Import Substitution in the Egyptian Manufacturing Industry (1960 - 1974)

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In Egypt, when a domestic industry was built, the demand for its products already existed and was being satisfied by imports. This demand was big enough to offer a market for relatively large establishments. This is true of all pioneering modern industries : sugar, cement, cotton-ginning and pressing, spinning, weaving, and chemical fertilizers, which were started and developed before the 1952 revolution. Some of them were begun even before World War 1, relying on domestically available raw materials. This is also true for most of the industries developed after 1952.

The First Five-Year Plan in Egypt (1960-1965) incorporated import substitution as a main strategy for the development of the industrial sector. The planners acted on the view that an underdeveloped single-commodity exporting country should diversify its production in order to decrease its dependence on foreign trade. Any import substitution would then make the country less dependent on the traditional export commodity and would make the country's economy less sensitive to fluctuations in foreign trade and crop conditions.(1) In addition to the existence of domestic demand and to the availability of domestic raw materials, two other factors were needed for domestic industries to arise, namely, protection against foreign competition and capital.

Accordingly, Egypt's foreign trade policy became wholly protectionist. Duties on machinery and raw materials not competing with Egyptian raw materials were lowered or abolished completely, while tariff rates for competing manufactures and "non-essential" goods were subsequently raised. At the same time, essential foodstuffs, etc. ... were exempted from duty in order to keep down the cost of living and money wages and hence, the costs of production. Another and probably much more powerful method of protecting domestic industries has been exerted through the

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licensing of imports. The policy has been to prevent the import of commodities which could be produced within the country and shift imports to essential foodstuffs, raw materials and capital goods, in that order of priority(2).

Investment expenditures during the First Five-Year Plan and the subsequent plans were supposed to be financed from domestic savings and from foreign sources. Actual developments have been somewhat different from what was planned, as both investments and foreign borrowing have been running at a lower level than expected. The sharp increase in domestic savings envisaged by the plans was to be realized mainly through ploughed-back business profits, and since government business profits would to a large extent be paid into the budget, through increased public savings. Household savings were expected to increase only modestly. Actual developments were different from planned and the savings ratio did not increase, due to increasing government current expenditures(3). By 1974, Egypt turned to an "open-door" policy aimed at attracting foreign capital to directly finance economic activities in Egypt which did not find sufficient finance from domestic sources or from foreign borrowing.

Our study is designed to make a quantitative measurement of the impact of import substitution on the development of the manufacturing sector during the period 1960-1974(4) and also during three sub-periods. Hollis Chenery, in his "Patterns of Industrial Growth" (pp. 639-644)(5) introduced a measure of import substitution which has since become most widely used. For Chenery, import substitution occurs with a decline in the ratio of imports to total supply. This measure is used here to quantify this impact. However, certain modifications will be made to the Chenery measure to fit the available Egyptian statistics, and then the suggested measure will be applied to assess the impact of import substitution on Egyptian manufacturing. When the extent of import substitution is estimated for the period as a whole and also for the three sub-periods, we should be in a position to examine both the extent of changes in emphasis among different industries and the importance of import substitution as an instrument of industrialization during different sub-periods .

I — Chenery's Measure of Import Substitution

Investigating the factors causing the industrial sectors to grow more rapidly than the rest of the economy, Chenery pointed out systematic

changes in supply conditions as well as in demand with rising income and tried to determine the relative importance of changes in demand and supply in explaining the growth in each industry. He stressed three factors explaining positive deviation from proportional growth for each industry, namely : substitution of domestic production for imports, growth in final use of industrial products, and growth in intermediate demand due to the previous two factors.

His analysis is based on the following basic accounting identity :

$$X_i + M_i = D_i + W_i + E_i \qquad i = 1,2,\ldots,n$$

where : M_i = imports,

X_i = gross domestic production,

Di = domestic final demand,

W_i = total intermediate use of industry's i's production,

E_i = exports.

That is, total supply equals total gross demand in each industry. Imports supplement domestic production in satisfying gross demand. Letting Z_i be total supply, i.e. :

$$Z_i = X_i + M_i$$

and writing $m_i = \frac{M_i}{Z_i}$ for the import ratio, then $M_i = m_i Z_i$, and

(1) $$X_i = Z_i - M_i = (1 - m_i) Z_i = (1 - m_i)(D_i + W_i + E_i)$$

Using (1), he establishes a value for proportional growth, namely :

$$X_i^P = g\, X_i^P = g\, (1 - m_i^0)(W_i^0 + D_i^0 + E_i^0)$$

where the superscript o indicates the initial level of the variable, p applies to proportional growth and g is the rate of increase in GNP, i.e. $g = Y^1 / Y^0$ where o and i denote respectively the initial year and the terminal year of the period considered, Y is GNP. The deviation of actual production level from proportionality is then defined as :

$$\Delta X_i = X_i^1 - X_i^P = (1 - m_i^1)(D_i^1 + W_i^1 E_i^1) - g\,(1 - m_i^0)(D_i^0 + W_i^0 + E_i^0)$$

adding and subtracting $m_i^0 (D_i^1 + W_i^1 + E_i^1)$

right hand side of the previous equation, deviation from proportional growth becomes : (2) $$\Delta X_i = (1 - m_i^0)(\Delta D_i + \Delta E_i) + (1 - m_i^0)\Delta W_i + (m_i^0 - m_i^1) Z_i^1$$

where s refers to deviation from proportional growth, o and i denote respectively the initial and final years of the period.

On the basis of (2), the three causes of non-proportional growth pointed out by Chenery appear to be :

(1) Non-proportional increases in final demand : $(1 - m_i^o)(\Delta D_i + \Delta E_i)$

(2) Non-proportional increases in intermediate demand : $(1 - m_i^o)\Delta W_i$

(3) Import Substitution : $(m^o_i - m_i^1) Z_i^1$ which measures

the difference between the growth in output by industry i with no change in the import ratio and the actual growth. In any real economy, import substitution is then seen to be the ex post difference between actual imports in some period 1 and what imports would have been had the import ratio remained at the level of the base period o.

Using a breakdown of the last term in (2), total import substitution was then subdivided into three components :

$(m_i^o - m_i^1) Z_i^1 = (m_i^o - m_i^1) Z_i^P + (m_i^o - m_i^1)\Delta Z_i$

which was written as : (3) $(m_i^o - m_i^1) Z_i^1 = (m_i^o - m_i^1) Z_i^P + (m_i^o - m_i^1)(\Delta D_i + \Delta E_i) + (m_i^o - m_i^1)\Delta W_i$

The first term $(m_i^o - m_i^o) Z_i^P$ represents pure import substitution, i.e. that which would have taken place had demand grown proportionately at the rate g. The other two terms result from the deviation from proportionality of growth in final and intermediate demand. They were classed by Chenery as supply effects because without a change in comparative costs and hence in import ratios they would be zero.

