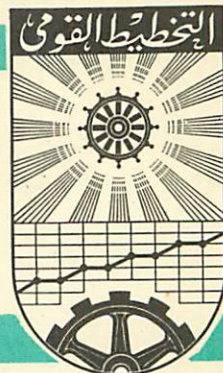


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STRUCTURAL CHANGE IN TURKISH
NATIONAL INCOME 1950 - 1960.

by

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Structural Change In Turkish National Income: 1950-1960

This paper will undertake a short survey and analysis of the changes in relative sectoral prices and in the composition of national output over the 1950-60 period in the Turkish economy. Though the formal growth models in economic theory assume stability in the composition of national output as well as relative goods prices as per capita real income rises, it is a well established fact that both the pattern of production and relative prices undergo considerable changes in the courses of economic development. It is noteworthy that even if no rigid uniformity is observed, cross-sectional and historical studies reveal striking similarities in the structural patterns of economic change⁽¹⁾. The first part of the paper will give a brief description of the changes in the composition of Turkish national output and relative sectoral prices with a view to permit a comparison between the structural changes in the Turkish economy and the expected developments.

In view of the demand elasticity for different classes of goods which differs widely, e.g. as between food items and manufactured consumers' goods, and a considerable variation in supply elasticity in different sectors of the economy, a proportionate expansion of all the productive sectors is an unlikely phenomenon. On the other hand the existence of some similarity in the demand elasticity for and supply elasticity of the same classes of goods as per capita real income levels rise assures the conformity of structural change to a particular pattern in growing economies. The second part of the paper will try to isolate some specific factors which seem to have been influential on the observed pattern of change in major sectors of the Turkish economy. In an underdeveloped country where a significant proportion of investments are undertaken by the state, and exogenous factors play a preponderant role, sectoral supply elasticity may be considerably affected so that economic development follows a particular pattern. It will be the task of this paper to bring out the importance of such specific factors in the case of one underdeveloped country, i.e. Turkey.

(1) E.M. Ojala, *Agriculture and Economic Progress*, London 1952. The conditions of economic Progress, London 1951.
H.B. Chenery, "Structural Patterns of Changes," *American Economic Review*, February 1960.

It must be admitted from the start that a ten year period is too short to permit an analysis of structural change. Yet the non-availability of national income figures and other data necessitated by economic analysis inevitably confined the survey to a fairly short period. Nevertheless, taking account of the fact that the long-run consists of different short-runs, even a period so short as ten years might be helpful in the explanation of expected developments over a longer time span.

1- Structural change at the goods level:

Structural change at the goods level signifies both a change in the composition of national output and relative goods prices in the course of economic development.

This section will survey first relative sectoral growth rates in real terms and in the following paragraph changes in relative sectoral prices.

a) Change in real terms-

The notable changes in the composition of Turkish national output in the 1950-60 decade have been the relative decline in the share of agriculture, the increase in that of transportation and services⁽¹⁾ and the constancy in the share of industry as a broad category. Though the decline in the relative share of agriculture conforms to the empirical findings which reveal almost invariably this process as per capital income levels rise, the constancy observed in the relative share of industry constitutes a sharp contrast to it. Table 1 below gives the relative shares of the major sectors in Turkish national income.

(1) Services cover all the remaining items of Turkish national income accounts, i.e. trade, financial institutions, private professions and services, revenue from residential dwellings and government services.

Table 1

Relative shares of major sectors in Turkish national income
(at 1948 factor costs)

Year	Agriculture	Industry	Transportation	Services	Total
1950	50.0	16.1	5.4	28.5	100.0
1951	52.3	15.0	5.1	27.6	100.0
1952	51.3	15.5	5.7	27.5	100.0
1953	50.6	16.5	5.5	27.4	100.0
1954	44.9	17.7	7.3	30.1	100.0
1955	45.4	17.2	7.5	29.9	100.0
1956	46.3	16.9	7.3	29.5	100.0
1957	44.7	17.9	7.3	30.1	100.0
1958	46.9	16.7	6.5	29.9	100.0
1959	44.9	16.7	7.5	30.9	100.0
1960	43.9	16.8	7.9	31.4	100.0

National Income of Turkey 1948-58, No. 391, and 1948, 1953-60, No. 420 Ankara, I, U. M.

However, the broad category classified as industry in Table 1 conceals the substantially different trends followed by the different sub-categories, i.e. public utilities such as electricity, water and gas, construction industry, mining and manufacturing industry. A further breakdown of the industrial sector into these four sub-categories shows that the most rapid growth has occurred in public utilities followed by construction industry, while manufacturing industry has grown the least rapidly.

Thus, the industrial sector has not only been growing much more slowly as compared with transportation and services, but amongst its sub-categories the most rapidly growing have been again those producing actually domestically consumed services. In Table 11 below,

the net value added indexes in constant prices of the agricultural sector and the sub-categories of the industrial sector can be seen.

