THE EFFECT OF TURKISH TRADE POLICIES ON TURKEY'S BALANCE OF PAYMENTS

By: Anne O. Krueger

1965

AIRGRAM

DEPARTMENT OF STATE

UNCLASSIFIED

CLASSIFICATION

~~BC~~ File

DATE REC'D.

DATE SENT Dec. 23, 1965

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SUBJECT - Dr. Krueger's Paper - The Effects of Turkish Trade Policies on Turkey's Balance of Payments

REFERENCE -

Attached are the Mission's comments and suggestions on Dr. Krueger's paper, "The Effects of Turkish Trade Policies on Turkey's Balance of Payments". Two copies of this airgram have been sent directly to Dr. Krueger. [redacted]

Dr. Krueger's conclusions regarding the relatively high cost of some import substitution oriented projects are essentially the same as ours. Moreover, the Turkish State Planning Organization is well aware that the emphasis on import substitution has led to some uneconomic projects. They have indicated that one of their major preoccupations in identifying projects to be included in the Second Five-Year Plan will be in eliminating what they call the "bias in favor of import substitution" that has occurred in recent years. However, pressures from the government, state enterprises, and the private sector for further import substitution projects still exist and can be expected to result in additional capacity which cannot be justified on grounds of competitive costs.

The Mission is making seperate recommendations concerning Turkey's trade policies in the airgram covering the Fourth Program Loan.

HART

PAGE 1 OF PAGES 8

DRAFTED BY	OFFICE	PHONE NO.	DATE	APPROVED BY:
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AID AND OTHER CLEARANCES

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AID 5-39 (9-62) (Do not type below this line) PRINTED 6-64

Page	Para	Sentence	
2	1	2	GNP in 1963 was TL 56.0 billion in 1961 prices, and exports for that year amounted to $368 million.
3	1	1	External aid has increased in recent years. The purpose of external aid is to permit a deficit; and, therefore, the primary question is what the magnitude of the deficit should be.
3	1	3	Since it would be virtually impossible to make a reasonable estimate of what the magnitude of the deficit would be in the absence of all restrictions, we suggest that conclusion (c) read "if all . . . would be substantially larger than the present level".
3	2	1	Should be "since 1952" instead of "since 1953".
4			Table 2 should state that values are in $ millions.
5	4	2	Tobacco and hazelnuts are not dried fruits.
5	4	3	Europe is a ready market for fresh vegetables as well as fruits.
6	2	5	The extention of cereals acreage virtually ceased after 1953.
6	2	6	Weather was another important cause of the decline in productivity per acre.
7	1	1	Should be "export earnings" not "foreign exchange earnings".
7	1	3	Mining is not entirely state operated nor is the government the sole exporter of minerals.
7	3	5	It should be noted that a startling increase in workers' remittances has occurred in 1965; through November they have exceeded $55 million.
7	3	6	It is not correct to say that the Turkish Government is devoting sizeable resources to the encouragement of tourism.
8	1	1	Turkey devalued defacto in August 1958.

Page	Para	Sentence	
8	1	3	The revolution occurred in 1960.
8	1	4	It might be noted that 1963 was the first year of the First Five-Year Plan.
8	1	9	It is not correct to attribute the $150 million decline in imports principally to further import restrictions. The decline in imports for Eregli and P.L. 480 commodities accounts for about $110 million of the total.
9	1	2	In 1964 interest on the external debt amounted to $31 million.
9	1		It would be appropriate here to include a discussion of recent developments affecting debt amortization. In 1964, Turkey's external debt payments amounted to $110 million. Through the efforts of the OECD Consortium, about $100 million of debt payments due in 1965 were rescheduled, reducing the debt burden for 1965 to $91 million and interest payments will be $31 million. Therefore, Turkey's debt burden in 1965 is about $20 million less than in 1964 and with the rescheduling of some $100 million in debt payments due in 1966 and 1967 and with good prospects for better credit terms, Turkey's debt picture for the future looks considerably brighter.
10	2		Turkey has no prohibited list of imports. See the attached paper on the Turkish import regime for a discussion of Turkish import regulations. (Washington note: We sent Dr. Krueger the unclassified section of the Program Loan paper describing the Turkish import regime.)
11			The first word in line 2 should be "suppliers".
11	2	1	The liberalized list enumerates the goods which are not subject to explicit quantitative ceilings.
11	2	3	The dollar value of imports authorized under the liberalized list is roughly double that authorized under the quota list.

Page	Para	Sentence	
11	(Footnote 1)		Most items on the liberalized list have not been subject to U.S. procurement only. Moreover, the majority (in dollar terms) of the imports on the liberalized list are financed with foreign currency other than that provided by A.I.D. (See attached document for an explanation of Liberalized Lists I and II.)
12		2	The importer deposits the TL equivalent of the foreign exchange requirement for his goods.
12		3	It is not true that virtually all goods require a 100% guarantee deposit. For private sector imports, which have considerably higher guarantee deposit requirements than imports for the public sector, guarantee requirements under the Fifteenth Import Program were as follows: Quota List, 10-30%; Liberalized List I, 20-70%; and Liberalized List II, 20-100%. (See attached document.)
12		4	For A.I.D. foreign currency used by the private sector, the guarantee deposits range between 10 and 30%.
13	(Table 5)		Column 2 might read "Tax as percentage of CIF price". Column 3 should read "Cumulative cost as percentage of CIF price".
14	2	5	"Stated" not "state".
14	(Footnote 7)		"Part of the Plan" should read "consistent with the Plan".
15	2	1,3	Importers do not put up foreign exchange, but the TL equivalent.
16	2	2	"Faced" not "fared".
17		1	The ratio of working capital to fixed capital according to a recent survey of the private sector is about 1 to 1.5. The average for all firms that received financing from the Industrial Development Bank through 1964 is about 1 to 4.

Page	Para	Sentence	
18	1		Only major investments in the private sector require GOT approval. Building permits are not issued by the GOT but by local authorities.
19	1	2	Turkey has no auto assembly plant; only trucks, tractors, and busses are assembled in Turkey at the present time.
19	2	1	Turkey has no list of prohibited imports, it has a list of eligible imports. Therefore, sentence one might read "Each commodity removed from the eligible import list has . . . "
19	2	3	Same as above. There is no prohibited list. "Effective tariff" should be defined here. It is not clear how a high effective tariff on an intermediate good can result in a negative effective tariff rate on finished commodities for which that good is an input if the finished commodities have been removed from the eligible list of imports.
20	1	7	First there is no prohibited list. Second, although goods are removed from the import list, new goods are added. Therefore, on this basis, it would be difficult to argue that the importers' source of income is being reduced. However, with growth of industrialists' quotes since 1950, it is true that the share for professional importers in total imports has declined.
20	2	2	While the 1963 figures are actuals, those for 1964 are only rough estimates and those for 1965 are the 1965 Program targets.
21		1	Fifty-seven percent of total investment has not been allocated to social overhead. About 30% of planned investments for the 1963-67 period are targeted for social overhead, i.e., housing, health and education, about the same percentage targeted for 1965 in the 1965 Annual Program. Moreover, this overstates investments in social overhead as only worker-type housing should be included. Actual investment figures for 1963 and 1964 show that total investments for education, health, and housing amounted to slightly less than 30% of the total.

Page	Para	Sentence	
21		2	Of the remainder, considerably less than 50% has been for investments in manufacturing; amounting to about 34% of the remainder in 1963 and 28% in 1964.
21		5	The reason for the high proportion of investment in machinery is that many textile plants in Turkey are using very old inefficient machinery and these purchases of machinery reflect an effort to modernize the textile industry in Turkey.
22	1	3	Automobiles are not assembled in Turkey, only trucks, busses, and tractors.
22	2	1	Perhaps what is meant is that "The GOT has long been suspicious of Turkish exporters of major export commodities". This needs to be clarified.
22	2	4	Domestic prices are above the world average for only some commodities. Otherwise, Turkey would not be able to export without subsidies.
23	1	1	Same as for sentence 1, paragraph 2, page 22.
23	1	5	It is true that before 1964 the Chromite Producers Committee (not the Exporters' Union) attempted to maintain its price at a level that resulted in a temporary loss of Turkey's share of the world chrome market. However, this is not true now.
23	2	2	As a general statement this is very misleading. It is true that sugar beets and wheat are presently purchased at prices above the world level. However, this has not been always the case for wheat. Further, it is seldom true for tobacco and is not true for cotton.
23	2	3	This was true only during the early 1950's.
23	2	4	In general, this is not true for tobacco and cotton. When it has occurred, the GOT, not the SEE's, has been unwilling to reduce prices for export.

Page	Para	Sentence	
24	1	3	The only preferential treatment on interest rates on loans for exporters that we are aware of has been from the IBB which has provided lower interest rates on loans for working capital to exporters of manufactured products.
24	1	6	The 10% rebate applies only to exporters of manufactured goods.
24	1	8	In addition, rebates do not compensate for duties paid on imported capital goods.
27	2	3	The reason for the high cost of paper production should be explained. Is it due to the high price of pulpwood? Also, "nominal tariff" is not defined.
28	(Table 10)		Column (2) might be labeled "Imported Price with Duties".
28	(Table 10 Footnote)		Insert - t_i is the nominal tariff on the i^{th} input. Again, the "effective tariff" is not defined.
28	1	1	The "nominal tariff" is not defined.
29		2	An explanation of why Turkish firms "normally sell domestically at a price significantly above the price at which they export" should be included.
29	1		The significance of the "effective tariff" as a measure of the degree of protection afforded value added domestically needs to be explained. It is not clear why the "effective tariff" concept was introduced.
30		2	The price differentials are in part due to Turkish managerial pricing policies of exports.
31	3	4	The rates of return on total investments rather than fixed investments might have been used.
32	1	2	We assume that the free trade assumption means that there are no duties on capital goods.
39	1		While we agree with the conclusions, it is important to note that for lesser developed countries it is much easier to identify possibilities for import substitution than for export and that marketing problems of goods oriented to the domestic market are much simpler than for those trying to compete in international markets.

Page	Para	Sentence	
39	2		It is important to note that the various policies were adopted by the GOT to solve specific problems, e.g., the guarantee deposit was established to reduce importers' applications to foreign exchange availabilities. Therefore, liberalization policies must take account of the practical consequences of removing each restriction.
39	3		While suggestions 1, 2, 3, and 5 are policies requiring administrative changes, suggestions 4, 6, and 7, especially the latter two, would require major changes in the policies of the GOT to be implemented. Therefore, it is not correct to group these seven policy suggestions under the heading "Policies Easily Changed".
43	2	5	SEKA does not determine the wood price; it is determine by the Forest Service of the GOT. Also, SEKA does not have a monopoly on lumber sales. The large majority is sold by the Forest Service.
43	3	2	It is not true that the GOT controls mining operations directly. (See comment for page 7, para 1, sentence 3).
43	3	3	"The Chromite Producers Committee" not "The Chrome Exporters Union".
46	2	2	Devaluation de jure took place in the summer of 1960.

THE EFFECT OF TURKISH TRADE POLICIES ON TURKEY'S BALANCE OF PAYMENTS*

Anne O. Krueger

I. INTRODUCTION

One of the most persistent and difficult problems confronting the Turkish government over the past decade has been a deficit in the Turkish balance of payments. The Turkish shortage of foreign exchange is one of the critical factors affecting Turkey's rate of economic growth. In order to meet this problem, the Turkish government has adopted a variety of measures to restrict imports and to encourage exports and capital inflows.