This model, developed by Chenery in 1960 was applied by him to a cross section study of a number of countries. It has been further applied by Jaleel Ahmad, by Lewis and Soligo and by Fernando for the study of import substitution in India, Pakistan and Sri Lanka respectively(6). Among studies which have employed the Chenery measures are also Steuer and Voivadis, Huddle and Eysenbach(7).

II - Modification of the Measure and the Data Used

To apply this measure, Chenery estimated separately values for production (using value added figures and the ratio of value added to total output for each income level), for final demand and intermediate demand.

But here we are not able to do so, especially for intermediate demand, as a reliable input - output table with a detailed breakdown of industrial sectors is not available for Egypt. To overcome our inability to obtain separate values for intermediate demand, total supply is taken to be equal to total demand and the effect of total domestic demand (final and intermediate) is calculated as a residual. This does not create much difficulty as the Chenery equation is based on the identity of total supply and total demand in each industry. Although it was not possible to obtain separate values for the effect of growth of intermediate and final domestic demand, this did not prevent us from obtaining an estimate of the effect of import substitution (which is the main purpose of the study) and of the growth of export demand. The equation to be estimated is then :

(4) $\Delta X_i = (1 - m_i^0)(\Delta D_i + \Delta W_i) + (1 - m_i^0)\Delta E_i + (m_i^0 - m_i^1) Z_i$

Comparing this equation with(2), the effect of total domestic demand is taken as a whole and it is separated from the effect of export demand, instead of separating the effect of total final demand from that of total intermediate demand as Chenery did. Although the relation as presented appears to be a tautology, it is not legitimate to infer that it must therefore be useless. It may be a useful way to separate out, for individual analysis, the factors which describe actual economic relations.

Import substitution is also disaggregated on the basis of the Chenery equation (3) modified as follows :

(5) $(m_i^0 - m_i^1) Z_i^1 = (m_i^0 - m_i^1) Z_i^P + (m_i^0 - m_i^1)(\Delta D_i + \Delta W_i) + (m_i^0 - m_i^0) \Delta E_i$

On the basis of these equations, estimates of the deviation of production, import substitution and the effect of growth of export demand for the manufacturing sector in Egypt were made for the period from 1960 to 1974. 1960 was used as the base year as it corresponds to the beginning of the planning period in Egypt when overall action for development along predetermined lines was supposedly taken. Hence it was thought that this year provided a good starting point for our study. The period 1960 - 1974 has further been subdivided into three sub-periods, namely 1960 - 1965, 1965 - 1970 and 1970 - 1974 .

The deviation of local production from proportional growth, import substitution and the effect of export demand growth are estimated for 19 3-digit industries in the manufacturing sector. The breakdown of manufacturing by industries used here, follows the International Standard Industrial Classification (ISIC). These industries have been further classified according to the nature of demand for their products as producing : (A) investment and related products, (B) intermediate goods and

(C) consumer goods. Note that there is considerable overlapping in these categories due to aggregation (e. g. the products of metals and nonmetallic minerals are used both as investment goods and as intermediate goods, however, they have been classified in the first group as they predominantly go into investment goods).

Statistical information on industrial production was obtained from the United Nations Yearbook of Industrial Statistics(8). The source of figures for the value of commodity imports and exports was the International Trade Statistics Yearbook(9). The original figures for commodity imports and exports obtained were classified according to the Standard International Trade Classification (SITC). We had to reclassify them according to the categories in the Industrial Statistics Yearbook to make possible the addition of imports and domestic output in each industry(10)

Constant price figures were preferred to current price figures as the latter are affected by changes of relative prices of imported and locally produced commodities. Therefore, using current price figures to calculate import ratios would affect these ratios without reflecting real changes in import substitution activity. Accordingly, gross domestic output in each industry at constant 1970 prices was obtained through projecting back to 1960/61 and forward to 1973/74 the 1970 value of output through indices of real output. The value of exports and imports in constant 1970 prices was calculated by deflating the current price figures given in the Yearbook of International Trade Statistics respectively using the unit value index of exports of developing areas to developed and developing areas and the unit value index of exports of developed and developing areas with base year 1970(11). The figures thus obtained were expressed in dollars and they were converted into Egyptian pounds through the conversion factors available from the same source.

Finally the figures for output were given for fiscal years which start on July 1st, while import and export figures were given for calendar years. Imports and exports by industry were calculated for fiscal years by taking their average value for the two calendar years in the middle of which falls the fiscal year, e.g. imports and exports for fiscal year 1960/1961 were taken as the average of the corresponding figures in calendar years 1960 and 1961.

III - Impact of Import Substitution on Industrial Growth

1 — Results for the overall period 1960 - 1974

Gross national product at factor costs deflated by the wholesale price index with base year 1970 increased from 1,713 million £.E. in 1960/1961 to 2,862 million £.E. in 1973/1974, giving a value of 1.650 for g, the proportional growth rate of GNP. Estimates of the deviation of demand from proportional growth and its components, namely import substitution, growth in export demand and growth in domestic demand for the period as a whole are shown in Table 1.

Import substitution was found to be the major source of deviation from proportional growth of demand (and production) in the Investment Goods Industries (Group A). The growth of export demand played a minor role in explaining this deviation from proportionality. The effect of domestic demand growth appears to have been negative, which means that domestic demand for investment goods has grown at a slower rate than real GNP. Inspection of individual industries in this group shows that these results apply to the Iron and Steel and to the Non-ferrous Metal Industries, to the Machinery Industry and to the Transport Equipment Industry. However, the pattern followed by the Nonmetallic Mineral Products Industry is different, it indicates that import substitution as well as export demand growth have had a negative effect on the deviation of demand for domestic production of this industry from proportionality, while on the contrary, domestic demand growth has had a dominant positive role in causing this deviation. Finally, growth in the Metal Products Industry and Electrical Machinery Industry is explained by the positive effect of import substitution, export demand growth and domestic demand growth; however, import substitution is the dominant factor as it explains 92.8% and 89.3% of the growth of demand for the output of these two industries respectively.

The growth of Intermediate Goods Industries (Group B) appears to be due to import substitution (23.44%), export demand growth (49.01%) and domestic demand growth (27.55%). The individual industries in this group do not all follow this pattern. The Textiles Industry, which is one of the pioneering and well established industries in Egypt grew less than proportionately to GNP, in spite of some import substitution and a substantial growth of export demand. However, it seems that the negative effect of domestic demand growth has more than counterbalanced the

TABLE 1

The Causes of Deviation of Demand from Proportionality 1960/61 - 1973/74

(Values in million £.E.)

