the 1976 (the highest bed occupancy to date) is the maximum occupancy that can be achieved, given the seasonal nature of much of Turkey's tourist traffic, then a capacity of 37.1 million

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1/ Excluding cruise passengers, other excursionists and transits.

2/ "The Mediterranean" includes all countries with a coastline on the Mediterranean Sea plus Portugal and the Atlantic islands of Spain and Portugal. However, only half of France's traffic is assumed to be Mediterranean. Accordingly, there were 77.6 million stopover arrivals in the Mediterranean in 1979, of which 950,000 were in Turkey.

3/ In 1980, about 50 percent stopover visitors stayed in registered accommodation. However, the intensive marketing program is likely to have a greater impact on organized travel, thereby increasing the proportion staying in registered accommodation.

4/ International occupancy represented 30 percent of total occupancy in 1980, but the proportion is likely to rise as the marketing program increasingly emphasizes this market segment. In any event, the most dynamic growth in domestic tourism is in non-registered secondary residences.

annual bednights would be necessary to accommodate the expected 21.4 million annual bednights actually occupied. Thus, about 102,000 bed capacity 1/ would need to be available in 1990, or nearly double the present capacity of 56,000.

8.31 Of the 46,000 additional beds needed to boost Turkey's share of the Mediterranean tourist trade from 1.2 percent to 1.6 percent in ten years, 14,152 are currently under construction. Thus, additional accommodation projects, comprising some 32,000 beds, would need to be implemented during the decade. Projects comprising 12,126 beds have already been approved but not yet started so that new projects comprising about 20,000 beds need to be identified, prepared, financed and implemented.

8.32 Such an expansion program for the next ten years would entail investment expenditures in additional accommodation capacity of about TL 55,000 million in 1981 prices. Investment costs for other tourism enterprises would amount to some TL 18,000 million. Investment in related public infrastructure would cost about TL 22,000 million. Thus, the total investment program, both public and private, would cost about TL 95,000 million, or an annual average TL 9,500 million.

4. Prospective Foreign Exchange Receipts and Employment

8.33 Assuming no change in real average daily expenditures by international visitors, gross foreign exchange receipts from tourism in 1990 would amount to more than US$700 million in 1980 prices. Since the foreign exchange costs in the tourism sector are already low at 8 percent, there is little opportunity to reduce them further, 2/ and thus net foreign exchange receipts in 1990 would be in the order of US$645 million in 1980 prices.

8.34 Employment at the peak season of 1990 would amount to 83,000 with 46,000 in accommodation establishments and 37,000 in other tourism establishments. In addition, perhaps another 44,000 would be working in activities directly supplying the tourism sector, including construction.

1/ 37.1 million divided by the 365 days in the year.

2/ Although any foreign investment would constitute an immediate inflow of foreign exchange it would be followed by a subsequent continuing outflow for profit repatriation and perhaps some debt service.

C. Policies for Tourism Development

1. A Ten-Year Plan

8.35 To achieve the optimal exploitation of Turkey's tourism potential, an indicative plan for the mobilization of public and private resources over the next ten years would need to be prepared. Such a plan would include:

a. matching targets for capacity increases with prospective traffic flows;

b. scheduling public sector investments in infrastructure;

c. indicating needs and policies for encouraging private investment, both domestic and foreign, including:

   i. investment incentives,
   ii. availability of credit on suitable terms;

d. identifying the "product mix" by type and location of tourism facilities;

e. investigating construction methods and standards in order to minimize unit investment costs;

f. adopting civil aviation policies aimed at optimizing returns to the economy as a whole; and

g. establishing an effective market promotion program based on continuing market research.

Such a plan would require a greatly improved data base, so that the proposed continuing tourist surveys by the State Institute of Statistics should be augmented by detailed studies of hotel profitability not only of public enterprises but also of private establishments. It would be helpful if the tourism planning procedures of other Mediterranean countries were studied, particularly those of Tunisia and Morocco.

2. Expansion of Accommodation Capacity

8.36 Even though additional supporting infrastructure--roads, water supply, sewerage, electricity and telecommunications--would be required for the longer term tourism development of the country, and these should be planned and implemented in accordance with the proposed tourism development program, there are immediate possibilities to augment accommodation capacity in areas where infrastructure is already in place or only minor network extensions are needed. In the next few years, efforts should be concentrated on promoting superstructure investments where such immediate possibilities exist, either in planned integrated resorts or in already existing tourist destinations. In this way, tourist traffic could be rapidly increased with immediate returns to the economy.

8.37 Over the last ten or fifteen years, the Turkish authorities have devoted considerable attention to physical planning for tourism development. By 1980, there were no less than 106 project areas for which land-use plans at varying scales had been prepared and in many of which at least some infrastructure works had been carried out. In most of these project areas, very little accommodation capacity has been installed.

8.38 The Ministry of Tourism and Information has now rightly decided to concentrate immediate development efforts in 5 of these 106 project areas: Side and South Antalya on the Mediterranean coast, Koycegiz on the South Aegean coast, Istanbul and Cappadocia in central Anatolia. However, even in these areas, priority should be given to situations where investments in additional accommodation capacity can be undertaken forthwith, so that returns on the long process of physical planning and infrastructure investment can be rapidly obtained.

8.39 A prime example of such a possibility is at the Side tourism development area at Acisu-Sorgun. All necessary lands have been acquired on an extensive site with a first-rate sandy beach. Public infrastructure has already been installed and only network connections to individual establishments would be required. The nearby historic site makes it an important tourist destination which, for climate reasons, has a season longer than elsewhere. The proposed tourism development authority for the area should be appointed with delay to undertake investment promotion with a view to establishing a capacity of 3,200 beds.

8.40 At South Antalya (Kemer), the main infrastructure is well advanced, but connecting infrastructure and superstructure investment have so far been inhibited by the failure to resolve land tenure problems. In the immediate future, clear title is expected on 32 of 39 hotel sites and the possibilities of installing 5,750 beds would be open. Investor interest has been expressed in some of these sites, but specific projects may have to await the establishment of a local tourist development authority.

8.41 On the south Aegean coast, a new major international airport is under construction at Dolaman. The airport is expected to cater primarily to international charter flights. Airport construction was due to be completed in 1980, but has been delayed until July 1981. (As a result, several European tour operators have cancelled their entire 1981 summer program destined to use the airport, with considerable loss to the country.) A 20 km. link road to Koycegiz has been completed, but other infrastructure within this tourism development area is only in an initial construction stage. However, the airport will also serve already established tourist resorts such as Marmaris, Datca and Bodrum. Accordingly, the expansion of tourist traffic need not await the planned physical developments at Koycegiz, but can initially take place on the basis of an expansion of bed capacity at the already established resorts.

8.42 Both in the Istanbul area and in Cappadocia major infrastructure is already in place and the priority need is additional accommodation capacity together with minor connecting infrastructure.

3. Hotel Finance

8.43 If high priority is to be accorded, as recommended, to investment in additional accommodations, the availability of suitable finance will be of crucial importance. While economic returns are high on non-hotel tourism activities, such as shopping, entertainment and internal transport, the profitability of hotels in Turkey, as elsewhere, is modest. Accordingly, capturing the potential benefits of tourism as a whole necessitates providing adequate loan finance on suitable terms to complement equity funds that are available from the private sector, primarily domestic, but possibly also foreign.

8.44 The majority of accommodation enterprises are privately owned. Of the 56,044 beds at the end of 1980, establishments comprising 51,187 beds were so owned, the remaining 4,857 beds being in establishments belonging to the public sector (the Tourism Bank and the State Pension Fund). The latter included many of the larger units. To date, there has been very little foreign investment in accommodation establishments, although several large hotels and holiday villages are operated by foreign management companies. Foreign investors are frequently reluctant to invest in hotels in developing countries since it locks in fixed capital with relatively long pay-back periods. Several foreign companies are currently considering minority participation in new hotel enterprises in Turkey, primarily in order to obtain lucrative management contracts. Such contracts could be advantageous to Turkey since they provide expertise and marketing experience.

8.45 Due to the long economic life of hotel investments, and the relatively long pay-back periods, particularly on seasonal operations, extended amortization schedules are required which may not be available commercially. Furthermore, because of relatively long gestation periods (hotel construction often takes three years in Turkey), grace periods before scheduling principal repayments need to provided.

8.46 Recognizing the special financing needs of the sector, the Tourism Bank was established in 1962 to provide credit to the tourism industry and to own and operate tourism establishments. In the past, however, the Bank gave emphasis to financing its own operations.

8.47 The Tourism Bank's authorized capital in May 1981 was TL 2,500 million (about US$24 million at the current rate of exchange), of which TL 2,128 million (about US$20 million) was paid in. The Government (the source of 90 percent of the Tourism Bank's funds) has agreed to raise the authorized capital to TL 15,000 million (about US$140 million). Although the schedule has not been definitely established, the intention is to provide this increase within two or three years.

8.48 At the end of 1980, the Tourism Bank owned and operated six hotels and two vacation villages, with a total capacity of 2,493 beds, a camping site and two marinas. The net profit was TL 26 million, or a return of under 1.0 percent on the estimated capital employed (1980 replacement value) of nearly TL 3,000 million. In 1981, two new hotels will be added with a capacity of 620 beds.

8.49 In 1980, the Tourism Bank budgeted TL 1,022 million (about US$13 million) for credit operations but, in the event, signed loan agreements for only TL 712.8 million (about US$9.4 million) and disbursed TL 438.2 million (about US$5.8 million). Given the augmentation in its capital, the Tourism Bank should be able to increase substantially its lending operations in the next two or three years. The demand for its loan funds would be considerable in view of the highly favorable loan conditions. For accommodation establishments, the Tourism Bank will lend up to 60 percent of total investment costs at a 15 percent interest rate. With respect to construction, loans may be extended over a 20-year repayment period including up to six years' grace on principal repayments; for equipment, loans are extended over 11 years including four years' grace; and for working capital over six years, including three years' grace. For non-accommodation tourism enterprises, the Tourism Bank will lend up to 50 percent of total investment costs at 15 percent interest for four years, including two years' grace.

8.50 Since most of the Tourism Bank's hotels were assumed to be pioneer enterprises designed to demonstrate the feasibility of hotel operations in previously undeveloped tourist areas and to encourage hotel investment by others, such hotels cannot be judged by commercial criteria alone. But there can be little justification for further direct hotel investment by the Tourism Bank. First, the private sector is now cognizant of the commercial possibilities of the tourism sector and can be attracted to the priority zones by the availability of land at non-speculative prices and well equipped with infrastructure. Second, the Tourism Bank's funds would be more effective as a credit source which can attract other (equity) funds.

8.51 If all the additional resources of the Tourism Bank were concentrated on its loan activities, the amount of available loan funds would provide financing for about 4,000 beds annually, representing a yearly increase of 6 percent. However, the Tourism Bank's resources would have to be replenished in a few years because of the lack of effective cost recovery in its lending operations, given its current interest charges of 15 percent, well below the inflation rate.

8.52 The Government should reconsider whether the present subsidy of the Tourism Bank's interest rate is suitable. While there are arguments in favor of long-term loan finance with generous grace periods, it is not clear whether the very large negative real interest rate represented by a nominal rate of 15 percent is justified. It is recommended that a detailed study be undertaken to determine the impact of different interest rates at

different occupancy and revenue levels on financial and economic profitability. This would necessitate a major effort to improve data collection, particularly to obtain detailed occupancy rates for a wide range of hotels, together with their financial results. There would also be a need for a continuing sample survey of tourists' expenditure patterns, both within and outside accommodation establishments.

8.53 Consideration should also be given to using public sector funds to establish a special tourism rediscount facility through the commercial banking system. Such funds could act as a catalyst for generating additional loan finance commercially. Such a rediscount facility could either be located in the Tourism Bank or elsewhere in the financial system.

4. Civil Aviation

8.54 While at present only 36 percent of international visitors, exclusive of cruise passengers, arrive by air (Table 8.3), this mode of access is thought to have the most dynamic traffic growth potential, particularly from the high-spending Western European markets. For this reason, a liberal aviation policy is crucial to the future tourism development of the country.

8.55 Turkish Airlines (THY) maintains an extensive international network of scheduled routes together with a comprehensive domestic network. Most THY international services arrive in Istanbul, where traffic densities are the highest, and there are onward connections, either by flight continuations or by connecting flights, to the other Turkish cities. Except for a few flights directly to Ankara, foreign scheduled airlines fly to Istanbul. There are no foreign scheduled flights directly to other Turkish cities; nor are foreign airlines permitted to continue to such cities after landing in Istanbul, even to carry passengers boarding before Istanbul. This limitation severely hampers traffic growth.

8.56 Air charter operations, which could reduce per passenger costs and thus stimulate demand, and which offer the flexibility that seasonal vacation demand requires, are in their infancy. While some 360,000 visiting Turkish overseas workers are carried each year on air charters, primarily by THY, only 15,000-20,000 foreign visitors are so carried, or less than 6 percent of all foreign air arrivals. This insignificant role of air charters in Turkish international tourism is partly explained by the relatively low traffic volume from any one overseas originating point to any one destination within Turkey. An important reason for such low traffic volumes is the low total accommodation capacity at individual destinations and the small average size of establishments in relation to the passenger-carrying capacity of charter airplanes. But, a protectionist attitude toward the commercial interest of the national carrier has also been an inhibiting factor. The fact that Dolaman airport, when completed will be entirely devoted to charter operations is perhaps an indication of a more liberal air charter policy. Now that services from the West are permitted to overfly the Greek Aegean islands (forbidden from 1974 until September 1980), flight distances will be reduced, thereby also reducing air charter costs.

8.57 Turkey is well endowed with airports serving the main points of international tourist interest. However, air terminal buildings are already congested and will become more so as traffic increases. Istanbul's new terminal facility is under construction and augmenting terminal capacity elsewhere should also be urgently considered. Izmir airport, which serves an extensive tourism zone, is used for military, as well as civilian, purposes and there has been a history of military operations delaying civil flights. The authorities should consider, without delay, making arrangements which could eliminate, or reduce, this conflict.

8.58 In general, civil aviation policy should be reviewed with a view to ensuring convenient and least-cost access. This would necessitate weighing the financial interests of THY against economic returns in the tourism sector and the economy as a whole. Air charter operations, by both domestic and foreign airlines, should be encouraged and foreign airlines should be granted continuation rights on the basis of recipients.

5. Market Promotion

8.59 Concurrent with the development of the "product" within Turkey--the augmentation of suitable accommodation capacity and other tourism facilities, supported by adequate infrastructure, and improved, convenient, least-cost transport--a more intensive effort to market that "product" abroad will need to be made. Such an effort would entail informing the travelling public abroad of the available attractions in various areas in order to generate a widespread interest to visit the country, namely to develop latent demand. It would also entail inducing the travel trade in the market countries to promote specific sales for travel to Turkey, so as to maximize the conversion of latent demand into consummated demand.

8.60 The Ministry of Tourism and Information maintains bureaus in fifteen foreign countries. The budget for overseas tourism promotion amounts to about US$3 million annually. This budget can be seen to be wholly inadequate when compared with the overseas promotional expenditures of Greece which amounted to about US$20 million in 1980 and produced 4 1/2 times Turkey's number of visitors. A rule of thumb often used internationally is to allocate $5 per visitor the previous year for next year's overseas market promotion. On this basis, the Turkish 1981 budget should amount to at least US$6 million, or double the present allocation, and rise in subsequent years pari passu with traffic growth.

8.61 Furthermore, the operational style of the overseas bureaus should be changed in order to emphasize commercial aspects. At present, the bureaus are headed by officials from the Ministry who rotate service at the Ministry with tours of duty abroad. Many of them have little experience in the commercial practices of the travel trade and tend to concentrate on the passive dissemination of generalized information rather than working with the local trade on consummating actual sales. Consideration should therefore be given to establishing a semi-autonomous overseas tourist promotion agency, appointed by the Minister of Tourism, which would draw

its staff from the travel trade and be suitably remunerated outside civil service regulations. Such an agency would work closely with the local and foreign private sectors, with the special tourist authorities to be established in priority tourist zones, and with government officials both within the Ministry of Tourism and within other relevant Ministries. Such an agency would also enter into contracts with professional marketing firms in major market countries.

DOMESTIC RESOURCE COSTS OF EARNING FOREIGN EXCHANGE FROM TOURISM

A 8.1 A calculation of the domestic resource costs incurred by the tourism sector in Turkey in earning foreign exchange demonstrates that such costs are markedly lower than those for many other foreign exchange earning activities. This would suggest that the tourism sector should be accorded priority in the future development of the economy.

A 8.2 The calculation reported in Table A 8.1 is based on 1980 data when the foreign exchange receipts from tourism were reported to total US$326.7 million (exclusive of international fare payments). Of this amount, 89 percent are estimated to have been spent by visitors staying in accommodations (stopover visitors) and 11 percent by those who did not (cruise passengers, other one-day excursionists and transits).

A 8.3 Surveys have shown that about 57 percent of stopover tourists' expenditures take place within accommodation establishments. The weighted average share of wages in total revenues for eleven hotels owned by the State Pension Fund has been shown to be 45.8 percent (see Table 8.10). Accordingly, using the average 1980 rate of exchange of TL 6.038 to US$1.00, the total direct labor costs are calculated at TL 5,771.8 million (see Table A 8.1).

A 8.4 Supplies used by international visitors within hotel accommodations amounted to a weighted average of 38.6 percent of total revenues, according to the 1980 accounts of the eleven hotels. However, 7 percent of such supplies were imported, so that 35.9 percent of total revenues was spent on local purchases. Furthermore, an estimated 15 percent of costs of such purchases went for taxes. Thus, using the 1980 average rate of exchange, the total cost of local supplies, net of taxes, is calculated at TL 3,845.5 million (see Table A 8.1).

A 8.5 In order to calculate the value of the 1980 amortization of capital, the total capital value of the existing 56,000 beds in accommodation establishments was estimated, using 1980 replacement costs (see Table A 8.2). Since only 30 percent of the total occupancy was by international visitors, only that proportion of capital costs is ascribed to earning foreign exchange from them. Finally, an average 25-year life is assumed for each establishment. Thus, the 1980 amortization of capital is calculated at TL 557.2 million (see Table A 8.1). In addition, the opportunity cost of capital is assumed to be 12 percent so that a further TL 1,671.2 million is accordingly included (see Table A 8.1).

A 8.6 Land values are assumed to average 10 percent of capital costs and to have an opportunity cost of 12 percent. Accordingly, the 1980 cost of the land occupied by accommodation establishments used by international visitors is calculated at TL 167.2 million (see Table A 8.1).

A 8.7 The revenue derived from providing goods and services to international tourists outside accommodation establishments (e.g. other food and beverages, shopping, entertainment, sports and internal transport), equals the remaining 43 percent of receipts from tourists in accommodations (see para A 8.3). Direct labor costs of providing these goods and services are estimated at 25 percent of such revenues. At the average 1980 exchange rate, these amount to TL 3,059.5 million.

A 8.8 Local supplies in non-accommodation activities are estimated at 35 percent of total revenues from such activities so that, exclusive of an average 15 percent for taxes, costs of such supplies are estimated at TL 3,640.8 million.

A 8.9 The 1980 capital value of non-accommodation tourism enterprises is assumed to amount to one-third of the capital value of accommodation establishments. With an average asset life of ten years, the 1980 amortization cost of capital is calculated at TL 448.2 million. At 12 percent, the opportunity cost of such capital totals TL 537.8 million. Finally, with an estimated land value of 5 percent of capital costs, the opportunity cost of land at 12 percent totals TL 26.9 million.

A 8.10 On the basis of the foregoing, the total 1980 domestic resource costs in earning foreign exchange from international tourists amounted to TL 19,726.1 million.

A 8.11 Gross foreign exchange receipts were, as stated, US$326.7 million. The foreign exchange costs of obtaining these receipts (imports of goods and services used in the international visitor trade both on current and capital account) are estimated at 8 percent. Thus, the net foreign exchange receipts accruing to the economy in 1980 amounted to US$300.6 million, and the domestic resource cost of earning a US dollar from international tourism in 1980 amounted to TL 65.6 (see Table A 8.1).

A 8.12 Domestic resource costs may be understated inasmuch as infrastructure costs related to tourism development have not been included. However, the costs of public utilities have been at least

partially included in the operating costs of the respective tourism enterprises. Also, by using data on costs incurred by state-owned enterprises for the entire sector, these costs are probably overstated. Finally, since there was a setback in international tourism in 1980 (arrivals down to 1.3 million from a level of more than 1.6 million in the previous few years), occupancy rates, and therefore foreign exchange receipts, were untypically low in 1980, while capital and land costs were of course fixed and labor costs were not completely variable (because of employment tenure). Accordingly, in years when capacity utilization is greater, the domestic resource cost of earning foreign exchange would be correspondingly lower.

Table A 8.1: CALCULATION OF DOMESTIC RESOURCE COSTS OF EARNING FOREIGN EXCHANGE FROM TOURISM

COSTS

Accommodations	TL million
Direct Labor (326.7 x 0.89 x 0.57 x 0.458 x 76.038)	5,771.8
Local Supplies (exclusive of taxes) (326.7 x 0.89 x 0.57 x 0.359 x 76.038 x 0.85)	3,845.5
Amortization of Capital (13,930 x 0.04)	557.2
Opportunity Cost of Capital (13,930 x 0.12)	1,671.2
Land	167.2
Non-Accommodation Activities	
Direct Labor ((326.7 x 0.89 x 0.43) + (326.7 x 0.11)) x 0.25 x 76.038	3,059.5
Local Supplies (exclusive of taxes) ((326.7 x 0.89 x 0.43) + (326.7 x 0.11)) x 0.35 x 76.038 x 0.85	3,640.8
Amortization of Capital (4,482 x 0.10)	448.2
Opportunity Cost of Capital (4,482 x 0.12)	537.8
Land (4,482 x 0.05 x 0.12)	26.9
Total:	19,726.1

RECEIPTS IN FOREIGN EXCHANGE

	US$ million
Gross Receipts	326.7
Inputs (8%)	26.1
Net Receipts	300.6

DOMESTIC RESOURCE COST

$$\frac{19,726.1}{300.6} = \text{TL } 65.6 \text{ per US\$}$$

Table A 8.2: ESTIMATED 1980 REPLACEMENT COST OF ACCOMMODATION ESTABLISHMENTS

Type and Class	Cost per Bed (TL million)	Number ('000)	Total Cost (TL million)
Hotels:			
Deluxe	1.87	5.1	9,537
1st	1.43	3.4	4,862
2nd	1.04	6.4	6,656
3rd	0.74	8.2	6,068
4th	0.50	13.3	6,650
Motels:			
1st	0.74	6.4	4,736
2nd	0.50	3.5	1,750
Holiday Villages:	0.96	5.6	5,376
Guest Houses:	0.50	1.6	800
Total			46,930

P A R T I I I

METHODOLOGICAL AND STATISTICAL ANNEX

ANNEX I

A SECTOR MODEL OF TURKEY'S AGRICULTURE

A. Introduction

A 1.1 Turkey's agriculture has the potential for producing a rich array of continental products (i.e., cereals, cotton, tobacco and livestock) and Mediterranean crops (fruits and vegetables). This fact reflects the variety of soils and agro-climatic zones in the country, and the three-fold role of agriculture as: (i) domestic supplier of final consumption goods, (ii) domestic supplier of raw materials for industrial transformation, and (iii) foreign exchange earner.

A 1.2 Because of such a complex product structure and the use of common resources, it would be misleading to analyze the question of comparative advantage by making calculations for each agricultural product respectively. Rather, there is a need for a simultaneous consideration of all products taking account of the trade-offs among them.

A 1.3 This Annex presents the results of an analysis of comparative advantage and alternative agricultural policies based on an agricultural sector model. The model has been developed as a tool for hypothesis testing, based on secondary data and field observations during a short visit to Turkey. [1]/ It is used to address the following four questions:

(a) does Turkey have a comparative advantage in agriculture and in which products?

(b) how would the answer to (a) vary under alternative trade regimes?

(c) what would be the equilibrium pattern of production under alternative trade regimes?

(d) what would be the gains and the losses under alternative trade and agricultural policies?

B. The Model

A 1.4 The model adopted is of the partial equilibrium static variety (Duloy and Norton, 1975), but includes three further features that improve its realism and bring its performance closer to a general equilibrium mode: (i) risk aversion (Hazell and Scandizzo, 1974 and 1977); (ii) price-responsive input supply (Hazell, 1979); and (iii) income effects (Norton and Scandizzo, 1981).

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[1]/ See Appendix I for the documentation of the data used in the formulation of the model.

A 1.5 The objective function utilized in the model is a reformulation of the consumers' plus producers' surplus function used by Samuelson (1959) in his spatial equilibrium model. Given the structure of consumer demands, production activities, and trade possibilities, optimality entails equating supply to domestic plus foreign demand and prices to marginal costs for all commodities, making provisions for risk and allowing for the reservation cost of labor. The techniques used also take account of changes in incomes that any reallocation of resources implies and its effects on consumers' demand schedules. The latter are price responsive on the basis of elasticities estimated using Frisch's (1952) method.