The object of this paper is to evaluate these measures in terms of their impact on Turkey's balance of payments. Initially, it was hoped that quantitative estimates of the overall impact of various policies could be devised. Data and time limitations, however led to the use of selected case studies. Part II sets forth Turkey's recent balance of payments experience. Part III examines the various quantitative and qualitative controls governing Turkish international transactions. Part IV examines the impact of these measures on the individual cases for which data were collected. Part V summarizes the overall conclusions that may be drawn from the analysis. An Appendix is provided which sets forth the basic rationalle of the methods used in Part IV, and presents the underlying data.

*I am indebted to Robert Simpson for his research assistance. I have used his background papers on many subjects in writing this report. Robert Z. Aliber, Henry Barlerin, William Morgan, and Elberton Smith were very helpful in both their comments and enabling me to obtain the basic data for this paper.

II. TURKEY'S BALANCE OF PAYMENTS EXPERIENCE

Table 1 presents Turkey's balance of payments position in selected years of the past decade. Despite the fact that Turkish gross national product in constant prices increased from TL 39.6 billion in 1953 to TL 58.4 billion in 1963, exports over the period fell from $396 million to $468 million. 1964 marked the first year in which Turkish exports surpassed their 1953 value.

Table 1

TURKEY'S BALANCE OF PAYMENTS
(millions of U.S. dollars)

	1956	1958	1960	1962	1963	1964
Exports, f.o.b.	304	247	321	381	368	411
Imports, c.i.f.	-407	-315	-468	-622	-687	-537
Net service balance	78	-18	30	6	63	40
Net current account	-25	-50	-117	-235	-256	-86
U.S. grants	85	115	89	106	71	21
Other transfers	4	3	2	-1	7	-10
Private capital	-29	73	25	50	-7	70
Central government capital	61	34	29	77	121	22
Monetary Sector	-54	-81	-60	34	66	-33
Net Errors	-42	-58	32	-31	-2	16

Source: International Monetary Fund, Balance of Payments Yearbook, Vols. 14-16.

The increasing net current account deficit is even more remarkable when it is recognized that Turkey devalued the lira in 1959 and since that time, has had very little inflation. Moreover, imports have been increasingly restricted during the 1960's. All these factors lead to the incontrovertible conclusions that (a) Turkey could not have sustained the deficit she incurred without foreign governments' lending (b) that without increasingly restrictive regulations, Turkey's net current account deficit would have been much greater than the already large actual deficit, and (c) if all restrictions on trade were removed at the existing exchange rate the deficit would be at least four or five times its actual level.

The Composition of Turkish Exports. Table 2 gives the quantity and value of major Turkish exports for selected years since 1953. Unlike many other LDC's, Turkish exports are not concentrated in one or two commodity groups. However, more than 70 percent of Turkey's exports have originated in agriculture. Indeed, the remarkable increase in Turkey's exports in 1964 was attributable to increased agricultural exports.

Because of the importance of agricultural products in Turkey's exports, it is worthwhile to inspect the composition of these exports. Table 3 presents value and quantity data for selected years. The most important agricultural exports are cotton, tobacco, hazel nuts, and dried fruits. Cotton and tobacco exports exhibit marked year-to-year fluctuations in earnings as a consequence both of international price changes and fluctuations in domestic supply. A major factor in

Table 2

COMPOSITION OF TURKISH EXPORTS
BY INDUSTRY SECTOR, SELECTED YEARS

	1952		1960		1964	
	Value	% of Total	Value	% of Total	Value	% of Total
Agriculture	278.2	76.7	239.5	74.6	340.2	82.9
Minerals	46.5	12.8	31.4	9.8	36.0	8.7
Lumber	2.9	0.8	1.2	.4	1.3	0.3
All Other	35.3	9.7	48.6	15.2	33.3	8.1
Total	362.9	100.0	320.7	100.0	410.8	100.0

Source: State Institute of Statistics, Annual Foreign Trade Statistics, 1950-62, and 1964.

Table 3

COMPOSITION OF TURKISH AGRICULTURAL
EXPORTS, 1952, 1958, 1964

	Value ($ millions)			Quantity (th. metric tons)		
	1952	1958	1964	1952	1958	1964
Cereals	93.4	10.6	6.0	808	225	98
Fresh Fruit	1.4	2.6	3.6	11	15	24
Dried Fruit	15.7	22.8	30.5	64	68	136
Hazel Nuts	18.4	29.6	50.2	26	32	49
Livestock and Products	5.7	3.4	20.5	136	86	853
Animal Feed	6.5	6.1	17.4	99	124	261
Mohair	5.7	7.1	5.9	3	3	3
Cotton	69.1	23.0	92.3	70	38	171
Tobacco	62.1	101.6	90.1	57	67	57
Olive Oil	--	--	3.8	--	--	8
Sugar and Sugar Products	.2	1.7	19.9	4	17	147
Total	278.2	208.5	340.2			

Source: State Institute of Statistics.

explaining the pronounced increase in agricultural exports in 1964 was the conjunction of exceptionally favorable international tobacco prices with a good cotton crop.

Turkish tobacco export markets have been adversely affected by shifting world tastes toward Virginian tobaccos. It is one of the few commodities where Turkey is not a marginal exporter. Over the past decade, about 50 percent of U.S. tobacco imports have originated in Turkey.

Unlike tobacco, Turkish cotton appears to be a marginal source of world supply. Although world prices fluctuate, the major factor affecting Turkish cotton exports in any year is the Turkish supply situation. In recent years, the quantity of Turkish cotton exported has steadily increased and export earnings have been rising.

Turkey is the world's major supplier of hazelnuts. Exports have increased from an average level of 28 thousand tons and $20 million in the early 1950's to an average 43 thousand tons and $50 million in the early 1960's. With growing world population and income, there is every prospect that export earnings will continue to increase.

Turkey's status as an Associate Member of the Common Market gives her, along with Greece, preferential treatment for figs and raisins, as well as tobacco and hazelnuts. These are the major dried fruit categories. For fresh fruit, Europe is a ready market. The major problem appears to be supply limitations, largely as a result of an inadequate (if not non-existant) collection system, and quality control. If these problems could be overcome, fresh fruit exports could become a significant source of foreign exchange earnings.

Olive oil exports are affected by several factors. Although they were only $3.8 million in 1964, they were $14 and $12.8 million in 1962 and 1963 respectively. The crop is good only every alternative year, which would, even in the absence of other factors, render olive oil exports volatile. More important, however, is the fact that Turkey is a net deficit country with regard to edible oils at the present time. With her large cotton crop, there appears to be no reason why she should not be a net surplus country. Until major changes do occur, however, Turkey will be dependent on P.L. 480 imports, and as such, will be a net oil importer.

The cereals-livestock situation in Turkey is extremely complex. During the 1945-55 period, new land was cultivated for cereals at a rapid rate. At the same time, much pasture land was converted to cereals as a consequence of the government's price support policy for cereals. As a consequence, cereals output increased rapidly, generating a sizable surplus, while the grazing land became inadequate to support the livestock population. After 1955, however, the extension of cereals acreage virtually ceased. Productivity per care fell as a result of the addition of inferior land. The failure of productivity to increase, combined with rising Turkish domestic demand has resulted in Turkey's gradual loss of foreign exchange revenue from cereals, importing on net in some years and exporting in others.

As a consequence, Turkish cereals, which had earned an average $80 million in the early 1950's, were a relatively minor export by 1960. There is little prospect that cereals output can increase rapidly enough to enable cereals exports to reattain their former levels.

Outside of agriculture, Turkish minerals are the major source of foreign exchange earnings. Copper and chrome account for almost two-thirds of mineral exports. Mining is entirely state-operated in Turkey, and the government is the sole exporter. There is general agreement that there exists considerable scope for expansion of minerals exports, particularly copper. To date, however, exports have remained virtually stagnant.

Other exports have constituted a small percent of Turkish exports. Among manufactured goods, only textiles, blister copper, and some processed foods have been of any magnitude. Except for the period immediately following devaluation, the other export category has remained less than 10 percent of total exports.

Aside from commodity exports, two sources of foreign exchange earnings have appeared in recent years. These are tourism, and workers' remittances from abroad. Receipts from tourism were $7 million in 1964; workers' remittances were $9 million. In 1961-62, only 12,000 Turkish workers were employed abroad, and remittances were negligible. By the end of March, 1965, 123,000 workers were abroad. Their remittances may constitute a rapidly growing source of foreign exchange receipts. The Turkish government is devoting sizable resources to the encouragement of tourism. To date, receipts have grown only slowly.

Turkish Imports. While Turkish exports have been relatively stagnant over the past decade, Turkish demand for imports grew rapidly. After a relatively free import regime in the early 1950's, Turkish controls on imports became increasingly restrictive from 1953 to 1958. The increased import demand resulted both from income growth and a relatively

rapid Turkish internal inflation. It was found, however, that import controls resulted in a reduction in the level of domestic economic activity as needed raw materials, spare parts, and investment goods could not be attained.

With increasing balance of payments pressure and a mounting external debt, Turkey devalued de facto at the end of 1958, and relaxed import controls. Although exports increased somewhat, imports also rose rapidly. After the 1961 revolution, it was decided to adopt a development plan to accelerate the rate of economic growth. By 1963, imports were $687 million, contrasted with $468 million in 1960. Table 4 presents the composition of Turkish imports since 1960. As can be seen, over 85 percent of imports are investment goods or raw materials required for domestic production. With the development plan, all categories of imports rose, but the needs of expanding Turkish manufacturing for raw materials was the largest single factor. In 1964, further restrictions on imports were adopted. That these were effective can be seen by the $150 million decline in imports between 1963 and 1964.

Table 4

COMPOSITION OF TURKISH IMPORTS

	1960		1962		1963	
	Value	Percent	Value	Percent	Value	Percent
Investment goods	191.4	40.9	228.2	36.7	253.6	36.9
Raw Materials	217.6	46.5	291.5	46.8	331.8	48.3
Consumer goods	59.2	12.6	102.5	16.5	102.1	14.8
Total	468.2	100.0	622.2	100.0	687.5	100.0

Source: Government of Turkey, State Planning Organization, 1965 Annual Programme.

In addition to the balance of payments pressures on Turkey generated by import demand, Turkey has heavy external debt. Interest payments on external debt were $39 million in 1964. With continuing borrowing to cover the deficit, the debt service item will continue to be heavy in the foreseeable future.

In summary, Turkey is confronted with rapidly growing needs for foreign exchange and slowly growing export earnings. While many factors account for this situation, the present paper will focus only on those aspects of the present foreign exchange position that are affected by government policies. A description of these policies is the subject of the next section.

III. TURKISH POLICIES AFFECTING FOREIGN TRADE

Without some controls on exports and imports, Turkey would, at the present exchange rate, have such a large current account deficit that its financing would be impossible. As already seen, Turkey has a large foreign aid-financed deficit despite the presence of controls. The Turkish government has adopted a wide range of policies to keep its current account deficit at levels that can be financed, and in addition to reduce the potential deficit in the future.

Although the Turkish economy is highly diversified in contrast with other less developed and developing countries, there is virtually no phase of economic activity that does not require some essential capital goods, replacement items, and raw materials to produce its output. Furthermore, Turkey's economic growth requires large imports of machinery and equipment, in addition to an increased inflow of raw materials as the level of output rises. Hence, balance of payments

considerations are critical in limiting the attainable rate of economic growth. As a consequence, Turkish policies affecting their foreign trade include not only the conventional qualitative and quantitative restrictions on imports and export encouragements, but also the entire thrust of their development plans.