ISIC No.	Industry	Deviation of Production ΔX	Effects of :		
			Import Substitution $(m^0 - m^1) Z^1$	Export Demand $(1 - m^0)\Delta E$	Domestic Demand
A - Investment & Related Products		42.9	68.0	1.74	- 26.84
361/362/369	Nonmetallic Mineral Products	0.2	- 1.48	- 1.51	3.19
371/372	Iron & Steel/Non-Ferrous Metals	0.1	12.55	1.96	-14.41
381	Metal Produucts	12.1	11.23	0.22	0.65
382	Machinery	0.1	4.28	0.22	-4.40
383	Electrical Machinery	20.7	18.48	not exported	2.22
384	Transport Equipment	9.7	18.30	0.19	- 8.79
B - Other Intermediate Goods		75.5	17.7	37.0	20.8
321	Textiles	- 4.1	4.94	38.83	- 47.87
323	Leather & Products	4.8	0.00	0.71	4.09
331	Wood Products	- 1.5	- 0.47	not exported	- 1.03
341	Paper & Products	- 5.4	1.07	not exported	- 6.47
351/352	Industrial Chemical & Chemical Products	76.3	11.46	3.54	61.30
353/354	Petroleum Refineries & Coal Products	12.1	10.27	- 1.60	3.43
355	Rubber Products	- 6.7	- 2.24	- 0.47	- 3.99
C - Consumer Goods		33.5	27.14	26.44	- 20.08
311/2	Food Products	- 27.6	9.71	10.73	- 48.04
313	Beverages	7.9	0.60	2.78	4.52
314	Tobacco	55.9	8.50	0.30	47.10
322/324	Wearing Apparel & Footwear	- 0.4	0.000	12.51	- 12.91
332	Furniture & Fixtures	- 2.3	- 0.005	1.11	- 3.405
342	Printing & Publishing	n.a.			

positive effect of the other two factors. This may be explained by the government's effort during the sixties to overcome balance of payments problems by trying to substitute for imports and increase exports as much as possible, even at the expense of domestic demand which was increasingly dissatisfied as was indicated by the growing shortages of commodities on the local market. The Paper and Paper Products Industry also witnessed some import substitution, but the negative effect of domestic demand growth was higher than that of import substitution. Industries of Wood Products and Rubber Products experienced negative import substitution, i.e. the ratio of imports to total supply increased over that period.

Finally, import substitution was an important source of deviation from proportional growth in the Consumer Goods Industries (Group C). It explains 87.16% of output growth, while the export demand explains 78.48%, domestic demand having grown less than proportionately to GNP. Within this group of industries, the Food Products Industry, Wearing Apparel and Footwear Industry and Furniture Industry have grown less than in production to GNP. The case of the Food Products Industry is very similar to that of the Textiles Industry, it reflects the priority that the problem of balance of payments was taking over that of satisfying domestic demand. The results for the Wearing Appparel and Footwear Industry and the Furniture and Fixtures Industry are consistent with the results shown previously, namely that domestic demand for Textiles, Rubber Products and Wood Products has grown less than proportionately to GNP. This led to a less than proportionate growth of the consumer goods industries using these intermediate products as inputs.

On the whole, import substitution appeared to be an important source of growth, especially within the group of Investment Goods Industries. Export demand played in general a secondary role in all industries except for the Textiles Industry, the Food Products Industry and the Wearing Apparel and Footwear Industry where it had a leading role. Domestic demand seems to have had a minor role in demand growth, as it appears to have grown less than proportionately to GNP in almost all manufacturing industries; exceptions to this are the Chemical Products and the Tobacco Industries where domestic demand appears to be the major cause of demand growth in these industries (83.34% and 84.26% respectively of demand growth in these industries is due to domestic demand growth).

Note that import substitution as measured here underestimates actual import substitution, as the definition of imports used does not include implicit or indirect imports which represent the inputs used to produce the import substitutes and which were originally imported implicitly with the final commodity(12). To give an example, suppose that the country imports all its refined petroleum products in the initial year. Then oil is discovered and domestic refineries are built to process the domestic crude. Assuming that final demand is constant, the measure used here will show import substitution in refining equal to the original imports but none in crude oil, although the elimination of refined petroleum imports without importing crude was made possible only by the domestic production of newly discovered crude. This too, should be counted as import substitution production. These indirect imports can be incorporated with a sufficiently detailed and accurate input-output table which is not available for Egypt.

Import substitution was disaggregated for the period as a whole into pure import substitution and supply interactions as shown in Table 2. Pure import substitution is that which would have taken place if there was only proportionate growth in demand. Supply interactions reflect both the effect of import substitution - as measured by the change in import ratios m - m - and of the deviation from proportionate growth of export demand and local demand on total demand for the production of individual industries. Pure import substitution appears to have played an important role during the period as a whole, particularly for the Investment Goods Industries where its value exceeds that of gross import substitution, the difference being explained by the less than proportionate increase in domestic demand for some Investment Goods Industries (Non-metallic Minerals, Iron and Steel, Machinery and Transport Equipment).

Supply interactions have had in general a minor role in all industries other than the Industrial Chemicals Industry and the Tobacco Industry where they reached successively 47.73% and 26.47% of gross import substitution. This indicates that, in general, export demand and domestic demand for the production of the industries under study did not expand at a rate much different from the proportionate rate of growth of GNP. Note that these supply interactions would result only if there was import substitution and they would be zero in the absence of a change in the import ratios.

TABLE 2

Disaggregation of Import Substitution 1960/61 - 1973/74

(Values in million £.E.)

ISIC No.	Industry	Gross Import Substitution $(m^o - m^1)Z^1$	Pure Import Substitution $(m^o - m^1)Z^P$	total	Supply Interactions	
					due to Export Demand	due to Domestic Demand
	A - Investment & Related Products	68.00	77.50	- 9.50	0.67	- 10.17
361/362/ 369	Nonmetallic Mineral Products	– 1.48	– 1.43	– 0.05	0.05	– 0.10
371/372	Iron & Steel/Non-Ferrous Metals	12.55	15.18	– 2.63	0.41	– 3.04
381	Metal Products	11.23	9.79	1.44	0.31	1.13
382	Machinery	4.28	5.70	- 1.42	0.07	– 1.49
383	Electrical Machinery	18.48	16.71	1.77	not exported	1.77
384	Transport Equipment	18.30	23.62	– 5.32	0.12	– 5.44
	B - Other Intermediate Goods	17.7	15.91	1.79	1.15	0.64
321	Textiles	4.94	5.07	– 0.13	0.57	– 0.70
323	Leather & Products	no imports				
331	Wood Products	- 0.47	– 0.59	0.12	not exported	0.12
341	Paper & Products	1.07	1.68	– 0.61	not exported	– 0.61
351/352	Industrial Chemicals & Ch. Products	11.46	5.99	5.47	0.30	5.17
353/354	Petroleum Refineries & Coal Products	10.27	9.90	0.37	– 0.33	0.70
355	Rubber Products	– 2.24	– 2.98	0.74	0.08	0.66
	C - Consumer Goods	27.14	26.71	0.43	1.65	– 1.22
311/2	Food Products	9.71	11.36	– 1.65	0.48	– 2.13
313	Beverages	0.60	0.38	0.22	0.08	0.14
314	Tobacco	8.50	6.25	2.25	0.01	2.24
322/324	Wearing Apparel & Footwear	no imports				
332	Furniture & Fixtures	– 0.005	– 0.01	0.005	– 0.002	0.007
342	Printing & Publishing	n. a.				