Table 11

Net value added indexes in agriculture and industry (at 1948 factor cost)

Year	Agriculture	Industry			
		Mining	Manufac- turing	Construc- tion	Electricity gas, water
1948	100	100	100	100	100
1950	97	123.1	108	162.2	118
1951	117.1	153.2	115	168.7	132
1952	124.7	181.8	122.9	203.5	153.5
1953	136.5	200.3	135	282.2	183
1954	109.6	182.2	143.4	233.7	217.5
1955	119.5	191.6	148.2	245.5	256.5
1956	129.9	227.1	155.1	249	295.5
1957	133.2	247.3	165.6	308.2	337.5
1958	156.5	230.1	174.4	331.3	385
1959	156.0	213.4	181.4	350.1	431.5
1960	157.2	215.1	188.9	352.6	479.0

Ibid

Services, which as a broad category cover a wide variety of productive sectors, have shown the most rapid growth rate amongst all others. This increase depicts that a greater division of labor has been possible as a result of which the domestic market has been widened and external economies have been created to the remaining sectors of this economy. However, though one would expect a greater increase in agriculture and manufacturing industry in consequence of this development, this has not been the case. The following table (Table III) gives the relative share of the productive sectors classified under services.

Table III

Percentage distribution of sectors classified as "services"
(at 1948 factor cost)

Year	Trade	Financial institutions	Private Professions and Services	Ownership of Dwelling	Government services
1950	10.5	1.7	4.1	2.6	9.8
1951	10.7	1.6	4.0	2.5	9.0
1952	10.6	1.7	4.1	2.4	8.9
1953	10.4	1.8	3.8	2.4	9.2
1954	9.7	2.4	4.5	2.8	10.9
1955	9.8	2.4	5.1	2.9	9.9
1956	9.9	2.4	4.9	3.1	9.4
1957	9.7	2.4	4.9	3.5	9.8
1958	9.9	2.6	4.8	3.5	9.3
1959	10.4	2.6	4.6	3.9	9.6
1960	10.5	2.6	4.5	4.3	9.7

Ibid

b) Change in relative prices-

It is interesting to note that changes in relative prices over the same decade indicate the importance of supply elasticities in various sectors in the course of economic development. The shifts in relative prices have been inversely related to the growth rates of major sectors, i.e. the most rapidly growing sectors have shown the lowest price increases in general, while slowly growing sectors have gained in terms of trade. However, this does not necessarily mean that the importance of a rise in demand or demand elasticity can be ignored.

The most rapidly growing sectors, i.e. transportation and services, have had much slower increases in prices than industry. In fact, the terms of trade have moved considerably in favor of the industrial sector after the abolishment of trade liberalization in 1953. By the end of the period under review, the gain in terms of trade of this sector is on the order of 44%. On the other hand,

a breakdown of the industrial sector into its sub-categories reveals the most rapid price increases to be attributable to manufacturing industry, i.e. the least rapidly growing sub-sector.

In studies on economic growth, the relative rise in the share of manufacturing industry ari passu with a rise in per capite income is generally explained by a change in comparative advantage as capital accumulation speeds up and enables the country to substitute by domestically produced products the previously imported items, the high income elasticity of demand for final manufactured goods and the high demand for intermediate goods of the industrial sector. Also, manufacturing industry along with the highest growth rate is found to have relatively greater rises in prices⁽¹⁾. Thus, the rapid rise in demand and high income elasticity for the products of this industry as well as its supply elasticity affect favorably the growth of the sector.

In view of the expected demand developments and low supply elasticity⁽²⁾ as revealed in the Turkish case, the gain in terms of trade of the manufacturing sector is ordinary. However, the degree of inelasticity—indicated by the wide shift in relative prices in its favor—of this important sector necessitates dwelling upon. In Table IV below, the implicit price indexes in Turkish national income can be followed by major sectors and for manufacturing industry separately.

(1) H. B. Chenery, op. cit.

(2) The term "supply elasticity" is used here and in the following sections in a rather loose sense, to denote the relationship between output growth, which presumably covers shifts in the supply curve and prices which reflect the effects of shifts in the supply curve as well as the demand curve.

Table IV
Implicit price indexes in Turkish national income by major
sectors and for manufacturing industry
(1948 = 100)

Year	Agriculture	Industry (all sub- sectors)	Manufac- turing	Transpor- tation	Services
1950	98.4	96	101	97	100
1951	101.2	103	113	104	101
1952	105.5	114	125	121	109
1953	112.6	120	143	123	117
1954	115.2	152	168	123	137
1955	136.	172	185	134	155
1956	148.9	205	231	151	158
1957	193	233	279	173	168
1958	217.2	281	336	186	187
1959	253	336	374	228	227
1960	259	359	381	252	229

This table has been computed from the national figures in constant and current prices. (National Income of Turkey.....)

As regards relative price changes, the agricultural sector has not followed a uniform trend, lagging behind all other sectors or leading other sector throughout the whole period, but displays instead two divergent trends with a sharp turn after 1956. In fact though between 1950-57 the yearly price increases of agricultural products have been on the average 7.5%, in the latter part of the period, the rate of increase has doubled to 15%. During the first part of the period, agricultural prices have legged behind all others. With the consequent adverse terms of trade for the sector, while in the latter half of the period, aside from industrial prices, the reverse has been true.

It is also interesting to note that price increases seem to have accelerated in all sectors, except services, after the devaluation of the Turkish currency in 1958. The yearly price increases recorded

until 1958 have been on the average $1/3$ for industry, and 10% for transportation and services. After the depreciation and other policy measures which accompanied the stabilization policy in 1958, price increases have gained momentum though the rate of product growth declined, being 42% yearly for industry and 12% for transportation. The only sector with a declining rate in price increases have been services; in this case, the yearly increase has fallen from 10% to 7%.