These various aspects of Turkish policies will be reviewed in turn. The conventional instruments of trade policy, first with regard to imports, then exports, and lastly service transactions are examined first. Thereafter, the effect of the government's development program, as it relates to Turkey's trade balance, is examined. In this review, no estimates of the importance of the various policies will be presented. This is done below, in Part IV.

Turkish Regulations Affecting Imports. Turkey uses a variety of instruments for restricting the volume of imports. These include tariffs, quasi-tariffs, import licensing, guarantee deposits, import prohibition for certain commodities, and the like. All of these measures are interrelated, and affect the potential importer's costs.

The dominant tool of regualtion is a semi-annual "Import Program". This program places all goods on one of three lists. These are: the prohibited list, the quota list, and the liberalized list. As its name implies, goods on the prohibited list may not be legally imported. Goods are placed on this list when it is believed that domestic productive capacity should be sufficient to fulfill domestic demand. On occasion, a Turkish manufacturer is unable to obtain a needed good on the prohibited list from Turkish domestic suppliers. In such cases, the manufacturer may apply

for permission to import the needed item if he has a letter from domestic supplies stating that they are unable to meet his needs.

The quota list states the amount of foreign exchange that will be allocated to manufacturers and commercial importers respectively for the importation of particular classes of commodities. Not only is there an allocation individually for importers as distinct from manufacturers, there is also a specification as to whether the foreign exchange is to be AID financed, or free foreign exchange. In the former case, the allocation may be used only for U.S. purchases.

The liberalized list enumerates the goods for which import licenses will be issued freely.[1] A major part of increasing Turkish trade restriction overthe past several years has taken the form of transferring goods from the liberalized to the quota list, and from the quota list to the prohibited list. As of 1963, approximately half of Turkey's imports were authorized under the quota list, and half under the liberalized list.[2] The percentage subject to quota has undoubtedly increased in the interim, although no later estimates of the percentage subject to quota could be found. Remaining goods on the liberalized list are almost entirely raw materials and intermediate goods necessary to maintain the level of production within Turkey.

Once the import programme has been announced, all those wishing licenses apply to their local Chamber of Commerce and Industry for a "certificate of need". For routine raw materials and intermediate goods, issuance is virtually automatic. In cases of goods on the quota list, when

[1] Recently, most items on the liberalized list have been subject to U.S. procurement under AID funds only.

[2] Union of Chambers of Commerce and Industry, Investment Guide to Turkey, 1964.

applications exceed the available foreign exchange, the Union of Chambers, working with the applicants, scales down requests.[3] Once certificates of need are granted, the importer then applies to the Central Bank for an import license. At the time of application, he must place a "guarantee deposit" equal in amount to a certain percent of the C.I.F. value of the goods he wishes to import, and in addition deposit the foreign exchange requirement for his goods. The percentage requirement has been raised several times over the past several years, until now virtually all goods purchased by importers and industrialists require a 100 percent guarantee deposit. The major exception is for goods purchased under AID funds, where a 50 percent guarantee deposit is required. The guarantee deposit is not refunded until goods have actually cleared customs. Moreover, stringent penalties exist when goods imported either exceed or fall short of the import license specifications. Hence, each importer must foresee his import requirements until the next import programme and import his goods at one time.

Once an import license is issued, it is valid for six months, and can be extended only if the licensee can show that it cannot be fulfilled within the six month period.[4] The importer, once he has the license, is free to place his order.[5]

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[3]Since firms in the same industry meet to allocate their raw material quotas, there is very little incentive for Turkish manufacturers requiring imported raw materials to attempt to increase their market share.

[4]There appears to be some sale of import licenses, primarily by small firms to large ones. Most individuals questioned indicated that they would buy licenses if they could, had heard of sales, but did not know where they could buy them. I failed to get anyone to state the price of a license.

[5]An important exception is goods subject to AID allocation. For those, the legal requirements of advertising in the Small Business Administration circular, etc., must be met prior to ordering.

When the goods arrive in customs, they must be cleared within fifteen days. In order to clear, they must be judged to fall within the goods category for which the license was issued and to be within 1 percent of the amount specified by the license. In addition, customs duties must be paid. In addition to a basic tariff, there are several other taxes on these goods, which can frequently exceed in amount the initial tariff. A representative set of taxes is detailed for paper in Table 5.

Customs duties have been raised several times in recent years. At present, customs duties are approximately 50 percent on finished goods, 20-30 percent on intermediate goods, and 5-15 percent on raw material imports. In 1964, customs duties receipts were $106 million while the production tax collected on imports was $83 million.[6]

These two taxes alone were therefore equal to 35 percent of the c.i.f. value of imports. Since duties were increased in the last quarter

Table 5
TYPICAL TAXES PAID AT CUSTOMS CLEARANCE

	Percent Tax %	Cumulative Tax %
1. Price c.i.f. Istanbul	100.00	100.00
2. Customs Duty 30%	30.00	130.00
3. Municipal Tax 15% (of duty)	4.50	134.50
4. Port Tax (2.50% of (3))	3.36	137.86
5. Other Costs (2% of (4))	2.76	140.62
6. Cost of Letter of Credit 2.64%(of (5))	3.71	144.33
7. Production Tax (20% of (6))	28.87	173.20
8. Stamp tax (5% of price)	5.00	178.20

[6]Government of Turkey, Ministry of Finance, Budget Revenues Bulletin 14.

of 1964, the percentage will be higher in 1965. Revenues from the customs tariffs and import production tax were 16 percent of Turkey's total tax revenue in 1964.[7]

The production tax was originally levied on Turkish domestic output as a source of new revenue. For Turkish goods, it is usually levied on the first stage of production at an average rate of 18 percent. It was then applied to imports of commodities that competed with domestic production in order not to place domestic manufacturers at an unfair disadvantage. Gradually, however, the production tax on imports has been extended, so that at the present time, receipts from the import production tax are almost as great as receipts from domestic producers.

The other taxes on imports listed in Table 5 are virtually self-explanatory. These are surcharges of various kinds that increase the total tax on imports well above the normal tariff rate. In general, taxes on imports may be calculated according to the formula:

$$\text{Total Tax} = \text{c.i.f. price } (1.123 + 1.234\,(t+tp) + 1.073p)$$

where t is the customs duty rate, and p the production tax rate. For representative values of the customs duty and production tax, the percentage by which the importer's price exceeds the c.i.f. value of his merchandise is given in Table 6. Thus, a commodity imported at a state tariff rate of 30 percent with no production tax will require 49.3 percent taxes on its c.i.f. price. Similarly, a commodity subject to a 50 percent tariff and à 20 percent production tax will bear 96.7 percent taxes on its c.i.f. price.

[7] In 1964, a decree was issued enabling importers of foreign machinery to pay the duties on the machinery over a 5-year period if the investment is " part of the plan". This tends to reduce tariffs somewhat on machinery.

Table 6

PERCENT PAID IN TAX ABOVE C.I.F. PRICE
(in percentages)

Tariff	Production Tax Rate 0	.10	.20
.1	24.6	35.5	46.4
.2	37.0	47.9	59.0
.3	49.3	60.4	71.6
.5	74.0	85.3	96.7

It should be observed that the surcharge system of tariffs results in a greater proportionate charge on low tariffs than on high ones: a 10 percent tariff becomes 24.6 percent charge, while a 20 percent tariff bears 37 percent. Since the import production tax is levied on actually all commodities, the total charge with a 20 percent tariff and 20 percent production tax would actually be 59 percent.

These tariffs and taxes do not fully state the cost to importers, because of the guarantee deposit and prior deposit of foreign exchange system. The typical firm using imported goods must apply for a license in, say, March. At that time, the guarantee deposit and payment of the foreign exchange must be made. The penalty on failing to import forces his order to be for six months' operating materials which will not arrive until June or July. Hence, in March he is holding 3 or 4 months inventory and in addition, must be financing twice the expected foreign exchange costs of the next 6 months' inventory. The typical pattern is given in Table 7.

Table 7

TYPICAL IMPORT FINANCING OF A FIRM
(in months of c.i.f. inventory requirements)

	Month of Import Program											
Financing of:	1	2	3	4	5	6	7	8	9	10	11	12
Stocks in hand	7	6	5	4	3	2	7	6	5	4	3	2
Guaranters deposit	0	0	6	6	6	6	0	0	6	6	6	6
Foreign exchange deposit	0	0	6	6	6	6	0	0	6	6	6	6

On average, he will be holding 4-1/2 months inventory, for which his required financing will be the c.i.f. prices plus all charges of clearing customs. The typical importer will also, on average, be financing 8 months equivalent of the c.i.f. value of inventory.

With an interest rate of 15 percent per annum, the total interest cost will be 10 percent per month of the c.i.f. price due to the guarantee and foreign exchange deposits and 3 percent of the customs cleared price of the goods. Thus, an importer fared with total customs charges of 50 percent, who needs $100 c.i.f. inventory per month will be paying $30 tariff and related charges per months' inventories plus $13.90 interests costs. A European importer able to order more frequently who holds 2 months' inventory on average at 10 percent interest would pay an average interest cost of $1.67 for the comparable inputs.

There are several important regards in which the peculiarities of the Import Programme's interest costs differ from the effects of tariffs and related charges. In the first place, the burden of higher average

inventory holdings[8] constitutes a real cost to the Turkish economy. For Turkish industry as a whole, the ratio of working to fixed capital is one to one--far higher than comparable Western European and American costs. This raises savings and foreign exchange requirements per unit of new investment. A second regard in which the interest costs differ fundamentally is for potential exporters. Whereas tariffs and other customs changes may be rebated in the case of exports, no such provision is made for inventory costs. This peculiarity is the more important, the smaller is value added (internationally) relative to sale price of the output. Suppose, for example, a process where, internationally firms purchase $90 of raw materials, process the, and sell the processed goods for $100. It is patently impossible for a Turkish firm to compete, no matter how favorable other cost considerations might be, since his interest cost alone will exceed $10.

A final cost of the import control system is the uncertainty it generates for individual firms. They cannot plan their output for even the next year, given the impossibility of forecasting the future import programme.

Turkish Development Programmes Affecting Imports. Because of the critical importance of foreign exchange availability, the Turkish government has focused considerable attention on the impact of its investments on the trade balance as a criterion for selecting among alternatives.

Although virtually all policies and decisions taken have directly or indirectly affected the composition and level of foreign trade, the most

significant class of decisions have pertained to the Turkish policy of encouraging import substitution. The manner in which this has been done varies from sector to sector. However, a general pattern does emerge, and is described in a "representative" situation in what follows.

An investment is made, either in the public or private sector, only after government allocation of the required foreign exchange and other permits. The purpose of the investment is to install the plant and equipment necessary to carry out one or more processing stages of a commodity presently imported in finished form. Regardless of whether the investment is public or private, it must have had the government's approval, since it will invariably have required a foreign exchange authorization, building permit, etc. The foreign exchange allocation procedure will be discussed below.

Once the new plant is constructed and starts operations, the government determines whether its output will be sufficient to meet "domestic requirements". The extent of domestic needs are usually evaluated with reference to the previous level of imports of the commodity in question, with some allowance for economic growth. If the new plant's capacity is deemed sufficient to meet domestic needs, the commodity is placed on the "prohibited list". This, in effect, means that no further import licenses will be issued for the commodity in question. In many cases, the "import substitution" schemes have been assembly plants. In these cases, the assembled implements used to be imported. Once assembly starts locally (with imported machinery), parts are imported and importation of the finished goods is no longer authorized.