2 - Results for the Different Sub-Periods

As mentioned previously, the whole period was further subdivided into three sub-periods from 1960 to 1965, from 1965 to 1970 and finally from 1970 to 1974. The results were as follows :

(a) 1960 - 1965

GNP at constant 1970 factor costs grew from 1,713 million £.E. to 2,350 million £.E. giving a proportional rate of growth of 1.372. Estimates of the deviations from proportional growth and their causes in different industries are given in Table 3.

It appears that the three groups of industries have generally grown less than proportionately to GNP, however, some individual industries within each group grew more than proportionately to GNP, the most important case being that of Industrial Chemicals, other industries which grew more than proportionately to GNP are Electrical Machinery, Transport Equipment and Metal Products within Group A, Leather, Wood Products and Paper Products industries in Group B and only the Beverages industry in Group C. The less than proportionate increase in Machinery and Iron and Steel industries may be due to the fact that they were recent in Egypt's experience and were still at the construction stage. Older industries in Egypt like the Nonmetallic Minerals Industry (which includes cement), the Textiles industry and the Food Products industry also showed less than proportionate growth. This reflects the tendency to promote new capital goods industries at the expense of neglecting older industries. We should note in this connection that it matters greatly which commodities the country chooses to produce instead of importing, there may be natural advantages to be taken care of. This point of view may have been disregarded by the Egyptian planner when such industries as Iron and Steel were undertaken.

Import substitution has been negative in the Intermediate Goods industries and Consumer Goods industries, it was positive, however, for Investment Goods industries. Export demand for Intermediate Goods and Consumer Goods grew more than proportionately to GNP which was reflected in a less than proportionate growth of commodities going to satisfy domestic demand. This, in turn, was reflected in shortages of consumer goods on the local market and bottlenecks due to the insufficiency of intermediate goods, mainly raw materials and spare parts. Again, the Industrial Chemicals Industry deviates from this pattern, 96% of the

TABLE 3

The Causes of Deviation of Demand from Proportionality 1960/61 - 1964/65
(Values in million £.E.)

ISIC No.	Industry	Deviations of Production	Deviations Import Substitution	Effects of : Export Demand	Effects of : Domestic Demand
A -	Investment & Related Products	- 12.8	2.78	- 0.76	- 14.82
361/362/369	Nonmetallic Mineral Products	- 6.2	- 1.93	- 1.917	- 2.353
371/372	Iron & Steel/Non Ferrous Metals	- 8.5	3.64	0.087	- 12.227
381	Metal Products	0.4	0.24	not exported	0.16
382	Machinery	- 0.6	- 1.79	0.028	1.162
383	Electrical Machinery	2.0	- 0.66	not exported	2.66
384	Transport Equipment	0.1	6.21	0.102	- 6.212
B -	Other Intermediate Goods	- 6.2	- 9.75	25.46	- 21.9
321	Textiles	- 32.6	- 7.13	22.68	- 48.15
323	Leather & Products	0.6	no imports	not exported	0.6
331	Wood Products	2.4	1.04	not exported	1.3
341	Paper & Products	1.2	3.95	0.559	- 3.3
351/352	Industrial Chemicals	30.5	0.65	0.577	29.273
353/354	Petroleum Refineries & Coal Products	- 5.9	2.79	3.587	- 12.277
355	Rubber Products	2.4	1.36	0.00	- 1.04
C -	Consumer Goods	- 42.0	- 17.17	12.96	- 37.79
311/2	Food Products	34.1	18.73	11.56	- 26.9
313	Beverages	1.1	0.11	- 0.087	1.077
314	Tobacco	- 6.6	0.22	0.480	- 7.300
322/324	Wearing Apparel & Footwear	- 2.2	no imports	0.57	- 2.7
332	Furniture & Fixtures	- 0.2	0.41	not exported	- 0.6
342	Printing & Publishing	n.a.	——	——	——

deviation of production from proportionate growth goes to satisfy growing domestic demand, while 1.9% and 2.1% go to satisfy export demand and import substitution respectively.

Import substitution was disaggregated into pure import substitution and supply interactions. The results are indicated in Table 4. Positive values for supply interactions show that the corresponding industries have developed at a higher rate than the proportionate rate of growth of GNP, provided there was positive import substitution within the industry. Negative values for supply interactions, with positive import substitution, indicate that the components of demand in these industries have grown less than proportionately to GNP and that any growth that occurred in these industries was used for import substitution.

(b) 1965 - 1970

Gross national product at constant 1970 prices grew from 2,350 million £.E. to 2,508 million £.E., i.e. at a rate of 1.067. During this period, most industries witnessed a positive deviation from proportionate growth and positive import substitution as well as positive growth in export demand. Domestic demand for many industries, however, appears to have grown less than in proportion to GNP. Note that the growth rate of GNP for this period is substantially lower than that of the previous period (1.067 as compared to 1.372). Also, during this period, Egypt was forced to check the growth of its imports and increase its efforts to promote exports as a result of growing balance of payments problems due to the withdrawal of U.S. aid in the mid-sixties, the foreign exchange drain arising from the Yemen war and later, the Arab-Israeli war in 1967. These considerations explain the observed positive import substitution in most industries and the positive deviation from proportionality of export demand which occurred again at the expense of domestic demand, which showed negative deviation from proportionality as shown in Table 5.

One of the major exceptions to this pattern are the Petroleum Refinery industries which grew less than proportionately to GNP and showed negative import substitution. This may be explained by the loss of the Sinai oilfields and the closure of the oil refineries in Suez following the 1967 war. Note also that the Nonmetallic Mineral Products Industry (which includes Cement) showed negative import substitution due to the high increase in domestic demand which was not matched by the growth of productive capacity in this industry.