A 1.6 The model contains a feasibility set of 83 activities (listed in Appendix I), constituted by 26 production activities (rotations, individual crop and various livestock activities), 54 demand, export and import activities for final commodities plus a number of factor use activities. Even though the model is not formally regionalized, a set of region-specific constraints de facto separates the activities into an "Anatolia sub-model" for Central and Eastern Turkey and a "waterfront" submodel for the Thrace, Aegean, Black Sea and Mediterranean regions. The land classes used (see below) also partly correspond to regional boundaries.

A 1.7 The model makes allowance for processing. In livestock raising, processing activities involve transforming feedgrains into concentrates. For other types of processing for final consumption, commodity prices reflect the percentage share of the commodity (assumed fixed at the 1978 level) that is consumed or exported in processing form.

A 1.8 Fixed resources include labor, tractors, six land classes (undifferentiated land, grape land) and five types of livestock (mules, bullocks, beef bovine, milk bovine, and ovine). Risk is introduced in the model using a risk cost proportional to the mean absolute deviation of the gross revenue from the trend in each activity [1/] based on a five-year (1974-78) time series of prices and yields. Finally, purchasable inputs are labor (at endogenous prices), fertilizer (nitrogen, phosphate, and potassium at exogenous prices), tractor services, and investment activities (tractor purchases, or expansion of irrigated land).

C. Base Year Solution and Validation of the Model

A 1.9 The model constructed has been validated by comparing its solution to the base year (1978) data for production, consumption, trade, factor use and prices. In order to reflect the trade constraints imposed by import quotas, export licensing and foreign exchange management, imports and the exports of wheat and barley have been assumed to be limited by the actual amounts traded. Furthermore, the low foreign demand elasticities for hazelnuts, tobacco and tea have been taken into account by using marginal revenues rather than prices for all exports above base year levels. For all other commodities, marketing costs have been assumed to rise with exports.

1/ See Hazell and Scandizzo (1974 and 1977) for details of the programming technique.

A 1.10 Table A 1.1 shows the results of the validation test for production levels. In turn, comparisons of: (i) the prices estimated on the model, (ii) the support prices, (iii) the CIF prices, and (iv) the FOB prices are presented in Table A 1.2.

A 1.11 As Table A 1.1 shows, the model solution tends to closely approximate the base year data for the majority of products considered. The model, however, tends to "overshoot" actual production levels for livestock products, while it underpredicts the production of cotton, wheat, corn, and barley. This is related to the fact that these crops are more attractive to large farmers than other irrigated crops (such as citrus and vegetables) due to supervision costs and the low opportunity cost of land.

D. Comparative Advantage and Effective Protection

A 1.12 The base solution of the model reported in Table A 1.3 permits investigating the question of protection and comparative advantage. The first two columns of the table show the cost per ha of traded and non-traded inputs. Traded input costs include most cash inputs such as fertilizer, the import component of tractor costs, and, in the case of livestock, fodder and concentrates. All these inputs are evaluated at CIF prices. Domestic resource (non-traded input) costs include labor (atreservation and shadow costs), the domestic component of tractor costs, land costs (at the shadow prices of various types and land), and risk costs. Domestic prices have been converted into US dollars at the official exchange rate (OER = 25TL/US$).

A 1.13 The third and fourth columns of the table show the value of production at domestic prices, converted at the OER and at border prices, respectively, while the fifth and sixth columns show the corresponding value added figures obtained substracting the values of the inputs traded in column 1. The seventh column presents the DRC measure, obtained by dividing domestic resource costs by value added at border prices and multiplying the result by the ratio between the official and a lower bound estimate of the shadow exchange rate (SER = 35TL/US$) 1/. The eighth column shows the effective rate of protection, the ratio of value added at domestic prices to value added at border prices, and the ninth column the nominal rate of protection (the corresponding ratios between prices).

A 1.14 While more precise indications of comparative advantage will be offered by model solutions under alternative trade scenarios (in Section E), a few general observations may be derived from the summary measures presented in Table A 1.3. First, the cost of traded inputs per ha is low for four major crops: wheat, barley, rye and pulses. These crops use relatively little fertilizer per ha and utilize less machinery than competing crops, such as corn and rice. Even though the latter have higher value added per ha, the cost of traded inputs may make their production

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1/ Because the overall effective protection coefficient for agriculture is 1.4, 35TL/US$ (equal to 1.4 x OER) can be considered a lower bound for the shadow exchange rate, i.e., the shadow exchange rate that would prevail if the coefficient of effective protection on the rest of the economy were also 1.4.

Table A 1.1

COMPARISON OF PRODUCTION LEVELS BETWEEN ACTUAL 1978 DATA AND MODEL SOLUTION
(000 tons)

Crop	1978 Actual	1978 Base Solution	B/A
Wheat	16,769	15,384	0.92
Corn	1,300	1,191	0.92
Rye, etc.	1,019	1,069	1.05
Rice	305	347	1.14
Barley	4,750	4,418	0.93
Sunflower	485	523	1.08
Sugarbeet	9,075	9,790	1.08
Tea	94	114	1.21
Tobacco	288	327	1.14
Cotton	475	191	0.40
Roots	3,660	4,110	1.12
Pulses	814	948	1.16
Grapes	3,496	3,500	1.00
Olives	1,100	1,103	1.00
Vegetables	11,815	13,198	1.12
Citrus	1,081	1,163	1.08
Hazelnuts	305	293	0.96
Fruits	2,505	2,470	0.99
Beef	239	390	1.63
Cow Milk	3,480	3,932	1.13
Mutton & Goat	384	526	1.37
Wool	56	86	1.54
Ewe Milk	1,710	2,054	1.20

Table A 1.2

COMPARISON OF BASE YEAR, IMPORT, EXPORT AND ENDOGENOUS PRICES

Crop	1978[1]/	Import CIF	Export FOB	Endogeneous[1]/ (model generated)
Wheat	127.20		108.11	95.73
Corn	174.40			165.60
Rye,etc.	118.00		106.40	83.61
Rice	557.20	353,700		301.87
Barley	134.00		120.53	86.87
Sunflower	328.40			255.32
Sugarbeet	29.60			21.44
Tea	2,502.40		1,537.50	1,487.91
Tobacco	1,959.20		2,912.73	679.34
Cotton	1,241.20		1,253.75	1,311.82
Roots	265.60		141.71	91.51
Pulses	788.00		387.40	276.46
Grapes	504.80		268.50	268.80
Olives	494.80		166.56	410.68
Vegetables	266.40		119.67	101.40
Citrus	267.60		193.79	126.30
Hazelnuts	818.40		1,928.03	973.87
Fruits	446.00		179.71	212.74
Beef	1,618.00			
Cow Milk	401.60			274.83
Mutton	1,750.00		1,666.70	
Wool	3,056.80	3,237.59		104.40
Ewe Milk	360.00			
Sheep & Goat				

1/ In dollars per ton from domestic currency at the average official exchange rate (25TL/US$).

Table A 1.3: TURKEY: ANALYSIS OF COMPARATIVE ADVANTAGE IN AGRICULTURE IN 1978

	(1) Traded Inputs	(2) Non-Traded Inputs (ER=25/TL/$	(3) Production Value, at Domestic Prices	(4) Production Value, at Border Prices (ER=25TL/$)	(5) Value Added, at Domestic Prices	(6) Value Added, at Border Prices	(7) NET VALUES (Exchange rate = 35TL/$) DRC	(8) EPC	(9) NPC
Wheat	102.302	95.793	262.735	223.924	180.085	121.621	.563	1.056	.838
Corn	161.806	224.482	390.656	262.304	250.194	100.498	1.596	1.788	1.064
Rye, etc.	94.382	25.034	167.560	151.088	81.421	57.706	.315	1.026	.792
Rice	507.425	776.041	2,379.244	1,579.815	1,898.769	1,072.390	.517	1.265	1.076
Barley	69.992	87.988	245.220	220.570	185.257	150.578	.417	.879	.794
Sunflower	172.550	150.000	384.228	315.385	265.177	142.835	.750	1.326	.870
Sugar-Beet	287.217	417.394	1,011.432	542.278	798.625	255.061	1.169	2.237	1.332
Tea	359.841	1,133.414	4,078.912	2,506.125	3,785.493	2,146.285	.377	1.260	1.163
Tobacco	193.303	318.285	1,920.016	2,854.475	1,741.406	2,661.285	.085	.467	.480
Cotton	309.616	549.149	906.076	915.237	634.615	605.622	.648	.748	.707
Roots	324.038	508.380	3,739.648	1,995.277	3,455.913	1,671.239	.217	1.477	1.339
Pulses	88.689	138.102	985.000	484.250	908.696	395.561	.249	1.641	1.453
Grapes	315.329	513.377	2,236.264	1,190.784	1,931.131	875.455	.419	1.576	1.341
Olives	67.502	180.998	672.928	226.522	614.610	159.020	.813	2.761	2.122
Vegetables	3,391.074	4,260.790	7,952.040	7,154.150	4,596.790	3,763.075	.809	.873	1.590
Citrus	2,399.779	3,674.844	5,459.040	6,401.316	3,142.945	4,001.537	.656	.561	.986
Hazelnuts	146.677	974.234	818.400	2,048.030	695.612	1,901.353	.366	.261	.303
Fruits	1,093.058	2,140.220	4,348.500	2,922.173	2,267.440	1,829.115	.836	1.276	1.773
Beef									.681
Cow Milk									1.127
Mutton									.750
Wool									.982
Ewe Milk									1.010
Mule	8.162	41.497							
Bullocks	15.315	73.912	38.832	40.757	24.807	25.442	2.075	.696	
Beef Bovine	25.295	132.508	82.842	86.948	59.677	61.652	1.535	.691	
Milk Bovine	21.379	139.232	333.082	250.385	313.504	229.006	.434	.978	
Ovine	1.087	8.388	44.919	37.165	4.923	36.078	.166	.870	
TOTAL	156.875	257.551	698.273	555.498	554.691	398.623	.462	.994	.898

unattractive to the farmers. A similar conclusion holds for fruits and olives as against vegetables and grapes.

A 1.15 Second, domestic resource cost is relatively high for: (i) labor intensive crops, such as citrus and vegetables, (ii) crops using irrigated land, and (iii) crops whose growth is limited by the availability of a specific land type or climate (tea, vegetables, fruits and hazelnuts). The production and price risk that farmers have to accept for some of these crops is also an important elements of costs, particularly for fruits, vegetables and citrus.

A 1.16 Third, the crops with relatively high domestic resource costs tend to have the highest value added per ha, both in terms of domestic and foreign prices, although the actual figures in the two cases may show larger differences. As a consequence, the degree of comparative advantage is not easily predictable since both costs and benefits tend to increase simultaneously as one proceeds from land intensive crops; such as cereals,- to water and labor intensive ones, such as roots, citrus, fruits and vegetables.

A 1.17 Except for beef (hampered by the present low yields), and sugarbeets (affected by the domestic high cost of refining sugar), in terms of the DRCs, the actual measures of comparative advantage, (and to a lesser extent NPCs and EPCs), it would seem that a socially profitable expansionof agriculture could occur in virtually all the crops considered. At the same time, while the question of the optimal degree of such an expansion will be investigated in Section E, the results of the DRC analysis suggests that the most profitable direction of expansion would be in irrigated crops and lamb.

A 1.18 It further appears that even if one considers the over valuation of the currency, the protective measures did raise the value added of a few privileged crops, such as cereals, sugarbeets, and tea, while value added in cotton, roots, fruits and vegetables were allowed to fall below their border price values. Thus a realignment of producers' incentives is clearly called for and may go a long way to foster the expansion of the sector along comparative advantage lines.

E. Gains and Losses from Protection and Free Trade Scenarios

A 1.19 A basic experiment to explore the extent of comparative advantage for each product is generated by the hypothesis that border prices and an exchange rate of 35/TL would become fully effective, with adjustment made for optimal taxes on traditional exports. Assuming that this can occur instantly (that is in the base year 1978), or gradually over time, provides alternative scenarios.

A. 1.20 Table A 1.4 shows the effects that free trade would have on production, consumption and trade patterns. First, while rye, oats and millet production would increase, the production of competing cereals, such as wheat, barley, corn and rice would decrease. Second the production of import-substituting crops such as sugarbeets would drastically decline.

Table A 1.4 PATTERNS OF PRODUCTION, CONSUMPTION AND TRADE UNDER PRESENT AND FREE TRADE SCENARIOS
(000 tons)

Crop 1/	(1978) Base Solution (Exchange Rate = 25TL/US$)				Free Trade Solution (Exchange Rate = 35TL/US$)			
	Import	Export	Consumption	Production	Import	Export	Consumption	Production
Wheat		2,090.000	10,634.931	15,383.663		3,917.989	7,785.609	13,650.000
Corn			1,083.628	1,190.799	146.199		1,019.746	974.400
Rye, etc.		62.000	1,006.628	1,068.764		3,563.066	868.956	4,432.022
Rice			242.824	346.891	71.415		208.408	226.310
Barley		15.000	2,906.250	4,418.405		17.367	2,343.750	3,568.500
Sunflower			523.082	523.082	80.118		443.988	363.870
Sugarbeet			9,789.929	9,789.929	1,692.668		8,800.027	7,107.360
Tea		2.000	112.240	114.240		43.000	87.400	130.400
Tobacco		77.000	250.246	327.246		198.524	159.094	656.600
Cotton			191.090	191.090		100.000	159.176	357.700
Roots		29.000	4,081.244	4,110.244		500.000	3,950.528	4,050.528
Pulses		118.000	829.771	947.771		348.262	790.934	1,290.934
Grapes		202.293	3,297.407	3,499.700			3,151.438	3,499.700
Olives			1,102.960	1,102.960	360.627		1,187.507	826.880
Vegetables		10.000	13,188.310	13,198.310		4,257.646	12,786.704	17,044.350
Citrus		140.000	1,022.607	1,162.607			922.453	922.453
Hazelnuts		162.000	130.555	292.555		147.716	85.800	233.000
Fruits			2,470.343	2,470.343		716.059	2,353.062	3,069.122
Beef			389.532	389.532		167.631	172.486	340.118
Cow Milk			3,932.400	3,932.400			3,459.977	3,459.977
Mutton		28.000	498.400	526.400		429.185	338.200	767.385
Wool			85.593	85.593		64.998	59.780	124.778
Ewe Milk			2,054.244	2,054.244			2,994.672	2,994.672

1/ Wheat, corn, rice and barley consumption is expressed in milled terms. Conversion factors are 0.8 for wheat, 0.91 for corn, 0.7 for rice and 0.66 for barley.

Third, a large expansion of most export crops, including vegetables, fruits, and lamb would occur. Although these effects would need time to materialize, the numerical values of the model solution can be interpreted

A 1.21 A further indication of the potential for trade expansion is shown in Table A 1.5, where actual trade balances for the present and the free trade scenario are compared for broad product and input groups. As the table shows, the free trade solution implies a much larger amount of trade with exports rising five times and imports (including imported inputs) increasing by one-half. Correspondingly, there would be a sizable net gain in foreign exchange as the expansion of exports would more than compensate for the increased purchases of imported inputs, such as fertilizer and fuel.

A 1.22 Although the model results should be interpreted in terms of directions rather than magnitudes of change, they suggest that a movement toward freer trade would release a very large export potential in Turkish agriculture. While resources would be shifted from some products (such as sugarbeets or dairy production) to others, most sectors would expand as a result.

A 1.23 In order to disentangle the effects of exchange policy from the effects of the market interventions, Table A 1.6 presents two solutions of the model under the alternative hypotheses that: (i) the exchange rate is devalued from 25 to 35 TL per US dollar, with no other changes in market interventions, and (ii) market intervention is discontinued but the exchange rate remains at the same value. It is apparent that the two policies, taken individually, create only a fraction of the gains achievable under a full free trade solution, and both would create distortions and over expansions in sectors that happen to be particularly favored by the devaluation or the removal of the market intervention policies.

A 1.24 In the free trade solution a substantial part of export growth is achieved at the expense of consumption. A further possibility that can be investigated is that while trade is free, domestic consumption is kept at 1978 levels by appropriate subsidies. Table A 1.7, which reports production, consumption and trade patterns under the latter assumption, shows that production levels would be basically unaltered from the free trade solution, except for a fall in the production of pulses to compensate for an increase in production of barley and increases in the production of fruits and citrus. At the same time this solution would imply a somewhat larger amount of imports and a smaller amount of exports. Table A 1.8 shows, however, that exports would quadruple as compared to the base solution while imports would rise only marginally.

A. 1.25 Table A 1.9 reports estimates of welfare gains and losses from free trade. The overall effect of the trade regime prevailing in 1978 was to generate a loss of welfare of about $2.0 billion, in terms of the welfare measure of consumer's plus producers' surplus plus labor income.

Table A 1.5

COMPARISON OF TRADE BALANCE UNDER PRESENT AND FREE TRADE SCENARIO
(Million US$)

	Base Year			Free Trade		
Product	Import	Export	Net	Import	Export	Net
Fruits		339.5	339.5		497.6	497.6
Grains		235.0	235.0	46.8	984.7	937.9
Others		277.2	277.2	64.6	1,910.8	1,846.2
Grapes & Olives		54.4	54.4	82.3	123.8	41.5
Vegetables		1.2	1.2		541.6	541.6
Livestock		46.7	46.7		1,019.4	1,019.4
Inputs 1/	1,009.1		-1,009.1	1,311.0	-	-1,311.0
TOTAL	1,009.1	953.9	-55.2	1,504.7	5,077.9	3,573.2

1/ It includes fertilizers, pesticides, machinery and fuel.

Table A 1.6

COMPARISON OF RESTRICTED TRADE/DEVALUATION SCENARIO (SCENARIO 1) WITH FREE TRADE/OVERVALUED EXCHANGE RATE SCENARIO (SCENARIO 2)

Crop	Export	Consumption	Production	Import	Export	Consumption	Production
Wheat	2,090.000	8,497.939	12,712.424		2,137.163	9,210.270	13,650.000
Corn		891.982	980.199	286.599		1,147.510	974.400
Rye, etc.	62.000	972.312	1,034.312		3,093.736	937.060	4,031.596
Rice		225.616	322.300	108.290		234.220	226.310
Barley	15.000	2,484.375	3,779.201			2,355.212	3,560.500
Sunflower		470.353	470.353	132.848		496.718	363.870
Tea	2.000	103.960	105.960		8.169	103.960	112.129
Tobacco	77.000	250.246	327.246		463.324	193.276	656.600
Cotton	76.346	169.814	246.160		166.610	191.090	357.700
Roots	29.000	4,081.244	4,110.244		100.000	3,950.528	4,050.528
Pulses	118.000	829.771	947.771		500.000	13,188.310	13,688.310
Grapes	275.278	3,224.422	3,499.700		275.278	3,224.422	3,499.700
Olives		1,102.310	1,102.960	418.108		1,244.988	826.880
Vegetables	10.000	13,188.310	13,190.310		500.000	13,188.310	13,688.310
Citrus	140.000	1,022.607	1,162.607			955.838	955.838
Hazelnuts	162.000	117.378	279.378		244.200	85.800	310.000
Fruits	178.000	2,470.343	2,648.343		147.755	224.541	372.295
Beef		356.527	356.527			3,787.337	3,787.337
Cow-Milk		3,619.200	3,619.200		365.105	402.280	767.385
Mutton	28.000	491.690	519.690		60.606	64.172	124.778
Wool		84.502	84.502		60.606	64.172	124.788
Ewe-Milk		2,028.060	2,028.060			2,994.672	2,994.672

Table A 1.7

FREE TRADE SOLUTION WITH MINIMUM CONSUMPTION LEVELS
(000 tons)

Crop	Import	Export	Consumption	Production
Wheat			11,743.000	14,678.750
Corn	325.599		1,183.000	974.400
Rye,etc.		729.640	957.000	1,686.640
Rice	115.118		239.000	226.310
Barley			3,125.000	4,734.844
Sunflower	121.130		485.000	363.870
Sugarbeets	1,967.640		9,075.000	7,107.360
Tea		38.400	92.000	130.400
Tobacco		445.600	211.000	656.600
Cotton		160.700	197.000	357.700
Roots		100.000	3,905.908	4,005.908
Pulses		500.000	790.934	1,290.934
Grapes		348.262	3,151.438	3,499.700
Olives	360.627		1,187.507	826.880
Vegetables		4,257.646	12,786.704	17,044.350
Citrus			941.000	941.000
Hazelnuts		90.000	143.000	233.000
Fruits		707.195	2,353.062	3,060.257
Beef		103.084	239.000	342.084
Cow Milk			3,480.000	3,480.000
Mutton		411.385	356.000	767.385
Wool		63.778	61.000	124.778
Ewe Milk			2,994.672	2,994.672

Table A 1.8

IMPORT-EXPORT BALANCE IN THE FREE TRADE
MINIMUM CONSUMPTION SOLUTION
(Million US$)

Product	Import	Export	Balance
Fruits		384.6	384.6
Grains	86.7	94.9	8.2
Others	83.5	1,710.9	1,627.4
Grapes & Olives	82.3	123.8	41.5
Vegetables		541.6	541.6
Livestock		882.3	882.3
Inputs	1,264.0		-1,264.0
TOTAL	1,516.5	3,738.1	2,221.6

Table A 1.9. GAINS AND LOSSES FROM FREE TRADE (Million US$)

	Total Welfare Measure [1]/	Labor Income	Total Non-Labor Costs	Production Value	Consumers' Surplus	Producers' Surplus	Value of Consumption Subsidies
Base @25	31,286	2,367	3,703	12,707	22,282	6,637	1,300
Free Trade	33,300	3,630	2,509	14,842	20,967	8,703	-
FT with Cons. Subsidies	32,809	3,692	2,422	14,815	20,416	8,701	551
Gains From Free Trade	+2,014	+1,263	-1,194	+2,135	-1,315	+2,066	-1,300
Gains from FT with Cons. Subsidies	+1,523	+1,325	-1,281	+2,108	-1,866	+2,064	-749

[1]/ Net social pay-off defined as the sum of consumers', producers' surplus and labor income.

* As the table shows, most of the gains from free trade would be maintained under the free trade-minimum consumption solution. Sizeable subsidies (551 million $) would be needed, however, to support the consumption of necessities whose prices would otherwise be dramatically raised by the trade regime.

F. Projections to 1990

A 1.26 Further indications of the impact of alternative trade policies can be obtained by solving the model for a projected year. For these simulations, 1990 was selected as a long-term horizon sufficiently far from the base year to enable us to make the assumption that adjustments to the free trade pattern would be carried out. Briefly, it is assumed that GDP rises at a rate of 3% a year for the first three years and 4% thereafter and that other variables such as yields or investment priorities increase at the rates realized in the past 5 to 10 years.

A 1.27 The version of the model used in the projection incorporates income effects as outlined in Norton and Scandizzo (1981) such that at endogenous increase in agricultural income have the two-fold consequence (i) increasing country's GDP through a sector multiplier, and (ii) shifting the demand functions according to the income increase and the appropriate Engel elasticity.

A 1.28 Table A 1.10 presents the basic results of the projection runs for two alternative scenarios: one in which the exchange rate remains overvalued (Scenario 1) and one (Scenario 2) characterized by a closer to equilibrium exchange rate (35TL/$) and free trade except for minimum consumption constraints (at the base year level).

A 1.29 As the table demonstrates, while the two alternatives are rather similar for the predicted growth rates of most field crops, and sheep production, they show substantial differences for tea, pulses, citrus, fruits and beef. This table further makes comparisons with historical growth rates and provides DRC estimates.

A 1.30 Further insights on the reallocation of resources suggested by the model can be obtained by comparing the shadow prices of the land constraints. These are the values of the marginal productivities of the six land classes considered and can be interpreted as the capital cost per ha that one should be prepared to pay to expand any of the particular land improved type. As Table A 1.11 shows, a movement toward freer trade and an equilibrium exchange rate would considerably increase land productivity and create sizable incentives to investments in land improvements. These might include: (i) replacement of the older vineyards, (ii) reconstitution of the olive trees, (iii) land clearing (e.g., destoning in Southeast Anatolia), and (iv) completion of irrigation works and fuller utilization of irrigated land.

A 1.31 As for the other constraints, neither labor nor tractors have shadow prices significantly different from zero in either of the solutions, thus confirming the hypothesis that they are available in abundant supply and are not being fully utilized. Shadow prices also indicate that the maintenance of minimum consumption levels would require subsidies of the order of $60 per ton (of processed products) for grains and pulses and about $40 per ton for citrus.