In import-substitution schemes of this type, the Turkish government normally sets targets for the percentage of domestic content that must be included in the assembled products by certain future dates. Typically, an auto assembly plant is built, initially to import all parts for local assembly. This may be, let us say, 10 percent "foreign exchange saving". It may then recieve a target to become 20 percent foreign exchange saving in 2 years, 35 percent in 4 years and 50 percent in 5 years. This, in turn, means that over time the assembly plant must either add fabrication operations for particular parts itself, or alternatively another plant will be built, and the assembly plant will shift from foreign to domestic sources of supply.

Each commodity placed on the prohibited list has, in effect, a prohibitive tariff placed upon it. The only means whereby the tariff equivalent of these prohibited items can be computed is where Turkish and foreign price data are available. At this point, however, it may be noted that the potential impact of the prohibited list on other stages of economic activity may be rather considerable when the output is an intermediate good, since a high effective tariff on an intermediate good can result in a negative effective tariff rate on commodities for which that good in an input. Furthermore, the rebates alloted by the Turkish government do not include higher costs attributable to having to purchase from domestic sources. The cost-raising effect of the import-substitution schemes will be examined below.

Use of the prohibited list has resulted in several side-effects that cannot be quantified. First, Turkish producers whose goods are protected from international competition have a virtual monopoly on the domestic

market. Even when there are several producers of the prohibited good, their foreign exchange allocations generally determine their share of the market. As a consequence, there is little or no incentive to reduce price or increase quality. Complaints as to low quality Turkish output are frequently heard.

A second phenomenon has resulted from use of the prohibited list. The import allocation system in Turkey distinguishes quotas for "industrialists", or users of commodities for further processing from quotas for "importers", or wholesalers who resell the commodities within Turkey. It was frequently stated, although no empirical verification is possible, that when importers learn of an import substitution scheme about to be started, they tend to raise prices, increase their imports to the extent possible, and stockpile inventories of the good in question. When the new plant comes into operation, it is often alleged to be the case that importers start reducing their inventories at far above their earlier price, and that the new plant is unable to sell until such time as importers' supplies are reduced. Personnel at the Industrial Development Bank indicated that they anticipate difficulties in marketing output of new import-substitution firms for at least two years as the importers' inventories are reduced. The competition between importers and import-substituters is rather severe. Each group has identifiably separate and conflicting interests, and both place rather substantial pressure on the government to meet their own needs. As more and more goods are placed on the prohibited list, the importers' source of income is reduced.

Table 8 presents data on cumulative investments for the period 1963 to 1965 for Turkish manufacturing. 1963 and 1964 investment

Table 8

CUMULATIVE INDUSTRIAL INVESTMENT, 1963-65

	Investment (Million TL)	Percent of Manufacturing Investment	1965 Percent Foreign Exchange Requirement
Food, beverages and tobacco	827.7	12.3	37.9
Textiles and clothing	695.5	10.3	66.5
Forestry Products Paper and printing	487.2	7.2	52.4
Rubber products	256.5	3.8	59.1
Chemicals (including plastics)	939.0	13.9	54.5
Non-metallic products	365.5	5.4	59.8
Iron, steel, and metallurgy	2,320.7	34.2	32.6
Metal products	330.2	4.9	26.7
Machinery	194.4	2.9	50.9
Agricultural machinery	29.6	.4	28.6
Electrical machinery	143.6	2.1	46.7
Vehicles	169.4	2.5	73.2
TOTAL	6,773.6	100.0	100.0

Source: Government of Turkey, State Planning Office, 1965 Annual Programme.

figures are actual, whereas the 1965 data are the planned figures. Of total development investments, approximately 57 percent have been allocated to social overhead investments. Of the remainder, manufacturing has received 50 percent of sectoral investment. The Turkish government estimates that approximately 20 percent of all investment is foreign exchange. That manufacturing investment requires a considerably higher foreign exchange expenditure can be seen by examination of Table 8. The exceptionally high foreign exchange needs of textile investments are due to the fact that excess capacity has existed in textiles and virtually all investment has been directed toward the

purchase of new machinery. Since the Turkish Planning Office gives only the direct foreign exchange expenditures, the actual foreign exchange requirements are understated for all sectors.

The largest investment allocation within the manufacturing sector has been for iron and steel. This is attributable to the construction of the Erigli Steel Mill. In general, the Planning Office has favored import substitution schemes. Investment in rubber products has been for the purpose of developing domestic tire production; much of the investment in forestry products and paper has been for the purpose of fostering domestic paper production; chemicals investment have been in fertilizers and other import substitution schemes; vehicles investments have been for the purpose of developing local assembly of automobiles, buses and tractors. Thus, with the exception of the food and textile industries, the major thrust of Turkish manufacturing investment has been toward import substitution. The effects of these policies will be examined further in Part IV.

Turkish Policies Affecting Exports. The government of Turkey has long been suspicious of foreigners purchasing their major export commodities. This has resulted in a series of regulations governing exports. At the same time, many policies aimed primarily at internal problems have had a major influence on the supply of various Turkish traditional exports. Thirdly, Turkish prices and costs are, in general, above world prices. As the importance of generating foreign exchange earnings has been increasingly recognized, the Turkish government has adopted a variety of measures to render exporting more attractive. These three sets of policies are briefly reviewed below.

In view of the traditional Turkish suspicion of foreigners' purchases of Turkish goods, the government of Turkey long required that all exporters belong to an Exporters Union. The stated function of these Exporters' Unions is to review the price at which the exports are to be sold in order to insure that they are "fair". Only when such determination is made is an export license issued by the Ministry of Commerce. In the past few years, these regulations have been relaxed somewhat. Licensing and registration still remain in effect, however, for most traditional exports. It is generally agreed that the Chrome Exporters' Union has attempted to maintain its price at a level that has resulted in a loss of Turkey's share of the world chrome market. Likewise, it is acknowledged that the policy of the government has not been conducive to mineral exports in general, for which there does appear to exist considerable potential.

The second way in which government policy affects exports is through the operation of the State Economic Enterprises which are marketing and processing agents for various agricultural commodities. Largely for political reasons, the S.E.E. have purchased wheat, tobacco, cotton, and other major crops at prices above the world level. As was indicated above, the price support policy for wheat resulted in the diversion of land from livestock to cereals. Similarly, tobacco and cotton prices have often borne little relationship to world prices, but the S.E.E. have been unwilling to reduce their prices for export markets. The ways in which the various S.E.E. affect the Turkish economy are so many that to analyze them effectively would require a separate study. That they do affect exports, however, is beyond question.

The third major thrust of government policy has been an attempt to encourage exports. In 1964, it was decided to allow rebates to Turkish exporters for the amount of their tax payments. In addition, lower interest rates are paid by exporters than by other firms. Rebates are not given on traditional export commodities, but are for the purpose of encouraging new export industries. The rebate rates are set by negotiation between the government and the exporters. An across-the-board rate of 10 percent is allowed until negotiations can be completed. Thereafter, the rate is set at a level that will return to manufacturers all taxes paid on imports and domestic production taxes if they export $10,000 or more in one ISTN classification per year. While rebates make possible the return of tax payments, they do not compensate for three important categories of costs: (1) high interest costs due to the heavy inventory requirements; (2) the indirect costs of duties paid by other firms, and (3) the high costs of goods on the prohibited list. Despite this, there are indications that rebates may be important for some firms which otherwise would be unable to export.

A second attempt to encourage exports has been to attempt to provide lower interest rates on loans to firms that are exporting. Legally, the interest rate on loans to exporters is supposed to be about 9 percent. Many persons interviewed appeared to be unaware of this provision. Others indicated that banks were reluctant to lend when they could earn more elsewhere. Only one firm indicated that it had obtained the lower-cost financing.

IV. ESTIMATING THE EFFECTS OF TURKISH TRADE POLICIES

In view of the variety and number of policies affecting Turkish foreign transactions, any quantitative aggregative estimate of the overall effects of these policies, either individually, or collectively, would be little more than guesswork. It is possible, however, to examine the various effects of all policies on the operation of individual firms and industries. While such a procedure runs the risk of biased sampling, it is believed that the information gained by this procedure outweighs the bias.

For this reason, ten sets of data on individual firms were chosen for analysis. The basis for their selection was largely the availability of the information, although in seeking the data, the need for a "representative set" of firms and data reliability was kept in mind. Table 9 lists the various sets of data, and some of their characteristics relevant for evaluation of their accuracy.

As can be seen from Table 9, micro data are available only from manufacturing firms. Of these there are four where any possibility of exports exists at the present time. The remainder are import substitution schemes. Due to the fact that price and cost data of the type desired are available only in the manufacturing sector, analysis based on these data gives little indication of the effect of government policies on mining and agricultural sectors. However, the problems of the food-processing industry are believed to be somewhat represented by the tomato canning data. Interviews with other firms, where data were not complete enough for inclusion, gleaned information suggesting that other food-processing industries are confronted with similar problems. The

Table 9

CHARACTERISTICS OF INDIVIDUAL DATA SERIES

Output	Nature of Output	Source of Data	Year of Information
Electric motors & refrigeration units	Import-substitution	Loan application	1965
Fertilizer	Import-substitution	Actual Industry Data	1962
Glassware and windowglass	Export	Actual Firm Data and Interview	1964
Rubber tires	Import-substitution	Actual Firm Data, Interview and Loan Application	1965
Kraft Paper	Import-substitution	Feasibility Study	1964
Cast Iron products	Domestic good and potential export	Loan application and Interview	1965
Textiles - nylon	Export	Loan application and Interview	1965
Plastics	Import-substitution	Loan application and Interview	1965
Tomato canning	Potential export	Loan application and Operating results	1965
Electric cables	Import-substitution	Loan application and Interview	1965

mining sector was deliberately omitted from the analysis due to the unavailability of cost data and the degree to which government consciously determines export policy for that sector.

A second observation should be made with regard to the nature of the data. That is that with only two exceptions (kraft paper and fertilizer), all data originate from "the best" Turkish sources. Each one of the other firms represents a situation believed to be outstanding. This is evidenced by the fact that seven received loans from sources that are highly conservative in their loan policies. Secondly, since much of the data were based

on loan applications, there is some basis for the belief that, even for these firms, the outcome might be less favorable than the situation envisaged at the time the loan was made. All cost data represent estimates of what the situation would be if the firms in question operated at full capacity. Since most do not, the cost estimates are highly optimistic in that regard. In evaluating the results that follow, the fact that these data constitute a sample of the best should be borne in mind. It will be seen, however, that this bias only tends to strengthen the conclusions that may be drawn.

Table 10 summarizes some pertinent economic data that are gleaned from the individual data sets.

Column (1) presents the Turkish sale price ex factory of Turkish firms producing the commodity in question. Although Kraft paper is now being produced in Turkey, and Kraft paper will go on the prohibited list, no data on the present sale price are available. The feasibility study conducted in 1964 indicated that, even with a 77 percent nominal tariff, production of kraft paper would be unprofitable.

Column (2) represents the landed price of imported commodities with all customs charges paid. In cases where the landed price is below the Turkish sale price, the price used is that which would prevail if importation were allowed, or that did prevail prior to the commodity going on the prohibited list. Column (3) presents the foreign price c.i.f. of imported commodities believe to be of the same quality, except in cases where some part of Turkish output is exported in which case the export price is given.