TABLE 4

Disaggregation of Import Substitution 1960/61 - 1964/65

(Values in million £.E)

ISIC No.	Industry	Gross Import Substittuion	Pure Import Substittuion	Supply Interactions		
				Total	due to Export Demand	due to Domestic Demand
	A - Investment & Related Products	2.78	3.05	- 0.27	- 0.01	- 0.26
361/362/369	Nonmetallic Minerals	- 1.93	- 2.16	0.23	0.105	0.125
371/372	Iron & Steel/Non-Ferrous	3.64	4.56	- 0.92	0.007	- 0.927
381	Metal Products	0.24	0.22	0.02	not exported	0.02
382	Machinery	- 1.79	- 1.65	- 0.14	- 0.003	- 0.137
383	Electrical Machinery	- 0.66	- 0.57	- 0.09	not exported	- 0.09
384	Transport Equipment	6.21	7.67	- 1.46	0.024	- 1.484
	B - Other Intermediate Goods	- 9.75	- 9.67	0.08	- 0.58	0.50
321	Textiles	- 7.13	7.83	0.70	- 0.620	1.320
323	Leather & Products	no imports	—	—	—	—
331	Wood Products	1.04	0.79	0.25	not exported	0.25
341	Paper & Products	3.95	4.84	0.89	0.185	- 1.075
351/352	Industrial Chemicals & Chemical Products	0.65	0.43	0.22	0.004	0.216
353/354	Petroleum Refineries & Coal Products	2.79	3.56	- 0.77	0.315	1.085
355	Rubber Products	- 1.36	- 1.46	0.10	0.00	0.100
	C - Consumer Goods	- 17.17	- 18.44	1.27	0.67	1.94
311/2	Food Products	- 18.73	- 20.20	1.47	- 1.098	2.568
313	Beverages	0.11	0.10	0.01	- 0.001	0.011
314	Tobacco	0.22	0.24	- 0.02	0.001	- 0.021
322/324	Wearing Apparel & Footwear	no imports	—	—	—	—
332	Furniture & Fixtures	0.41	0.48	- 0.07	not exported	- 0.07
342	Printing & Publishing	n.a.	—	—	—	—

TABLE 5

The Causes of Deviation of Demand from Proportionality 1964/65 - 1969/70

(Values in million £.E.)

ISIC No.	Industry	Deviations of Production	Effects of : Import Substitution	Export Demand	Domestic Demand
	A - Investment & Related Products	35.4	43.00	2.76	- 10.36
361/362/369	Nonmetallic Mineral Products	6.7	- 0.39	1.459	5.631
371/372	Iron & Steel/Non-Ferrous Metals	7.8	7.85	1.67 6	-1.726
381	Metals Products	10.3	8.60	0.149	1.551
382	Machinery	- 0.1	2.63	0.147	- 2.877
383	Electrical Machinery	6.8	10.53	not exported	- 3.73 0
384	Transport Equipment	3.9	7.67	0.109	- 3.879
	B - Other Intermediate Goods	28	2.89	7.84	17.27
321	Textiles	17.6	4.90	14.74	- 2.04
323	Leather & Products	2.4	no imports	0.85	1.55
331	Wood Products	-1.3	1.58	not exported	- 2.88
341	Paper & Products	7.1	3.30	- 0.79	4.59
351/352	Industrial Chemicals & Chemical Products	13.6	2.92	2.512	8.168
353/354	Petroleum Refineries & Coal Products	-10.1	- 12.84	- 7.838	10.578
355	Rubber Products	- 1.3	- 0.20	- 0.373	- 0.727
	C - Consumer Goods	61.5	43.50	30.78	- 12.28
311/2	Food Products	57.5	41.87	18.915	- 3.285
313	Beverages	1.3	0.25	2.652	- 1.602
314	Tobacco	9.8	1.90	- 0.40 7	8.307
322/324	Wearing Apparel & Footwear	- 3.9	no imports	7.93	11.83
332	Furniture & Fixtures	0.0	0.30	1.439	1.739
342	Printing & Pubilshing	- 3.2	0.88	- 0.438	- 3.642

Some industries which were not exporting their production during the previous sub-period, started exportation during this sub-period. These industries are the Metal Products Industry, the Leather Products Industry and the Furniture and Fixtures Industry.

Import substitution was also disaggregated in the same way as before and the results are shown in Table 6. Values for supply interactions were small in comparison with pure import substitution effect. Industries like Machinery, Wood Products, Petroleum Refineries and Printing showed negative values for supply interactions. This substantiates the earlier findings that these industries had less than proportionate growth.

(c) 1970 - 1974

Gross national product at constant 1970 factor costs increased from 2,508 million £.E. in 1969/70 to 2,826 million £.7. in 1973/74, giving a proportionate rate of growth of 1.127. Deviations from proportionate growth shown in Table 7 were generally lower in Investment Goods Industries and Consumer Goods Industries than they were during the preceding sub-period although they were higher than in the first sub-period (compare with Tables 3 and 5). Deviations from proportionate growth have substantially increased in the Intermediate Goods Industries particularly within the Industrial Chemicals Industry and the Petroleum Refinery Industry. However, the import substitution activity seems to have declined in comparison with the previous sub-period 1965-1970, particularly within industries in Group A and Group C. This may be explained to a certain extent by the relaxation of restrictions on many imported commodities. Note also that during this sub-period, some industries which were exporting previously stopped exportation, these industries are the Paper Products Industry and the Rubber Products Industry. It is interesting to note the large negative deviation from proportionality observed in the Food Products Industry which was reflected in the less than proportionate increase in demand, whether external or domestic in spite of negative import substitution. For Tobacco, the large increase in production was predominantly used in satisfying domestic demand. The same applies for Beverages.

Within Group B, the more than proportionate growth of Textiles production was shared between domestic demand and import substitution (80.4%and 55.3%), while the export demand grew less than proportionately to GNP. Industrial Chemicals growth went mainly to meet growing domestic demand, the share of import substitution and foreign

TABLE 6

Disaggregation of Import Substitution 1964/65 - 1969/70

(Values in million £E.)

ISIC No.	Industry	Gross Import Substitution	Pure Import Substitution	Supply Interactions		
				Total	due to Export Demand	due to Domestic Demand
	A - Investment & Related Products	43.00	45.13	- 2.13	+ 0.75	- 2.88
361/362/369	Nonmetallic Mineral Products	- 0.39	- 0.32	- 0.07	- 0.013	- 0.057
371/372	Iron & Steel/Non-Ferrous	7.85	7.85	0.00	0.239	- 0.239
381	Metal Products	8.60	6.87	1.73	0.152	1.578
382	Machinery	2.63	3.24	- 0.61	0.034	- 0.644
383	Electrical Machinery	10.53	12.83	- 2.30	not exported	- 2.30
384	Transport Equipment	7.67	8.60	- 0.93	0.0273	- 0.9573
	B - Other Intermediate Goods	2.89	2.74	0.15	0.05	0.10
321	Textiles	4.90	4.68	0.22	0.255	- 0.035
323	Leather & Products	no imports	-	-	-	-
331	Wood Products	1.58	2.73	- 1.15	not exported	- 1.15
341	Paper & Products	3.30	2.69	0.61	- 0.125	0.735
351/352	Industrial Chemicals & Chemicals Products	2.92	2.62	0.30	0.069	0.231
353/354	Petroleum Refineries & Coal Production	- 12.84	- 11.97	- 0.87	2.540	- 3.410
355	Rubber Products	- 0.21	- 0.21	0.00	0.006	- 0.006
	C - Consumer Goods	43.50	40.15	3.35	3.57	- 0.22
311/2	Food Products	41.87	38.68	3.19	3.84	- 0.65
313	Beverages	0.25	0.23	0.02	0.049	0.029
314	Tobacco	1.90	1.77	0.13	0.007	0.137
322/324	Wearing Apparel & Footwear	no imports	-	-	-	-
332	Furniture & Fixtures	0.30	0.32	- 0.02	0.113	- 0.133
342	Printing & Publishing	0.88	1.08	- 0.20	- 0.022	- 0.178

TABLE 7

The Causes of Deviation of Demand from Proportionality 1960/70 - 1973/74.