This short survey of relative price changes reveals that during the decade under review there have been wide shifts in relative sectoral prices and that in each case they have been closely related to the growth rate of the sector. Transportation and services have had a high supply elasticity, while manufacturing industry has been fairly inelastic with respect to prices. Agriculture has been able to maintain a high elasticity in the former part of the period though has lost pretty much of it in the latter part.

II- Specific influences on supply elasticity

The observed supply elasticity of major sectors of the Turkish economy can be partly explained in terms of specific factors which have been influential on the growth rate. This section purports to bring out to light the importance of such with a view to indicate finally their analytical and policy implications.

a) Pattern of Investment Distribution

As in most of the underdeveloped countries of today, which have embarked upon a programme of economic development, the public sector in Turkey contributes heavily to output and investments. Despite the liberal party programme of the party in power throughout the whole decade under review, this has no less been the case. In fact, the public sector has grown in importance as compared to the previous periods.

Private investments in the economy are motivated invariably by profit expectations net of a risk premium, while public investments are directed to an enhancement of social utility rather than being motivated by direct profitability. In the case of state economic enterprises, it is no longer possible to distinguish the aim so clearly, though they might be expected to aim at profitability.

The rapid growth rates observed in public utilities, transportation, are in fact attributable to the emphasis given to the creation of external economies rather than direct production by the political party then in power. Moreover, the increasing rate of population growth which Turkey experienced during the period under review, along with a process of rapid urbanization were no less responsible for the increasing proportion of public investments in total investments. Aside from 1951 and 1952 when private investments have shown a wide jump, that the public sector has steadily absorbed a rising proportion of the economy's resources can be easily seen in the following table (Table V)

Table V

Distribution of total investments between the public and private sectors.

Year	Private Sector %	State Economic Enterprises %	Public Sector %	Total
1950	57	15	28	100
1951	61	13	26	100
1952	62	16	22	100
1953	56	17	27	100
1954	59	16	25	100
1955	44	27	29	100
1956	50	20	30	100
1957	43	22	35	100
1958	36	24	40	100
1959	38	20	42	100

Source: O. Okyar "Yatirimların Sektorler Itibarile Dagilişı", Forum 1 Şubat 1962.

The sharp decline in the share of the private sector after 1954, when with the starting of inflationary price rises and foreign exchange difficulties the relatively stable conditions of the previous period were upset, is specially striking. It is also worthy of note that a relatively higher proportion of private investments have been

allocated to private residential dwellings concomitantly with the decline in private investments. Hence, not only have private investments lost in importance after 1954 but at the same time they have been diverted to a non-productive form of investment rather than adding to the productive capital stock of the economy. (Table VI)

To follow more closely the effect of the distribution of investments on the rate of output growth in different sectors, data on the distribution of investments by sectors for the whole period are required. As yet, however, they are not available. Nevertheless, on the basis of data pertaining to 1948-55 the changes in the distribution of investments can be followed in the light of table VI. Table VI indicates that during the first half of the period on the average 23% of total investments (public plus private) have been allocated to agriculture and manufacturing industry which in turn contribute more than a half of national income. On the other hand, 77% of total investments have been allocated to sectors comprising in total less than a half of national income.

Table VI

Distribution of total investments by productive sectors:
(1948-55) %

Sectors	1948	1949	1950	1951	1952	1953	1954	1955	Average for the period
Agriculture	9.7	11.2	13.5	16.0	17.3	10.6	8.5	8.4	11.3
Manufacturing	8.7	10.9	10.3	11.0	12.3	11.4	13.1	13.2	11.9
Construction	0.7	0.9	1.4	1.2	1.3	1.6	1.2	1.2	1.2
Mining Energy	5.3	6.9	7.2	5.2	6.0	6.5	7.4	7.4	6.7
Trade	4.2	7.7	6.8	6.0	6.0	7.8	10.0	8.2	7.6
Transportation	26.6	23.9	24.5	27.5	24.1	28.3	22.2	20.9	24.2
Residential dwellings	30.3	26.5	26.1	24.5	24.5	25.1	30.6	33.3	28.3
Professional services	14.5	12.0	10.2	8.6	8.5	8.5	7.0	7.4	8.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Dr. K. Gurtan, "Turkiyede Yatirimlar", Table XIX, page 148, Istanbul 1959.

It can also be seen in Table VI that residential dwellings and trade have absorbed a significant and rising proportion of private investments. As the private sector is dominant in these two sectors, one would not be at fault to assume that they have come to occupy an increasing importance in private investments⁽¹⁾. On the other hand, in view of the fact that the state contributes an overwhelming proportion of investments in mining energy and transportation, it can be presumed that they have occupied a significant position in state investments in the latter half of the period as well.

The position of agriculture, which alone has contributed 40, 50% of national income over the 1950-1960 decade, with respect to the proportion of investments which has been allocated to this sector is noteworthy: an increasing proportion has gone to this sector until 1953 when agricultural output showed substantial increases. As private investments are of considerable importance in this sector of the economy, presumably, the decline in this sector has been accompanied by the rise in investments in trade and residential dwellings. With the steady decline in its share of total investments and the continuance of conditions which favored the rise of private investments in trade and residential dwellings, it is too expected that agriculture further lost ground in its share of total investments in the latter half of the period.