Table 10

PRICES, TARIFFS AND EFFECTIVE TARIFFS

Commodity	Turk Price of Domestic Production (1)	Turk price with Duties (2)	Foreign Price c.i.f. (3)	Nominal Tariff (4) (% of c.i.f. price)	Effective Tariff* (5)
Refrigeration unit	$70.00	$68.00	$43.10	62	80
Electric motor	22.00	20.00	12.85	71	66
Copper wire	4.50	3.00	1.25	140	220
Ammonium nitrate fertilizer	46.00**	46.00	38.40	71	186
Superphosphate fertilizer	32.51	32.51	25.50	27	925
Windowglass	287.70	--	227.70***	--	--
Truck tires	130.52	96.01	56.48	131	170
Kraft paper	--	256.50	150.00	77	--
Cast-iron radiators	8.89	--	5.89***	--	--
Nylon	4.44	n.a.	2.74	62	92
Plastic	722.00	780.00	385.00	102	916
Canned tomato paste	.285	--	19.00	--	--
Electric cables	1,092.00	--	600.00	82	147

Source: See Appendix B for underlying data.

*Effective tariffs were computed according to the formula

$$E_j = \frac{t_j - \sum_i a_{ij} t_i}{v_j}$$

where E_j is the effective tariff rate on the jth good, t_j is the nominal tariff, a_{ij} is the fraction of cost per unit of output of the ith input (at world prices), and v_j is the fraction of world sale price which is value added by the country.

**Production is subsidized. Costs per ton are estimated at $105.21.

***Represents price at which goods are exported.

Column (4) gives the nominal tariff rate inclusive of all surcharges, stamp taxes, and the like. In cases where a good is on the prohibited

list, the tariff is taken as the percentage by which the domestic sales price exceeds the c.i.f. price of imports. For goods that are exported, no such calculation is made. Inspection of columns (1) and (3) indicates, however, that companies normally sell domestically at a price significantly above the price at which they export.

Column (5) presents the effective tariff rates on imported commodities. Despite the presence of substantial duties on raw materials, the effective tariff rates are above the nominal rates in all cases except electric motors. As column (5) indicates, the degree of protection afforded domestic industry is generally fairly substantial. It should be observed, however, that very often Turkish producers must pay a higher price for some of their purchased inputs domestically than they would if they could purchase the good abroad, even if they had to pay a sizeable duty. Thus, the effective tariffs may over-state the degree of protection given to a specific industry due to the fact that it must purchase its inputs from a high-cost domestic producer. The absence of information on the part of Turkish firms as to what prices would be for goods on the prohibited list made it impossible to obtain estimates of these effects. Thus, truck tires have an effective tariff of 170 percent. How much of this represents value added in truck tire fabrication, and how much represents the high cost of purchased inputs from other Turkish firms cannot be estimated. All that can be stated with certainty is that the value added domestically, whether by the tire factories or others, is protected by 170 percent.

The overriding impression given by Table 10 is that Turkish prices are higher than those in the rest of the world. Even for commodities

which are exported, the domestic price exceeds the export price by a considerable margin. Coincident with this observation, it is noteworthy that, while all the prices quoted exceed world prices, they vary greatly in the degree to which world prices are lower. It is clear that these differentials could not exist were it not for the Turkish government's foreign trade policies.

These differentials are the equivalent of taxes on the production of goods where the percentage excess of domestic over foreign price is below average, and subsidies to the industries where protection is greater than average.

Since Turkey is a small country, and can buy and sell manufactured goods at world prices without affecting her terms of trade, best use would be made of Turkish resources if industries developed that earned most foreign exchange per unit of Turkish resources. While it is clear that the Turkish exchange rate is overvalued, and that some import-competing industries should be encouraged, it is equally clear that others are economically inefficient in the sense that Turkey could get the same amount of foreign exchange with a smaller use of domestic resources.[1]

One method of evaluating the impact of these differentials is to investigate what would happen to the relative profitability of different Turkish industries under alternative Turkish trade policies. One might ask, for example, how profitable these industries would be if Turkey

[1]This statement presumes that there are shortages of some domestic resources. If all domestic resources were free goods, then the following analysis would not apply. However, there can be little doubt that entrepreneurship, administrative and technical skills, transport, and even skilled labor are all scarce goods within Turkey.

adopted a policy of free trade at the existing exchange rate, or for that matter, at exchange rates of $1 = TL 13.5, $1 = TL 18, etc.

An alternative, and somewhat simplier way of viewing the same question is to inquire how many liras' worth of resources the Turks are using to obtain a dollar of foreign exchange.

Either of these approaches pre-supposes either that internal prices within Turkey reflect relative resource scarcities or alternatively knowledge of the true "scarcities" of different productive inputs. The first supposition is equivalent to the assumption that the only distortion in the price mechanism is that between the domestic and the foreign sector. Although shadow prices are not available, it is possible to test the sensitivity of the results to alternative assumptions with regard to the nature of disparities between shadow and market prices.

In order to make the two types of calculations indicated above, several assumptions had to be made about the nature of missing data. While it was possible to get information believed fairly accurate with regard to foreign exchange and domestic costs incurred by each firm in the sample, it was not possible to get estimates of what their purchased inputs would have cost had they been able to utilize foreign sources. For that reason, it was assumed that a certain proportion of various purchased inputs represented foreign indirect costs of domestic production. Table 11 presents the results of the analysis, with rates of return that would be realized by firms on their fixed investments if they operated at full capacity under various trade regimes. The first column presents the rate of return actually realized by the various firms, when the prevailing duties, both on imported capital and import of materials, are considered

as a part of their costs. Where the data source was a loan application, the anticipated costs and returns were used.

Column (2) estimates the profitability of the same firms if they had operated under free trade. For this calculation, it was assumed that there would be no duties on any imports, and that the prices at which the firms could sell their outputs would be the European c.i.f. prices for import-competing industries and f.o.b. prices for the potential export industries. It should be observed that use of the two sets of prices biases the results somewhat in favor of import-subsituting industries. Column (3) presents the results of the same calculation when it is assumed that the exchange rate is 18TL = $1. With free trade, and all Turkish home goods costs being halved. Since it was assumed that 10 percent of home goods purchased were import contents, such a procedure is equivalent to the assumption that a devaluation of 50 percent would increase domestic prices by 10 percent.[2]

Chart 1 plots actual rates of return against those that would be realized at 9TL = $1 and 18TL = $1 with free trade. In each plotting, a line has been drawn to indicate the points at which free trade rates of return would equal the rate of return with the prevailing foreign trade regime. The greater the vertical distance below the line, the greater is the advantage the industry is enjoying from Turkish foreign trade policies. Dots are used to indicate the situation of the import-competing industries; x's indicate the position of the potential export industries.

[2]Because this assumption is questionable, the rates of return were recalculated under alternative assumptions. Neither the order of magnitude nor the ranking of rates of return was affected. The largest absolute change in a rate of return with a 10 percent change in import content was 3 percent. Thus, even if some industries' inputs have a higher import content than others, there is little grounds for believing that the ordering would be affected.

Table 11

HYPOTHETICAL RATES OF RETURN ON INVESTMENT UNDER ALTERNATIVE EXCHANGE RATES

Project No.	Actual Rate of Return	Rate of Return at World Prices with Free Trade and Exchange Rate of: (percent of fixed investment) 9TL=$1	18TL=$1	27TL=$1	Exchange Rate Needed for 15% Rate of Return
1	6.4	-43.3	-1.8	31.0	20.5
3	31.2	29.9	83.8	115.5	3.1
4	98.6	-76.3	-26.8	-10.4	47.4
5	-1.0	-30.2	-3.5	8.2	36.3
6	50.8	-1.8**	71.0	108.6	10.5
7	36.0	38.4	63.7	74.0	5.7
8	87.9	-58.9	-34.0	-19.8	68.2
9	60.6	-37.1	69.2	126.3	14.7[b]
10	23.6	-5.9	6.7	12.8	32.1

*All rates of return are calculated before taxes on the basis of full capacity operations.

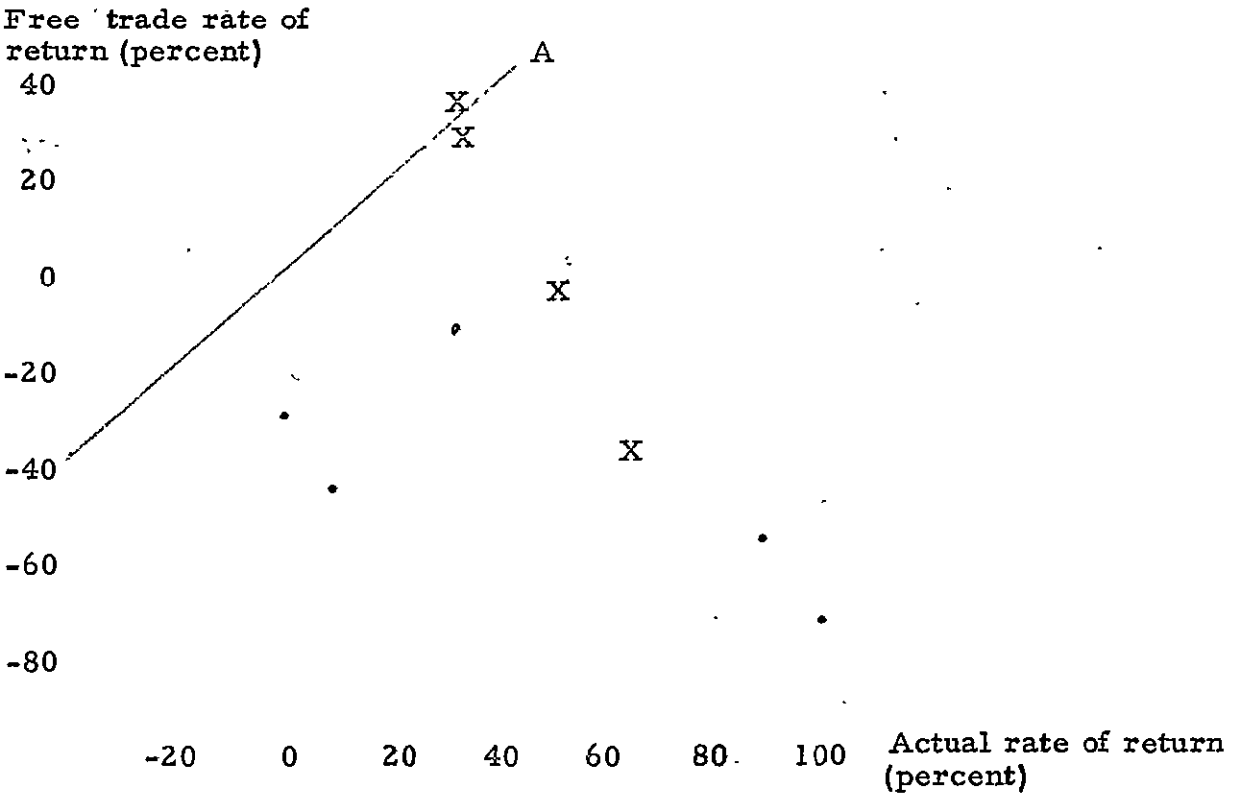
**This is the rate of return on exports without a rebate. With a rebate, it is 8.57 percent.

[b]The actual rate of return given is the one that was planned. Actually, the firm operated at 20 percent of capacity with a loss of 5.2 percent of fixed investment. The other rates of return use actual costs on a full capacity basis.