Table A 1.10

AVERAGE ANNUAL PERCENTAGE INCREASE IN PRODUCTION BY PRODUCT UNDER ALTERNATIVE TRADE SCENARIOS: PROJECTIONS TO 1990

Crop	Scenario A [Overvalued Exchange Rate]	Scenario B [Equilibrium Exchange Rate]	Historical Rates [Average 1975-80]	DRC (ER=35TL/$)
Wheat	0	0	3.59	1.026
Corn	-0.44	-0.44	-0.83	2.542
Rye,etc.	-0.92	-0.92	-4.53	0.581
Rice	-2.30	-2.30	13.33	1.013
Barley	-2.18	2.34	4.67	0.173
Sunflower	-1.78	-1.78	-0.24*	1.078
Sugarbeets	-1.43	-1.43	5.33	2.476
Tea	3.38	0.46	18.79*	0.811
Tobacco	7.29	7.29	3.33	0.143
Cotton	6.67	6.67	-0.87	1.224
Roots	1.10	0.95	3.28*	0.380
Pulses	5.43	4.24	3.73	0.380
Grapes	0.32	0.05	0.61	0.155
Olives	-1.16	-1.16	2.38*	0.350
Vegetables	4.01	5.94	5.04	0.692
Citrus	3.94	2.44	4.90**	1.384
Hazelnuts	1.33	0.53	0.00	1.046
Fruits	6.21	6.44	3.74**	1.053
Beef	1.83	1.83	-6.41*	0.885
Cow Milk	1.89	1.89	2.35	0.885
Mutton	3.49	3.19	-6.25*	0.357
Wool	3.19	3.19	2.13	0.357
Ewe Milk	3.19	3.19	2.11*	0.357
TOTAL				0.679

*1975-1978

Table A 1.11

SHADOW PRICES OF LAND CONSTRAINTS ($/ha)

Land Type	Base	Scenario A	Scenario B
Grape Land	338		
Olive Land	88		
Irrigated Land			
Vegetable			896
Tree	774	2,227	2,429
Other	97	661	575
TOTAL	0	12	38

G. Some Conclusions

A 1.32 The results are based on a limited and preliminary set of runs of an aggregate sector model based on secondary data and field observations assembled in the course of a brief visit to Turkey. Even though it has to be considered a rather rudimentary if integrated picture of Turkish agriculture, it permits drawing some conclusions on comparative advantage, alternative trade policies and development options.

A 1.33 First, Turkish agriculture as a whole and most of its subsectors appear to hold a considerable degree of comparative advantage over the other sectors of the economy. Despite of the trade-offs created by competition for fixed resources (chiefly irrigated land, and the present stock of trees and animals) a reallocation and more intensive use of land, labor, tractors and fertilizers could be achieved with considerable social gains.

A 1.34 Second, the results suggest that a policy of free trade and equilibrium exchange rates would be optimal as it would permit the largest release of the production and trade potential of the agricultural sector. Such a policy would have the consequence of expanding export crops such as citrus, vegetables and livestock at the expense of import substituting crops such as sugarbeets, sunflower, some cereals and milk.

A 1.35 Third, alternative policies which would fall short of correcting for the devaluation of the currency or of eliminating existing distortions, would fail to create most of the gains available with full free trade and would themselves create distortions.

A 1.36 Fourth, a policy of trade liberalization cum consumption subsidies, having as a target the maintenance of per capita food consumption levels realized in 1978, would slightly fall short of the free trade achievements. The resulting increases in trade would still be very large and beneficial, and the expansion of the various subsectors would be in line with the full free trade solution.

A 1.37 Once cast in a projection framework, the above conclusions imply that a policy of trade liberalization and realistic exchange rates would cause production and exports of a number of agricultural crops to grow in excess of historical rates. These products, which correspond to Turkey's comparative advantage in terms of the highest potential for fast growth are: tobacco, cotton, fruits, vegetables and livestock. Several agricultural products of importance in the present cropping patterns (wheat, barley roots and beef) would grow at less than historical rates, while production of some others would decrease. According to these projections the growth rate for the agricultural sector could average 5.7% over the 12 years between the base (1978) and the projection year (1990), a substantial improvement over the historical achievement of 3.5%.

A 1.38 Finally, the results suggest that irrigated land is the most tightly binding constraint for the development of Turkish agriculture, while other types of land, labor and machinery either have sharply lower shadow prices or are available in more than sufficient quantity. Efficient use of irrigated land is thus crucial to improve agriculture's development performance and should be favored by appropriate price incentives and water charge policies.

Appendix I

AGRICULTURAL SECTOR MODEL FOR TURKEY: THE DATA

The preliminary version of the agricultural sector model for Turkey, is based on 24 single crop and livestock activities. On the input side, land, labor, animal power, tractor power and fertilizers are employed in addition to converted producers of the crop activities for livestock activities. The crop production activities are: wheat, corn, rye-oats-millet, rice, barley, sunflower, sugarbeets, tea, tobacco, cotton, roots, pulses, grapes, olives, vegetables, citrus, hazelnuts, fruits and feed. The livestock production activities are: mules, bull, beef-bovine, milk-bovine and ovine.

Six classes of land, namely other land, irrigated land, tree land, olive land, grape land and vegetable land, and three classes of fertilizers, namely, N, P_2O_5, and K_2O are used.

The data employed are gathered mainly from SIS, SPO, FAO and other Turkish government or private agency publications. The results at this stage are preliminary and tentative, not only due to the simplifications introduced in the model structure for lack of data, but also due to problems that remain with the existing data. It has not been possible to gather the time-series data required from a single source and hence it has been necessary to piece together the data from various publications and sources. This on the other hand resulted in many places in inconsistencies and need for adjustments by the researchers in a fairly arbitrary way. While it is unlikely that the results will change significantly due to these data adjustments, they should nevertheless be taken with care.

A. Crop Production Activities

Turkish statistics unfortunately do not permit the construction of an input-output table from a single source, since the detailed and representative technology coefficients needed for this study have not been the subject of a systematic study. Hence, the technological coefficients for the crop production activities as given in Table I.1 are obtained from four sources: (i) SIS, The Summary of Agricultural Statistics (1979); (ii) SPO, Unpublished documents; (iii) FAO Data from Agriculture AT2000 (1978); and (iv) SIS, Agricultural Structure and Production (1978).

B. Livestock Production Activities

The technological coefficients for livestock production activities as presented in Table I.2 are taken partially from the Portugal Case Study (from RPO 672-11 "Agricultural Sector Framework Study")and partially from Turkish statistics. The "mule" activity includes the production of camels, horses, donkeys and mules. The bullock activity includes bullocks

Table I.1. CROP PRODUCTION ACTIVITIES

Notes	Source	Activity	Unit	Wheat	Corn	Rye Oats Millet	Rice	Barley	Sunflower	Sugarbeet	Tea	Tobacco	Cotton
1	a	Other land	ha	1.6	1.0	1.0	1.0	1.6	1.0	1.0		1.0	1.0
2	b	Irrigated land	ha		0.14		1.0			0.68		0.1	0.96
3	c	Tree land	ha								1.0		
4	d	Grape land	ha										
5	e	Olive land	ha										
6	f	Vegetable land	ha										
7	g	Labor	hrs	414.0	988.9	87.4	3,000.0	384.8	750.0	1,757.0	1,795.9	1,542.9	2,269.8
8	h	Animal power	hrs	48.2	115.4	81.3	350.0	44.5	87.5	179.4	204.1	180.0	264.3
9	i	Tractor power	hrs	7.4	17.4	12.2	53.6	6.9	14.4	28.0	40.8	28.6	41.7
10	j	Fertilizer N	kg	36.4	59.2	16.6	157.0	19.4	96.4	136.9	248.0	28.4	82.8
11	k	Fertilizer P	kg	33.7	39.5	15.4	83.2	19.0	85.5	121.3	1.5	22.1	52.9
12	l	Fertilizer K	kg	0.037	0.476	0.006	0.181	0.005	6.245	7.524		2.569	0.852
13	m	Yield	MT/ha	1.8	2.24	1.42	42.7	1.83	1.17	34.17	1.63	0.98	0.73

Notes	Source	Activity	Unit	Roots	Pulses	Grapes	Olives	Vegetables	Citrus	Hazelnuts	Fruits	Feed	Irrigated Wheat
1	a	Other land	ha	1.0	1.0							1.0	1.0
2	b	Irrigated land	ha	0.4	0.04	0.12		0.4	1.0		0.12	0.2	
3	c	Tree land	ha						1.0	1.0	1.0		
4	d	Grape land	ha			1.0							
5	e	Olive land	ha				1.0						
6	f	Vegetable land	ha					1.0					
7	g	Labor	hrs	2,347.8	671.1	819.2	467.2	3,200.0	1,777.8	400.0	921.7	852.4	99.4
8	h	Animal power	hrs	271.7	77.9	64.5	54.0	3,731.3	207.4	2.0	107.2	101.6	
9	i	Tractor power	hrs	43.5	11.7	50.5	8.8	58.6	37.0	1.0	16.6	6.6	27.5
10	j	Fertilizer N	kg	81.4	15.3	21.1	19.4	78.5	176.0	64.2	24.5	7.9	50
11	k	Fertilizer P	kg	57.2	27.2	14.6	11.4	47.0	104.6	21.4	16.8	5.5	50
12	l	Fertilizer K	kg	7.604	0.557	0.962	3.208	4.141	29.164	1.93	2.247	.301	5
13	m	Yield	MT/ha	14.08	1.25	4.43	1.36	29.85	20.4	1.0	9.75		3.8
14	n	Feed yield	MT/ha									1.5	
15	o	Forage yield	MT/ha									8.1	

Table I.1 (continued)

Notes

1 The technological coefficients are given for 1 ha of land for wheat, corn, rye-oats-millet, rice, barley, sunflower, sugarbeet, tobacco, cotton, roots, pulses and feed.

2 Percentage of the area cultivated. A weight of 0.5 is assigned for partially irrigated land.

3 The technological coefficients for tea, citrus, hazelnuts and fruits are given for 1 ha of tree land.

4,5 The technological coefficients for olive and grapes are given for 1 ha of olive and grape tree lands respectively.

6 The technological coefficients for vegetables are given for 1 ha of vegetable land.

7 Man-hour equivalents. It is assumed that 1 man-day = 8 man-hours.

8 Animal power = number of animals x 400.

9 Tractor power = number of tractors x 1,000.

10 Nutrient equivalent = amount of fertilizer N x 0.21.

11 Nutrient equivalent = amount of fertilizer P x 0.17.

12 Nutrient equivalent = amount of fertilizer K x 0.50.

13 $Y_i = \frac{Q_{i1978}}{A_{i1978}} \times 1000$ = Output in kg per ha in 1978.

14 Alfalfa grain + dried alfalfa + sainfoin grain + dried sainfoin + dried maize + dried cow vetch + dried wild vetch.

15 Green maize + green cow vetch + green wild vetch + green alfalfa + green sainfoin.

Sources

a, c, d, e, f = see notes 1, 3-6.

b, g, h, i = FAO, AT2000 (1978).

j, k, e = SPO, Chemical Fertilizer Consumption by Crops (unpublished).

m, n, o = SIS, The Summary of Agricultural Statistics 1978
Also see notes and sources to Table 3 for fruits, nuts, citrus and tea.

Table I.2. LIVESTOCK PRODUCTION ACTIVITIES

Notes	Source	Activity	Unit	Mule	Bullocks	Beef Bovine	Milk Bovine	Ovine
1	a	Labor	hrs	36.48	48.68	132.56	248.24	19.16
2	b	Animal power	hrs	1372.00	1680.00	94.20	41.16	
3	c	Feed	MT	0.81212		0.25163	0.8781	
4	d	Forage	MT	1.45888	2.7375	4.5214	3.82132	0.19436
5	e	Concentrate	MT			0.02672	0.14413	
6	f	Beef	MT		0.024	0.0512	0.0584	
7	g	Cow milk	MT				0.5941	
8	h	Mutton	MT					0.0123
9	i	Wool	Mt					0.002
10	j	Ewe milk	MT					0.048

Notes

1 Man-hours required to take care of the livestock
2 Animal power resulting from the livestock activities.
3,4 Feed and forage consumption by the livestock.
6, Covers the livestock slaughtered in municipal slaughterhouses and estimates of "private" slaughters.
5 = 0.128 wheat + 0.087 corn + 0.154 rye + 0.258 rice + 0.119 barley.

Sources

a-f Portugal case study.
g-j SIS (1978) The Summary of Agricultural Statistics.

only. The beef bovine activity includes the production of cattle, young cattle and buffaloes. The milk bovine activity includes milk cows and buffalo cows. Ovine activity only includes sheep and goat production. These activities cover over 80% of the total Turkish livestock activities.

It should be pointed out that the yields for these activities, especially those related to beef and mutton production are likely to be underestimate, as they only reflect the livestock slaughtered or processed in municipal slaughterhouses and by the government fish, meat and milk organizations and estimates of "private" slaughters.

C. Resource Availability

The resource constraints employed to validate the 1978 base year solution and projected for 1990 projections are given in Table I.3.

Turkish statistics on the distribution of cultivated area and forest area contain the following categories: area sown, fallow land, vegetable area, vineyards, area of fruit trees, olive groves and forests. The area of fruit trees including all fruit trees, citrus trees, nut trees and tea area, is reported to be 1,321,000 ha in SIS publications for 1978. When the tea, hazelnut and citrus tree areas known to be (53,000 + 310,000 + 53,000) = 416,000 ha subtracted from this total, one obtains 905,000 ha for fruit tree area which is very high. Therefore an estimate is used (257,000 ha) for fruit tree area, and hence a total of 673,000 ha for the tree-land area (see notes to Table I.3).

Similarly, the fertilizer consumption figures in Table I.3 appeared to be understated for Fertilizer K and thus not employed in the validation of the base year solutions. It should be noted that the fertilizer consumption statistic by crop are not directly collected by SIS. Therefore the use of fertilizers by different crops are estimated and vary according to the estimation technique employed.

The total labor and tractor inputs available are estimated from the number of agricultural labor force and number of tractors (see notes to Table I.3).

D. Conversion Factors and Costs

The conversion factors to convert 1 kg of raw produce of wheat, corn, rye, rice and barley to processed form and the costs associated with these, as well as the concentrates derived from the conversions are given in Table I.4.

E. Input Costs

The input cost employed are assumed to be $0.20 per hour of labor, $5.91 per hour of tractors, $0.210, $0.141 and $0.196 per kg of fertilizers N, P and K respectively.

Also a fixed capital cost of $50 has been assigned for each hectare of cotton production activity.

Table I.3: RESOURCE AVAILABILITY

Notes	Sources	Resource	Unit	Amount
1	a	Total land	1,000 ha	24,552
2	b	Grape land	1,000 ha	790
3	c	Olive land	1,000 ha	811
4	d	Vegetable land	1,000 ha	571
5	e	Tree land	1,000 ha	673
6	f	Irrigated land	1,000 ha	3,000
7	g	Labor	1,000 hrs	29,475,000
8	h	Tractor	1,000 hrs	370,259
9	i	Fertilizer N	MT	776,412
10	j	Fertilizer P	MT	634,982
11	k	Fertilizer K	MT	20,809
12	l	Mule	1,000 hd	2,495
13	m	Bull	1,000 hd	2,176
14	n	Beef-bovine	1,000 hd	4,441
15	o	Milk-bovine	1,000 hd	8,289
16	p	Ovine	1,000 hd	62,389

Notes

1 Area sown plus fallow land.

2,3,4 -

5 (Tea land = 53,000 ha) + (Hazelnut land = 310,000 ha) + +((Fruit land = (number of fruit trees = 102,837,000)/(Area covered by 1 fruit tree = 50 m^2)/(conversion to hectares = 10,000) = 514,000)).

6 Projected from the irrigated land of 2,333,000 ha.

7 ((Total civilians employed in agriculture = 9,085) + (Agricultural labor surplus and peak season = 740)) *3,000.

8 (Number of tractors in 1978) x 1,000.

9,10,11 Fertilizer consumption converted to nutrient terms using conversion factors 0.21, 0.17

12-16 See section B on livestock activities.

Sources

a-e SIS (1979) The Summary of Agricultural Statistics.

f TUSIAD (1981) Tarim Raporu.

g World Bank (1979) Turkey: Policies and Prospects for Growth.

h,l-p SIS (1979) The Summary of Agricultural Statistics.

i-k SIS (1979) Statistical Yearbook of Turkey.

Table I.4. CONVERSION FACTORS

Raw Product (1 kg)	Processed Product (kg)	Cost ($/MT)	Concentrate (kg)
Wheat	0.80	47.95	0.128
Corn	0.91	44.55	0.087
Rye 1/	0.76	43.18	0.154
Rice	0.70	89.77	0.258
Barley	0.66	43.18	0.119

1/ The conversion factor for rye has not been employed and thus assumed to be 1, since the rye activity contains oats and millet in addition to rye.

Source: Portugal Case Study.

F. Output Prices

The TL/kg output prices are given in Table I.5 for years 1974-1978. The prices given and used in this study are the producers' prices. For activities which contain more than a single crop, such as rye-oats-millet, roots, pulses, vegetables, citrus and fruits weighted averages (weighted with share in output). In the cases of beef and mutton prices, there seemed to be important inconsistencies in SIS figures which gave producers' prices higher than the retail prices for these products. Therefore, the prices for beef and mutton are estimated by taking two-thirds of the retail price of the these products in Erzurum.

G. Activity Yields

The yields of the activities employed in this study are given in Table I.6. As in the case of activity output prices for multi-product activities a weighted average is estimated. The main difficulty in estimating the yields has been with the two of the tree-crops: fruits and citrus for which statistics are only available as to the number of trees and not the area of cultivation. Therefore, the yields on these two crops are based on their estimated areas. Similarly the yields for vegetables are based on the estimated vegetable area (see Section C).

H. The Demand Elasticities

The demand elasticities are basically obtained from the income elasticities given in world Bank Agricultural Sector Report using the Frisch method. There has been however some modifications, as required by the validation trials of the model for the base year. The demand elasticities used are given in Table I.7.

I. Domestic Production, Exports, Imports and Prices

The levels of domestic production, quantities and values of import and export for the activities both of the domestic and world export and import prices are given in Table I.8. The export and import prices for multi-product activities are obtained by dividing the total value by total quantity and thus reflect average prices for the products in the related activities.

Table I.5

OUTPUT PRICES
(TL/kg)

Commodity	1974	1975	1977	1977	1978
Wheat	2.30	2.66	2.61	2.89	2.18
Corn	2.29	2.61	2.66	3.30	4.36
Rye,etc.	1.68	1.91	1.93	2.18	2.95
Rice	5.18	5.27	5.40	9.35	13.93
Barley	1.88	2.07	2.10	2.41	3.35
Sunflower	4.62	5.22	5.77	7.07	8.21
Sugarbeets	0.36	0.45	0.57	0.63	0.74
Tea	29.51	35.33	42.96	51.07	62.56
Tobacco	19.94	29.91	36.05	45.19	48.98
Cotton	21.21	18.16	24.18	28.49	31.03
Roots	2.26	2.36	3.26	3.69	6.64
Pulses	6.37	7.10	7.71	11.41	19.70
Grapes	3.93	3.97	4.94	8.35	12.62
Olives	5.97	5.82	5.38	8.63	12.37
Vegetables	1.92	1.99	2.21	3.74	6.66
Citrus	2.36	2.46	2.61	3.44	6.69
Hazelnuts	12.28	12.88	14.50	15.71	20.46
Fruits	3.41	3.96	4.58	6.59	11.15
Beef [1/]	14.39	15.78	19.14	27.00	40.45
Cow Milk	3.45	4.70	5.48	6.34	10.04
Mutton [1/]	15.67	17.11	21.63	28.67	47.75
Goods					
Wool	22.02	33.12	44.42	58.52	76.42
Ewe Milk	3.37	4.79	5.59	6.73	9.00

[1/] Beef and mutton prices are estimated from the Erzurum retail prices by multiplying these prices with a ratio of two-thirds.

Source: SIS Statistical Yearbook of Turkey (1979).
SIS Prices Received by Farmers (1973-76).
SIS Prices Received by Farmers (1977-78).

Table I.6

Yields (kg/ha)

Commodity	1974	1975	1976	1977	1978
Wheat	1,257	1,595	1,789	1,785	1,805
Corn	1,935	2,000	2,192	2,181	2,241
Rye,etc.	1,083	1,371	1,473	1,414	1,424
Rice	4,052	4,384	4,648	4,659	4,289
Barley	1,291	1,731	1,860	1,813	1,884
Sunflower	998	1,167	1,236	1,217	1,169
Sugarbeet	30,570	32,389	37,564	36,042	31,905
Tea	1,055	1,105	1,145	1,479	1,631
Tobacco	884	828	1,027	881	885
Cotton	714	716	817	740	727
Roots	11,396	12,866	14,034	14,141	14,084
Pulses	1,205	1,314	1,285	1,271	1,252
Grapes	4,210	4,110	4,010	4,184	4,425
Olives	1,070	700	1,354	490	1,356
Vegetables	29,166	31,129	24,675	25,997	29,853
Citrus	15,545	16,788	16,946	20,209	20,396
Hazelnuts	1,000	1,060	900	950	1,000
Fruits	6,823	6,823	7,798	7,603	9,747
Beef	165	155	169	176	163
Cow Milk	1,771	1,658	1,810	1,884	1,750
Mutton Goods	7.38	7.24	7.73	7.73	7.24
Wool	2.72	2.67	2.85	2.85	2.67
Ewe Milk	11.47	11.25	12.01	12.01	11.25

Source: SIS The Summary of Agricultural Statistics (1979).

Table I.7

THE DEMAND ELASTICITIES USED IN THE MODEL

Activity	Price Elasticity	Income Elasticity
Wheat	-0.337 [1/]	0 [2/]
Corn	-0.3	0 [2/]
Rye-Oats-Millet	-0.2	0 [2/]
Rice	-0.2	0.38
Barley	-0.25	0 [2/]
Sunflower	-0.302	0.6
Sugarbeet	-0.303	0.6
Tea	-0.5	0.5
Tobacco	-0.3	0.5
Cotton	-0.3	0.5
Roots	-0.2	0.3
Pulses	-0.31	0.6
Grapes	-0.13	0.1
Olives	-0.305	0.6
Vegetables	-0.189	0.6
Citrus	-0.1971 [2/]	0.75
Hazelnuts	-0.4	0.50
Fruits	-0.14	0.80
Beef	-0.605	0.45
Cow-milk	-0.5	1.75
Mutton	-0.2	1.20
Ewe-milk	-0.3	0.95

Source: [1/] From World Bank (1978) by the Frisch Method.

[2/] Modified or assumed.

Table I.8

FOREIGN TRADE STATISTICS

Activity	Domestic Production (000 MT)	Quantity of Exports (000 MT)	Value of Exports (000 MT)	Quantity of Imports (000 MT)	Value of Imports (000 $)	Turkish Export Price ($/MT)	Turkish Import Price ($/MT)	World Export Price ($/MT)	World Import Price ($/MT)
Wheat	16,769	2,090	226,553			108.41		132.44	156.47
Corn	1,300							117.10	125.73
Rye,etc.	1,019	62	6,549			106.40		130.05	149.17
Rice	305			37	13,087		350.66	369.98	397.73
Barley	4,750	15	1,808			120.53		136.85	152.27
Sunflower	485							269.56	298.29
Sugarbeet	9,075							15.87	24.07
Tea	94	2	3,321			1,537.50		2,027.86	2,319.58
Tobacco	288	77	225,256			2,913.73		2,659.03	3,002.32
Cotton	475	278	348.398			1,253.75		1,390.68	1,445.09
Roots	3,660	29	4,055			141.71		158.23	195.66
Pulses	814	118	45,718			387.40		418.08	464.47
Grapes	3,496	377	101,313			268.80		355.51	401.55
Olives	1,100	53	8,745			166.56		214.22	228.18
Vegetables	11,815	10	2,496			239.47		347.69	442.27
Citrus	1,081	140	43,919			313.79		289.96	379.23
Hazelnuts	305	162	330,901			2,048.03		2,048.03	
Fruits	2,505	178	53,379			299.71		418.54	498.16
Beef	239							1,698.20	1,879.67
Cow Milk	3,480							254/52	268.21
Mutton	384	28	47,331			1,666.70		1,375.16	1,782.48
Wool	56			5	17,551		3,237.59	2,224.00	2,759.86
Ewe Milk	1,710							254.52	254.52

Source: FAO Trade Yearbook (1978).

J. Projections for 1990

For projections, the following assumptions and values are employed:

a. Income increases at a rate of 3% per year for the first 3 years and at a rate of 4% thereafter.

b. Yields of activities increase by 1.5% per year, with the exception of the yields for vegetables and fruits which increase by 3% per year.

c. Fertilizer use increases by 2% per year.

d. Additional tractor investment possibility of 10% per year.

e. Additional irrigated investment possibility of 4% per year.

f. Labor availability.

g. Total consumption in 1978 = 40,899 million US$; total income in 1978 = 49,276 million US$; savings rate in 1978 = 17% and 15% in 1990; multiplier = 1.87.