(Values in million £.E.)

ISIC No.	Industry	Deviations of Production	Deviations Import Substitution	Effects of : Export Demand	Effects of : Domestic Demand
A.	Investment & Related Products	18.0	15.75	− 0.48	2.73
361/362/ 369	Nonmetallic Mineral Products	0.0	1.64	0.88	0.76
371/372	Iron & Steel/Non Ferrous Metals	1.4	−1.16	0.12	2.44
381	Metal Products	0.0	2.46	0.13	−2.59
382	Machinery	0.9	3.25	− 0.003	− 2.347
383	Electrical Machinery	10.7	5.34	not exported	5.36
384	Transport Equipment	5.0	1.87	− 0.04	3.17
B.	Other Intermediate Goods	51.6	27.24	− 2.65	27.01
321	Textiles	15.3	8.46	− 5.46	12.30
323	Leather & Products	1.4	no imports	− 0.25	1.65
331	Wood Products	− 2.8	− 3.08	not exported	0.28
341	Paper & Products	− 14.9	− 5.00	not exported	− 9.90
351/352	Industrial Chemicals	24.3	6.72	0.04	17.54
353/354	Petroleum Refineries & Coal Products	30.6	23.65	1.62	5.33
355	Rubber Products	− 2.3	− 0.72	not exported	− 1.58
C.	Consumer Goods	2.1	− 1.05	− 27.57	30.72
311/2	Food Products	− 51.4	− 9.71	− 29.10	−12.59
313	Beverages	5.0	0.04	0.08	5.04
314	Tobacco	52.8	5.22	0.19	47.39
322/324	Wearing Apparel & Footwear	6.7	no imports	2.88	3.82
332	Furniture & Fixtures	− 2.1	−0.53	− 0.41	− 1.16
342	Printing & Publishing	− 8.9	− 0.22	0.13	− 8.81

demand being much smaller (72.17%, 27.77% and 0.16% respectively). The high deviation from proportionality observed in the Petroleum Refineries Industry went largely to substitute for imports, while export and domestic demand had the smaller share (77.29%, 5.29% and 17.42% respectively).

Finally, within Group A, the deviation in Electrical Machinery was almost divided by half between domestic demand growth and import substitution (50.1% and 49.9% respectively). In the Transport Equipment Industry, the higher share of growth went to satisfy increasing domestic demand (63.4%), while the share of import substitution was 37.4%, export demand having grown less than in proportion to GNP.

The results of disaggregation of import substitution into its components are shown in Table 8.

Supply interactions would result only if there was import substitution and they would be zero in the absence of a change in import ratios and thus of import substitution. Given a certain level of import substitution, a positive value for supply interactions would indicate that output in the corresponding industries grew more than proportionately to GNP due to the existence of import substitution in these industries, a negative value for supply interactions indicates that output has grown less than in proportion to GNP. The reverse would be true if import substitution is negative. In such cases, a positive value for supply interactions reflects the fact that output has grown less than in proportion to GNP while a negative value shows that output has grown more than in proportion to GNP.

3 - Import Ratios and their Changes

The import ratio in any year is indicative of the degree of reliance on foreign markets for the supply of any given commodity and it also indicates the scope for possible import substitution in any industry. Changes in the import ratio over the years indicate the extent of import substitution that occurred. Table 9 shows these ratios and their changes over the period as a whole and during the three sub-periods considered. The table also shows the percentage change in import ratios over the period under study. However, these ratios and their changes do not stress the importance of each industry within the manufacturing sector. Percentage shares of each industry in the total supply of manufactures for the years 1960/61 and 1973 are given in the last two columns of the table, so that

TABLE 8

Disaggregation of Import Substitution 1960/70 - 1973/74

(Values in million £.E.)

ISIC No.	Industry	Gross Import Substitution	Pure Import Substitution	Supply Interactions		
				Total	due to Export Demand	due to Domestic Demand
	A - Investment & Related Products	15.75	15.57	0.18	— 0.033	0.213
361/362/369	Nonmetallic Minerals Products	1.64	1.69	0.05	0.03	0.02
371/372	Iron & Steel/non Ferrous Metals	— 1.16	— 1.12	—0.04	0.01	—0.05
381	Metal Products	2.46	2.82	0.36	0.02	0.38
382	Machinery	3.25	3.81	— 0.56	— 0.001	— 0.559
383	Electrical Machinery	5.34	4.56	0.78	not exported	0.78
384	Transport Equipment	1.87	1.74	0.13	— 0.002	0.132
	B. Other Intermediate Goods	27.24	26.06	1.18	0.129	1.309
321	Textiles	8.46	8.29	0.17	0.14	0.31
323	Leather & Products	no Imports	—	—	—	—
331	Wood Products	— 3.08	— 2.95	—0.13	not exported	— 0.13
341	Paper & Products	— 5.00	— 7.86	2.86	not exported	2.86
351/352	Industrial Chemicals	6.72	5.88	0.84	0.002	0.838
353/354	Petroleum Refineries & Coal Produucts	23.65	19.21	4.44	1.03	3.41
355	Rubber Products	— 0.72	— 0.82	0.10	not exported	0.10
	C. Consumer Goods	— 1.05	— 1.04	—0.01	0.060	— 0.07
311/2	Food Products	— 9.71	— 11.40	1.69	1.19	0.50
313	Beverages	0.04	0.03	0.01	0.0002	0.010
314	Tobacco	5.22	3.86	1.36	0.005	1.355
322/324	Wearing Apparel & Footwear	no Imports	—	—	—	—
332	Furniture & Fixtures	— 0.53	— 0.80	0.27	0.07	0.20
342	Printing & Publishing	— 0.22	— 0.38	0.16	—0.002	0.162

changes in import ratio can be seen in relation to the importance of each industry within the manufacturing sector.