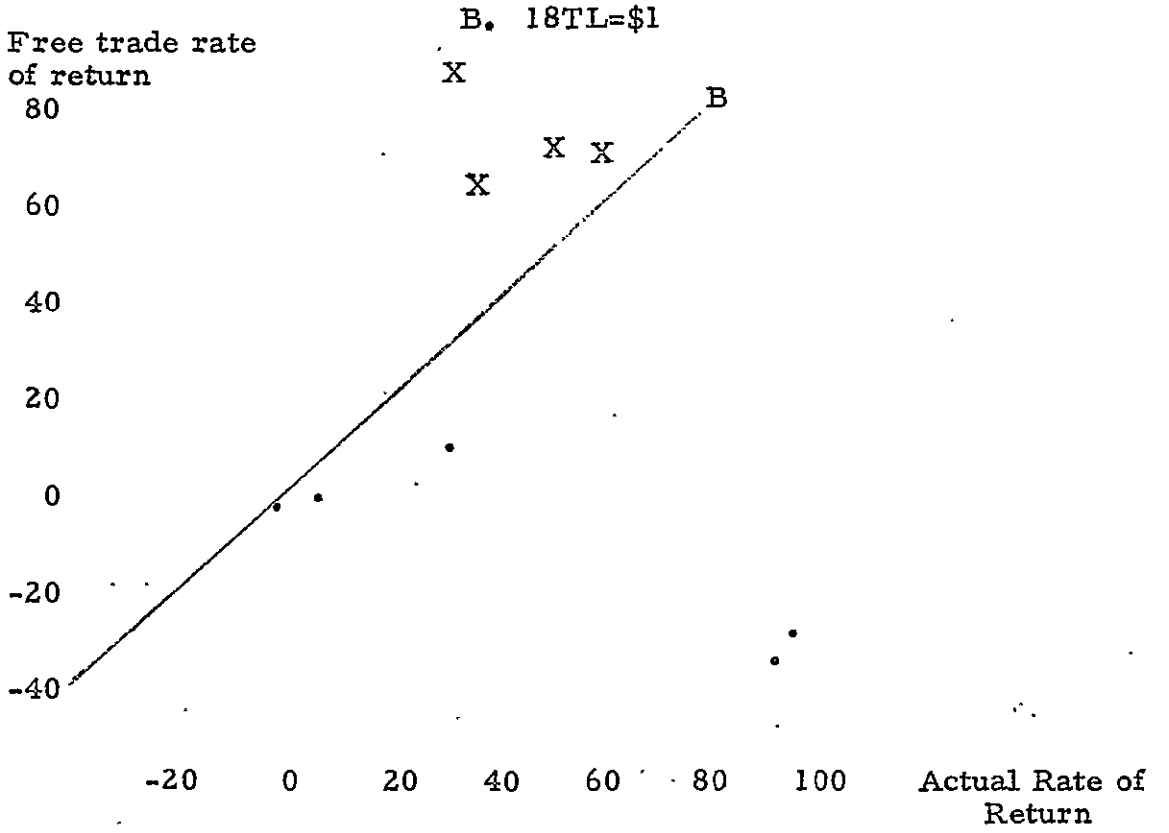
It is noteworthy that only the glassworks firm, which does export (at a lower price than it sells domestically) and the textile firm (which plans to export at a price below its domestic sale prices) could do as well at free trade and a 9TL exchange rate as they do with the prevailing trade policies. They are not, in fact, the most profitable firms given the prevailing trade regime. Two other firms, the radiator manufacturer and the tomato canner, could compete profitably in the international market at an 18TL=$1 exchange rate.

Free Trade and Actual Rates of Return

A. 9TL=$1



B. 18TL=$1



The two most profitable firms in the sample, rubber tires, and plastics are the only two firms that could not even compete in the world market at an exchange rate of 27TL=$1. These are both import-substitution schemes. While it is impossible to generalize on the basis of such a small sample, it is reasonably clear that the Turkish foreign trade regime has assisted import-competing schemes at the expense of export industries. Further, the profits attainable in the domestic market as a result of import-substitution policies surely attract entrepreneurial talent into these lines more than into export schemes.

Another way of examining the same set of phenomena is to ask how many lira's worth of domestic resources are given up in order to generate a $1 improvement in the trade balance, or alternatively, what the rate of return on investing foreign exchange in terms of foreign exchange earned or saved is. These calculations are presented in Table 12.

The first column estimates the exchange rate that would be required to equate domestic and foreign profitability. A higher exchange rate indicates that more Turkish resources are being substituted for foreign resources. Since depreciation of imported capital is calculated as a foreign expenditure, in many ways this estimate reflects the degree to which each firm is subsidized in its domestic market relative to the attractiveness of foreign sales. Since actual rates of return differ among these firms, however, column (2) presents the exchange rate at which, with free trade, each firm could earn a 15 percent return on its fixed investment. The exchange rate given in column (2) is higher than that in column (1) if the actual return is below 15 percent, and below column (1)

Table 12

TURKISH RESOURCES GIVEN UP PER DOLLAR OF FOREIGN EXCHANGE, AND FOREIGN EXCHANGE RATE OF RETURN

Project	Liras Resources spent per dollar	Exchange Rate Required to give a 15% return	Foreign Exchange Rate of Return (percent of Foreign Exchange invested)
1	24.1	20.5	105.4
3	11.3	3.1	321.4
4	41.3	47.4	25.0
5	19.7	36.3	29.6
6	13.6	10.5	224.1
7	4.2	5.7	97.3
8	53.5	68.2	31.1
9	16.8	14.7	290.1
10	28.0	32.1	13.2

if the actual return is above 15 percent. As in the rate of return calculations, the four potential export industries show up favorably contrasted with the import-substituting industries.

The rate of return calculations combined with the resource cost calculations enable some estimates to be made with regard to the costs of distortions in the price mechanism as a result of trade policy.

If Turkey were to allocate TL1.8 million of her own resources evenly among the nine industries (including replacement of foreign machinery), the world values of Turkish net output would be $161,800, or an implied exchange rate of 11.1TL=$1. If she were to allocate the same amount evenly among the four potential export industries, the world value of the net output would be $298,550 or an implied exchange rate

of 6TL=$1. If the same TL1.8 billion were allocated evenly among the 5 import-substitution projects, the net value of her output would be $52,260, for an implied exchange rate of 34.6TL=$1. Thus, for each dollar of output (at international prices) that Turkey is getting from her import-competing industries she is foregoing about $5 from her potential export industries. Of course, the sample is too small for confidence in the exact size of the loss for all Turkish import-substitution schemes. However, there is every reason to believe that, if anything, the firms in the sample given here are all of above-average efficiency in the Turkish economy.

At this point, it may be asked whether, in view of Turkey's balance of payments constraint, import-substitution schemes cannot be justified on the gounds of their foreign-exchange savings. Foreign-exchange saving is certainly the stated reason why these projects are being encouraged. For this reason, the argument deserves careful attention.

If foreign exchange saving were to be the sole investment criterion, then, implicitly, domestic resources are regarded as free goods. In that event, the only limitation on investment would be foreign exchange availability, and the appropriate criterion for choice among investment would be to choose those projects with the highest foreign exchange return per unit of foreign exchange invested.

For any given project, the foreign exchange saving per year can be calculated as the difference between what the trade balance would have been without the investment (given the same internal consumption of each good) and what the trade balance is with the investment. Formally, the

rate of return on foreign exchange, r_{FE}, can be defined as:

$$1) \quad r_{FE} = \frac{dX - dM}{I_{FE}}$$

where dX is the change in export earnings as a result of the investment per year, dM the change in imports, and I_{FE} the foreign exchange cost of the investment.

It is evident that if one is to define "foreign exchange savings" for import-substitution projects as the difference between what imports would have been without the project and what they are with the project, that the level of final consumption with and without the project is assumed constant. In order to treat all schemes alike, it must therefore be assumed that the entire output of a potential export industry is foreign exchange saving, since without the project the output domestically consumed would have to be imported.

On these assumptions, the rate of return on foreign exchange invested is given in Column (3) of Table 12. It is evident that import-substitution schemes cannot in general be defended as improving the trade balance more than investment in potential export industries. On the contrary, the rate of foreign exchange saving on three of the four potential export industries is considerably in excess of 100 percent, while only one import-substitution project examined achieved a 100 percent return per year on foreign exchange.[3]

[3] It should be observed that an import-substitution scheme can result in negative foreign exchange saving. This is the case for the fertilizer data, but no initial investment data were available so that the rate of return could not be calculated. There are three ways in which a negative saving can occur: 1) inefficient use of imported inputs; 2) when the c.i.f. price of the inputs exceeds that of the final product; and 3) when a portion of the profits of the industry accrue to foreigners and the domestic industry is protected.

Conclusions. While the sample of firms is too small to allow for an accurate picture of the overall impact of Turkish trade policies, the results are fairly clear-cut for the sample. Turkish trade policies systematically encourage import-substitution projects relative to potential export projects. Were resources used otherwise, the trade balance would still be in deficit, but by a smaller amount. The cost-raising effects of these policies cannot be fully measured with the available data, due to the use of the prohibited list as a tool for encouraging import-substitution projects. That it is substantial, however, is beyond doubt.

V. POLICY ALTERNATIVES

A program of trade liberalization for Turkey could be devised in any number of ways. At one end of the spectrum, specific policies could be changed, while leaving the overall regime basically intact. For further liberalization, basic changes in the degree of restrictiveness would be required. At the other end of the spectrum, full liberalization could be undertaken. The discussion in this section proceeds in that order, proceeding from minor changes to major overhaul.

Policies Easily Changed. Among the policies that could, with benefit, be changed with little or no cost are the following: (1) Rescinding the requirement that an import license must be used all at one time; (2) Allowing a higher percentage rebate on exports for firms required to purchase goods on the prohibited list, or alternatively, raising tariffs on goods on the prohibited list and eliminating it; (3) Removing or relaxing the guarantee deposit requirements; (4) Reducing the degree

of emphasis on import-substitution schemes; (5) Consolidating and rationalizing the present complex structure of import duties, possibly combined with removing the production tax in favor of sales and royalty taxes; (6) Increasing rationalization of State Economic Enterprises pricing policies; and (7) Altering the minerals policy of the Turkish government.

None of these policies should have any cost in terms of additional foreign exchange requirements and all would tend to increase the efficiency of the Turkish economy and increase the inducement to export. In what follows, the reasons for the desirability of change, and the effects of such possible changes are briefly examined.

1. Single use of import licenses. As indicated in Part III, an importer must use his import license all at once. There are real costs for the Turkish economy in this policy, since the average working capital requirements are increased substantially. If importers were allowed to time their imports as best suited their purposes, their average interest costs (and real storage costs) would fall. In addition, the average level at which inventories are maintained would decrease, thereby freeing real resources for other purposes. Such a relaxation could not possibly increase the total level of imports, and could result in significant savings.

2. A higher percentage rebate. The rebates introduced in 1964 have already enabled some firms to export whereas they previously could not. The rebates are set at 10 percent unless the firm can show that its taxes paid on imports exceed that percent of costs. In fact, for virtually all firms, 10 percent is not sufficient to cover even the direct duty and tax costs. In calculating the rebate, the Turkish government does not

allow for higher costs incurred by Turkish producers for 1) interest costs of the import programme; 2) the higher cost of prohibited goods inputs to the firm; and 3) the import duties and taxes paid by firms which sell their goods to the potential exporter. Thus, if an exporter requires a battery as an input, if he produces it himself, he is allowed a rebate on the imported components. If he purchases the batteries from another firm, he is not allowed a rebate. Allowing an automatic rebate on all exports with an additional percentage to cover duties and taxes paid by the producer would still not cover the implicit taxation of exporters, but would increase the profitability of exporting somewhat. Increased rebates would require additional tax revenue, but the cost would be small in relation to the gains for the Turkish economy.