K. Agricultural Zones

Turkey is divided into 9 agricultural regions. The dominating cropping patterns or agricultural activities in these regions and climatic characteristics of these regions are given in the table below:

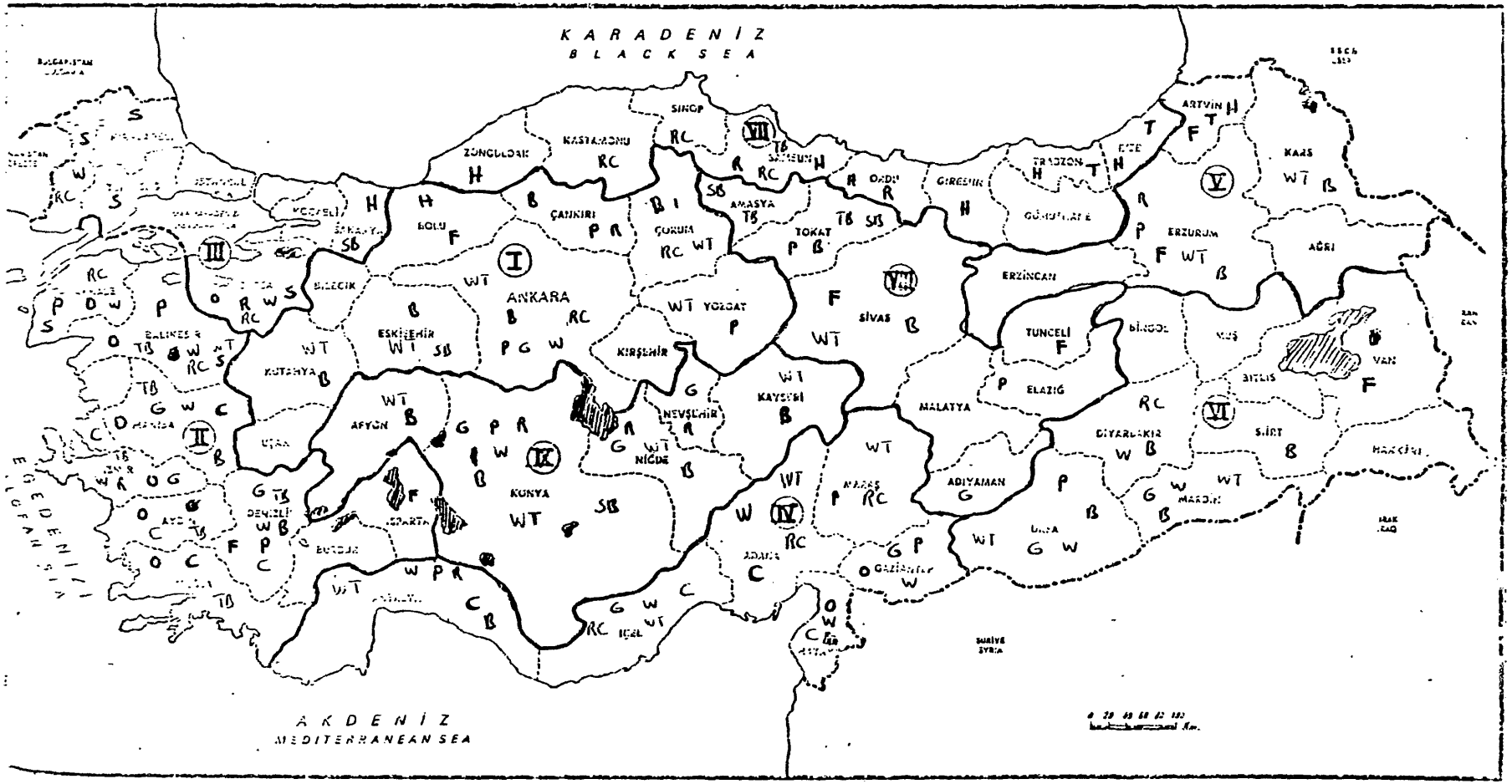
Region No.	Region Name	Activities
I	Central North	Cereals, Rice, Vegetables, Pulses, Fruits, Tubers
II	Agean	Olives, Grapes, Cotton, Tobacco, Pulses, Tubers, Vegetables
III	Marmara	Sunflower, Rice, Roots, Sugarbeets
IV	Mediterranean	Cotton, Cereals, Citrus, Rice, Vegetables, Pulses
V	North East	Fodder, Wheat, Tubers, Pulses, Livestock
VI	South East	Fodder, Cereals, Tubers, Pulses, Vegetables, Grapes, Livestock
VII	Black Sea	Hazelnuts, Tea, Rice, Tobacco
VIII	Central East	Fodder, Cereals, Fruits, Tobacco, Sugarbeets
IX	Central South	Cereals, Sugarbeets, Grapes, Pulses, Tubers, Vegetables, Livestock

Region No.	Region Name	Identifying Activity
I	Central North	Cereals - Fruits
II	Agean	Grapes - Olive - Tobacco
III	Marmara	Sunflower
IV	Mediterranean	Citrus - Cotton - Cereals
V	North East	Livestock - Fodder
VI	South East	Livestock - Cereals
VI	Black Sea	Hazelnuts - Rice
VIII	Central East	Cereals - Fruits - Fodder
IX	Central South	Cereals - Sugarbeets - Livestock

CLIMATE

Region No.	Name	(C°) Average Temperature	Average Precipitation mm	Average Relative Humidity %	Number of Days with Snow
I	Central North	11	375	60	22
II	Agean	16	800	65	-
III	Marmara	14	700	70	10
IV	Mediterranean	18	700	62	-
V	North East	7	400	60	100
VI	South East	8-9	450	50	2-80
VII	Black Sea	14	1500	75	10
VIII	Central East	12	400	55	30
IX	Central South	11	350	60	22

TARIM BÖLGELERİ – AGRICULTURAL REGIONS



R = Tuber
P = Pulses
F = Fodder
O = olive
SB = Sugarb.
TB = Tobacco

W = Vegetable
G = Grape.
C = Cotton
RC = Rice
WT = Wheat

B = Barley.
T = Tea
H = Hazelnut
S = Sunflower
RY = Rye-Oats-Millet.

The activities marked account for more than 50% of the total area in each crop.

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ANNEX II

STATISTICAL TABLES

Table 1.1: DEMOGRAPHIC CHARACTERISTICS
(In thousands)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Population (mid-year estimates) /1	37132	38072	39036	40025	40938	41871	42825	43801	44578	45529
Rural-urban distribution										
Rural	22205	22462	22602	22870	23134	23389	23644	23889	24213	24374
Urban	14927	15610	16434	17155	17804	18482	19181	19912	20365	21155
Age structure distribution										
Ages 0-14 years	15984	15876	16278	16106	16347	16518	16659	16793	16852	17054
Ages 15-64 years	19514	20521	21001	22109	22762	23477	242352	25015	25672	26414
Ages 65 and over	1634	1675	1757	1810	1829	1876	1931	1993	2054	2061

	1960-65	1965-70	1970-75	1975-80	1980-85
Crude birth rate /2	41.5	40.8	35.0	32.2	31.6
Crude death rate /2	15.3	13.5	10.8	10.0	8.9
Infant mortality rate /3	180.0	133.0	120.0	110.0	84.3
Life expectancy at birth:					
Male	50.3	52.8	58.3	58.3	60.6
Female	53.2	56.1	59.4	62.8	65.5
Gross reproduction rate	2.9	2.7	2.5	2.2	2.0

/1 Derived from census data of 1960, 1970, 1975 and 1980 (As of July 1)
/2 Per thousand of population
/3 The number of infants who die before 1 year of age, per thousand live births in a give year

Source: State Institute of Statistics; SPO, Annual Program (various issues);
SPO, Third Plan and Fourth Plan; World Development Report, 1978, 1979.

Table 1.2: LABOR FORCE, EMPLOYMENT AND UNEMPLOYMENT
(In thousands)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total civilian labor force	14951	15236	15462	15811	15925	16387	16640	16905	17183
Total civilian employment	14037	14213	14452	14668	14678	15121	15249	15256	15310
Agriculture	9589	9390	9426	9463	9280	9546	9537	9529	9520
Industry	1507	1574	1650	1691	1747	1801	1826	1794	1802
Mining and quarrying	96	97	109	108	1[illegible]	117	120	123	118
Manufacturing	1354	1417	1461	1507	1561	1592	1610	1571	1585
Electricity, water and gas	58	60	80	76	77	93	97	100	100
Construction	436	469	483	501	534	547	562	578	583
Transportation, storage and communications	384	416	434	451	474	495	501	508	501
Wholesale and retail trade	515	560	579	600	611	637	646	637	641
Banking, insurance and real estate	138	164	170	176	186	198	204	208	214
Services	1324	1361	1434	1513	1576	1641	1700	1730	1776
Unspecified	144	279	276	273	270	256	273	273	273
Urban and rural unemployment excluding agricultural labor surplus	914	1023	1010	1143	1247	1266	1391	1649	1873
Agricultural labor surplus at peak season /1	900	950	920	900	900	740	720	700	700
Domestic labor surplus	1814	1973	1930	2043	2147	2006	2111	2349	2573
Domestic labor surplus ratio	12.1	12.9	12.5	12.9	13.5	12.2	12.7	13.9	15.0
Labor stock abroad	660	767	758	711	708	728	748	768	788
Total labor surplus	2474	2740	2688	2754	2855	2734	2859	3117	3361
Total labor surplus ratio	16.5	17.2	16.6	16.6	14.2	16.7	17.2	18.4	19.6

/1 Appears also as part of employment in agriculture.

Source: State Planning Organization

Table 1.3: EMPLOYMENT IN MANUFACTURING INDUSTRY
(In thousand)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Food and beverage	87.8	93.1	103.2	104.3	109.4	111.2	116.0	122.0	129.6	124.5	126.4
Tobacco processing	34.8	32.3	38.7	40.9	37.1	38.5	38.6	50.0	47.0	41.7	52.7
Textiles and apparels	136.0	134.3	144.5	151.7	159.2	165.7	177.7	172.8	183.3	183.5	175.8
Wood products	11.8	12.3	15.4	14.3	14.5	16.9	15.8	15.8	17.2	16.0	16.7
Paper and paper products	12.2	15.2	15.2	14.6	15.5	15.9	16.4	16.4	17.6	15.8	16.6
Printing	9.8	9.9	10.0	10.4	10.6	10.0	10.5	9.7	10.5	10.6	9.8
Leather and fur	2.7	3.8	2.8	3.0	3.7	5.3	4.2	4.1	4.4	4.1	4.2
Rubber products	8.8	8.8	9.9	11.5	10.7	11.2	10.9	13.6	11.6	11.0	10.3
Chemicals	30.6	28.8	32.2	35.4	37.1	40.6	42.8	42.4	43.4	43.5	43.6
Petroleum I	2.2	5.4	3.9	4.7	4.9	5.1	5.3	10.4	10.0	9.7	10.0
Non-metallic minerals	36.8	37.6	41.3	43.7	48.8	50.8	55.2	55.1	59.6	61.2	57.2
Basic metals	31.1	34.3	37.3	47.0	54.0	64.8	69.7	76.5	82.2	81.3	74.9
Metal products	33.7	30.0	33.7	33.6	34.0	34.9	29.4	32.1	37.8	38.4	36.4
Machinery	20.7	21.9	28.6	38.0	37.9	41.8	41.1	41.0	47.2	47.4	45.1
Electrical machinery	10.0	14.1	15.7	20.1	23.3	25.8	27.2	28.1	34.3	31.7	28.4
Transport equipment	33.0	34.0	37.4	49.1	50.1	52.2	54.7	53.8	57.6	53.3	49.0
Other manufacturing	8.5	10.1	12.7	15.3	15.1	16.0	17.3	16.8	19.6	18.4	16.9
Total	510.4	525.8	582.5	637.6	666.1	706.9	732.9	760.4	812.9	792.1	774.0
of which: Public sector	185.4	198.2	212.4	225.6	228.9	247.7	259.9	287.3	288.7	283.5	285.9
Private sector	325.0	327.6	370.1	412.0	437.2	459.2	473.0	473.1	524.2	508.6	488.1

Source: Turkiye Imalat Sanayiinde Sermaye Ve Isgucu. Kutlay Ebiri, 1977.

Table 1.4: ANNUAL EMIGRATION AND WORKERS EMPLOYED ABROAD

	1961-69/1	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	Jan.-Oct 1981
EEC	340874	111809	80106	77424	123712	13976	756	2304	2582	1435	1011	852	292
Germany	315741	96936	65684	65875	103793	1228	640	2101	2413	1333	933	764	248
Belgium	13917	431	583	113	265	555	59	72	45	41	27	35	12
France	279	9036	7697	10610	17544	10577	25	6	15	13	11	21	6
Netherlands	10925	4843	4853	744	1994	1503	32	98	89	48	40	32	26
United Kingdom	12	563	1289	82	116	113	-	27	20	-	-	-	-
EFTA	8661	12220	5962	5784	8192	3271	455	953	829	380	429	1493	442
Austria	7662	10622	4620	4472	7083	2501	226	672	583	54	23	944	175
Switzerland	999	1598	1342	1312	1109	770	229	281	246	326	406	549	267
Others	1686	5546	2174	2021	3916	2964	3208	7301	15673	17037	22190	26158	45956
Australia	1077	1186	879	640	886	1138	401	339	542	549	407	409	270
Libya	-	-	-	-	-	-	1128	4098	8582	7726	9825	15090	23422
Others	609	4360	1295	1381	3030	1826	1679	2864	6549	8762	11958	10659	22264
TOTAL	351221	129575	88242	85229	135820	20211	4419	10558	19084	18852	23630	28503	46690
Total workers employed abroad/2	.	479320	567762	652991	788811	809022	813441	823999	848038	861935	868542	-	-

/1 Total for the period.
/2 Estimate including illegal workers.

Source: General Directorate of Employment Exchange, Ministry of Labor

Table 1.5: EMPLOYMENT BY SEEs

(thousands)

Year	Administrative Personnel	Labor	Total
1970	165,738	196,562	362,300
1971	170,601	204,020	374,621
1972	179,921	212,462	392,383
1973	192,360	233,502	425,862
1974	179,291	324,543	503,834
1975	195,979	348,399	544,378
1976	216,624	368,964	585,588
1977	225,441	410,758	636,199
1978	233,612	405,203	638,815
1979	242,113	409,761	651,874
1980	244,049	401,882	645,931

Source: SPO

Table 2.1: GROSS DOMESTIC PRODUCT AT CURRENT PRICES BY SECTORAL ORIGIN
(In millions of Turkish Liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Agriculture	59243	73154	105512	136114	177350	219773	301311	465792	925353
Crops and livestock	57515	70697	102628	132412	172222	211091	289926	448667	891277
Forestry	1336	1920	2136	2756	3930	6945	8779	11843	23064
Fishing	392	537	747	947	1198	1737	2606	5282	11013
Industry	40683	53372	76710	93531	114978	158007	273391	479855	1033627
Mining and quarrying	3310	3679	5209	5937	7475	14299	19832	30968	70963
Manufacturing	34687	46159	66070	79846	97925	129707	232071	416695	877819
Electricity, gas and water	2686	3534	5432	7748	9578	14001	21488	32192	84845
Construction	12291	14783	18829	24621	31027	42096	63992	103873	213130
Wholesale and retail trade	26571	35057	52265	64752	81643	107004	165931	301823	638977
Transport, storage and communications	18002	25336	35538	43281	54831	72236	110062	223785	408565
Banking, insurance and other financial institutions	4506	6580	10092	12602	16825	20238	25931	36404	80392
Ownership of dwelling	8896	10934	13279	17887	24636	34136	53722	85956	191888
Private services	10768	14149	19344	25048	31872	41155	62633	108639	222852
Government services	25560	32296	38203	50547	66476	101478	133100	235230	377627
Gross domestic product at factor cost	206520	265661	369772	468382	599639	796123	1190073	2041357	4092412
Indirect taxes less subsidies	25595	29840	39974	50791	64298	66844	84708	140589	233058
Gross domestic product at current market prices	232115	295501	409746	519173	663937	862967	1274781	2181946	4325470
Net factor income from abroad	8694	14328	17351	16598	11049	9926	15943	43626	107189
GROSS NATIONAL PRODUCT AT CURRENT MARKET PRICES	240809	309829	427097	535771	674986	872894	1290723	2225572	4432659

Source: State Institute of Statistics; State Planning Organization

Table 2.2: GROSS DOMESTIC PRODUCT AT 1968 PRICES BY SECTORAL ORIGIN
(In millions of Turkish liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Agriculture	36065	32411	35762	39675	42732	42180	43302	44518	45268
Crops and livestock	35089	31394	34658	38352	41483	41000	41874	42985	43622
Forestry	721	735	794	981	874	805	988	994	1015
Fishing	256	282	310	341	374	375	440	539	631
Industry	27118	30194	32688	35615	39165	43145	45991	43429	41038
Mining and quarrying	2123	2224	2700	3017	3169	4411	5590	4678	4236
Manufacturing	23292	26112	27912	30165	33115	35547	36818	34881	33058
Electricity, gas and water	1703	1857	2077	2433	2881	3187	3583	3869	3744
Construction	8348	8956	9504	10310	11164	11783	12271	12786	12885
Wholesale and retail trade	16951	18904	20966	22963	25170	26413	27448	26813	25634
Transport, storage and communications	12401	13914	15064	16281	17836	19023	19502	18642	17965
Banking, insurance and other financial institutions	3036	3312	3614	3852	4158	4566	4785	4929	5018
Ownership of dwellings	6191	6616	7048	7485	8492	8818	9174	9528	9921
Private services	6705	7008	7600	8288	8856	9241	9536	9449	9350
Government services	12868	13734	14625	15471	16558	17546	18629	19416	20546
Gross domestic product at factor cost	129683	135049	146869	159938	174130	182716	190639	189509	187624
Indirect taxes less subsidies	14380	15380	16369	17823	19077	18861	16675	15977	16272
Gross domestic product at 1968 market prices	144063	150429	163238	177761	193207	201577	207314	205486	203896
Net factor income from abroad	4414	6029	4776	3623	2543	1781	1869	2857	2165
GROSS NATIONAL PRODUCT AT 1968 MARKET PRICES	148477	156458	168013	181383	195751	203358	209183	208343	206061

Source: State Institute of Statistics; State Planning Organization

Table 2.3: EXPENDITURE ON GROSS NATIONAL PRODUCT AT CURRENT PRICES
(In millions of Turkish Liras)

	1972	1973	1974	1975	1976	1977	1978	1979	Estimate 1980
Consumption	196748	247314	352607	442096	559692	719507	1012348	1730219	3508272
Government	31062	38349	47000	63885	84615	116000	172700	292000	544100
Private	165686	208965	305607	376211	475077	603507	839648	1412167	2964172
Fixed investment	40573	53416	72965	104688	142199	194585	286844	475777	861279
Government	20200	25078	35309	53788	75227	107739	134961	237626	482194
Private	20373	28338	37926	50900	66972	86846	151883	238151	379005
Stock changes	3600	2505	11592	16134	10026	19900	26301	63350	294550
Exports of goods and non-factor services	17005	25188	31199	31689	44150	45648	72030	108375	305371
Imports of goods and non-factor services	25811	32922	58616	75434	92130	116673	122742	195775	644002
Gross domestic product at current market prices	232115	295501	409746	519173	663937	862967	1274781	2181946	4325470
Net factor income from abraod	8694	14328	17351	16598	11049	9926	15943	43626	107189
GROSS NATIONAL PRODUCT AT CURRENT MARKET PRICES	240809	309829	427097	535771	674986	872894	1290723	2225572	4432659

Source: State Institute of Statistics; State Planning Organization

Table 2.4: EXPENDITURE ON GROSS NATIONAL PRODUCT AT 1968 PRICES
(In millions of Turkish Liras)

	1972	1973	1974	1975	1976	1977	1978	1979	Estimate 1980
Consumption	120376	122399	130506	138951	152991	157956	156975	155169	157083
Government	16416	17072	18326	20482	22377	23384	25863	26636	28871
Private	103960	105327	112180	118469	130614	134572	131112	128533	128212
Fixed investment	25500	29970	33907	41265	46456	49745	49302	47823	42787
Government	12675	14172	16148	20939	24215	27408	23452	24652	24075
Private	12825	15798	17759	21021	22241	22337	25850	23171	18712
Stock changes	2263	1409	5354	6313	3241	5064	4545	6251	9261
Exports of goods and non-factor services	9326	11711	9969	9931	11926	10081	10962	9225	10397
Imports of goods and non-factor services	13402	15060	16499	18699	21407	21269	14470	12982	15632
Gross domestic product at 1968 market prices	144063	150429	163238	177761	193207	201577	207314	205486	203896
Net factor income from abroad	4414	6029	4776	3623	2544	1781	1869	2857	2165
GROSS NATIONAL PRODUCT AT 1968 MARKET PRICES	148477	156458	168013	181383	195751	203358	209183	208343	206061

Source: State Institute of Statistics; State Planning Organization

Table 2.5: SECTORAL FIXED INVESTMENT AT CURRENT PRICES BY GOVERNMENT AND PRIVATE SECTOR, 1972-1980
(In millions of Turkish Liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Agriculture	4236	6385	7992	10945	19955	25351	29071	32411	64625
Government	1958	2328	3452	4936	7849	12370	13971	17911	33579
Private	2278	4057	4540	6009	12106	12981	15100	14500	31046
Mining and quarrying	1344	1780	2483	3495	5849	7682	11425	19666	38379
Government	1081	1580	2231	3195	5531	7312	10860	18701	36359
Private	263	200	252	300	318	370	565	1965	2020
Manufacturing	12657	15566	22098	32265	38138	49504	67352	109051	233089
Government	5929	5966	7651	15030	17421	24034	27900	61986	139664
Private	6728	9600	14447	17235	20717	25470	39452	47065	93425
Electricity, gas and water	2885	3470	4939	6932	11471	16057	25403	58512	119741
Government	2685	3290	4739	6682	11296	15807	25163	57912	117921
Private	200	180	200	250	175	250	240	600	1820
Transportation, storage and communications	7382	10176	14399	20107	27455	41466	55900	76664	133612
Government	4797	6615	9332	12922	17903	26616	32232	46414	87860
Private	2586	3561	5067	7185	9552	14850	23668	30250	45752
Tourism	636	877	881	919	1164	1528	2431	3154	4655
Government	193	347	324	374	554	903	1171	1794	2320
Private	443	530	557	545	610	625	1260	1360	2335
Housing	7597	9765	12174	19187	23040	31922	71540	141280	196700
Government	472	405	552	1387	1688	2522	3792	6789	9928
Private	7125	9360	11622	17800	21352	29400	67748	134491	186772
Education	1315	1850	2608	3552	4917	5591	6776	8538	17927
Government	1280	1810	2508	3472	4737	5371	6526	8038	17202
Private	35	40	100	80	180	220	250	500	725
Health	548	564	857	1145	1727	2016	3046	4482	8122
Government	498	504	807	1071	1637	1936	2946	3812	7322
Private	50	60	50	74	90	80	100	670	800
Others	1972	2983	4534	6141	8483	13468	13900	22019	44687
Government	1307	2233	3443	4719	6611	10868	10400	14269	30297
Private	665	750	1091	1422	1872	2600	3500	7750	14390
TOTAL FIXED INVESTMENT	40573	53416	72965	104688	142199	194585	286844	475777	861536
GOVERNMENT	20201	25078	35039	53788	75227	107739	134961	237626	482451
PRIVATE	20372	28338	37926	50900	66972	86846	151883	238151	379085

Source: State Planning Organization

Table 2.6: SECTORAL FIXED INVESTMENT AT 1976 PRICES BY GOVERNMENT AND PRIVATE SECTOR, 1972-1980
(In millions of Turkish liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Agriculture	7683	10181	11015	13050	19955	19837	14892	9831	9656
Government	3842	4055	4910	5977	7849	9532	7304	5552	5413
Private	3841	6126	6105	7073	12106	10305	7588	4279	4243
Mining and quarrying	2714	3255	3549	4137	5849	6247	6369	6634	6226
Government	2183	2889	3189	3782	5531	5946	6054	6309	5898
Private	531	366	360	355	318	301	315	325	328
Manufacturing	25043	27347	31915	38955	38138	40421	38738	36442	37602
Government	11731	10481	11050	18127	17421	19625	15556	20714	22531
Private	13312	16866	20865	20828	20717	20796	23182	15728	15071
Electricity, gas and water	5737	6411	7296	8177	11471	12862	13975	18842	18484
Government	5339	6078	7001	7882	11296	12662	13843	18649	18203
Private	398	333	295	295	175	200	132	193	281
Transportation, storage and communications	13008	16189	19701	23723	27455	31986	28545	22998	18623
Government	8985	11339	13019	15838	17903	21251	17560	15176	13125
Private	4023	4850	6682	7885	9552	10735	10985	7822	5498
Tourism	1288	1583	1273	1167	1164	1088	1187	882	716
Government	391	626	468	475	554	643	572	502	357
Private	897	957	805	692	610	445	615	380	359
Housing	15240	17487	17532	23963	23040	24096	36436	41642	30738
Government	947	725	795	1732	1688	1904	1931	2001	1551
Private	14293	16762	16737	22231	21352	22192	34505	39641	29187
Education	2591	3263	3790	4333	4917	4230	3472	2565	2615
Government	2522	3192	3645	4235	4737	4064	3344	2415	2510
Private	69	71	145	98	180	166	128	150	105
Health	1058	977	1254	1363	1727	1530	1571	1373	1054
Government	961	873	1181	1275	1637	1469	1519	1168	946
Private	97	104	73	88	90	61	52	205	108
Others	3739	5036	6463	7437	8483	9974	6911	6324	6282
Government	2478	3770	4908	5723	6611	8049	5171	4098	4256
Private	1261	1266	1555	1714	1872	1925	1740	2226	2026
TOTAL FIXED INVESTMENT	78101	91729	103788	126305	142199	152271	152096	147533	131996
GOVERNMENT	39379	44028	50166	65046	75227	85145	72854	76584	74790
PRIVATE	38722	47701	53622	61259	66972	67126	79242	70949	57206

Source: SPO

Table 3.1: BALANCE OF PAYMENTS
(In millions of US dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Exports of goods and non-factor services	1153	1799	2123	2152	2742	2556	3106	3257	4102
of which: Goods	885	1317	1532	1401	1960	1753	2288	2261	2910
Imports of goods and non-factor services	-1827	-2391	-4183	-5219	-5735	-6436	-5059	-5699	-8396
of which: Goods	-1563	-2086	-3778	-4739	-5129	-5796	-4599	-5069	-7667
Resource balance	-674	-592	-2060	-3067	-2993	-3880	-1953	-2442	-4293
Interest (net)/1	-62	-59	-102	-124	-217	-570	-680	-900	-974
Profits	-35	-35	-71	-36	-83	-116	-60	-123	-
Workers' remittances	740	1183	1426	1312	983	982	983	1694	2071
Net factor service income	643	1089	1253	1152	683	296	243	671	1097
Transfers	46	18	27	23	15	12	-	-	-
Current account balance	15	515	-780	-1892	-2295	-3572	-1710	-1771	-3196
Direct foreign investment	43	27	88	153	27	67	47	100	100
Imports with waiver	39	50	58	98	136	102	100	100	-
Public medium- and long-term (MLT) borrowing/2	294	376	330	334	720	997	1017	4321	2489
Amortization of public MLT borrowing/1/2	-117	-72	-126	-175	-203	-234	-336	-414	-100
Public MLT borrowing (net)	177	304	204	159	517	763	681	3907	2389
Capital not included elsewhere	21	67	79	-94	-451	267	-67	-2745	-274
Overall balance	295	963	-351	-1576	-2066	-2373	-949	-409	-981
IMF(net)	-61	-11	-	243	148	-	253	35	423
Short term (net)/3	332	-224	-80	916	1806	1807	844	300	950
Change in reserves (- = increase)	-566	-728	431	417	112	566	-148	74	-392

/1 Net of debt relief prior to 1980.
/2 Government estimates, not consistent with Bank DRS data.
/3 Mainly Convertible Turkish Lira Deposits, Acceptance Credits, Commercial and Oil arrears, Bankers' Credits, Reimbursement Credits, and Dresdner Bank Scheme deposits.