The highest import ratios are observed within the group of Investment Goods Industries where in 1960 the import ratios exceeded 0.5 in four of the six industries considered. This indicates that the scope for import substitution was high in this group of industries at the beginning of the period under study. The import ratios at the end of each period show the extent of import substitution that has occurred during the period and the scope for further substitution. The import ratios in 1974 show that import substitution occurred, over the period as a whole, in all industries within Group A except in the Non-metallic Minerals Industry; although it was not always positive in each of the sub-periods considered. Import substituting activity was most intensive in the Metal Products Industry and in the Electrical Machinery Industry (where the import ratios fell by 70.5% and 59.7% respectively). Import substitution also occurred, but to a smaller extent in the Transport Equipment Industry which relied on assembling imported rather than domestically manufactured parts. Considerable import substitution also occurred in the Iron and Steel/Non-ferrous Metals Products Industry (where the import ratio decreased by 34%), although the import ratio in this industry was relatively low at the beginning of the period (0.382). Import substitution in Machinery was much smaller, the import ratio having decreased by 13.2% over the whole period. The Non-metallic Minerals Industry (which includes cement) had a low import ratio in the initial year (0.065), however, it increased in the first two sub-periods but fell somewhat in the last sub-period indicating an overall negative import substitution over the whole period. As shown in Table 1, local production in this industry appears to have grown less than proportionately to GNP, exports also grew less than proportionately to GNP and import substitution was negative, which means, by necessity, that domestic demand for the products of this industry must have grown more than in proportion to GNP. This was due to extensive construction activity (e.g. Higfi Dam, military construction, etc.

The scope for import substitution in Group B industries was generally smaller than in Group A, however some industries within this group, namely, that of Wood Products and Paper Products, showed a wide scope for import substitution. In spite of some import substituting activity within the Wood Products Industry during the first two sub-periods, the

import ratio in this industry increased over the whole period, indicating negative import substitution and the Paper Products Industry showed very slight import substitution (the import ratio decreased by 7.8%). This may be explained by the unavailability on the local market of the materials necessary for these industries which would have had to be imported. The Textiles Industry which already had a low import ratio (0.049) at the beginning of the period is about to exhaust the possibility for further import substitution and further growth of this industry will have to rely on expanding exports. The Industrial Chemicals Industry and the Petroleum Refinery Products Industry which initially were not relying heavily on imports (the import ratios were respectively 0.313 and 0.203 in 1960/1961) showed a relatively high activity in substituting for imports. Finally, the Rubber Products Industry showed persistently negative import substitution, the import ratio in this industry more than doubled during the period as a whole.

Inspection of the results obtained for Group C shows that the scope for import substitution was lower within this group of industries than it appeared to be for the first two groups, yet, import substitution occurred more actively than within the group of Intermediate Goods Industries. Import ratios in the Beverages Industry and in the Tobacco Industry decreased by 85.3% and 57.9% respectively, reaching the low levels of 0.005 and 0.032. The possibility for further expansion of output of these industires seems to depend now on domestic demand growth and the possibility of promoting exports. The Food Products Industry also witnessed activity in substitution for imports, but the scope for further import substitution in 1973/74 remained broader than in the previous two industries. The case of the Furniture and Fixtures Industry appears to be similar to that of the Wood Products. Although import ratios in this industry were high, negative import substitution occurred. This may be explained by the local shortage of materials necessary for this industry as well as the shortage of skilled carpenters due to emigration or to the shift of apprentices to other larger scale industries.

For the period as a whole, five of the industries under consideration showed a percentage decrease in the import ratio of over 50%, three other industries experienced a relative decrease of over 25% while four of these industries showed negative import substitution. The remaining industries had import substitution of less than 25%. This indicates that, during the 14 years considered, there was import substitution activity in Egypt.

However, it was not substantial except for some industries namely Metal Products, Electrical Machinery, Petroleum Refineries, Beverages and Tobacco.

IV - Conclusions

The measures obtained in this study indicate that import substitution has been a significant source of growth in demand for the domestic production of the Manufacturing Sector, particularly if we remember that it has possibly been underestimated, as mentioned earlier. This is shown by the high value for import substitution, during the period as a whole, in many industries especially within the group of Investment Goods Industries and the group of Consumer Goods Industries. In some industries, demand has expanded on the basis of import substitution and to a smaller extent on the basis of export demand growth, even at the expense of negative domestic demand growth. The study of import demand ratios and their changes confirms the significance of import substitution in many industries over the whole period. However, the importance of import substitution varied from one sub-period to the other within different industries. It seems that import substituting activity was most intensive during the second sub-period when Egypt started to face very serious balance-of-payments problems. Whether this activity will continue to play an important role in the future is subject to question, particularly since its importance has declined during the last sub-period, as can be seen from the information in Tables 7 and 8. The scope for import substitution seems to have been exhausted in some industries (see Table 9) and to be limited in others. Moreover, it seems that the emphasis shifted from trying to achieve self-reliance, even at the cost of suppressing the growth of domestic demand, to trying to satisfy domestic demand particularly within the group of Intermediate Goods Industries and that of the Consumer Goods Industries.

The future role of import substitution appears to be less important than that of the growth of domestic and export demand. However, it is clear that import substitution has played a significant role in the development of the Manufacturing Sector during the period under investigation.

TABLE 9

Import Ratios and their Changes

ISIC No.	Industry(13)	Import Ratios				Changes in Import Ratios				Relative % decrease in import ratios 1960 - 1974	Share in total supply of manufactures	
		1960/61	1964/65	1969/70	1973/74	1960/61 1964/65	1964/65 1967/70	1969/70 1973/74	1960/61 1973/74		1960/61	1973/74
	A - Investment & Related Products	0.502	0.493	0.356	0.312	0.009	-0.137	0.044	0.190	37.8	27.3	23.43
361/362/369	Nonmetallic Minerals	0.065	0.116	0.124	0.093	-0.051	-0.008	0.031	0.028	-43.1	3.42	3.46
371/372	Iron & Steel/Non-Ferrous metals	0.382	0.335	0.240	0.252	0.047	0.095	-0.012	0.130	34.0	7.83	6.32
381	Metal Products	0.667	0.654	0.300	0.197	0.013	0.354	0.103	0.470	70.5	1.40	1.56
382	Machinery	0.722	0.755	0.699	0.627	-0.033	0.056	0.072	0.095	13.2	4.02	2.95
383	Electrical Machinery	0.568	0.582	0.327	0.229	-0.014	0.255	0.098	0.339	59.7	3.30	3.57
384	Transport Equipment	0.650	0.566	0.457	0.435	0.084	0.109	0.022	0.215	33.1	7.36	5.57
	B - Other Intermediate Goods	0.163	0.182	0.177	0.137	-0.019	0.005	0.040	0.026	16.0	40.50	43.76
321	Textiles	0.049	0.075	0.059	0.036	0.026	0.016	0.024	0.014	28.6	24.29	23.09
331	Wood Products	0.732	0.681	0.556	0.764	0.051	0.125	0.208	-0.032	- 4.4	1.24	0.97
341	Paper & Products	0.549	0.400	0.305	0.506	0.149	0.095	0.201	0.043	7.8	2.62	1.63
351/352	Industrial Chemicals	0.313	0.308	0.289	0.255	0.005	0.019	0.034	0.058	18.5	6.92	12.94
353/354	Petroleum Refineries	0.203	0.133	0.414	0.041	0.070	-0.281	0.373	0.162	79.8	4.09	4.15
355	Rubber Products	0.118	0.206	0.219	0.267	-0.088	-0.013	-0.048	-0.149	-126.3	1.34	-0.98
	C - Consumer Goods	0.150	0.189	0.095	0.097	-0.039	0.094	-0.002	0.053	35.3	32.17	32.81
311/2	Food Products	0.189	0.266	0.117	0.153	-0.077	0.149	-0.036	0.036	19.0	21.1	17.65
313	Beverages	0.034	0.025	0.007	0.005	0.009	0.018	0.002	0.029	85.3	0.88	1.36
314	Tobacco	0.076	0.074	0.059	0.032	0.002	0.015	0.027	0.044	57.9	9.52	12.65
332	Furniture & Fixtures	0.478	0.415	0.369	0.479	0.063	0.046	-0.110	0.001	- 0.2	0.61	0.31
342	Printing & Publishing	n. a.	0.106	0.061	0.078	n. a.	0.045	-0.017	n. a.	n. a.	n. a.	0.84