3. Removal on relaxation of guarantee deposits. The guarantee deposit system imposes a higher penalty on firms with a low percentage value added domestically than for those with a high percentage domestic value added. As such, it discriminates against undertaking the final stage of production domestically, and artifically encourages earlier stage of production domestically. It certainly rules out the possibility of importing and reexporting where the percentage value added is small. For example, if internationally, a processed good sells for $1 with $.90 raw materials content, a Turkish producer's cost of production without raw materials tariff will exceed $1 before any processing is done due simply to the interest cost of the guarantee deposit requirement. An across-the-board removal of guarantee deposits could be accomplished with no increase in net imports if the ad valorem tariff rates (which are eligible for rebate) were raised by 15-20 percent across-the-board.

The net effect of the two actions simultaneously would be to rationalize the Turkish production structure, and render some new export industries possible offsetting some part of this, some Turkish manufacturers now supplying some earlier processing stages would find their markets reduced.

4. Reducing emphasis on import-substitution. The evidence in Part IV clearly indicates that, in many instances, the import-substitution schemes undertaken are unwise on economic grounds, and that Turkey could achieve a higher income with a smaller trade deficit if emphasis on import-substitution schemes were reduced. At a minimum, a more careful evaluation of alternatives is needed. While some import-substitution schemes are undoubtedly economically worthwhile, there are many that are not. With no change in the existing trade regime, such a shift of emphasis could be accomplished.

5. Consolidate and rationalize the duty and production tax structure.

Several actions are possible here. One possibility, beyond the scope of this paper, would be to eliminate the production tax and adopt a royalty tax on rents to natural resources and a general sales tax. Another would be to eliminate the prohibited list, setting (if desired) tariffs approximately equivalent to the present implicit protection. This would have several advantages: 1) it would provide some competition for the new domestic firms, which are presently given vertical monopolies over the domestic market, 2) it would ensure that prices cannot rise and thereby provide a guarantee that inefficiency in production will not be covered by higher prices in a sheltered domestic market, and 3) it would provide an indication to the Turkish government of the costs of their policies.[1]

[1] It was frequently stated in interviews that if imported goods had the same price as domestic goods, producers would prefer to import. In that event, the tariff might have to be higher than the percent by which domestic price exceeds foreign price.

6. Rationalization of the state economic enterprises. The S.E.E. have been intensively studied elsewhere and are beyond the scope of this paper. There is little doubt that successful rationalization of the S.E.E. are a prerequisite both to long-run Turkish growth and to sustained improvement in Turkey's balance of payments.

In the sample data in the Appendix, Project 2 data are largely from S.E.E. estimates. It is by far the most economically inefficient of the group and the plan calls for vastly expanded fertilizer output. The fifth project, for Kraft paper, was rejected as unprofitable at a 77 percent tariff by a private firm. S.E.E. have since undertaken Kraft paper production. The single most important factor in the high domestic cost is the wood price, which is determined by SEKA, which has a virtual monopoly on lumber sales. Fragmentary evidence of this kind is suggestive of the more general and pervasive effects of the S.E.E.

7. Minerals policy. It is widely recognized that Turkey could increase her minerals exports significantly above their present levels. The government controls mining operations directly. Although reliable cost data for mining ventures are unobtainable, there is every indication that Turkey could increase her share of this rapidly growing world market. The Chrome Exporters Union, for example, maintained its chrome price while the world price was falling; Turkey's share of the world market consequently fell significantly.

While no quantitative estimate of the attainable increase in exports is possible, a shift in the government's attitude could bring about significant increases in export earnings.

If the individual policies mentioned above were all adopted, Turkey would have moved appreciably closer to a liberalized trade Policy. At the

same time, these changes in themselves would bring about substantial improvement in Turkey's trade position. Moreover, many of the factors unduly discouraging exports would have been removed. A higher basic rebate could do much to offset the implicit taxation of export inherent in the present trade regime. Some import-competing industries would still be artifically subsidized, but this subsidization would occur at a much lower cost to the economy.

Policies Moving Part-way Toward Full Liberalization. It is clear that any significant Turkish move toward full liberalization beyond the policies enumerated above will entail a number of costs and a number of benefits to the Turkish economy.

In the absence of complete liberalization, the move with the greatest benefits and least cost would be the abolition of import quotas and the prohibited list. Without a change in the exchange rate, such a move would undoubtedly result in significantly increased imports, the bankruptcy of some Turkish import-competing firms, and some cost reductions for many producers, and some expansion in exports. In addition, the assurance that such a policy would continue would release a sizable fraction of working capital now used for inventories of imported materials for more productive uses. At least initially, the reduction in materials import demand would suffer the increased demand for other purposes.

Over a longer time horizon, however, such a policy could not be sustained without either a more rapid growth of exports, a reduction in the structure of domestic costs through productivity increases, or else increased tariffs on many imports and heightened export rebates.

The benefits of liberalization would undoubtedly be substantial; removal of all quantitative controls simultaneously would have high short-run costs. One compromise would be an announced timetable of changes, over a several-year period, in order to give producers time to adjust. Meanwhile, as liberalization proceeded, tariff and subsidy changes could be made, depending on the degree to which they were needed.

In effect, such a liberalization policy could achieve, if wisely used, the same result as a change in the exchange rate. It would, however, place the full burden of the adjustment on the domestic market and in addition, would, during the transition period, leave the perpetual temptation to revert to quantitative controls. Uncertainty as to its continuation could reduce incentive to invest. Each adversely affected industry would apply what pressure it could to receive favored treatment and exemption from competitive pressures of the international market. If such a policy were carried out, the end result would be a trade regime with no quantitative controls, but with fairly high (and not necessarily uniform) tariffs and subsidies. To the extent that the tariffs were more nearly uniform for each productive stage than they are now, the resource misallocation costs of the trade regime would be substantially reduced. An additional substantial but unquantifiable benefit would result from the fact that Turkish domestic producers would no longer be wholly immune from international competition. It is the author's view that increased competition, in itself, would result in major improvement in the Turkish economic structure.

Full Liberalization. Full trade liberalization without resort to heightened tariffs or an altered exchange rate would result in an unmanageable import surplus and domestic depression especially in manufacturing industries. While such a policy could conceivably result in a reduction of the Turkish domestic price level over a long enough period, the economic (and political) costs of such a procedure would be drastic. Some changes in the exchange rate would be necessary in order to reduce the cost of full liberalization. Full liberalization, however, could not achieve the greatest benefit for the Turkish economy without some reductions in tariff levels. While there are undoubtedly some industries for which the infant-industry argument for tariff protection holds, not all presently protected industries fall in that category.

Full liberalization (including tariff removal except for infant industries as well as removal of all quantitative restrictions) would result in significant gains for the Turkish economy. After the 1959 devaluation, "other exports" from Turkey increased to almost $50 million. Since then, they have again fallen off, except in 1964 when some increase resulted from the rebate program. That Turkish exports would be responsive to price changes, there can be little doubt. Further, a devaluation would enable some import-competing industries to expand, without the protection they presently receive.

It would require considerable further study to estimate the change that any given degree of devaluation would bring about. It would depend, in part, on how successful the government would be in holding the domestic price level with an increase in the price of foreign exchange. Further,

the adjustment would require several years in order for Turkish producers to learn of their new opportunties and to adjust to them.

VI. CONCLUSION

To a certain extent, present Turkish trade policies will make liberalization more difficult the longer they are continued. The more import-substitution industries that develop, which cannot compete in the long-run, the greater will be the dislocation resulting from any attempted liberalization and the fewer will be the potential exporters to support such a move.

For that reason, perhaps the most critical Turkish policies are those which commit the economy to further trade restrictions. Certainly, adoption of the policies that do not require a fundamental change in the trade regime, would prevent the further building into the system of resistance to liberalization. If the sample of firms used for analysis in Part IV is at all representative, the economics cost to Turkey of continuing and increasing the emphasis on import-substitution is enormous. Use of the kinds of criteria suggested in Part IV for evaluating the merits of alternative projects, including better estimates of indirect foreign exchange costs, might enable better identification of those schemes that are economically viable.

Turkey's success with the First Five Year Plan has been encouraging to date. While the foreign exchange bottle-neck has presented difficulties, growth in national income has still exceeded 5 percent annually. Continued growth at this rate will entail a rising demand for imported goods. Unless measures are adopted to increase the incentive

to export, the prospect is that increasing restriction will be necesary. This, in itself, could reduce the rate at which growth can proceed. With appropriate policies, the foreign exchange constraint confronting Turkey could be reduced, if not removed.

APPENDIX

On the following pages, the underlying data used in the computations in Part IV are presented. In all instances, foreign depreciation was calculated by taking the proportion of total investment that was imported and applying that to the individual firm's total depreciation.

All rate of return calculations were made on the assumption of full capacity operation. Power utilization would therefore imply a higher depreciation figure per unit. Since most Turkish firms do have excess capacity, these estimates are most likely overly optimistic.

For the tree trade computations, all duties and taxes were omitted. To calculate the effect of an x percent increase in the price of foreign exchange, domestic inputs into investment and current production were revalued at x percent of their level given in these data, and it was assumed that the output would sell in Turkey at its imported c.i.f. price.

PROJECT I

IMPORT SUBSTITUTION

To produce 63, 000 small ELECTRIC MOTORS, 60, 000 small cooling units for REFRIGERATORS. Data are from a loan application.

I. INITIAL INVESTMENT		
Imported Equipment c.i.f.	$1,352,000	
Duties	954,000	
Domestic Expenses	1,344,000	
Total Fixed Assets		$3,650,000
Working Capital		3,511,000
TOTAL		$7,161,000

II. PER UNIT DATA	COOLING UNIT	MOTOR
Turkish Sale Price	$70.00	$22.00
U.S. f.o.b. Price	31.70	11.80
Turkish c.i.f. Price	43.10	12.85
PRODUCTION COSTS PER UNIT		
Foreign Exchange Costs		
Imported components f.o.b.	$15.80	$ 2.18
Imported components c.i.f.	20.54	2.33
Other Foreign Exchange		
2% Technical Assistance Fee	1.74	.56
Dividends on Foreign Share	1.95	.63
Depreciation on Foreign Mach.	2.40	.77
Indirect (10% of purchased inputs)	1.05	.62
TOTAL Foreign Exchange Costs	$27.68	$ 4.91
Domestic Costs Per Unit		
Turkish raw materials	$ 6.26	$ 4.61
Duty on imports	8.83	2.20
Labor	7.90	3.16
Purchased inputs	5.00	1.93
Domestic depreciation	1.30	.42
Commercial & Administrative	5.37	1.98
Interest	2.93	1.17
Taxes	1.78	.71
Domestic profit	2.95	.91
Total cost without taxes or profit	63.32	21.09

PROJECT 2

IMPORT SUBSTITUTION

FERTILIZER PRODUCTION

New factories are being built. These are industry estimates of full capacity based on 1962 results. Investment data for these are unreliable.