Source: Ministry of Finance, IMF, IBRD estimates.

Table 3.2: COMMODITY COMPOSITION OF EXPORTS
(In millions of US dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Jan.-Oct. 1981
Agriculture and livestock	607.4	832.0	851.9	792.6	1,254.5	1,041.4	1,542.8	1,343.6	1,671.7	1,664.1
Cereals and pulses	36.2	64.2	22.4	28.1	70.6	120.4	262.2	164.2	181.0	262.5
Nuts, fruits and vegetables	197.4	259.0	295.2	275.4	375.3	440.0	560.5	647.7	753.9	595.1
Hazelnuts	116.5	121.7	173.2	154.1	203.2	251.0	330.9	353.0	394.8	252.6
Raisins	30.5	56.7	53.9	45.5	52.6	75.0	99.7	114.8	130.3	101.4
Others	50.4	80.6	68.1	75.8	119.5	114.0	129.9	179.9	228.7	241.1
Industrial crops	337.6	456.8	463.0	435.1	733.6	432.0	617.9	448.0	605.9	614.4
Tobacco	130.9	132.9	204.5	183.2	251.3	175.8	225.3	177.0	233.7	273.8
Cotton	191.3	305.8	235.3	225.2	434.2	214.1	352.9	227.8	322.6	293.6
Others	15.4	18.1	23.2	26.7	48.1	42.1	39.7	43.2	49.6	47.0
Livestock products	27.0	41.0	56.5	41.1	62.7	37.2	77.8	62.0	108.2	172.3
Fishery products	9.2	11.1	14.8	12.9	12.3	11.6	24.4	21.7	22.7	19.7
Mining and quarry products	35.1	41.7	79.8	105.6	110.0	125.9	124.1	132.5	191.0	159.0
Industrial products	242.4	443.4	600.4	502.9	595.8	585.8	621.3	785.1	1,047.4	1,672.3
Food and beverages	87.3	149.1	130.4	116.7	86.8	127.4	95.0	135.0	190.2	261.3
Textiles	54.8	105.6	147.8	135.5	272.7	265.9	321.6	390.7	439.8	625.6
Forestry products	4.9	8.0	21.2	9.1	5.6	3.0	3.3	4.7	8.1	20.1
Hides and leather products	21.5	45.3	74.0	64.9	59.9	52.0	40.1	43.6	49.5	67.8
Chemicals	11.2	19.6	36.3	37.7	46.7	36.4	26.0	27.2	91.9	127.9
Petroleum products	22.3	48.9	85.9	36.1	16.1	0.0	0.0	0.0	38.5	62.5
Cement	15.2	14.8	8.0	24.2	16.3	9.2	40.5	44.9	39.6	143.7
Glass and ceramics	3.7	6.6	12.5	17.9	20.9	27.4	30.1	37.1	35.9	76.6
Non-ferrous metal	5.9	17.3	34.0	12.7	16.9	20.1	11.5	14.6	18.3	24.2
Iron and steel	7.4	13.4	19.3	20.3	22.1	14.4	21.2	31.1	33.9	68.4
Metal products and machinery	4.1	8.6	16.1	13.9	16.5	14.0	18.0	18.1	29.8	59.7
Electrical appliances	0.9	1.5	1.0	0.8	1.1	3.1	3.7	4.5	11.5	16.6
Motor vehicles	0.3	0.9	6.0	8.1	9.3	9.2	6.7	26.6	50.3	89.7
Others	2.9	3.8	7.9	5.0	4.9	3.7	3.6	7.0	10.1	28.2
TOTAL EXPORTS	885.0	1,317.1	1,532.2	1,401.1	1,960.2	1,753.0	2,288.2	2,261.2	2,910.1	3,495.4

Source: State Planning Organization

Table 3.3: COMMODITY COMPOSITION OF IMPORTS
(In millions of US dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Jan.-Oct. 1981
Agriculture and Livestock	34.0	64.0	307.4	202.5	78.7	112.6	50.7	36.5	51.1	67.3
Cereals and pulses	6.8	26.7	254.6	141.2	5.4	8.5	13.1	7.7	3.6	.
Fruits and vegetables	0.2	0.3	0.2	0.5	0.2	0.4	0.1	0.4	0.5	.
Industrial crops	8.3	16.5	26.7	21.0	39.0	50.0	11.7	3.6	11.3	.
Livestock products	18.7	20.5	25.9	39.8	34.1	53.7	25.8	24.8	35.7	.
Mining and quarry products	143.1	222.0	748.0	795.2	1,090.3	1,262.4	1,133.9	1,067.6	2,853.8	2,760.1
Fuels	124.5	200.7	704.9	719.8	1,020.7	1,183.5	1,085.7	1,008.3	2,710.1	2,591.2
Others	18.6	21.3	43.1	75.4	69.6	78.9	48.2	59.3	143.7	168.9
Industrial products	1,385.4	1,800.2	2,722.1	3,740.9	3,959.6	4,421.3	3,414.4	3,965.3	4,762.4	4,320.9
Food and beverages	32.4	8.9	92.2	191.3	106.9	27.2	38.4	77.5	257.1	158.3
Textiles	39.1	39.7	86.2	91.7	79.8	63.7	53.0	65.2	108.7	89.4
Forestry products	8.2	10.5	22.6	15.2	20.9	21.5	11.9	20.8	19.3	1.9
Hides and leather products	0.2	0.2	1.3	0.6	0.5	0.2	0.2	0.3	0.3	0.5
Chemicals	307.2	425.6	575.0	733.5	837.3	1,035.7	916.6	1,028.5	1,305.8	1,205.5
Petroleum products	30.3	20.7	57.6	88.1	104.1	284.5	351.7	750.4	909.8	506.0
Cement	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.3	0.4
Glass and ceramics	20.2	20.7	21.1	26.1	25.2	25.5	17.8	27.9	35.2	33.3
Non-ferrous metal	41.8	66.5	131.1	101.9	89.5	97.0	42.6	54.8	87.2	118.4
Iron and steel	147.7	247.5	530.0	665.8	545.7	689.7	409.8	347.3	471.4	491.8
Metal products and machinery	401.5	516.1	658.0	1,013.9	1,118.4	1,098.4	812.6	958.4	894.2	1,010.8
Electrical appliances	122.8	146.1	183.6	278.3	278.4	295.8	223.6	259.5	279.9	253.6
Motor vehicles	178.8	233.9	286.6	395.9	517.7	572.7	377.7	283.6	261.0	261.0
Others	55.1	63.7	76.7	138.3	235.1	209.2	158.2	91.0	132.1	190.1
TOTAL IMPORTS	1,562.5	2,086.2	3,777.5	4,738.6	5,128.6	5,796.3	4,599.0	5,069.4	7,667.3	7,148.3

Source: SPO

Table 3.4: INVISIBLE RECEIPTS AND PAYMENTS /1
(In millions of US dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Invisible receipts	268.1	482.1	591.0	750.9	782.3	803.1	786.6	986.1	1192.1
Freight	28.5	55.1	85.4	101.2	110.3	111.0	25.0	20.3	25.7
Transportation	30.0	31.0	47.4	85.5	125.7	161.7	156.5	198.3	226.0
Government services	15.2	50.9	47.2	100.2	64.8	64.6	77.4	112.6	124.3
Private services	47.8	115.8	158.7	198.6	221.3	201.8	-	-	-
Insurance and commissions	30.0	35.5	34.9	45.7	59.5	45.9	48.8	36.9	62.9
Tourism	103.7	171.4	193.6	200.8	180.4	204.9	233.1	280.7	326.1
Others	12.9	22.4	23.8	18.9	20.3	13.2	245.8	337.3	427.1
Invisible payments	263.9	304.9	405.2	480.8	606.6	639.5	499.8	619.7	850.2
Freight	21.9	19.4	30.3	29.5	31.0	32.6	65.2	70.3	124.2
Transportation	16.4	28.1	36.0	42.1	50.0	55.3	24.9	59.8	29.6
Government services	31.3	37.1	41.5	51.3	67.1	63.6	97.5	106.2	115.1
Private services	44.2	66.6	85.2	140.9	161.1	156.9	46.1	29.2	32.6
Insurance and commissions	61.7	37.1	45.3	52.0	58.5	57.2	39.8	43.7	35.6
Tourism	59.3	93.0	152.0	155.0	207.9	268.5	67.9	102.1	114.1
Others	29.1	23.6	14.9	10.0	31.0	5.4	158.4	208.4	399.0
Balance	4.2	177.2	185.8	270.1	175.7	163.6	286.8	366.4	341.9

/1 Non-factor services only.

Source: SPO

Table 3.5: GEOGRAPHICAL DISTRIBUTION OF EXPORTS
(In millions of US Dollars)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Jan.-Oct. 1981
OECD Countries	650.1	949.0	1,081.0	985.1	1,483.2	1,234.7	1,506.8	1,446.4	1,679.7	1,719.6
EEC	347.0	611.5	717.3	615.1	958.0	868.0	1,090.1	1,097.5	1,251.0	1,166.4
USA	103.5	130.8	144.2	147.1	191.4	121.8	153.2	104.5	127.4	178.2
Japan	15.1	16.6	18.1	28.7	36.0	36.5	36.0	22.4	36.7	22.2
Other OECD countries	184.5	190.1	201.4	194.2	297.8	208.4	227.5	222.0	264.7	352.8
Bilateral agreement countries	41.8	50.8	78.2	73.2	81.1	80.4	108.3	127.1	178.6	144.8
Other countries	193.1	317.3	373.0	342.8	395.7	437.9	673.1	687.7	1,051.8	1,630.9
TOTAL EXPORTS	885.0	1,317.1	1,532.2	1,401.1	1,960.0	1,753.0	2,288.2	2,261.2	2,910.1	3,495.4

Source: State Planning Organization and Ministry of Finance.

Table 3.6: GEOGRAPHICAL DISTRIBUTION OF IMPORTS
(In millions of US Dollars)

	1972	1973	1974	1975	1976	1977	1978	1978	1980	Jan.-Oct. 1981
OECD countries	1,228.6	1,625.0	2,683.5	3,501.4	3,565.4	3,966.5	2,791.2	3,063.7	3,583.4	3,416.2
EEC	652.6	1,139.6	1,708.2	2,338.2	2,342.0	2,470.1	1,872.6	1,827.5	2,203.1	2,028.7
USA	191.8	185.4	350.4	425.8	437.9	502.8	280.8	377.7	442.4	440.5
Japan	32.8	59.1	199.2	211.4	227.8	311.2	115.0	226.5	112.9	167.4
Other OECD countries	351.4	240.9	425.7	526.0	557.7	682.4	522.8	632.0	825.0	779.6
Bilateral agreement countries	120.1	126.5	97.7	74.2	89.0	85.0	68.9	111.4	185.5	117.2
Other countries	213.9	335.1	996.4	1,163.0	1,474.6	1,744.8	1,739.0	1,894.3	3,898.4	3,614.9
TOTAL IMPORTS	1,562.6	2,086.6	3,777.6	4,738.6	5,129.0	5,796.3	4,599.0	5,069.4	7,667.3	7,148.3

Source: State Planning Organization and Ministry of Finance

Table 4.1: LONG-TERM DEBT OUTSTANDING
(In millions of US dollars)

	Disbursed only (Year - end)									Incl. Undisb.	Percentage Distribution				
	1967	1972	1973	1974	1975	1976	1977	1978	1979	1979	1967	1972	1977	1978	1979
Public sector, official sources															
A. Multilateral organizations															
IBRD	29	92	141	208	288	391	512	648	890	1727	2.2	2.7	10.7	9.7	7.7
IDA	51	99	113	127	144	163	181	188	190	191	3.9	3.9	3.8	2.8	1.6
Other	141	181	240	282	315	426	508	626	716	788	10.9	7.2	10.6	9.5	6.1
Total,mult.org.	221	372	494	617	747	980	1201	1462	1796	2706	17.0	14.8	25.0	22.0	15.4
B. Loans from governments															
1. DAC countries															
Concessional	837	1658	1815	1901	1832	1861	1971	2176	2544	3015	64.5	65.8	41.0	32.7	21.9
Germany F.R.	237	381	472	516	464	511	595	734	1180	1559	18.3	15.1	12.4	11.0	10.1
Japan	-	19	24	36	39	40	60	64	52	53	-	0.8	1.2	1.0	0.4
USA	470	963	996	1019	1037	1039	1033	1029	977	977	36.2	38.2	21.5	15.5	8.4
Other	130	295	323	330	292	271	283	349	335	426	10.0	11.7	5.9	5.2	2.9
Non-concessional	40	50	91	116	148	188	216	1332	2288	2623	3.1	2.0	4.5	20.0	19.8
Germany, F.R.	1	1	1	1	1	1	-	270	589	589	0.1	-	-	4.1	5.1
Japan	-	-	14	14	18	19	18	136	177	306	-	-	0.4	2.0	1.6
USA	2	16	43	58	79	95	115	146	426	454	0.1	0.6	2.4	2.2	3.7
Other	37	33	33	43	50	73	83	780	1096	1274	2.9	1.3	1.7	11.7	9.4
Total, DAC countries	877	1708	1906	2016	1980	2049	2187	3508	4832	5638	67.6	67.8	45.5	52.7	41.7
2. CPE countries															
Concessional	-	193	274	278	262	245	255	280	325	359	-	7.7	5.3	4.3	-
USSR	-	193	274	278	259	242	253	280	325	359	-	7.7	5.3	4.3	2.8
Other	-	-	-	-	3	3	2	-	-	-	-	-	-	-	-
Non-concessional	1	-	-	-	-	3	3	3	5	339	0.1	-	-	-	-
Total, CPE countries	1	193	274	278	262	248	258	283	330	698	0.1	7.7	5.4	4.3	2.8
3. OPEC countries	-	-	-	-	-	9	12	11	213	459	-	-	0.2	0.2	1.8
4. Other countries	-	-	-	-	2	18	26	34	27	29	-	-	0.5	0.5	0.2
Total, loans from governments	878	1901	2181	2295	2243	2324	2482	3836	5402	6824	67.7	75.5	51.7	57.7	46.5
Total, official	1099	2273	2675	2912	2990	3304	3683	5298	7198	9530	84.7	90.2	76.6	79.6	61.9
Public sector, commercial sources															
C. Suppliers credits	120	117	124	130	108	137	149	176	271	769	9.3	4.6	3.1	2.6	2.3
D. Financial institutions	7	41	51	75	63	142	460	591	3440	4260	0.5	1.6	9.6	8.9	29.6
E. Bonds	21	20	19	18	15	36	34	35	49	49	1.6	0.8	0.7	0.5	0.4
Total, cml.sources	148	178	194	223	186	315	643	802	3760	5078	11.4	7.1	13.4	12.0	32.3
Total, public sector	1248	2450	2869	3134	3176	3619	4326	6100	10958	14608	96.2	97.3	90.0	91.6	94.2
Private sector															
A. Multilateral org. (IFC)	1	18	30	29	43	118	116	109	-	-	0.1	0.7	2.4	1.6	-
B. Loans from governments	34	34	45	56	57	78	137	113	-	-	2.6	1.3	2.9	1.7	-
C. Private sources	14	17	40	61	60	57	226	335	-	-	1.1	0.7	4.7	5.1	-
Total, private sector	49	69	115	146	160	253	479	557	673	673	3.8	2.7	10.0	8.4	5.8
TOTAL EXTERNAL DEBT	1297	2519	2984	3280	3336	3872	4805	6657	11631	-	100.0	100.0	100.0	100.0	100.0

Source: Ministry of Finance, World Bank.

Table 4.2: DISBURSEMENTS RECEIVED FROM LONG-TERM LOANS
(In millions of US dollars)

	1967	1972	1973	1974	1975	1976	1977	1978	1979
Public Sector, official sources									
A. Multilateral organizations									
IBRD	4	25	57	75	91	117	146	165	277
IDA	16	4	3	14	18	21	19	8	3
Other	48	44	40	34	60	119	48	49	89
Total, multi. org.	68	73	100	123	169	257	213	222	369
B. Loans from governments									
1. DAC countries									
Concessional	146	139	143	77	58	60	95	138	341
Germany, F.R.	18	42	52	14	17	23	51	98	328
Japan	-	4	6	14	5	1	15	1	-
USA	97	49	41	32	31	15	10	4	-
Other	31	44	44	17	5	21	19	35	13
Non-concessional	15	1	51	32	48	53	44	79	185
Germany, F.R.	-	-	-	-	-	-	-	-	-
Japan	-	-	14	2	5	4	-	-	-
USA	1	1	30	17	28	22	27	2	155
Other	14	-	7	13	15	27	17	77	30
Total, DAC countries	162	140	195	110	105	114	139	217	526
2. CPE countries									
Concessional	-	101	96	29	11	12	37	52	46
USSR	-	101	96	29	8	12	37	52	46
Other	-	-	-	-	3	-	-	-	-
Non-concessional	-	-	-	-	-	3	-	-	-
Total, CPE countries	-	101	96	29	11	14	37	52	46
3. OPEC countries	-	-	-	-	-	9	3	-	30
4. Other countries	-	-	-	-	2	17	10	11	-
Total, loans from governments	162	241	290	138	118	154	189	280	602
Total, official sources	230	314	390	261	287	411	402	502	971
Public sector, commercial sources									
C. Suppliers credits	2	52	21	36	1	65	36	62	185
D. Financial institutions	-	4	19	27	5	91	324	248	278
E. Bonds	-	-	-	-	-	24	-	-	-
Total, commercial sources	2	56	40	63	6	180	360	310	463
Total, public sector	231	369	430	325	293	590	762	812	1434
Private sector									
A. Multilateral organizations (IFC)	-	7	13	1	17	80	-	10	15
B. Loans from governments	2	3	11	12	6	20	66	22	18
C. Loans from commercial sources	-	13	23	23	10	50	191	159	123
Total, private sector	2	23	47	36	33	150	257	191	156
Total, disbursements received	233	392	477	361	326	740	1019	1003	1590

Source: Ministry of Finance, World Bank.

Table 4.3: LONG-TERM LOAN COMMITMENTS RECEIVED
(In millions of US dollars)

	1967	1972	1973	1974	1975	1976	1977	1978	1979
Public sector, official sources									
A. Multilateral organizations									
IBRD	-	177	105	228	158	237	144	358	306
IDA	-	36	30	-	-	-	-	-	-
Other	75	29	100	140	40	54	6	54	123
Total, multi. org.	75	242	235	368	198	291	150	412	429
B. Loans from governments									
1. DAC countries									
Concessional	197	135	135	103	60	65	25	152	444
Germany, F.R.	16	33	60	48	50	55	14	147	370
Japan	14	11	-	12	5	-	-	1	-
USA	107	69	28	0	0	0	0	-	-
Other	60	22	47	43	5	10	11	4	74
Non-concessional	7	19	83	37	77	115	243	133	96
Germany, F.R.	-	-	-	-	-	-	-	-	-
Japan	-	16	-	-	4	49	61	-	-
USA	7	3	58	24	25	64	18	51	60
Other	-	-	25	13	48	2	164	82	36
Total, DAC countries	204	154	218	140	136	180	268	285	540
2. CPE countries									
Concessional	92	158	3	-	-	97	14	-	-
USSR	92	158	-	-	-	97	14	-	-
Other	-	-	3	-	-	-	-	-	-
Non-concessional	-	-	-	-	3	-	136	204	35
Total, CPE countries	92	158	3	-	3	97	150	204	35
3. OPEC countries	-	-	-	-	42	-	-	-	265
4. Other countries	-	-	-	-	19	10	14	3	-
Total, loans from governments	296	312	221	140	200	287	432	492	840
Total, official sources	371	554	456	508	398	578	582	904	1269
Public sector, commercial sources									
C. Suppliers credits	19	34	4	-	79	326	260	123	52
D. Financial institutions	-	4	32	19	172	412	263	281	475
E. Bonds	-	-	-	-	-	24	-	-	-
Total, commercial sources	19	38	36	19	251	762	523	404	527
Total, public sector	390	592	491	527	649	1340	1105	1307	1796
Private sector									
A. Multilateral organizations (IFC)	-	-	10	30	45	37	-	-	-
B. Loans from governments	-	26	3	4	25	-	-	-	-
C. Loans from commercial sources	-	44	43	16	36	50	-	-	-
Total, private sector	-	70	56	50	106	87	100	100	100
TOTAL COMMITMENTS	390	662	547	577	755	1427	1205	1407	1896

Source: Ministry of Finance, World Bank

Table 4.4: AVERAGE TERMS OF LONG-TERM PUBLIC SECTOR EXTERNAL COMMITMENTS RECEIVED

	1963-67	1968-72	1973	1974	1975	1976	1977	1978	1979
Loans from Multilateral Organizations									
Interest (%)	3.1	5.0	4.9	6.1	7.9	8.3	8.3	7.2	7.1
Maturity (Yrs)	21.8	18.3	30.4	23.2	19.4	16.1	15.9	16.0	18.5
Grace Period (Yrs)	5.5	4.4	7.7	5.7	4.4	4.7	3.6	4.5	4.5
Grant Element (%)	40.8	25.9	40.4	27.9	13.1	9.0	8.4	15.5	18.4
Loans from Governments									
Interest (%)	2.7	2.8	4.2	4.5	5.1	4.3	7.4	5.6	2.9
Maturity (Yrs)	30.8	26.7	23.0	24.0	16.7	16.3	13.6	15.2	26.2
Grace Period (Yrs)	8.0	6.4	7.4	6.1	5.1	4.4	5.0	4.8	7.4
Grace Element (%)	57.1	52.8	42.1	39.9	30.8	33.2	14.7	27.5	53.9
Suppliers Credits									
Interest (%)	5.4	6.0	6.0	-	8.5	7.6	7.4	7.5	7.7
Maturity (Yrs)	13.4	10.6	10.9	-	5.4	13.1	9.2	7.3	8.5
Grace Period (Yrs)	2.7	2.4	1.3	-	2.0	3.9	3.1	2.9	2.2
Grant Element (%)	21.6	17.5	16.8	-	4.1	12.4	10.0	8.1	8.6
Financial Institutions									
Interest (%)	-	5.9	6.9	12.6	8.8	7.9	7.9	8.4	13.7
Maturity (Yrs)	-	9.1	11.0	10.3	5.1	8.0	8.5	7.7	7.1
Grace Period (Yrs)	-	2.4	1.5	0.8	2.2	2.8	4.3	2.4	3.2
Grant Element (%)	-	15.8	12.6	11.3	3.0	7.6	9.0	5.7	16.0
All Sources									
Interest (%)	2.9	3.9	4.7	5.9	7.3	7.2	7.6	6.9	11.0
Maturity (Yrs)	28.0	22.1	25.7	22.9	13.1	12.7	11.7	13.2	11.7
Grace Period (Yrs)	7.2	5.3	7.1	5.6	3.7	3.9	4.2	4.0	4.1
Grant Element (%)	51.9	40.1	39.2	29.7	14.8	14.5	11.4	17.2	0.3
Loans from Governments: Additional Detail									
1. DAC countries									
a. Concessional									
Interest (%)	2.5	2.7	2.9	3.8	2.3	2.1	2.5	2.0	2.4
Maturity (Yrs)	32.7	30.8	30.3	28.9	29.2	29.1	27.7	30.1	30.4
Grace Period (Yrs)	8.9	7.9	9.8	6.8	9.7	9.6	9.7	10.6	9.4
Grant Element (%)	60.9	57.4	57.5	48.5	62.9	64.5	60.5	66.1	62.9
b. Non-Concessional									
Interest (%)	7.2	6.1	6.3	6.5	8.1	8.3	8.5	7.5	5.1
Maturity (Yrs)	15.9	9.9	11.6	10.5	9.3	9.8	11.7	9.4	10.0
Grace Period (Yrs)	4.5	1.9	3.6	4.1	3.6	2.5	4.8	2.5	4.7
Grant Element (%)	13.5	15.5	17.5	16.0	7.7	6.5	6.9	9.9	23.1
2. CPE countries									
a. Concessional									
Interest (%)	2.5	2.5	2.5	-	2.5	1.0	2.5	-	-
Maturity (Yrs)	22.6	21.0	7.0	-	7.0	14.9	24.0	-	-
Grace Period (Yrs)	2.6	4.3	3.0	-	3.0	3.6	6.0	-	-
Grant Element (%)	48.4	49.3	27.8	-	27.8	45.3	54.5	-	-
b. Non-Concessional									
Interest (%)	5.0	5.7	-	-	7.0	-	6.9	7.0	7.5
Maturity (Yrs)	3.9	3.7	-	-	8.5	-	14.0	8.0	8.0
Grace Period (Yrs)	0.9	0.7	-	-	3.0	-	4.7	2.0	2.5
Grant Element (%)	10.2	8.5	-	-	11.7	-	16.7	10.4	11.0