In contrast to agriculture, residential dwellings and trade in which the private sector is dominant and transportation, power-energy where the public sector plays a significant role, private and public firms compete in manufacturing industry. The rise in the share of investments allocated to this sector shows a rise after 1954 when, as indicated previously, stable economic conditions were upset. However, that this rise was temporary and that

(1) The rise in the relative share of "ownership of dwellings", (Table III) in Transportation (Table 1) and in electricity, gas and water after 1955 in national income supports this argument.

import possibilities have had an important say in the change of the investment rate in manufacturing industry will be seen presently as the effects of foreign trade are dwelt upon.

This short survey of the pattern of investment distribution during the 1950-60 period reveals that in private as well as public investments the directly productive sectors, i.e. agriculture and manufacturing industry have been slighted in favour of the indirectly productive sectors. Hence, one may presume that the different growth rates observed in various sectors of the economy have been closely related to the particular distribution of public as well as private investments.

It was previously indicated that the public sector and to a certain extent the state economic enterprises aim by and large to the creation of external economies and an enhancement of social utility. In view of this special features, the allocation of public investments occur outside the price mechanism in contrast to private investment where the rate of profitability is the guide in investment allocation. Despite considerable shifts in favour of manufacturing prices that private investments have not risen substantially reveals the existence of some other factor which has barred this rise. The decline in the rate of investment in agriculture is presumably the outcome of the steady shift of the terms of trade against agricultural prices until 1957. As no data are available for the latter half of the period it is difficult to make any guesses as to the development of investments in this sector when terms of trade started to move in favour of agricultural prices. Nevertheless, the constancy observed in output growth in addition to the previously indicated shifts in the allocation of private investments might evidence given weather conditions which have a considerable effect on output, a not too favourable development.

Another point worthy of note is that the sectors of the economy which have attracted a significant portion of both private and public investments have been those with a fairly high capital intensity⁽¹⁾.

(1) Capital intensity signifies in this context the marginal capital-output ratio and will be referred to shortly as the c/o or capital-output ratio.

While directly productive sectors have received a fairly small proportion of total investments despite their low capital intensity and have attained relatively slow growth rates, the reverse has been true in the case of indirectly productive sectors. The position of private residential dwellings is specially striking for their high capital intensity and the high proportion of private investments which they have attracted. Table VII gives the net output in thousand T.L. created by net investments of one million T.L. by major sectors of the economy.

Table VII

Sector	Net increase in output (000 T.L.) created by 1 million T.L. of net investment
Construction	3.036
Agriculture	2.671
Trade	803
Services	780
Manufacturing	468
Transportation	256
Mining-Energy	175
Dwellings	44

This table is taken from K. Gürkhan, op. cit. p. 181

Presumably, the consideration of real estate as a hedge against inflation and the high remuneration which speculative dealings in trade yield in such times is the basic explanation for the observed allocation of private investments. It is highly probable that the true yield of speculative enterprises are not reflected in the above figures for "trade"

The short survey of the pattern of investment distribution indicates that the changes observed in the composition of national output and relative prices have been strongly affected by the preference attached to certain sectors by both the public and private sectors of the economy.

b) Effects of foreign trade-

A study of foreign trade developments over the same decade sheds further light on the particular structural change observed in the composition of national output and relative prices. The period is characterised by widely divergent changes in foreign relations, ranging from

trade liberalization in the years from 1951-53, to extreme foreign exchange shortage between 1956-58 and finally the depreciation of the Turkish currency in August 1958 as part of a monetary stabilization policy. In fact, the character of foreign trade developments is clearly reflected in domestic changes despite the fact that "Turkey is not a country where the value of exports or imports constitute a significant proportion of domestic national income .

Trade liberalization, embarked upon in 1951, resulted in the dissipation of meager foreign exchange reserves and a growing deficit in the balance of payments. Following the restriction of available foreign aid, Turkey had to limit imports paripassu with the decline in exports. The liberalization period in turn, has been one of relative price stability and an important upsurge in private investments (Table V.) The increase in supply, permitted by a growing deficit, helped meet encreasing domestic monetary demand as well as giving a spur to exports. These three years can actually be considered as the "golden area" in the history of Turkey's economic development. Not only did price stability reign but a rate of growth never to be reached again, was attained in the important sectors of the economy (Table II) .

To trace the effects of foreign trade developments after 1953 on the domestic economy, the following table giving imports, exports and the dificit in dollar terms will be helpful (Table VIII).