I. PER UNIT DATA

C.I.F. Price 1 ton Superphosphate	$25.50
C.I.F. Price 1 ton Ammonium Nitrate	38.40
C.I.F. Price 1 ton Ammonium Sulfate	39.90

PER UNIT PRODUCTION COSTS	Super-Phosphate	Ammonium Nitrate
Foreign Exchange Costs		
c.i.f. phosphorite .6 ton	$ 7.56	
sulfuric acid .4 ton	14.80	
other raw material	1.40	$21.40
indirect (depreciation, spare parts, purchased inputs)	1.03	6.00
	$24.79	$27.40
Domestic Costs		
Coal		$ 5.32
Gypsum		.94
Duty	$ .42	6.81
Labor + Administrative Personnel	1.75	13.32
Depreciation	.72	23.02
Water & Power	.31	13.30
Transport		2.71
General Administrative and Operating Expense	.92	6.86
Packing	3.60	5.53
TOTAL COST	$32.51	$105.21

PROJECT 3

TURKISH GLASSWORKS

Turkish Glassworks produces windowglass, bottles and other glass objects. They export a small part of their output. Capacity output in 1964 was 33,000 tons of glassware and 34,000 tons of windowglass. The data are from the Turkish Glassworks' Annual Report and an interview.

I. Balance Sheet Investment

Imported Equipment c.i.f.	$4,120,000	
Duty	3,840,000	
Domestic Expenses		$7,350,000
Total Fixed Assets		$15,310,000
Working Capital		5,090,000

II. PER UNIT DATA	Glassware	Windowglass
Domestic Sales Price/Ton*	$ 19,890	$ 28,770
Export Price/Ton	16,670	22,770
Rebate Rate	13%	13%
PER UNIT COSTS		
Materials c.i.f.	$ 3,611	$ 4,444
Duty	1,471	2,377
Domestic purchased inputs	1,544	3,666
Labor	4,888	6,855
Interest	766	109
Depreciation	1,388	1,944
Taxes	1,755	2,466
Profit	4,350	5,921

*Does not include 20% production tax.

PROJECT 4

IMPORT SUBSTITUTION

Goodyear - Rubber Tires

I. Initial Investment (through 1964)[1]

Foreign exchange	$6,389,000
Turkish lira	9,174,000
Reinvested funds	1,149,418
of which, as of Dec. 31, 1964	
Fixed assets	$7,066,510 (balance sheet)
Working capital	9,545,908*

II. PER UNIT DATA[2]

	Truck	Passenger
Turkish Sale Price	$130.52	$24.90
U.S. f.o.b.	52.37	9.68
Turkish c.i.f. price	56.48	10.83
PRODUCTION COSTS/UNIT in 1970		
Foreign exchange costs		
Raw materials f.o.b.	n.a.	n.a.
Raw materials c.i.f.	35.17	7.09
Other		
TA fee + Akron payments for sales exp.	8.50	1.54
Dividends on foreign shares		
Depreciation on foreign machines	3.14	.60
Indirect (10% purchased inputs)	2.18	.38
TOTAL Foreign Exchange Costs	48.99	9.61
Domestic Costs		
Duty on imports	16.55**	3.34**
Labor	2.93	.52
Overhead	19.60	3.43
Miscellaneous	1.16	.20
Sales & Administration	5.88	1.03
Depreciation	1.04	.20
Interest	2.00	.38
TOTAL Domestic Costs	49.16	9.10
Taxes and Profits	32.37	6.19
TOTAL	130.52	24.90

[1] Initial investment from loan application; fixed asset data from balance sheet.

[2] Source, 1964 Loan Application. Capacity was to be 80,000 passenger tires and 200,000 truck tires.

* Some used for raw material imports.

** Duties have since been raised.

PROJECT 5

IMPORT SUBSTITUTION

Kraft Paper - This project was rejected as infeasible.*

I. INITIAL INVESTMENT

Imported equipment, c.i.f.	$16,431,500
Duties	4,150,000
Housing	1,000,000
Spare parts and stores	1,000,000
Interest during construction	1,722,000
Domestic Costs	5,559,500
TOTAL Domestic	$13,431,500
TOTAL FIXED ASSETS	$29,863,000
Working Capital	3,000,000

II. PER UNIT DATA**

European selling price/metric ton c.i.f.	$150.00
Turkish cost/ton	269.95
Turkish price with duty	265.50

Per Unit Turkish Costs

Foreign exchange	
Fuel + power (40% + 10% respectively)	$ 5.86
Non-wood operating materials	2.88
20% of wood cost	20.03
20% transportation	2.43
Depreciation for machinery	21.54
	$ 52.74

Domestic Costs

Wood	$ 80.12
Other materials	25.37
Fuel and power	17.80
Labor	14.42
Transportation	8.89
General Administration and Sales	13.65
Interest	25.98
Depreciation	21.54
Domestic Cost	$207.77
Taxes (operating)	9.44
TOTAL	$269.95

*The feasibility study on which the data are based was completed in January 1964. Kraft paper production is one of the import-substitution industries included in the Plan.

**No. tons -- 64,750 capacity

PROJECT 6[1]

This project is to produce cast iron products, primarily radiators. It is planned to meet domestic demand at a price of 80TL/m^2 plus 14.4TL production tax, and to export any output above domestic demand at 53TL, with a rebate of 10%. Since radiators would otherwise have to be imported, all output can be regarded as foreign exchange saving (less the foreign exchange costs of inputs) in the amount of 53TL.

I. Initial Investment

Equipment c.i.f.	$1,655,500
Duties	544,500
Domestic expenditures	1,800,000
TOTAL FIXED ASSETS	$4,000,000
Working Capital	2,055,500

II. Per Unit Data[2]

Sale price (excluding prod. tax) in Turkey	$8.89
Export price (f.o.b.)	5.89
Foreign exchange costs	
Indirect raw materials	.24
Indirect purchased inputs	.17
Depreciation	.18
TOTAL Foreign Exchange	.59
Domestic costs per Unit	
Raw materials	$2.20
Labor	.60
Purchased Inputs	1.50
Depreciation	.39
Overhead and Administration	.35
Interest	.35
TOTAL Domestic Cost	$5.39
TOTAL Cost Per Unit	$5.98

[1]The source for this data was a loan application in 1965.

[2]Capacity will be 700,000 m^2 of cast iron goods. Data are for full capacity, 1970 operations.

PROJECT 7

This project is to add nylon capacity to a textile factory. Capacity is to be 1,750 tons. It is anticipated that the plant will have difficulty reaching full capacity, since importers will have stocked up on nylon in anticipation of the event.

I. INITIAL INVESTMENT

C.I.F. price of foreign machinery	$2,788,800
Duties on machinery	1,555,600
Installation and Construction	388,900
Interest during construction period	466,700
TOTAL New Fixed Assets	$5,200,000
Working Capital	1,422,200

II. PER UNIT DATA (kilogram)

Turkish Sale Price with Production Tax	$4.44
Turkish Sale Price less Production Tax	3.28
European c.i.f. price	2.74
Production Costs Per Unit	
Foreign Exchange Costs	
Imported raw materials	$ .90
Indirect foreign exchange (10%)	.04
Depreciation	.25
	$1.19
Domestic Costs	
Duty on imported materials	$ .27
Operating costs	.35
Depreciation	.22
Interest	.18
TOTAL Domestic Cost	$1.02
TOTAL COST	$2.21

PROJECT 8

This project is to substitute domestic production of plastics for imports. A new plant was approved, to have capacity for 4,500 tons of plasticizers. The data are from a 1965 loan application.

I. INITIAL INVESTMENT	TL	$
Imported machinery, c.i.f.	1.4 mil.	$155,400
Duties	1.1 mil.	122,000
Local machinery	.650	72,000
Domestic expenses	1.525	170,000
Vehicles	.070	7,800
TOTAL Fixed Assets	4.745	$527,200
Working capital	2.5 mil.	$278,000
TOTAL Investment	7.245	$805,200

II. PER UNIT DATA (ton)

Present c.i.f. price	$385
Present Turkish price	780
Planned sale price	722

PRODUCTION COSTS PER UNIT

Foreign exchange cost

Raw materials	$362.16
10% Electricity	.50
40% Fuel Oil	3.24
1/3 Depreciation	1.14
Royalty to foreign firm for technical help	7.22
Total Foreign Exchange Cost	$374.26

Domestic Cost Per Unit

Raw materials duty	$181.06
Wages	18.55
Electricity	4.50
Fuel Oil	4.87
Other	5.00
Interest	28.34
Depreciation	2.53
Total Domestic Cost	$244.85
TOTAL Cost Per Unit	$619.11

PROJECT 9

This project was approved to reorganize an inoperative company to produce canned tomato paste for the local market and export. The two sets of per unit data contrast the estimates at the time of approval and the actual results. The company was to have an annual capacity of 1,200 tons (metric) of tomato paste per year, or 1,332,000 kilos of canned tomato paste.

I. INITIAL INVESTMENT

Imported machinery, c.i.f.	$ 71,000
Land, Building and installation*	82,800
Duty on Imported Equipment	18,600
Local machinery	15,600
Interest during construction	10,000
TOTAL Fixed Investment	$198,000
Working capital	89,000
TOTAL Investment	$287,000

II. PER UNIT DATA (1 kilo can)

	TL	Cents
Domestic sale price per can	2.57	28.5
Foreign price per can	1.71	19.0

	Full Capacity planned	Actual (20% capacity)
PER UNIT COSTS		
Foreign		
Can inputs (indirect-on prohibited list)		3.15
Energy & fuel		.07
Depreciation		.29
		3.51
Total Foreign Exchange	**Planned**	**Actual**
Domestic Costs Per Unit		
Tomatoes	7.20	10.94
Salt	.40	.42
Can input	3.15	5.10
Labor & personnel	1.60	1.70
Energy and fuel	.63	.65
Overhead	1.30	4.67
Depreciation	.51	1.82
Sales expense	.30	.35
Interest	.90	3.21
Total Domestic Cost Per List	15.99	28.86
TOTAL COST PER UNIT	19.50	32.37

*Includes 245,000 TL valuation of the remains of the old factory.

PROJECT 10

IMPORT SUBSTITUTION

This project is to produce 2,000 metric tons of ACSR, electric cables needed in electric power generation, and 450 tons of profiles. The following data are for ACSR, 3/4 of the planned value of output. The source of the data was a loan application.

I. INITIAL INVESTMENT DATA

Foreign machinery and know-how costs, c.i.f.	$ 978,000
Duties*	292,819
Site, Buildings and Office Equipment	829,181
TOTAL Fixed Assets	$2,100,000
Working capital	$2,000,000
TOTAL Investment	$4,100,000

II. PER UNIT DATA (1 metric ton ACSR)

U.S. price c.i.f. to Turkey	$ 600.00
Planned sale price in Turkey	1,092.00

PER UNIT COST

Foreign Exchange

Aluminum	$ 350.10
Steel	74.20
Other raw materials	20.20
Indirect foreign exchange 1.29 + 1.16 + 1.50	3.95
Depreciation	25.12
TOTAL Foreign Exchange	$ 473.57
TA Fee	16.25
	$ 489.82
Assume 1/2 profits after tax repatriated	61.83
	$ 551.65

*Computed before tariff increase

Domestic Cost Per Ton	
Duty on aluminum	$203.90
Duty on steel	58.30
Power, Gas & Water	10.49
Supplies and Maintenance	11.61
Labor	19.30
Overhead	72.25
Depreciation	28.34
Interest	12.50
TOTAL Domestic Cost	$416.69
TOTAL COST	$906.51