Source: World Bank

Table 5.1: CONSOLIDATED BUDGET SUMMARY
(in billions of Turkish Liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Revenues	48.2	59.9	71.7	107.8	143.8	187.6	311.6	524.2	860.1	1,485.0
Direct taxes/1	15.1	22.0	30.1	44.4	60.3	89.5	141.6	234.6	468.8	849.9
Indirect taxes/2	23.9	29.9	35.0	50.6	66.7	78.8	104.8	169.2	280.1	477.1
Nontax revenues/3	9.2	8.0	6.6	12.8	16.8	19.3	65.2	120.4	111.2	158.0
Expenditure	52.6	65.0	79.1	116.2	157.3	240.6	351.3	608.2	1,062.6	1,525.0
Personnel	18.2	24.8	30.9	42.2	55.3	77.0	112.9	190.0	335.0	435.0
Other current	6.0	8.0	11.3	15.9	22.6	28.0	43.1	70.0	162.1	320.0
Investment	8.3	10.2	15.8	22.0	33.6	52.7	64.6	95.6	167.0	320.0
Transfers	20.1	22.0	21.1	36.1	45.8	82.9	130.7	252.6	398.5	450.0
Budget deficit	-4.4	-5.1	-7.4	-8.4	-13.5	-53.0	-39.7	-84.0	-202.5	-40.0
Advance payments	-1.4	-2.8	-4.4	-6.0	-8.1	-4.4	-15.0	-1.2	-22.7	-30.0
Deferred payments	0.4	3.4	1.2	0.5	3.6	15.1	6.5	43.2	38.3	-10.0
Cash deficit	-5.4	-4.5	-10.6	-13.9	-18.0	-42.3	-48.2	-42.0	-186.9	-80.0
Financing	3.7	2.9	8.8	9.7	14.5	39.9	26.9	52.9	147.5	112.9
Central bank	0.7	0.4	4.1	4.7	6.7	23.6	15.6	29.5	109.3	85.0
Domestic borrowing (Bond issue)	4.0	2.9	3.6	7.4	10.0	12.5	16.9	31.0	17.4	15.0
Treasury bills	-0.7	-0.8	0.7	-0.5	0.2	5.9	-3.0	3.5	42.7	45.0
Change in holding of deposits and currency (increase-)	-0.3	0.4	0.4	-1.9	-2.4	-2.1	-2.6	-11.1	-21.9	-32.2
Errors and omissions	-1.7	-1.6	-1.8	-4.2	-3.5	-2.4	-21.3	10.9	-39.4	-32.8

/1 Taxes on personal income, corporate income, and wealth.
/2 Taxes on goods, services, and imports.
/3 Includes special revenues and funds, and annexed budget revenues.

Source: Ministry of Finance; IMF, SPO

Table 5.2: CONSOLIDATED GOVERNMENT REVENUE
(In millions of Turkish liras; fiscal year)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Taxes on Income	14,568	21,471	29,401	43,516	59,288	87,685	139,392	231,719	461,727	825,900
Personal Income Tax	11,663	16,071	22,432	33,626	46,589	69,674	108,378	190,525	385,719	646,900
Corporate Income Tax	2,090	3,083	3,819	5,247	6,341	8,109	16,886	19,061	37,126	126,000
Capital Gains Tax on Real Property	271	328	358	493	702	1,186	1,528	2,546	4,017	4,200
Fiscal Balance Tax	544	1,989	2,793	4,150	5,656	8,716	12,600	19,587	34,865	49,000
Taxes on Wealth	509	570	727	876	1,061	1,783	2,228	2,896	7,118	24,000
Real Property Tax	246	253	281	344	347	800	910	1,067	2,027	12,000
Motor Vehicle Tax	112	127	187	194	246	327	393	476	3,040	8,000
Inheritance and Gift Tax	151	190	259	338	469	656	925	1,353	2,051	4,000
Taxes on Goods	9,984	12,460	13,114	20,733	26,660	29,742	37,964	63,490	105,696	196,700
Domestic Production Tax	4,175	4,425	5,575	7,344	10,614	13,001	18,498	30,038	54,242	82,900
Domestic Petroleum Production Tax	1,381	1,416	1,304	2,294	1,179	1,227	1,063	1,701	1,749	2,000
Production Tax on Monopoly Products	1,982	3,517	2,708	6,797	9,083	7,250	8,367	18,915	29,141	84,000
Retail Sales Tax	452	554	658	854	1,104	1,567	2,277	3,328	5,221	6,000
Sugar Consumption Tax	636	729	672	644	739	726	844	928	673	900
Motor Vehicle Purchase Tax	432	612	805	983	1,485	1,608	1,721	1,799	3,004	7,500
Real Property Purchase Tax	880	1,164	1,357	1,798	2,442	4,345	5,160	6,772	11,646	13,400
Revenues from Abolished Taxes	47	43	35	18	14	18	34	9	20	.
Taxes on Services	4,668	5,843	7,343	9,976	13,595	17,691	24,095	35,882	80,575	145,100
Banking and Insurance Transactions Tax	1,976	2,485	3,416	4,570	6,257	8,734	11,847	18,351	42,867	75,000
Transportation Tax	229	217	240	386	342	403	463	873	1,323	1,900
PTT Service Charge	146	173	163	257	260	168	592	985	2,268	3,900
Building Construction Tax	82	115	121	184	249	241	378	324	576	1,200
Stamp Tax	1,553	2,069	2,521	3,525	5,112	6,460	8,824	12,881	27,271	47,500
Other Taxes and Fees	684	784	882	1,053	1,375	1,685	1,992	2,468	6,270	15,600
Taxes on Foreign Trade	9,283	11,614	14,572	19,907	26,450	31,348	42,740	69,849	93,800	135,300
Customs Duty	2,285	2,771	3,757	4,927	6,250	6,076	6,929	13,763	23,624	40,000
Customs Duty on Petroleum	222	307	329	758	503	915	916	1,404	3,961	3,800
Production Tax on Imports	2,411	2,976	4,363	5,548	9,069	9,501	10,109	15,144	35,104	56,000
Production Tax on Petroleum Imports	2,517	3,084	3,016	4,275	4,298	5,889	5,581	7,089	7,819	7,500
Stamp Duty on Imports	1,350	1,625	2,500	3,505	5,277	7,373	16,583	26,832	6,107	7,000
Wharf Duty	90	163	316	768	971	1,475	1,248	3,072	9,455	13,200
Other Taxes and Fees	408	689	292	126	81	119	1,374	2,545	7,730	7,800
Total Tax Revenue	39,012	51,958	65,156	95,009	127,055	168,249	246,420	403,836	749,916	1,327,000
Non-tax Revenue/1	5,439	3,541	3,827	9,772	10,669	14,136	55,471	91,614	82,900	104,000
Special Revenues and Funds, and Others	956	2,413	989	618	3,021	1,258	4,828	18,696	14,400	30,000
Annexed Budget Revenue	1,511	1,278	1,962	3,695	3,011	3,952	4,872	10,041	14,000	24,000
TOTAL CONSOLIDATED BUDGET REVENUE	46,919	59,190	71,935	109,094	143,756	187,595	311,592	524,187	860,216	1,485,000

/1 Includes property income, interest, fines, surpluses of government enterprises, etc.

Source: Ministry of Finance; Budget Reveneues Yearbook (various years) and others; IMF, SPO

Table 5.3: INTERNAL PUBLIC DEBT
(In millions of Turkish liras; end of period)

	1972	1973	1974	1975	1976	1977	1978	1979	Estimate 1980
General Budget	23852	26730	28107	48013	70639	88259	118455	193451	244323
Long-term Government Bonds/1	6287	9914	11595	18041	32585	47476	67159	100331	119339
Domestic Consolidated Debts/2	7380	7180	7506	21647	30478	13840	25310	68246	102475
Consolidated Municipalities Debts /3	2488	2247	1995	1749	1507	21483/8	21268	21059	19442
Savings Bonds	7592	7287	6911	6479	5975	5368	4629	3729	3003
Other Debts /4	105	102	100	97	94	92	89	86	84
Annexed Budget /5									
State Waterworks Bonds	5	3	-	-	-	-	-	-	-
State Investment Enterprises/6	8590	11174	14474	17915	25821	45049	58903	57499	55804
State Economic Enterprises/7	467	429	393	558	520	882	1340	1645	2396
Municipal Bonds	180	180	21	7	11	6	-	1213	1389
TOTAL	33094	38516	42995	66503	96991	134196	178698	253808	303912

/1 Treasury
/2 Consolidated debts under Law 154 and 250, 1312, and 1492.
/3 Consolidated debts under Law 691 and 1376.
/4 Exchange losses paid to the Central Bank under Law 65 and excludes Turkish debt bond 1935 which are included in the external debt repayable in foreign exchange.
/5 Treasury guaranteed bond of State Highways and Monopoly Administration are excluded since they have a maturity of not more than a year.
/6 Including amortization and credit funds bonds.
/7 Agricultural Bank, Real Estate and Credit Bank and People's Bank.
/8 Transfers from 1976 domestic consolidated Debts to Consolidated Municipalities Debts.

Source: Ministry of Finance, SPO

Table 5.4: PROFIT AND LOSS ACCOUNT OF SEES 1/
(In billions of Turkish liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Expenditure	35.0	46.7	88.5	109.3	164.8	208.9	328.4	545.1	1,347.2	1,912.9
Wages and salaries	29.7	41.1	75.3	28.3	42.1	61.3	92.2	143.1	238.0	321.3
Other inputs	0.0	0.0	0.0	75.0	115.0	133.8	212.3	379.8	1,086.0	1,557.7
Depreciation and other provisions	5.3	5.6	13.2	6.0	7.7	13.8	23.9	22.2	23.2	33.9
Income	36.5	47.1	89.3	104.9	147.9	172.7	276.4	473.6	1,324.1	1,906.3
Sales revenue	34.4	45.4	79.2	92.9	132.8	155.9	256.2	429.9	1,146.0	1,780.0
Increases in stocks	2.1	1.7	10.1	12.0	15.1	16.8	20.2	43.7	178.1	126.3
Gross Profit(+)/Loss(-)	1.5	0.4	0.8	-4.4	-16.9	-36.2	-52.0	-71.5	-23.1	-6.6

1/ Operational State Economic Enterprises.

Source: Ministry of Finance; IMF, SPO

Table 5.5: FINANCING OF INVESTMENT BY SEEs
(In billions of Turkish liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Investment	12.1	14.3	27.0	38.2	50.6	62.9	80.6	171.7	459.2	534.1
Fixed investment	10.0	12.6	16.9	26.2	35.5	46.1	60.4	128.0	281.1	407.8
Stock changes	2.1	1.7	10.1	12.0	15.1	16.8	20.2	43.7	178.1	126.3
Own resources, subsidies and transfers	7.3	9.4	11.2	25.4	11.4	25.5	26.9	41.0	138.4	253.5
Gross profit/loss	1.5	0.4	0.8	-4.4	-16.9	-36.2	-52.0	-71.5	-23.1	-6.6
Taxes	-0.6	-0.7	-0.6	-1.1	-1.3	-1.6	-1.8	-3.6	-14.6	-36.8
Depreciation	2.5	4.7	4.2	4.6	6.2	12.1	20.1	16.3	23.2	33.9
Transfers from petroleum fund	0.0	0.0	1.3	2.6	1.1	1.9	3.7	7.0	.	.
Budgetary transfers (net)	6.7	6.1	7.2	10.5	18.4	31.7	40.0	83.4	152.9	263.0
Changes in accounts receivable (net)		-2.8	-9.5	-8.6	-21.9	-28.7	-32.6	-77.6	.	.
Changes in accounts payable (net)		2.9	3.5	11.4	9.2	3.4	35.1	78.5	.	.
Price subsidies	-2.8			1.0	7.0	21.7				
Other subsidies		-1.2	4.3	1.1	3.1	5.6	14.4	8.5	.	.
Other items (net)				8.3	6.4	15.7				
Financing	4.8	4.9	15.8	12.8	39.2	37.4	53.7	130.7	320.8	280.6
Central Bank		-0.7	6.0	5.9	21.5	23.2	19.0	54.1	49.8	22.2
State Investment Bank (net)	2.2	3.1	9.8	6.9	11.7	10.3	9.1	14.4	16.2	26.7
Other sources including net foreign borrowing	2.6	2.5			5.9	3.9	25.6	62.2	254.8	231.7

Source: Ministry of Finance; IMF, SPO

Table 5.6: FIXED INVESTMENT BY SEEs
(In millions of Turkish liras)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Agricultural Sector	151	218	476	1092	1684	2918	4543	4411	6030	12274
Turkish Sugar Company	82	92	200	533	985	1721	2049	2264	3000	8093
Soil Products Office	7	23	14	21	37	57	659	805	1253	1575
Meat and fish	36	47	119	212	286	337	437	500	509	726
Agricultural Supply Office	9	11	20	67	97	310	574	327	336	477
Milk industry	7	33	58	81	99	224	415	79	284	273
Wool and mohair	-	1	-	-	-	-	45	63	10	52
Feed industry	10	11	5	101	64	105	106	135	138	243
Tea Corporation	-	-	70	77	116	164	258	238	500	835
Mining and power	2143	2693	3207	4756	4786	9350	11090	18101	43549	96017
Etibank	979	1386	1577	1531	1350	1796	1557	1766	2796	7676
TEK	1164	1307	1630	3225	3269	7359	9444	16167	40468	88027
Karadeniz Bakir	-	-	-	-	167	195	89	168	285	314
Coal, petroleum and steel	2257	4210	3932	4745	11479	11411	14322	19736	46562	106714
Coal Corporation	277	392	407	704	1072	1273	2004	3242	6096	12724
Iron and steel	902	2468	2195	1773	3157	3330	3375	6601	12967	19216
Petroleum Company	669	665	624	1594	6644	5677	6374	5716	14242	30852
Petroleum Office	29	55	88	110	75	135	148	173	401	877
Petrochemical	380	630	618	564	531	996	2421	4004	12856	43045
Manufacturing	677	713	821	1345	2632	358	6577	8088	17616	35278
Sumerbank	124	215	271	353	730	695	1162	1786	2715	6247
Turkish Cement	77	88	108	331	290	332	1317	574	2393	4550
Nitrogen	59	136	184	237	415	396	787	744	1666	2815
Machinery and chemical	165	163	126	139	210	349	712	742	1083	2193
Pulp and paper	250	109	128	278	964	1774	2545	3991	7172	13915
State Supply Office	2	2	4	7	23	34	39	83	88	298
TUSAS (aircraft)	-	-	-	-	-	9	15	8	269	53
Others /1	-	-	-	-	-	-	-	160	2230	5207
Transport and communication	1432	2147	4125	3385	5343	8001	9264	9524	14345	30923
Turkish Airlines	305	657	625	632	350	158	281	211	232	249
Maritime Bank	90	91	170	326	670	832	542	536	701	2103
Maritime Bank Cargo Lines	316	318	873	282	419	1117	1113	270	505	1987
State Railways	403	513	1594	843	1967	2455	3209	3790	6166	13101
Post, telephone, telegram	283	454	757	1019	1743	3063	3872	4532	6516	13150
Turkish Radio and Television	28	111	96	271	179	354	201	144	136	265
Tourism Bank	7	3	10	12	15	22	46	41	89	68
Total operational SEEs	6659	9981	12571	15323	25924	35269	45796	59860	128102	281206
Financial SEEs	586	690	1055	1570	246	224	352	447	556	1316
Province Bank	447	501	815	1412	-	-	-	-	-	-
Social Security Institution	102	97	85	28	126	77	57	113	239	696
Pension fund	19	27	46	40	54	72	139	131	123	256
Bank of Pious Foundations	-	-	6	12	7	2	9	5	13	8
People's Bank	-	8	6	9	1	3	25	61	63	214
Agricultural Bank	11	47	86	66	60	53	109	87	118	142
State Investment Bank	2	4	11	-	-	-	-	-	-	-
Guven Insurance	5	6	-	3	5	19	13	50	-	-
TOTAL	7245	10671	13626	16893	26177	35493	46148	60307	128658	282552

/1 Includes: TUMOSAN, TAKSAN, TEMSAN, TESTAS, GERKONSAN, PETLAS

Source: Ministry of Finance, State Planning Organization, 1981 Annual Program

Table 6.1: MONEY AND BANKING
End of period
TL millions

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Money										
Supply of money, total	43622	52891	69803	88699	117639	150382	209119	283595	444507	704004
Notes and coins	13918	15980	20703	26154	32909	42471	62961	93829	143695	217501
Commercial sight deposits	8673	11838	15998	22609	32077	44931	62953	86033	154480	286019
Saving sight deposits	20877	24865	32938	39654	52249	62709	82399	103268	143681	197432
Deposits with Central Bank	154	208	164	282	404	271	806	465	2651	3052
Supply of quasi money, total	17763	24527	29536	34092	42515	46528	55568	74104	128646	253359
Public sight deposits	4743	6519	8994	9515	13513	15752	21165	29690	45338	75420
Commercial time deposits	746	941	124	143	188	291	339	338	698	935
deposits	12274	17067	20418	24434	28814	30485	34064	44076	82610	177014
Central Bank										
Deposits, total	11016	16663	20955	26120	36927	44738	62937	99485	144061	266873
Public administrations	789	1150	1279	972	1460	2072	2571	2460	5270	48978
Public enterprises	124	184	146	239	378	215	747	266	2366	2721
Deposit money banks	8687	14679	18525	23165	34131	39060	56300	78970	110675	157928
Investment and development banks	1	22	27	61	110	170	83	716	191	200
IMF and counterpart of aid	1233	32	30	28	27	2387	2387	12559	12919	39493
Other	182	596	948	1655	821	834	849	4514	12640	17803
Lending total	17279	20466	28780	52592	66198	110621	189899	241886	382138	655183
Treasury	[illegible]	7469	7844	12434	16761	21739	45178	56639	91740	188734
Public enterprises	[illegible]	5809	5688	9946	9551	25412	46457	67610	122716	178243
Deposit money banks	5732	7174	15170	24126	26653	41676	62810	77285	121058	239944
Investment and development banks	-	14	78	6036	13233	21794	35254	40352	46624	48262
Deposit money banks										
Deposits, total	48350	62619	79971	98447	130428	158448	205803	269058	432386	745493
Public	4757	6720	8312	9019	11107	13947	18104	25053	40374	61151
Private	43593	55899	71659	89428	119321	144501	187699	244005	392012	684342
Lending, total	43651	57793	77306	100521	144135	191249	238288	296634	446188	789515
Public	7500	9841	14037	18510	25828	33529	37584	43394	76054	148704
Private	36151	47952	63269	82011	118307	157720	200704	252946	370134	640811
Investment and development banks										
Lending, total	12632	12892	16079	26060	37981	60634	84268	105448	135444	169849
Public	10184	10013	12203	21585	32494	53934	75164	90812	109342	121390
Private	2448	2879	3876	4475	5487	6700	9104	14636	26102	48459
Total bank lending (net of Central Bank advances to the banks)	67830	83963	106917	149011	208428	299034	414191	526037	796088	1326341
Public administrations	8813	10588	11412	16469	21830	27521	52869	66351	102731	199484
Public enterprises	20418	22544	28360	46056	62754	107093	151514	192104	297121	437646
Private sector	38599	50831	67145	86486	123794	164420	209808	267582	396236	689211

Source: Central Bank of Turkey
OECD Economic Surveys

Table 6.2: DISTRIBUTION OF CENTRAL BANK CREDITS
(In millions of Turkish liras, end of year)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Public sector	13705	14227	23524	32426	62673	120304	156682	252583	414492
Government	9219	10103	14754	18941	28739	60328	77989	119796	224438
Treasury	7469	7844	12484	16761	21739	45178	56639	91740	188734
Short-term advance	7469	7844	12484	16761	21739	45178	56639	91740	188734
Treasury bills	-	-	-	-	-	-	-	-	-
Monopoly administration	1750	2259	2270	2180	7000	15150	21350	28056	35704
State economic enterprices	4486	4124	8770	33934	19293	59976	78693	132787	190054
Soil Products Office (TMO)	3350	2700	6700	6000	12200	18575	21495	25524	40226
Financing of internal cerial purchases	3350	2700	6700	6000	12200	18575	21495	25524	40226
Financing of import (PL 480-Title 2)	-	-	-	-	-	-	-	-	-
Sugar factories	709	729	976	1371	3577	5974	9421	15498	29637
Sumer Bank	427	695	1094	64	880	746	158	686	4430
State Investment Bank	-	-	-	6050	14641	27922	32275	37941	45671
Others	-	-	-	-	2636	6758	15344	53638	69890
Private sector	5566	13424	22084	22163	34047	55050	66888	105583	240691
Agricultural credits	1966	2501	2949	790	2531	3871	7146	16589	47648
Agricultural sales	1314	3855	11155	11971	13320	21225	16777	31152	46945
Tobacco financing	339	1004	668	858	1196	730	1456	3151	4978
Commercial and industrial credits	660	1569	2594	4248	7487	14646	17965	27065	38039
Artisans and small traders	399	421	341	441	1202	2351	3584	5334	7381
Others	888	4074	4377	3855	8311	12227	19960	22292	95701
Bank liquidation fund	263	235	208	168	104	19	-	-	-
TOTAL	19534	27886	45816	54757	96824	175372	223570	358166	655183

Source: State Institute of Statistics, SPO

Table 6.3: CONSOLIDATED COMMERCIAL BANK CREDITS
(In millions of Turkish liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
By economic sectors									
Industry and mining	16971	21783	27976	35543	48518	62614	80343	156360	283108
Agriculture	10548	15219	25820	35118	39489	49135	52854	82599	145780
Foreign trade and tourism	6360	7564	7746	12419	15974	16860	21874	28108	60724
Housing and other construction	6164	7180	7262	9798	14332	18981	24302	16869	18450
Artisans and small traders	1538	1972	2533	3940	6293	9516	13707	23088	37239
Distribution and services	14407	21289	24376	42134	59155	74370	101284	139164	244214
Others	5	61	36	1	1	-	1	-	-
TOTAL	55993	75068	95749	138953	183762	231476	294365	446188	789515
By public and private sectors									
General, annexed budgets, administrations and local administrations	3059	3500	3918	5023	5619	7460	9657)	)	
SEEs and semi-public enterprises	2065	4381	5307	10030	13513	14101	17624)	65353)	138013
Private sector	50869	67187	86524	123900	164630	209915	267084	380835	651502
TOTAL	55993	75068	95749	138953	183762	231476	294365	446188	789515

Source: State Institute of Statistics

Table 6.4: COMPOSITION OF BANK DEPOSITS
(In millions of Turkish Liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total Deposits /1	62994	80392	99068	132374	162845	213261	283371	444712	793257
Demand	43354	58085	71998	98412	124371	168097	221114	347951	554944
Time	19640	22307	27070	33962	38474	45164	62257	96755	238313
Official Deposits	7913	10498	11628	17134	20079	26080	35248	50917	84093
Demand	6524	8999	9536	13547	15799	21197	29695	45338	75420
Time	1389	1499	2092	3587	4280	4883	5653	5579	8673
Commercial Deposits	12978	16216	22836	32374	45357	63930	87280	155178	286954
Demand	11901	16030	22631	32095	44977	63027	86072	154480	286019
Time	1077	186	205	279	380	903	1208	698	935
Household Deposits	42103	53678	64604	82866	97409	123251	160243	210730	422210
Demand	24929	33056	39831	52770	63595	83873	105347	137434	193505
Time	17174	20622	24773	30096	33814	39378	55396	73296	228705

/1 Including interbank deposits.

Source: Central Bank of Turkey, Monthly Bulletin, various issues.