Table VIII
Imports, exports and foreign trade deficit (in million \$)

Year	Imports	Exports	Deficit
1950	283.1	263.4	19.7
1951	398.5	314.1	84.4
1952	551.0	362.9	188.1
1953	527.8	396.1	131.7
1954	474.1	334.9	139.2
1955	493.2	313.3	179.9
1956	403.7	305.0	98.7
1957	393.6	345.2	48.4
1958	312.3	247.2	65.1
1959	438.7	355.1	83.6
1960	464.9	320.8	144.1
Türkiye İktisat Gazetesi, 1 Subat 1962, Ankara			

The growing foreign trade deficit after attempts at free trade ended with the abolishment of liberalization in 1953. The deficit spending of the government kept monetary demand high after 1954 along with a curtailment of imports which decreased supply in the domestic market. Part of Turkish exports have an endogenous demand i.e. the exportable surplus is an inverse function of domestic income growth. Thus, increases in real and money income in the domestic economy deflected to the internal market part of agricultural export products for which demand is partly endogenous. On the other hand, part of Turkish exports have an exogenous demand, i.e. the exported volume and price are mainly dependent on demand growth abroad, in importing countries. Parallel to the rise in the general price level in the economy, the overvalued Turkish currency put these products at a disadvantage in foreign markets vis à vis the products of rival countries despite export premiums. Hence the fall observed in export value after 1954 until after depreciation. (1)

The unavailability of foreign aid in large amounts together with deflected foreign exchange reserves resulted in the curtailment of supply in the domestic market in consequences of import restrictions more than demand due to the fall in exports. This is specially true in the case of consumers' goods which were limited to permit the imports of required capital equipment. In fact, imports of consumers' goods which stood at 343 million T.L. in 1952 fell to 204 million T.L. in 1955 and 108 million T.L. in 1958. The imported consumers' goods consist largely of manufactured items for which substitutes are hardly available amongst domestic products. The reduction of imported consumers' goods to 1/3 of the previous amount and the inability of domestic manufacturing industry

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- (1) In connection with the increase in import value and decline in export value account should also be taken of the adverse movement in terms of trade between 1953-60. The price index for imported goods rose from (1953=100) 100 in 1953 to 115 in 1960, while the price index for exported goods fell down to 93, so that the terms of trade stood at 81 by the end of the period indicating a loss for Turkey of 19 points (in Turkish currency).

to easily supply substitutes for the missing items deflected the rising demand to the poor substitutes in the internal market and gave strong impetus to manufacturing prices. In fact, the deflection of residual demand to the internal market not only explains the sharp rise in manufacturing prices but also the rise in the relative importance of manufacturing industry during the period when foreign competition was eliminated from the domestic market. It is interesting to note that a rise in the percentage of investments relative to net value added together with a rise in the relative contribution of small enterprise in total net value added have accompanied the fall in imports of consumers' goods. However, after 1956 the extreme foreign exchange shortage has given rise to some adverse effects as not only imports of manufactured consumers' goods but also machinery and equipment, raw materials had to be curtailed.

The two tables below help follow the effects of foreign trade developments on manufacturing industry more closely. The first table (Table IX) gives imports in million T.L. by major groups. The second shows investments as a percentage of net value added in manufacturing, industry, the relative share of manufacturing in national income, and the change in the share of small enterprises in total manufacturing output. (Table X).

Table IX

Imports by major groups (million T.L.)

Year	Raw Materials	Equipment and machinery	Consumers' goods	Construction materials
1950	267	273	165	95
1951	363	365	279	119
1952	427	599	343	187
1953	420	537	295	238
1954	367	500	262	210
1955	433	504	204	252
1956	350	508	127	155
1957	491	350	136	134
1958	393	306	108	76
1959	582	499	134	101
1960	501	588	126	96

Table X

Investments in manufacturing industry, its relative share in national income, and share of small enterprises

Year	Investments as a % of net value added in manufacturing	Share of manufacturing in national income (%) 1948 factor prices	current prices	Share of small enterprises in total manufacturing output (%)
1950	10.7	9.8	10.7	48
1951	14.0	9.1	10.1	46
1952	11.1	8.9	10.3	41
1953	17.8	8.8	10.9	41
1954	19.3	10.4	13.5	45
1955	19.9	10.0	12.5	44
1956	23.7	9.8	14.0	47
1957	12.2	9.8	14.3	43
1958	11.3	9.2	14.3	41
1959	8.3	9.2	13.4	
1960		9.3	13.7	

The first column refers to investments undertaken in state enterprises and private firms employing 10 or more workers and or using engines with 10 H.P. or above. The second column shows relative share of manufacturing output in constant and current prices. The third column has been computed as the difference between net value added in total manufacturing industry in national income and in firms in the first column of the table (Monthly Bulletin of Statistics, No 73, P. 138. No 82,83-84, p. 179; Ankara)

The foreign trade bottleneck, causing considerable rises in the domestic prices of manufactured goods, has initially increased the rate of investments in this sector by raising profit expectations, (Table X). The increasing profitability of investments as prices rose, however, has encountered difficulties as foreign exchange availabilities further decreased. It is worthy of note that the period 1956-1958 which has been one of extreme import difficulties, has also witnessed a decline in the rate of investment in manufacturing industry. This decline is to be explained not only in terms of physical and quantitative restrictions in the amount of capital goods available, but also by a rise in risks associated with investments and hence a decline

in the rate of profitability while profitability in speculative enterprises commodities rose sharply. As foreign exchange restrictions prevented an even flow into the country of raw materials and spare parts, manufacturing industry suffered intermittently from idle capacity and unemployment accompanied by sharp increases in prices. Hence, the increase in risks, the decline in the rate of investment, and price rises stemming from a deficiency in available supplies in the internal market which were further strengthened by commodity speculation.⁽¹⁾