FOOTNOTES

1. B. Hansen and G.A. Marzouk : Development and Economic Policy in the U.A.R. (Egypt), North Holland Publishing Co., Amsterdam, 1965, p. 306.

2. B. Hansen and G.A. Marzouk : Ibid., ch. 6.

3. H.A. Kheir-El-Din : "Macro Features of the Egyptian Economy 1960 - 1974", L'Egypte Contemporaine, January 1977, pp. 35 - 59.

4. The non-availability of all the necessary data for the study did not allow us to extend this study beyond 1974, although it would have been interesting to assess the effect of the "open door" policy on impor substitution.

5. H.B. Chenery : "Patterns of Industrial Growth, "American Economic Review, September 1960, 50' pp. 624-654.

6. J. Ahmad : "Import Substitution and Sstructural Change in Indian Manufacturing Industry", Journal of Development Studies, Spring 1965, 5, pp. 350-379 - S.R. Lewis and R. Soligo : "Growth and Structural Changes in Pakistan's Manufacturing, 1954 to 1964", Pakistan Development Review, Spring 1965, 5, pp. 94-139 - S.N. Fernando : Impact of Import Substitution : An Application of the Chenery Measure to Sri Lanka's Industrial Sector, 1960 - 1974", Staff Studies, Central Bank of Ceylon.

7. M. D. Steuer and C. Voivadis : "Import Substitution and Chenery's Patterns of Industrial Growth : A Further Study", Economia Internazionale, February 1965, 28, pp. 47 - 77 - D.L. Huddle : "Postwar Brazilian Industrialization : Growth Patterns, Inflation and Sources of Stagnation" in E.N. Baklanoff, ed., The Shaping of Modern Brazil, Baton Rouge, 1969, pp. 86 - 108. M.L. Eysenbach : "A Note on Growth and Structural Change in Pakistan's Manufacturing Industry, 1954 - 1974" Pakistan Development Review,, Spring 1969, 9, pp. 58 - 65.

8. U.N. Yearbook of Industrial Statistics, starting 1974, formerlq this annual publication was titled the Growth of World Indusry.

9. U.N. Yearbook of International Trade Statistics, various issues, 1964 to 1976.

10. For this purpose, we relied on the "Classication of Commodities by Industrial Origin, 1971 (Links between SITC and ISIC), U.N. Statistical Papers, Series M. No. 43, Rev. 1.

11. These indices were taken from the U.N. Monthly Bulletin of Statistics June, 1977. They were computed for six groups of commodities, namely, Food, Raw Materials excluding Fuel's Fuels, Chemicals, Machinery, other Manufacturing.

12. S.A. Morley and G.W. Smith : "On the Measurement of Import Substitution", American Economic Review, September 1970, pp. 728 - 735.

13. The Leather Products Industry and the Wearing Apparel and Footwear Industry did not appear in this table as the products of these industries were not imported during the period of study.

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أثر سياسة احلال الواردات على الصناعة التحويلية المصرية (١٩٦٠ ـ ١٩٧٤) :

د. هنـاء خير الدين

تبين هذه الدراسة بطريقة كمية اهمية أثر سياسة احلال الواردات على تنمية الصناعات التحويلية في مصر خلال الفترة من ١٩٦٠ ـ ١٩٧٤ وكذلك خلال ثلاث مراحل من هذه الفترة . استخدم لهذا الغرض مقياس تشنرى بعد تعديله حتى يتناسب مع الاحصاءات المصرية المتوافرة . فوفقا للمقياس المعدل المطبق في هذه الدراسة ، يرجع نمو الطلب على منتجات كل صناعة الى ثلاثة عوامل :

أ ـ الطلب المحلي الاجمالـي لاغراض كـل من الاستـهلاك النهائي والاستهلاك الوسيط .
ب ـ الطلب لاغراض التصدير .
ج ـ الطلب بغرض احلال الواردات .

وتشير نتائج الدراسة الخاصة بالفترة كلها الى ان احلال الواردات كان له اثر هام في تنمية الصناعات التحويلية وخاصة تلك التي تنتـج سلعا استثمارية في حين ان الطلب لاغراض التصدير لعب دورا ثانويا في تنمية هذه الصناعات فيما عدا صناعة الغزل والنسيج وصناعة المنتجـات الغذائية وصناعة الملابس التي يرجع المصدر الاساسي لنمو الطلب عليها الى التصدير . واتضح أن تأثير الطلب المحلي على نمو الصناعات التحويلية كان سالبا بمعنى ان الطلب المحلي على هذه الصناعات نما بمعدل أقل من معدل نمو الناتج القومي الاجمالي الا في حالات استثنائية تشمل صناعة المنتجات الكيميائية وصناعة التبغ حيث اتضح ان المصدر الاساسي لنموها يمكن ان يفسر بنمو الطلب المحلي على منتجاتها .

والخلاصة انه يبدو ان مجال احلال الواردات اغلق في بعض الصناعات واصبح ضيقا جدا في صناعات أخرى ، هذا بالاضافة الى ان اتجاه السياسة الاقتصادية تحول من هدف تحقيق الاكتفاء الذاتي ـ حتى على حساب كبت الطلب المحلي ـ الى العمل على اشباع الطلب المحلي وخاصة من المنتجات الوسيطة والاستهلاكية . وعموما يبدو ان الاثر المتوقع لسياسة احـلال الواردات على نمو الصناعة التحويلية اقل اهمية من تأثير كل من تنمية الصادرات ونمو الطلب المحلي . ولكن من الواضح ان احلال الواردات لعب دورا هاما في تنمية الصناعات التحويلية المصرية خلال فترة البحث .