Table 6.5: LENDING AND DEPOSIT INTEREST RATES
(In percent per annum)

	1970	1973 Mar. 1	1973 Nov. 26	1974 Oct. 1	1978 Apr. 1	1979 May 1	1980 May 1	1980 July 1	1980 Oct. 1	1981 Jan. 1	1981 Feb. 9	1981 July 9	1981 Nov. 27
Central Bank rediscount rates													
Rediscounts and advances against bills	9.0	8.0	8.5	9.0	10.0	10.75	14.0	26.0	26.0	26.0	30.25	31.5	31.5
Agriculture, exports, small industry	7.5	6.0	7.0	8.0	8.0	12.0	12.5	12.0	15.5	15.5	15.5	16.0	17.25
Medium-term credits	9.0	9.0	9.0	10.5	11.5	14.0	15.0	26.0	26.0	26.0	30.25	31.5	31.5
Maximum lending rates by banks													
Short-term credits													
General	-	10.5	10.5	11.5	16.0	19.0	21.0	31.0	31.0	31.0	36.0	36.0	36.0
Export credits	12.0	9.0	9.0	10.5 1/	14.0	16.0	-	22.0	22.0	22.0	27.0 5/	22.5	27.0 6/
Agricultural credits	10.5	9.0	9.0	10.5	10.5	14.0	16.0	16.0	22.0	22.0	22.0	22.0	22.0
Medium-term credits													
General	12.0	12.0	12.0	14.0	16.0	20.0	22.0	33.0	33.0	33.0	38.0	38.0	38.0
Agricultural credits	10.5	9.0	9.0	10.5	10.5	16.0	18.0	18.0	24.0	24.0	24.0	24.0	24.0
Long-term credits	-	-	-	-	-	-	-	36.0	36.0	36.0	41.0	41.0	41.0
Maximum deposit rates 2/													
Savings deposits, demand deposits (0-3 months)	3.0	2.5	2.5	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Savings deposits (3-6 months)	4.0	4.0 3/	4.0 3/	6.0	8.0	8.0	8.0	5.0	5.0	5.0	5.0	45.0	45.0
Savings deposits (6-12 months)	6.0	-	-	-	9.0	12.0	12.0	15.0	15.0	32.0	42.0	50.0	50.0
Savings deposits (12-24 months)	9.0 4/	7.0	7.0	9.0	12.0	20.0	20.0	33.0	33.0	40.0	50.0	50.0	50.0
Savings deposits (2-3 years)	-	-	-	-	16.0	22.0	22.0	34.0	34.0	40.0	50.0	50.0	50.0
Savings deposits (3-4 years)	-	-	-	-	20.0	24.0	24.0	35.0	35.0	40.0	50.0	50.0	50.0
Savings deposits (4 years or more)	-	-	-	-	-	-	-	36.0	36.0	40.0	50.0	50.0	50.0
Certificates of deposit													
Six months	-	-	-	-	-	-	-	15.0	15.0	32.0	42.0	50.0	50.0
One year	-	-	-	-	-	-	-	33.0	33.0	40.0	50.0	50.0	50.0
Two years	-	-	-	-	-	-	-	34.0	34.0	40.0	50.0	50.0	50.0
Sight savings	-	-	-	-	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0

1/ Export credits refinanced fully or partly through the Central Bank and exempt from expenditure tax as provided for in the Decree for the Inducement and Development of Exports are subject to a maximum rate of 9.0 percent. Medium-term credits with the same features are subject to a maximum rate of 12.5 percent.
2/ Since March 1973 banks are not permitted to pay interest on commercial deposits, irrespective of maturity. Instead, a new system of differential maximum rates for savings was set up in order to promote long-term savings.
3/ Three-twelve months.
4/ Twelve-eighteen months.
5/ 22.5 percent from May 5, 1981.
6/ From October 1, 1981.

Source: Central Bank of Turkey; Ministry of Finance; IMF.

Table 7.1: PRICE INDICES
(1963=100, annual average)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Wholesale prices	199	240	312	343	397	492	751	1231	2551
Foodstuff and fodder	185	225	305	358	412	506	734	1093	2190
Cereals	156	200	318	337	365	430	546	774	1638
Livestock	327	348	371	442	621	891	1322	1959	3806
Livestock products	190	226	297	431	452	577	987	1473	2625
Industrial and semi-manufactured	222	265	322	319	372	470	779	1461	3152
Fuels	293	327	356	378	393	457	960	1717	4630
Minerals	194	201	301	305	319	368	645	1353	2735
Building materials	187	208	253	275	383	652	963	1676	3157
Textiles	190	276	341	300	398	490	681	1190	2135
Cost of living									
Ankara	208	241	278	331	386	473	725	1174	2365
Istanbul	214	244	302	366	430	541	876	1433	2784
Food	212	243	297	378	458	565	864	1333	2555
Heating and lighting	242	268	339	374	411	610	1096	2122	4404
Clothing	199	238	309	323	341	453	775	1515	2814
Others	229	245	307	352	371	495	958	1616	3386

Source: Ministry of Commerce; Ministry of Finance; State Planning Organization

Table 7.2: AVERAGE DAILY WAGES OF WORKERS BY ECONOMIC ACTIVITY
(In Turkish liras)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Agriculture									
Fishing	38.7	50.3	53.9	89.1	99.6	130.2	220.5	292.5	334.4
Mining and quarrying									
Coal mining	33.4	48.7	53.1	96.4	104.4	138.8	207.9	340.9	490.8
Metal mining	36.9	44.3	64.9	78.0	118.0	152.6	257.4	329.8	506.8
Crude petroleum and natural gas	76.1	84.3	112.7	128.4	185.1	234.5	291.9	388.4	588.3
Stone, clay, and sand quarrying	32.8	41.1	60.0	79.9	97.6	119.1	152.1	248.5	333.1
Other non-metallic mining and quarrying	37.6	52.4	68.0	80.6	129.9	170.7	221.8	349.0	512.3
Manufacturing									
Food	37.3	45.9	70.5	82.6	116.9	159.7	230.5	319.4	440.1
Beverage	47.3	59.0	77.5	92.5	137.7	183.0	260.9	333.2	516.9
Tobacco	35.8	64.3	77.6	95.4	125.2	184.1	304.4	357.6	616.5
Textiles	40.8	66.0	57.3	65.8	121.9	148.7	214.0	245.2	437.5
Footwear and apparel	30.4	38.4	52.9	61.8	86.3	111.1	164.9	232.1	329.2
Wood and cork	30.1	35.2	49.2	63.3	86.6	115.2	169.1	260.4	348.8
Furniture	29.1	35.4	50.8	64.5	86.3	112.1	147.2	236.2	291.1
Paper and paper products	53.5	76.9	77.4	123.9	168.1	226.6	263.7	351.0	546.5
Printing and publishing	50.3	55.9	73.4	87.1	113.9	137.6	198.7	275.9	405.4
Leather	34.0	41.9	54.4	67.7	111.3	147.1	160.2	238.8	411.2
Rubber products	48.6	56.9	79.9	129.7	134.9	171.6	221.5	295.0	451.3
Chemicals	59.4	63.6	83.9	103.8	132.5	183.5	254.3	345.0	487.9
Petroleum and coal products	76.8	96.6	95.1	150.9	158.8	228.5	272.0	378.4	570.9
Non-metallic mineral products	40.9	54.4	67.0	86.2	122.0	160.9	212.2	293.3	451.0
Basic metals	67.9	68.1	98.4	136.5	161.9	203.5	266.0	370.6	554.4
Metal products, except machinery	44.9	52.1	66.4	87.4	109.8	148.2	192.4	282.2	407.1
Machinery, except electrical machinery	48.9	55.5	68.5	103.9	118.8	117.4	188.9	298.3	428.2
Electrical machinery	54.9	60.2	73.7	95.2	123.2	168.4	237.7	321.0	486.4
Transport equipment	65.1	70.7	92.0	125.8	148.6	179.4	263.5	356.6	543.3
Others	36.7	40.8	55.3	71.9	100.2	127.1	173.8	256.9	354.1
Electricity, gas and steam	42.7	58.3	67.7	77.5	106.0	144.1	186.8	287.7	401.0
Water and sanitary services	35.2	43.3	59.3	52.1	114.0	170.7	222.6	328.4	517.7
Construction	41.7	48.1	64.5	77.2	106.9	126.6	188.8	270.4	357.0
Wholesale and retail trade	43.4	50.4	78.6	74.8	96.8	120.2	170.4	252.0	332.4
Banks and other financial institutions	40.7	47.9	64.3	75.5	95.7	144.0	205.8	312.2	451.5
Insurance	64.9	70.6	82.3	92.5	134.6	186.6	225.7	322.2	482.3
Real estate	35.8	42.5	53.1	70.7	88.5	109.9	163.8	249.1	301.9
Transport, storage and communication									
Transport	52.5	62.1	74.3	124.0	117.6	165.4	202.4	310.2	453.9
Storage and warehousing	48.1	63.9	72.3	90.6	116.5	165.2	223.3	321.2	509.8
Communications	66.2	74.4	77.9	118.7	120.7	148.6	269.8	358.8	508.0
Other services									
Government services	32.8	39.4	56.1	72.7	102.5	142.0	195.3	292.0	406.9
Legal, business, and technical service	56.8	74.3	73.4	95.0	122.2	141.3	222.0	323.4	496.7
Cinema and theater and similar service	37.1	45.8	56.2	65.3	94.4	114.8	171.7	249.5	349.0
Personal services	30.1	36.7	49.0	67.0	83.0	98.6	156.9	234.7	298.6
AVERAGE ALL ACTIVITIES	43.9	54.4	68.3	85.6	115.3	146.5	207.9	294.3	407.8

Source: State Institute of Statistics

Table 7.3: TRENDS IN REAL AND NOMINAL (DAILY) WAGES

Year	Cost of Living 1970 = 100 1/	Nominal Wages		Real Wages	
		SII 2/ Data	MI 3/ Survey	SII 2/ Data	MI 3/ Survey
1960	56.6	14.5	15.7	25.5	27.7
1962	60.3	16.5	17.6	27.4	29.1
1965	67.4	21.6	22.9	32.0	34.0
1967	83.3	25.8	28.4	31.0	34.1
1970	100.0	35.3	40.2	35.3	40.2
1972	137.3	43.9	54.5	32.0	39.7
1973	156.6	54.4	64.1	34.7	40.9
1974	194.0	68.3	82.6	35.2	42.6
1975	234.6	85.6	110.3	36.5	47.0
1976	276.1	115.3	134.1	41.8	48.6
1977	347.9	146.5	200.6	42.1	57.7
1978	563.2	207.9	307.8	36.9	54.7
1979	921.0	294.3	486.0	31.9	52.8
1980	1,789.2	427.0	876.7	23.9	49.0

1/ Based on the Istanbul consumer prices index.
2/ The SII data are the average daily wages as reported by the social Insurance Institute.
3/ The MI survey (Annual Survey of the Manufacturing Industry-SII) wage is calculated by dividing total payments (inclusive of bonuses, etc., but exclusive of social security and retirement funds payments) by the number of workers engaged.

Source: SPO

Table 7.4: GOVERNMENT SALARIES BY GRADES, 1970-1979

Grade	Daily Wage (TL per day)					
	1970	1972	1976	1977	1978	1979
1	222	222	285	380	467	587
2	183	183	238	320	146	501
3	156	156	204	272	338	432
4	133	113	18	240	244	384
5	114	114	157	210	262	339
6	97	97	137	182	230	304
7	84	84	120	160	205	275
8	72	72	106	142	184	253
9	61	60	93	124	164	232
10	54	54	84	112	150	216
11	48	48	76	102	139	205
12	42	42	70	94	136	195
13	36	35	64	86	120	184
14	31	30	57	76	110	173
15	25	25	49	66	99	163
Average Nominal	49.6	49.1	82.5	119.6	165.1	264.3
Average (real)1/	49.6	35.8	39.9	34.5	29.3	28.7

1/ Average nominal wages deflated by Istanbul CPI, 1970 = 100.

Source: State Planning Organization, unpublished.

Table 7.5: PUBLIC AND PRIVATE SECTOR WAGES

	Nominal Wages				Real Wages			
	MI Survey		SII Data		MI Survey		SII Data	
	Public Sector	Private Sector	Public Sector	Private Sector	Public Sector	Private Sector	Public Sector	Private Sector
1970	46.7	36.3	38.7	33.0	46.7	36.3	38.7	33.0
1972	61.3	50.4	48.7	41.3	44.6	36.7	35.5	30.1
1973	71.4	60.1	61.6	51.0	45.6	38.4	39.3	32.6
1974	95.6	75.6	76.9	63.5	49.3	39.0	39.6	32.7
1975	130.0	99.1	98.3	78.8	55.4	42.2	41.9	33.6
1976	128.5	137.4	132.2	105.9	46.5	49.8	47.9	38.4
1977	229.0	183.1	178.1	128.7	65.8	35.9	51.3	37.1
1978	366.3	275.1	244.5	185.6	65.0	48.9	43.4	33.0
1979	572.3	442.1	348.8	260.9	62.1	48.0	37.9	28.3
1980	1077.8	758.4	525.3	367.3	60.2	42.4	29.6	20.5

Source: State Planning Organization.

Table 7.6: COLLECTIVE AGREEMENTS AND COVERAGE IN TURKEY

	Number of Agreements			Number of Works Covered (000)		
	Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
1970	478	1,038	1,516	335	215	550
1971	328	1,114	1,442	189	154	343
1972	443	1,160	1,603	278	148	426
1973	551	1,370	1,921	250	193	443
1974	594	1,130	1,724	427	174	602
1975	297	1,596	1,893	91	209	300
1976	917	1,491	2,408	221	255	476
1977	653	1,520	2,173	369	221	590
1978	785	1,440	2,225	280	204	484
1979	1,204	1,710	2,914	266	48	314
1980	445	1,368	1,813	237	93	330

Source: Ministry of Labor.

Table 8.1: PRINCIPAL LAND USE
(In thousands of hectares)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Cultivated area	25043	25014	24660	24418	24243	24472	24552	24972	24567
Area sown	16047	16062	16154	16241	16321	16531	16352	16605	16379
Fallow land	8996	8952	8506	8177	7922	7941	8200	8367	8188
Tree crops, vineyards, vegetable area	3183	3274	3268	3244	3460	3385	3493	3585	3805
Fruit trees	1052	1153	1187	1163	1263	1290	1321	1352	1386
Olive groves	751	775	785	801	810	816	811	812	813
Vineyards	850	816	795	790	768	760	790	850	820
Vegetable area	530	530	501	490	619	591	571	571	786
Forest area	18273	19136	20170	20170	20170	20155	20155	20155	20199
TOTAL	46499	47424	48098	47832	47873	48012	48200	48712	48571

Source: State Institute of Statistics

Table 8.2: LAND AREAS FOR CEREALS, PULSES, AND INDUSTRIAL CROPS
(In thousands of hectares)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Cereals	13185	13305	13189	13609	13581	13585	13483	13689	13292
Wheat	8730	8850	8750	9250	9250	9325	9300	9400	9020
Barley	2530	2555	2580	2600	2635	2620	2600	2718	2800
Rye	625	610	600	565	530	520	470	470	443
Maize	617	625	620	600	600	580	580	585	583
Oats	295	280	275	260	243	230	225	220	197
Spelt	72	65	58	59	58	50	46	45	41
Millet	38	37	30	25	24	20	20	20	15
Rice	51	60	60	55	54	58	70	75	52
Canary seeds	3	2	1	1	1	2	2	1	1
Mixed grains	224	225	215	194	186	180	170	155	140
Pulses	604	616	606	568	630	692	643	670	725
Lentils	103	118	117	125	186	240	177	175	191
Dry beans	106	100	100	94	102	104	100	110	114
Chick peas	178	186	175	140	138	138	168	200	240
Cow vetch	100	103	105	103	103	119	114	113	114
Wild vetch	68	63	60	60	56	48	42	35	31
Broad beans	33	31	34	31	30	30	31	31	30
Kidney beans	2	2	2	2	2	2	2	2	2
Peas	3	3	3	3	3	4	4	4	3
Others 1/	11	10	10	10	10	7	5	-	-
Industrial crops	1299	1186	1298	1185	1215	1408	1312	1143	1233
Cotton	760	677	837	670	581	777	653	612	672
Tobacco	352	323	230	242	315	270	304	222	230
Sugar beets	149	154	187	215	252	250	277	270	269
Flax	11	11	14	13	11	9	5	9	9
Opium	6	0	0	9	22	72	51	18	19
Hemp	8	8	8	7	8	7	8	8	9
Aniseed	2	3	10	14	16	4	1	4	6
Others 2/	9	9	11	17	10	13	13	-	19
TOTAL	15088	15107	15093	15362	15404	15685	15438	15502	15250

1/ Include fenugreek, mango beans and grass peas.
2/ Include dry pepper, sorghum, sugar cane, saffron, coriander, cumin, mustard and touka bean.

Source: State Institute of Statistics

Table 8.3: OUTPUT OF CEREALS, PULSES AND INDUSTRIAL CROPS
(In thousands of tons)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Cereals	18638	15603	16967	22111	24355	24212	24237	25556	24323
Wheat	12200	10000	11000	14750	16500	16650	16700	17500	16500
Barley	3725	2900	3330	4500	4900	4750	4750	5240	5300
Rye	755	690	560	750	740	690	620	620	525
Maize	1030	1100	1200	1200	1310	1265	1300	1350	1240
Oats	396	380	380	390	400	370	370	330	355
Spelt	75	80	80	80	78	70	64	69	54
Millet	52	33	40	40	34	29	29	20	22
Rice	122	159	150	150	158	165	190	225	143
Canary seeds	3	2	2	1	2	3	3	2	1
Mixed grains	280	259	225	250	233	220	211	200	183
Pulses	665	589	665	675	752	813	729	762	817
Lentils	105	67	120	135	210	260	180	183	195
Dry beans	159	148	145	155	159	160	156	165	165
Chick peas	183	185	195	172	170	180	205	225	275
Cow vetch	88	85	75	85	90	100	80	86	84
Wild vetch	64	46	60	60	58	46	40	36	30
Broad beans	47	46	54	50	48	50	54	52	52
Kidney beans	2	2	2	3	2	2	2	2	2
Peas	4	4	4	4	4	6	7	8	7
Others/1	13	6	10	12	12	9	5	6	7
Industrial crops	6642	5778	6543	7662	10246	9891	9662	10238	7552
Cotton	544	513	598	480	475	575	475	476	500
Tobacco	180	149	203	200	314	248	297	206	234
Sugar beets	5896	5095	5707	6949	9406	8995	8836	9500	6766
Flax	1	1	4	4	2	2	1	1	2
Opium	.	.	.	6	14	36	28	25	14
Hemp	9	8	9	7	12	9	9	11	14
Aniseed	2	3	7	8	10	3	1	3	4
Others /2	11	9	16	9	13	23	14	16	18
TOTAL	25945	21970	24175	30448	35353	34906	34628	36556	32692

/1 Include fenugreek, mango beans, and grass peas.
/2 Include dry pepper, sorghum, sugar cane, saffron, coriander.

Source: State Institute of Statistics

Table 8.4: YIELDS OF CEREALS, PULSES, AND INDUSTRIAL CROPS
(In kilograms/hectare)

	1962	1967	1972	1973	1974	1975	1976	1977	1978	1979	Estimate 1980
Cereals	1127	1296	1414	1173	1287	1625	1793	1782	1797	1863	1830
Wheat	1083	1250	1397	1130	1257	1595	1789	1785	1796	1867	1829
Barley	1250	1394	1472	1137	1291	1731	1860	1813	1827	1871	1893
Rye	1030	1224	1208	1131	933	1327	1399	1327	1319	1319	1207
Maize	1199	1556	1669	1760	1935	2000	2192	2181	1241	1308	2127
Oats	1098	1308	1342	1357	1382	1500	1660	1609	1642	1682	1802
Spelt	992	982	1042	1231	1379	1356	1348	1400	1391	1533	1317
Millet	1224	1310	1368	871	1333	1600	1478	1450	1425	1250	1467
Rice	2037	2333	2392	2650	2500	2740	2926	2845	2714	3000	2750
Canary seeds	622	870	1029	1032	1364	1313	1460	1333	1500	1333	1400
Mixed grains	1094	1111	1250	1151	1047	1289	1253	1222	1240	1290	1307
Pulses	1001	1107	1102	956	1096	1188	1193	1175	1133	1126	1117
Lentils	966	1060	1019	566	1026	1083	1129	1083	1015	1046	1021
Bry beans	1089	1311	1500	1480	1450	1649	1559	1538	1560	1500	1447
Chick peas	993	1141	1028	995	1114	1229	1241	1304	1220	1125	1146
Cow vetch	900	974	880	825	714	825	876	840	705	749	737
Wild vetch	931	1022	948	730	1000	1000	1027	958	952	1029	968
Broad beans	1325	1229	1424	1484	1588	1613	1638	1666	1726	1676	1733
Kidney beans	778	935	977	905	900	1250	949	1100	1100	1095	1100
Peas	1138	1224	1486	1467	1167	1273	1379	1558	1750	1875	2333
Others 1/	1048	990	1145	607	1002	1103	1165	1245	1041	1012	1045
Industrial crops	3064	4814	5114	4874	5041	6442	8588	7051	7370	8100	8100
Cotton	371	551	715	757	714	716	817	740	727	785	744
Tobacco	601	637	510	461	884	828	1071	881	977	929	1018
Sugar beets	21719	35122	39447	33257	30507	32389	37564	36042	31905	26000	25119
Flax	120	217	118	130	250	269	159	189	237	135	269
Opium	8	4	12	-	-	672	647	506	558	558	707
Hemp	692	748	1037	1070	1113	1000	1500	1264	1063	1375	1489
Aniseed	629	720	756	735	659	600	628	771	887	714	626
Others 2/	6079	4200	1260	952	1406	531	1300	1840	1129	763	976

1/ Include fenugreek, mango beans and grass peas.
2/ Include dry pepper, sorghum, sugar cane, saffron, coriander, cumin, mustard and touka beans.

Source: State Institute of Statistics

Table 8.5: OUTPUT OF NUTS AND FRUITS
(In thousands of tons)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Nuts	406	441	458	549	463	552	517	538	451
Hazelnuts	190	250	244	317	245	290	310	300	240
Walnuts	113	110	110	117	135	150	130	145	122
Chestnuts	50	52	48	47	48	48	45	46	59
Almonds	24	22	33	37	30	24	26	27	22
Pistachios	29	7	23	31	5	40	6	20	8
Pome fruits	1093	1088	1225	1188	1307	1216	1422	1635	1790
Apples	850	850	950	900	1000	900	1100	1300	1400
Pears	196	195	230	240	255	260	270	280	330
Quince	39	35	37	40	43	46	41	45	50
Others	8	8	8	8	9	10	11	10	10
Stone fruits	515	507	546	632	663	656	699	687	731
Plums	131	124	136	130	137	153	149	135	149
Peaches	140	120	160	200	192	185	230	220	240
Apricots	63	77	69	100	96	94	96	110	100
Cherries	65	66	67	73	85	91	91	92	96
Others	116	120	114	129	153	133	133	130	146
Cultivated fruits	3816	3702	3670	3588	3451	3536	3881	3894	4010
Grapes	3434	3344	3346	3247	3080	3180	3496	3500	3600
Figs	216	190	156	175	188	175	185	200	205
Mulberries	97	90	90	90	103	90	93	93	95
Carobs	18	17	13	13	12	19	19	20	17
Others	51	61	65	63	68	72	88	81	93
Citrus	728	691	900	959	976	1147	1081	1147	1174
Oranges	467	470	500	540	545	650	656	680	695
Lemons	149	122	265	290	278	325	243	280	283
Mandarins	97	84	112	105	126	135	150	155	167
Grapefruits	6	7	13	13	13	22	20	20	17
Sour oranges	9	8	10	11	14	15	0	12	12
Olives	1019	333	840	561	1097	400	1100	430	1350
TOTAL	7577	6762	7639	7477	7957	7507	8700	8331	9506

Source: State Institute of Statistics

Table 8.6: USE OF MAJOR AGRICULTURAL INPUTS

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Certified seeds (thousands of tons)	100	228	168	167	174	172	161	148	150
Cereal seeds	68	184	131	128	137	133	123	99	100
Others	32	44	37	39	37	39	38	49	50
Fertilizers (thousands of tons)	3284	3720	3136	3692	5945	6577	7474	7666	5960
Agricultural chemicals (thousands of tons)	51	66	55	48	61	71	68	81	81
Tractors (thousands)	134	171	198	241	312	377	398	400	394
Total outstanding credit from Agricultural Bank (TCZB) (millions of Turkish liras)	14374	17683	22874	30877	50364	71823	87645	121590	173243

Source: General Directorate of Planning, Research, and Coordination.
General Directorate of Agricultural Affairs records.
General Directorate of Agricultural Planting Protection records

Table 8.7: AGRICULTURAL SUPPORT PRICES
(In Turkish lira per kilogram)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Estimate 1981
Wheat	1.00	1.20	2.12	2.34	2.58	2.86	3.20	5.03	10.23	18.75
Barley	0.78	0.92	1.64	1.76	1.87	1.98	2.69	4.72	8.90	14.00
Rye	0.75	0.90	1.57	1.67	1.77	1.90	2.48	4.71	8.48	13.00
Oats	0.72	0.86	1.50	1.62	1.67	1.77	2.34	4.55	8.30	-
Paddy (long grain)	2.50	3.60	4.50	5.00	5.50	6.25	12.00	31.49	75.00	-
Tobacco	13.20	23.10	23.15	31.29	39.13	44.39	50.10	60.91	111.68	130.34
Sugarbeets	0.20	0.30	0.40	0.50	0.58	0.62	0.90	1.42	3.10	4.42
Seed cotton 1/	3.75	6.00	8.00	8.00	10.25	10.50	12.50	25.00	50.00	63.00
Tea	4.00	4.50	6.25	7.50	8.50	10.00	11.00	14.50	25.00	41.00
Sunflower seeds 1/	2.20	2.50	3.75	5.50	5.75	6.50	8.50	12.00	30.00	.
Hazelnuts 1/	8.50	9.70	13.50	14.00	14.50	16.50	23.50	37.50	110.00	125.00
Dried figs 1/	2.60	4.20	5.50	6.00	7.00	8.00	10.50	22.00	50.00	65.00
Olive oil 1/	8.70	17.50	17.50	17.50	18.00	23.00	35.50	-	125.00	-
Raisins 1/	2.92	7.00	10.00	10.00	10.50	12.00	17.50	40.00	85.00	110.00
Pistachio nuts 1/	13.00	18.00	25.00	26.50	-	27.00	55.00	150.00	300.00	-
Fresh cocoons 1/	-	-	60.00	70.00	80.00	100.00	125.00	185.00	800.00	.