One other interesting developments and the change in the relative share of small enterprises which have closely followed foreign trade developments and the change in the relative importance of manufacturing industry in national income. It can readily be seen in Table X that, the period of trade liberalization has witnessed a fall in the relative contribution of small enterprises from 48% in 1950 to 41% in 1953, which evidences the importance of the elimination of small enterprises to explain partly the relative decline of the manufacturing sector in national income. Conversely, foreign trade difficulties which became acute from 1954 on seem to have given a particular impetus to production in small enterprises until the institution of stabilization policy in 1958. This in fact, has been a period of rise in the relative share of manufacturing industry. Hence, there is presumptive evidence that not only the rate of investment in large enterprises (Private and public) but also changes in the relative share of small enterprises seem to be closely linked with foreign trade developments and help explain the changes in relative share of manufacturing industry. However, output in small enterprises seem to be more volatile and more sensitive. As small enterprises mostly work with high and sharply rising marginal and average costs ⁽²⁾, they are undoubtedly, easily eliminated by foreign competition and favourably affected by a lack of it.

- (1) The high profitability of commodity speculation had the further effect of increasing interest rates in the free market by raising the demand for loanable funds. This lowered even further profit prospects in industrial investments.
- (2) The exemption of small enterprises from income and expenditure taxes until the recent income tax law and under certain conditions from social security premiums, enabled them to compete with large enterprises inspite of their high costs.

On the other hand, the foreign trade bottleneck created by domestic inflation has definitely had an adverse influence on the export possibilities of agricultural products of which the demand is mainly exogeneous. Tobacco, dried fruit, and cotton which together constitute more than 50% of the value of total Turkish exports can be classified under this category, though a few other items of minor importance also enter. That the inflationary price rise and the consequent overvaluation of Turkish currency has the exports of these major items extremely difficult in the face of foreign competition is clearly seen in the following table (Table XI). Despite considerable increases in production, the exportable surplus has declined throughout the inflation period between 1953 - 58 until after currency depreciation. The favourable effect of the latter, however, seems soon to be exhausted under the effect of continuing price rises in the internal market. Aside from mining products, pulses and dried fruit, of which the exported quantities have continued to increase in 1960, the same has not been true for the remaining, i.e. tobacco, cotton, all seeds and wool-hair-mohair.

Table XI

The exported quantities, domestic production and non-exported quantities as a percentage of the latter for major export products (000 metric tons)

Years		49-51	52-54	55-57	58	59	60
Tobacco	a	94.0	103.9	119.9	115.3	129.4	135.1
	b	62.7	64.3	69.7	56.1	66.8	58.0
	c	31.3	39.6	50.2	59.2	62.6	77.1
	d	%33.3	% 38.1	% 41.9	% 51.3	% 48.4	% 57.1
Cotton (Lint)	a	124.2	148.7	183.5	180.0	195.0	175.5
	b	55.6	77.0	49.9	37.3	104.3	85.7
	c	68.6	71.0	133.6	142.7	90.7	89.8
	d	%55.7	% 48.2	% 72.8	% 79.3	% 46.5	% 51.2
Dried Fruit	b	116.5	98.4	105.8	103.7	132.8	168.6
Mining & Quarrying	a	6447.0	8504.0	10806.0	11887.0	11659.0	11614.0
	b	463.3	792.4	1098.1	931.5	651.0	1044.7
	c	5983.7	7712.6	9707.9	10955.5	11008.0	10569.3
	d	% 92.8	% 90.7	% 89.8	% 92.2	% 94.4	% 91.0
Wool, Hair & Mohair	a	46.7	52.9	56.7	61.7	67.3	67.5
	b	6.7	4.5	4.5	3.8	14.0	10.7
	c	40.0	48.4	52.2	57.9	53.3	56.8
	d	%85.7	% 91.5	% 92.1	% 93.8	% 79.2	% 84.1
Pulse	a	369.0	466.2	486.3	562.8	589.2	632.4
	b	44.0	19.3	3.9	17.5	53.5	58.0
	c	325.0	446.9	482.4	545.3	535.7	574.4
	d	% 88.1	% 95.9	% 99.2	% 96.9	% 90.9	% 90.8
Oil Seeds	a	405.0	498.7	507.7	546.9	577.4	552.0
	b	54.2	49.7	9.5	10.2	59.4	32.2
	c	350.8	449.0	498.2	536.7	518.0	519.8
	d	% 86.6	% 90.0	% 98.1	% 98.1	% 89.7	% 94.2

"İktisadi Rapor 1961", Türkiye Odalar Birliği, Ankara 1961, p.65, Aylık İstatistik Bülteni, No 91, Ankara 1961 and İstatistik Yilligi 1959, I. V. M. Ankara.

- a) domestic production
- b) exported quantities
- c) non-exported quantities
- d) non-exported quantities as a percentage of domestic production

In contrast to the other items in the tobacco dried fruit and cotton are not largely consumed in the internal market and have an exogenous demand, this is not quite true in the case of the remaining items in the table.

Thus, the foreign trade bottleneck, attributable by and large to domestic inflation has on the one hand had adverse effects on the investment rate growth of manufacturing industry and on the other hand on major exports of the economy by increasing the non-exported quantities for example: stocks. Initially, the decline in the exports of cereals which were looked upon to increase the foreign exchange earnings of the country has been one of the major causes in the curtailment of imports as domestic production belied the optimistic expectations and the furthering of price rises in the internal market. However, finally the exports of the other conventional Turkish agricultural products have been put into a deadlock as a consequence of inflation. Had agricultural production lived up to expectations, presumably, the economic difficulties which Turkey has been facing since 1955 would have been largely alleviated.

c) Role of idle resources and weather conditions:

It will be remembered that agriculture together with manufacturing industry constitute the most slowly growing sectors of the Turkish economy and that though agricultural prices have lagged behind all others until 1956, from 1957 on they have outrun all but manufacturing prices.

Now, agriculture being the main source of income in the economy and giving the major export items has double effect on the growth of the remaining sectors. On the one hand, a rise in agricultural production widens the market, on the other hand by increasing the exportable surplus facilitates the imports of capital items, i.e.

finances investments in other sectors of the economy. In view of its double importance, the lagging behind of production in this sector is of far greater importance than that in manufacturing industry. The constancy observed in net value added in this sector since 1958 may constitute a major bottleneck to further growth of the economy unless overcome by specific policy measures.

The existence of idle land resources has played a considerable role in the high elasticity of supply between 1950-1953, when net output increased by almost the same percentage as the area under cultivation. This high elasticity has had a favourable effect by keeping down the general price level as it has increased agricultural supply in the domestic market as well as the supply of manufactured consumer goods by making imports possible to meet rising demand. Moreover, the increase in the over all rate of investment in the economy during this period finds its explanation in the rapid per capita increases in real income, in import availabilities of capital goods and the general stability which has reigned in the economy. It is interesting to note that the existence of idle land resources has been of primary significance in this development. However, account should also be taken of the extremely favourable weather conditions which reigned in the 1950-1953 period.

Between 1953-56 acreage under cultivation increased by a little less than 10%, but agricultural output could not attain the 1953 level until 1957. Unfavourable weather conditions, which have a considerable influence on cereal output carried on under dry-farming methods, affected adversely output levels in this major branch of the agricultural sector. In consequences, cereals which had become export items previously could no longer be exported, resulting in a decline in foreign exchange earnings, (Table VIII) and import restrictions. Hence, idle land resources and exogenous factors (weather conditions) have had an important say in the favourable economic conditions of the 1950-53 period, as well as the starting of difficulties in 1954. Between 1956-59 acreage under the cultivation increased only 3%, i.e. the rate of increase declined further as most of the available land was brought under cultivation. Leaving aside crop fluctuations due to weather conditions, there was almost a 20% rise in land under cultivation between 1953-59 exactly matched by the

increase in net value added (in constant prices) in agriculture. This increase was hardly sufficient to meet the rise in demand due to population increase and an increase in real income, with the consequence that part of Turkish exports with an endogenous demand were deflected to the internal market.

The lands which were finally brought under cultivation were undoubtedly of lower quality. In addition, the presumable decline in agricultural investments which continued into the latter half of the period inevitably resulted in the stopping of output growth. Though agricultural population increased in absolute numbers by a few million, without a parallel increase investments and or in land under cultivation a substantial rise in output cannot be expected. The marginal product of labour being very low in agriculture, the additions of large masses of manpower cannot bring about the required rise in output in view of the consequences of inevitable diminishing returns. In fact, the rural exodus which speeded up in the latter half of 50's bears evidence to the worsening of conditions in the agricultural sector under the impact of rapid population increase on the lack of complementary resources

The sharp rises in relative agricultural prices occurred after increases in output came to a halt and after the devaluation of Turkish currency was undertaken in 1958. During the last few years Turkey has become an importer of various agricultural food items and raw materials. The exports of some food items such as cereals and oilseeds or some livestock products are now possible because of the agricultural produce received from the U.S.A. on the surplus disposal programme. If rapid population growth continues, and if the growth of output lags behind in consequence of low investment rate and exhausted idle land resources, the general economic conditions of the country are likely to grow worse.

Thus, while the existence of idle land resources initially gave a strong spur to economic development in general, their exhaustion finally at a time when investments declined has played a significant role in the becoming a bottleneck of the agricultural sector.

d) General Analytical and Policy Implications

The analysis of specific influences has revealed the importance

of the effects of the distribution of private and public investments, foreign trade and idle resources and exogeneous factors on the observed changes in the composition of national output and relative prices in Turkey over the 1950-60 decade. However, it is clear by now that inflationary price rises peep out under the malallocation of private investments and the foreign trade bottleneck as responsible for the economic difficulties to which the country has been subject, specially in the latter half of the decade.

What is worthy of note is that the sectoral distribution of investments and their respective capital intensity seen also to have strengthened the price rises attributed for the most part to inflationary methods of financing. This can easily be understood by taking into account the long gestation period which public investments have necessitated in general and the long interval involved until the final output comes onto the market due to their indirectly productive nature. Hence, not only inflationary methods of financing investments and the foreign trade bottleneck but also the sectoral allocation public investments by budget deficits seem to have a say in the rapid price rises in the economy.

As the inflation financed public investments have been for the most part of an indirectly productive nature, necessitating long gestation periods, their inflationary effects have been particularly strong in view of the very limited idle capacity in the remaining productive sectors. Conversely, had the significant proportion of inflation financed public investments been diverted to sectors with low C/O ratios and which resulted in quick and substantial increases in output, price rises would have been alleviated by the coming on to the market of the final output at the end of a short interval ⁽¹⁾.