1/ Support prices to cooperative members

Source: Ministry of Agriculture; Ministry of Commerce; Ministry of Customs and Monopoly

Table 8.8: OFFICIAL PRICES OF AGRICULTURAL INPUTS

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Tractors (TL thousands)									
Massey Ferguson MF 135	71.7	71.7	72.0	80.0	88.2	132.7	218.8	314.7	1245.0
Ford 5000	108.2	108.2	102.5	102.5	133.0	157.0	0.0	0.0	1370.0
Ford 3000	64.0	64.0	81.4	95.0	109.1	126.3	210.8	0.0	1150.0
Implements (TL)									
Bottom plow	3330	3330	4700	4994	7000	10300	12500	16500	21500
24 disk harrow	3850	3750	5700	6600	10500	17500	19000	31000	55000
4" irrigation pump	9800	10200	12300	12900	14000	16000	20000	45000	245000
Fuel (TL/l)									
Kerosene	1.38	1.38	2.47	2.47	2.47	3.50	5.00	10.00	36.0
Fuel oil	1.42	1.42	2.51	2.51	2.51	4.10	5.25	9.00	24.0
Gasoline	1.62	1.62	2.80	2.80	2.80	5.50	9.00	17.00	53.0
Certified seeds (TL/kg)									
Hard wheat	1.41	1.65	3.05	3.50	4.00	4.25	5.50	8.30	18.25
Barley	1.15	1.35	2.30	2.30	2.90	3.20	4.20	7.30	14.75
Cotton	1.75	1.85	3.25	3.25	3.50	3.80	4.00	8.00	17.50
Sunflower	2.70	3.20	3.75	8.25	8.25	9.35	9.75	13.00	50.00
Fertilizer (TL/kg)									
Ammonium nitrate (26% N)	0.75	0.75	2.55	1.40	1.40	1.40	1.40	1.40	7.50
Superphosphate (16-18% P_2O_5)	0.49	0.49	1.18	0.60	0.60	0.60	0.60	0.60	5.00
Pesticides (TL/kg)									
Sulphur powder	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	20.50
Copper sulphate	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	50.00

Source: Ministry of Commerce

Table 9.1: OUTPUT OF SELECTED INDUSTRIAL GOODS
(In tons, except fabrics in thousand meters)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Capital goods									
Pig iron 1/	1135	896	1199	1196	1516	1360	1570	1903	1809
Steel (ingots) 1/	1442	1161	1459	1464	1455	1396	1628	1788	1702
Rolled products	1097	1025	1198	1118	1525	1739	1565	1618	1839 3/
Cement	8421	8945	8938	10854	12343	13833	15344	13785	12888
Paper, board and 1/ newsprint	268	303	321	328	335	374	324	301	299
Glass-window, bottles 2/	70	85	75	115	132	156	154	167	107
Superphosphate	616	479	459	772	628	625	522	952	1723
Consumption goods									
Sugar	794	723	757	806	982	1080	1090	973	1043
Cigarettes	43	46	53	52	54	58	56	71	59
Cotton fabrics	227	219	210	212	205	179	209	211	189
Woolen fabrics	5	4	6	7	8	6	6	6	5
Mineral products									
Iron ore 4/	1959	2549	2269	2204	3342	3199	3232	1527	2314
Chrome ore 4/	650	572	692	918	832	911	639	530	519
Copper (blister) 1/ 4/	1116	1676	2422	2329	1957	2247	2083	2231	1589
Boron minerals 4/	606	498	1071	968	908	1098	1317	1121	1030
Coal 4/	7861	7841	8601	8362	8074	7670	7742	7018	6598
Lignite 4/	10263	10593	10981	11757	11363	14812	17065	14973	16954
Crude petroleum	3410	3703	3422	3095	2656	2713	3094	2844	2329

1/ Public sector only.
2/ Private sector only.
3/ 1980 Jan.-Nov. Estimates.
4/ Ungraded product.

Source: State Institute of Statistics

Table 9.2: VALUE OF MANUFACTURING PRODUCTION

(in million of Turkish liras)

	1979	1980	1981 3/
Consumer goods	1,220,474	1,237,332	1,285,415
Food processing	792,232	792,518	830,181
Beverages	52,308	53,350	54,835
Tobacco processing	102,362	102,526	108,106
Textiles	273,572	288,938	292,293
Intermediate goods	1,050,597	1,113,517	1,348,888
Wood products	112,191	116,433	119,742
Paper	31,089	33,133	38,204
Printing	39,186	40,949	41,488
Hides and leather products	54,650	54,700	55,475
Rubber products	44,332	51,840	53,750
Plastic products	23,496	22,100	23,300
Chemicals	95,597	102,180	106,724
Petroleum products	347,795	392,642	430,465
Ceramics	6,670	7,154	7,758
Glass	18,133	13,443	23,050
Cement and cement products	83,533	79,808	90,684
Iron and steel	135,797	137,992	147,555
Nonferrous metals	58,128	61,143	66,098
Investment goods	375,240	340,998	358,210
Metal products	85,000	81,500	84,000
Machinery 1/	110,832	104,990	108,000
Electrical machinery 2/	41,546	42,847	44,200
Transport equipment	137,862	111,661	118,830
TOTAL	2,646,221	2,691,847	2,992,513

1/ Include agricultural machinery.
2/ Include electronics.
3/ Programme

Source: State Planning Organization.

Table 9.3: FIXED INVESTMENT IN MANUFACTURING
(In millions of Turkish Liras, at 1976 prices)

	1973	1974	1975	1976	1977	1978	1979
Consumer goods	7961	12800	10310	9244	9053	6907	4875
Food	2045	3892	3427	4181	4140	3510	2369
Beverages	306	146	203	194	465	292	233
Tobacco	129	454	598	498	907	833	448
Textiles and Clothing	5481	8302	6077	4371	3541	2272	1807
Intermediate goods	15519	15739	23990	22196	24239	21408	20822
Hides and leather	239	367	210	235	285	158	166
Forestry products	328	420	581	665	993	1073	867
Pulp and paper	199	441	1559	2287	2320	2645	2555
Printing	265	164	133	331	173	145	73
Chemicals	3495	2672	4628	3213	5739	5047	6872
Petroleum products	918	1385	5424	5168	3842	1805	1920
Rubber and plastics	493	525	730	1506	1901	928	557
Soil products	2121	3054	2491	2313	2961	2536	1415
Iron and steel	4940	4363	6311	5582	5310	6609	5843
Non-ferrous metals	2521	2348	1923	896	714	462	554
Investment goods	3867	3376	4655	6697	7511	6164	4483
Metal products	733	644	548	1043	1086	909	869
Machinery	679	945	1293	1875	2819	1609	1182
Electrical machinery	627	459	1021	846	1168	1241	704
Vehicles	833	822	1514	2127	1604	1457	1367
Others	995	506	279	806	834	947	360
TOTAL	27347	31915	36955	38137	40803	34479	30162

Source: State Planning Organization

Table 9.4: SECTORAL DISTRIBUTION OF ESTABLISHMENT, EMPLOYMENT, OUTPUT, VALUE ADDED, AND INVESTMENT IN PUBLIC MANUFACTURING INDUSTRY, 1979

(private TL million)

	Number of Establishments	Annual Average Number of Persons Employed	Total Wages and Salaries Paid	Investment	Ouput	Value-Added
Processed Food	158	55,784	9,326.5	1,382.9	52,524.1	12,413.3
Beverages	21	5,807	1,039.0	60.5	5,467.8	3,503.1
Tobacco	28	39,276	7,232.2	27.5	35,026.9	15,805.6
Textiles	42	33,846	4,725.6	994.1	17,487.3	7,983.7
Wearing Apparel	3	2,275	374.3	8.6	1,592.3	759.4
Fur and Leather Products	-	-	-	-	-	-
Wood and Cork	26	5,212	882.2	88.5	3,863.7	1,493.5
Furnitures and Mixtures	12	524	23.5	+0.0	194.7	121.2
Paper and Paper Products	7	10,834	3,363.4	808.3	11,615.3	2,434.0
Printing and Publishing	11	2,422	549.4	37.3	906.5	705.6
Chemicals	15	12,593	4,263.1	1,213.1	23,798.8	11,091.4
Petroleum	8	7,379	3,372.0	2,522.9	76,869.7	16,307.6
Rubber and Rubber Products	1	57	19.6	1.5	338.6	66.8
Non-metallic Minerals	27	11,976	2,569.0	509.2	8,639.1	3,486.7
Basic Metals	11	54,881	10,657.9	16,828.5	47,272.7	14,683.1
Metal Products	7	2,552	1,183.3	57.0	4,039.9	2,588.6
Machinery	21	13,284	4,400.2	518.2	10,697.5	4,940.7
Electrical Machinery	4	2,114	542.6	9.4	849.2	487.9
Transport Equipment	22	21,891	4,826.8	337.6	8,922.1	6,832.4
Miscellaneous	1	666	100.8	-	300.0	166.4
TOTAL	425	283,473	59,451.4	25,405.1	310,406.2	105,871.1

Source: State Institute of Statistics.

Table 9.5: SECTORAL DISTRIBUTION OF ESTABLISHMENT, EMPLOYMENT, OUTPUT, VALUE ADDED, AND INVESTMENT IN PRIVATE MANUFACTURING INDUSTRY, 1979

(private TL million)

	Number of Establishments 1/	Annual Average Number of Persons Employed	Total Wages and Salaries Paid	Investment	Ouput	Value-Added
Processed Food	1,215	56,206	6,976.4	775.9	87,845.9	19,558.8
Beverages	61	6,707	1,272.6	787.2	8,136.6	4,620.8
Tobacco	18	2,416	194.9	7.9	3,450.9	1,115.4
Textiles	1,027	134,042	16,382.7	10,489.5	126,092.9	55,388.6
Wearing Apparel	273	13,262	1,044.3	165.7	9,035.8	2,727.0
Fur and Leather Products	129	4,060	375.2	38.0	4,015.4	1,193.2
Wood and Cork	154	7,548	1,011.4	650.0	8,442.8	2,962.3
Furnitures and Fixtures	89	2,666	201.3	162.5	1,478.8	595.3
Paper and Paper Products	108	4,979	781.7	422.0	7,626.6	3,176.7
Printing and Publishing	192	8,227	1,213.1	220.9	8,619.8	3,433.2
Chemicals	392	31,384	7,262.2	2,959.9	78,887.3	32,791.6
Petroleum	31	2,293	506.6	343.8	11,269.3	5,456.1
Rubber and Rubber Products	523	23,777	6,853.5	1,211.0	35,171.6	12,815.2
Non-metallic Minerals	492	49,166	8,726.2	2,411.9	39,430.8	20,424.3
Basic Metals	473	26,443	4,754.2	7,967.0	55,061.5	17,362.0
Metal Products	747	35,826	4,599.8	1,612.9	34,302.6	13,849.3
Machinery	498	34,026	5,673.6	2,033.5	39,611.0	14,095.2
Electrical Machinery	343	29,613	6,571.5	1,040.6	42,372.3	15,782.9
Transport Equipment	380	31,446	5,663.3	3,483.0	54,343.3	16,674.3
Miscellaneous	123	4,917	578.1	172.2	3,391.1	1,525.4
TOTAL	6,795	509,004	80,642.6	50,031.9	658,586.3	245,547.6

1/ Establishments where 10 or more persons are engaged.

Source: State Institute of Statistics: Unpublished data sheets.

Table 9.6: PRODUCTION FIGURES FOR THE FIRST TEN MONTHS OF 1979, 1980 and 1981

Commodities	1979	1980	1981	Differ. (79-80)		Differ. (80-81)	
	(10^3 Tons)			Qty.	%	Qty.	%
Crude Petroleum	2,397	1,941	1,802	-456	-19.0	-139	-7.2
Petroleum Products							
Diesel Oil	2,040	2,735	2,821	695	34.1	86	3.1
Fuel Oil	3,397	3,948	4,031	551	16.2	83	2.1
Kerosene	1,551	1,650	1,570	99	6.4	-80	-4.8
Fertilizer							
Nitrogenous	1,363	1,713	2,765	350	25.7	1,052	61.4
Phosphorous	1,393	1,520	2,825	127	9.1	1,305	85.9
Potash	7	-	-	-7	-	-	-
Electricity							
Thermic (G_{wh})	10,149	9,727	10,018	-422	-4.2	291	3.0
Hydrolic (G_{wh})	8,578	9,392	10,581	814	9.5	1,189	12.7
Lignite	8,582	10,582	11,633	2,000	23.3	1,051	9.9
Coal	3,435	2,968	3,285	-467	-13.6	317	10.7
Iron and Steel							
Rolled Bars	1,269	1,253	1,236	-16	-1.3	-17	-1.4
Rolled Products	1,618	1,620	1,800	2	0.1	180	11.1
Others	1,422	1,416	1,334	-6	-0.4	-82	-5.8
Cement	12,280	10,920	12,728	-1,360	-11.1	1,808	16.6
Sugar	599	712	1,022	113	18.9	310	43.5
Paper	255	250	304	-5	-2.0	54	21.6
Petrochemical Products (tons)							
Polyethylene	13,506	12,434	13,916	-1,072	-7.9	1,482	11.9
PVC	16,089	21,404	31,985	5,315	33.0	10,581	49.4
Carbon Black	11,641	12,461	15,099	820	7.0	2,638	21.2
Polystyrence	7,478	10,128	11,384	2,650	35.4	1,256	12.4
Caprolactam	13,868	14,887	11,885	1,019	7.3	3,002	-20.2
SBR	19,020	18,088	25,592	-932	-4.9	7,504	41.5
Cigarettes (tons)							
Filtered	24,747	20,340	31,000	-4,047	-17.8	10,660	52.4
Non-filtered	21,413	16,600	21,000	-4,813	-22.5	4,400	26.5
Salt (tons)	1,002	1,002	1,077	-	-	75	7.5
Number of:							
Tractors	11,870	11,132	19,712	-738	-6.2	8,580	77.1
Diesel locomotive engine	23	31	25	8	34.8	-6	-19.4
Trucks	11,363	5,963	9,209	-5,400	-47.5	3,246	54.4
Lorries (small trucks)	7,107	5,438	5,126	-1,669	-23.5	-312	-5.7
Buses and midibuses	1,422	1,237	1,660	-185	-13.0	423	34.2
Cars	35,996	25,095	18,414	-10,901	-30.3	-6,681	-26.6
Minibuses	3,593	1,756	1,226	-1,837	-51.1	-530	-30.2

Source: SPO

Table 9.7: OUTPUT OF PETROLEUM, COAL AND MAJOR MINERALS 1/
(In thousands of tons)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Crude petroleum	3410	3703	3422	3095	2656	2713	3094	2844	2329
Coal 2/	7861	7841	8601	8362	8074	7670	7742	7018	6598
Lignite 2/	10263	10593	10981	11757	13363	14812	17065	14973	16954
Chrome 2/	650	572	692	918	832	911	639	530	519
Iron 2/	1959	2549	2269	2204	3342	3199	3232	1527	2314
Boron 2/	606	498	1071	968	908	1098	1317	1121	1030
Copper 2/	1116	1676	2422	2329	1957	2247	2083	2231	1589

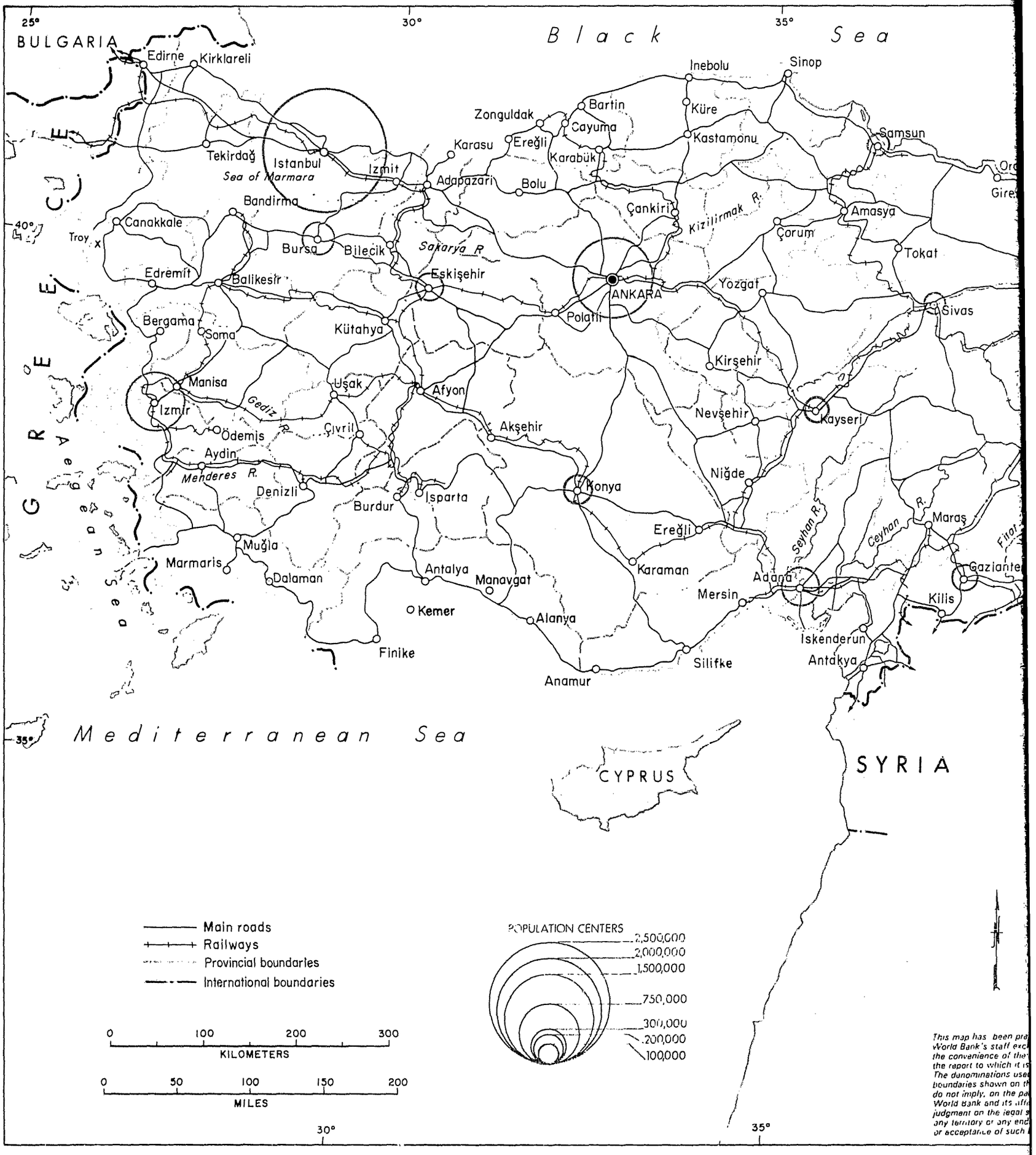
1/ Covers total production in Turkey
2/ Ungraded product

Source: State Institute of Statistics

Table 9.8: PRODUCTION OF ELECTRICITY (GROSS)
(In millions of kilowatt-hours)

	1972	1973	1974	1975	1976	1977	1978	1979	1980
Government power plants	10496	11601	12630	14710	17236	19101	20006	20609	21135
Thermal power	7333	9025	9303	8839	8892	10545	10672	10347	9832
Hydro power	3163	2576	3327	5871	8344	8556	9334	10262	11303
Industrial power plants	746	824	847	913	1041	1464	1720	1912	2151
Thermal power	705	797	818	881	1014	1427	1689	1871	2105
Hydro power	41	27	29	32	27	37	31	41	48
TOTAL	11242	12425	13477	15623	18277	20565	21726	22521	23288
Thermal power	8038	9822	10121	9720	9906	11972	12361	12218	11937
Hydro power	3204	2603	3356	5903	8371	8593	9365	10303	11351

Source: State Institute of Statistics



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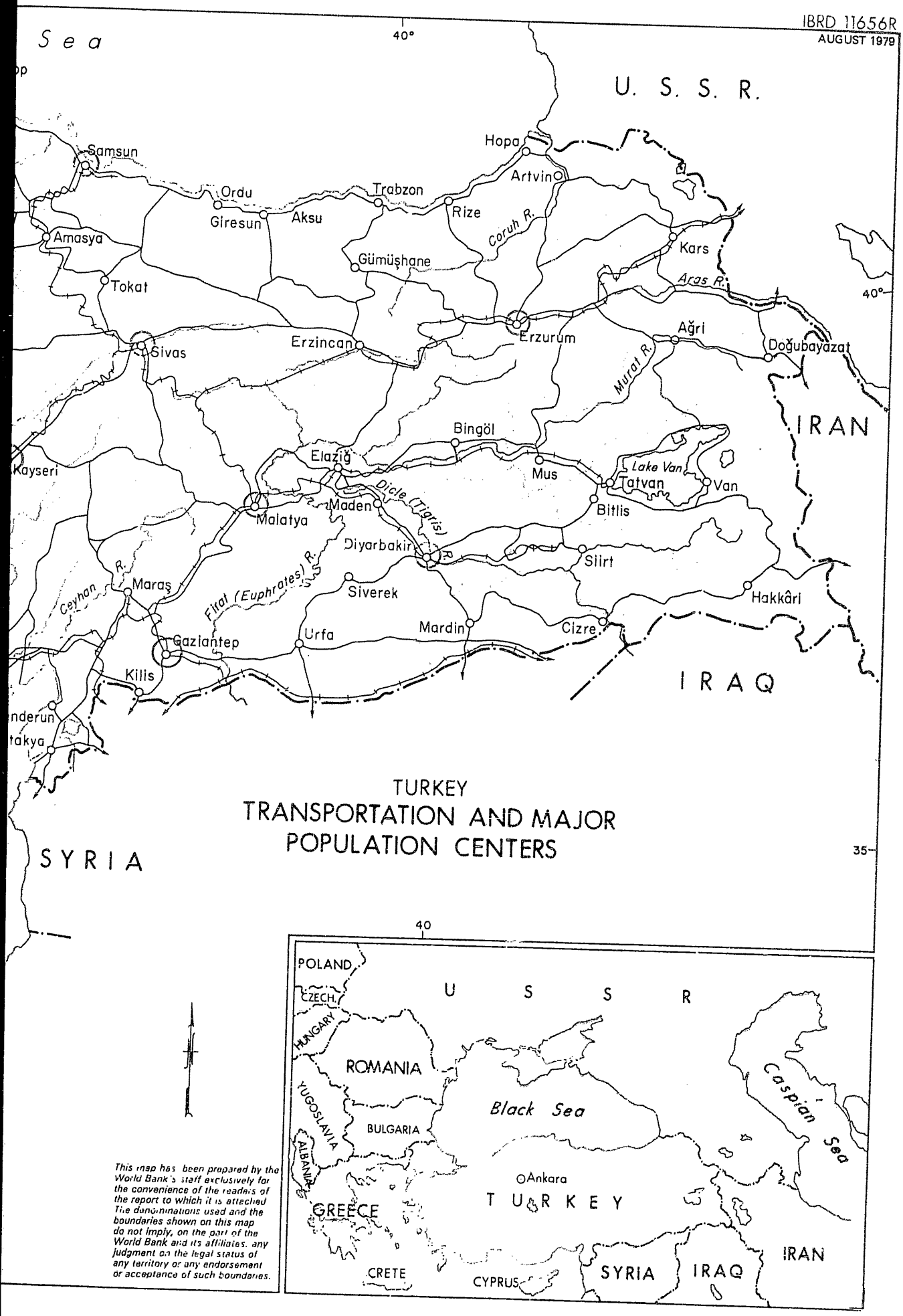

TURKEY
TRANSPORTATION AND MAJOR POPULATION CENTERS

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