In addition, the same has no less been true of private investments as previously indicated, the commencing of a rise in the general price level, the foreign trade bottleneck and the movement of the terms of trade against agriculture, contributed heavily to the diversion of an increasing proportion of private investments to non-productive or a very indirectly productive sector with a high capital intensity such as residential dwellings, the same factors have, presumably

(1) A.W. Lewis, "The Theory of Economic Growth", London 1955, p.217

been also influential in the steady decline in the relative share of private investments. In all probability, the increase in the efficiency of labour^{due} to living in better dwellings¹ had been almost nil in the case of Turkey as the dwellings involved were not destined for workers or peasants but for the high income classes who already enjoyed much better living conditions than the former. The financing of the considerable portion of this unproductive investment by credit expansion must have had the same effect as that indicated for public investments, i.e. further promoting price rises.

The neglecting of agriculture and manufacturing industry, which involved a lower capital intensity and being directly productive would yield an output at a much shorter interval and hence would alleviate the price effects of inflationary methods of financing, has presumably aggravated the consequences of monetary expansion. The Turkish experience depicts the danger of resorting to monetary expansion to finance investments of which the gestation is long and which result in increases in output only indirectly and at a considerable interval.

Had the government promoted selective economic policy measures to increase private investments and output in the directly productive sectors with low capital intensity and diverted higher proportion of public investments thereto, the quick increases in output would alleviate price rises and the consequent foreign exchange difficulties stemming from inflationary financing methods could have been partly avoided. Moreover, idle capacity in the transportation system and in some of the other social overhead capital might also not have risen.

This short survey supports the theses that in the case of an underdeveloped country undergoing structural change, sectoral developments may be just as important as increases in aggregate demand in the explanation of a rise in the general price level. Any economic analysis not paying due regard to the sectoral allocation and capital intensity of public and private investments and their presumable effects on the general price level, might be misleading and amiss in its policy implications.

If inflationary price rises in the domestic market have been responsible for foreign trade difficulties, the reverse also seems to be true, indicating that the effects of imports and exports in an underdeveloped country might follow a fairly different pattern from those in a developed industrial economy. A decline in exports in economic analysis is considered to have depressing effects, but what comes out to light from the Turkish experiences is that in a backward economy with meagre or no foreign exchange reserves, imports will have to be limited accordingly. With a low supply elasticity in those sectors of the economy which are likely to provide substitutes, supply is lowered more than demand in the domestic market. Hence, a rise in prices and the beginning of an inflationary movement⁽¹⁾

In addition, in cases where the country relies on imported capital goods for investment purposes a rise in imports is not likely to be depressing in its effects, but rather the contrary. A restriction of import possibilities by making the imports of capital goods impossible or by increasing the profitability of commodity speculation may actually cause a decline in the investment rate, may give rise to idle capacity and unemployment while prices are rising sharply due to the reduction of supply in the domestic market if the requisite spare parts and raw materials cannot be imported. This is likely to have a further depressing effect on the profitability rate of investments by increasing risk.

Finally, the effects of idle resources, e.g. land, and exogeneous factors, i.e. weather conditions assume particular importance in the explanation of the observed development in the agricultural sector. The estimation of saving and investment requirements of the economy on the basis on a marginal capital output ratio observed in the recent past is highly in vogue amongst planners of underdeveloped countries. Yet in case where a rapid increase in agricultural output is at least partly explained by the existence of idle land resources, the projection of the past trend into the future when idle resources are no longer available, is likely to be highly misleading. Account should be taken

(1) Dudley Seers, "An Approach to the Short-Period Analysis of Primary-Producing Economies," Oxford Economic Papers, February 1959.

of the capital requirements for substituting land, and for bringing about a change in farming methods.

An exogeneous factor, such as weather conditions may, on the other hand have important effects on the general working of the economy. Favourable weather conditions by increasing agricultural supply may prevent inflationary price rises and by making imports of capital equipment possible give a spur to economic development, while poor harvests are likely to be accompanied by inflationary price rises due to a reduction of agricultural supplies as well as imported goods if the economy has little surplus to export and no foreign exchange reserves. In consequence, in an economy such as Turkey where the agricultural sector plays a preponderant role and where harvest fluctuations under the effect of weather conditions are considerable economic analysis will inevitably have to pay due regard to supply changes from this source.

If a general conclusion is to be drawn from the above analysis one can say that not only the deficit spending of the government but also supply changes from several sources and or the small potentiality of investments to increase output at a short interval have been influential in the inflationary rises in the general price level. This analysis, in case correct, should suffice to explain why inflation has been a vicious circle in the case of Turkey.

III- Conclusion:

The analysis of structural change in the Turkish economy over 1950-60 decade has brought out the importance of certain factors which have had a considerable influence on the observed pattern of economic development. In fact, such exogeneous factors as the programme of the political party in power, existence (or non-existence) of idle land resources, and weather conditions on the one hand, domestic inflation and the foreign trade bottleneck on the other hand seem to have shaped the changes in the Composition of national output as well as relative prices.

In an underdeveloped country, the above factors may be influential not only on the pattern of economic development, but also on the seriousness of price rises as they have a considerable effect on supply changes in the domestic market.

