UNITED ARAB REPUBLIC

THE INSTITUTE OF NATIONAL PLANNING

التخطيط القومي

Memo. No. 386

GROWTH PATTERN OF MANUFACTURING SECTOR IN EGYPT (1950-1970)

by

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8th January 1964

CAIRO
3, MOHAMED MAZHAR - ZAMALEK

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Growth Pattern of Manufacturing Sector in Egypt, 1950-1970.

1. Considerable industrial expansion has taken place in Egypt over the last decade, 1952-1961; many industries have increased their production three to five times, and new lines of manufacturing have laso been established. The process of industrialisation has, in fact, entered, since 1952, a new phase marked by direct and extensive public investments, together with a new policy based on more comprehensive economic planning than ever existed before. The present note analyses the pattern of development of the manufacturing sector during the twenty years, 1950-1970. The aim of this analysis is to indicate, with such data as are available, the growth, in particular, of three groups of industry, viz., consumer-goods, intermediate-goods, and capital-goods industries. The note concludes with some remarks on the growth pattern of these three groups of industry during the next five years 1965-1970 for which period the planners in Egypt are now drafting the programmes of industrial development.

2. Manufacturing sector has been divided into three categories, producing consumer-goods, capital-goods and intermediate goods. The first category comprises those industries which produce goods that are required for final consumption; the second category (viz., capital-goods) comprises industries manufacturing goods which help to maintain or increase the stock of capital in the economy; and the third category (viz., intermediate-goods industries) comprises those industries which produce goods that are required for current use in other industries. Needless to say, the distinction between these three categories of industries is not very precise, and the difficulties of classification are particularly great in the case of some industries the output of which goes to a wide range of industries. Further, some major groups of industry comprises, several sub-branches of industry producing a variety of articles

belonging to the three categories[1]. We have, however, assigned each major group of industry to one of the three categories if at least 75 per cent of its total net output appear to be absorbed by the sub-branches which belong to that particular category.[2]

A distinction has, further, been made between intermediate goods for the production of consumer-goods and intermediate goods for the production of capital-goods. Though this distinction is easy to draw at the analytical level, it is difficult to make an estimate of the actual amounts used of intermediate-goods for the two purposes. The estimates given (Table II) are based on certain assumptions. The Census of Industiral Production figures give the output of the individual branches of the major groups of industry. Guided by these figures, we assumed certain percentages to represent the proportion of the volume of production, of the major groups of industry producing intermediate-goods going to the two categories, viz., consumer and capital-goods[3]. As the share of the net value added by the

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1. For example, the metal products group of industry comprises, according to the classification followed in the censuses of industrial production in Egypt, up to the 1958 Census, the following branches of industry: doors and windows; sanitary fixtures; metal furniture; house tools, table cutlery and plate; galvanized sheet-iron products; stoves; motor vehicles spare-parts; nails; and other metal products.

2. There are also certain other difficulties of classification, the most serious are probably those for the intermediate-goods. See: K.N. Raj and A.K. Sen, "Alternative Patterns of Growth under Conditions of Stagnant Export Earnigns, "Oxford Economic Papers, Vol. 13, No. 1 (February,1961),P.45.

3. For example figures of the net value added by the individual branches of the Chemicals group of industry in 1960 were as follows (figures in million pounds): Basic chemicals (1.1) Fertilisers (6.2); Vegetable and animal oils and fats (0.6); Varnishes and paints (0.1); Preparation of drugs (1.3); Soap and cosmatics (3.4); matches (1.2); Liquid gases (0.3); other chemical products (0.4). One can therefore assume that about 50 percent of the net value added by the chemicals group of industry is absorbed by industries producing goods required for the consumer-goods industries [illegible] category.

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capital-goods industries in the manufacturing sector was very small at the beginning of the 'fifties and the' sixties (viz., 2 per cent and 4 per cent respectively-Table 1), we also assumed that the greater part of the output of the intermediate-goods industries was devoted to the needs of the consumer-goods industries group.

If these assumption are correct, it could thus be possible to develop a highly simplified two-sector classification of the manufacturing industries, according to the use made of their products. These two sectors are:1) the consumer-goods sector including those industries which contribute to the production of consumer-goods; and 2) the investment-goods sector including those industries which contribute to the production of capital-goods (Table III).

3. Sources and Limitations of Data.

Statistical data about the output of the manufacturing sector in Egypt are scanty. The only data regarding the value of output of the manufacturing sector, avaliable for the earlier years, are from the Census of Industrial Production (C.I.P.). More recently an attempt has been made to collect detailed and specific data regarding the output of the manufacturing sector in physical terms; but, this was confined to industrial establishments employing 10 workers or more and was carried out for 1957 only.

The C.I.P. conducted in 1950 exculded, however, three categories of industrial establishments from its scope:

a. Factories doing repair and mintenance work or training shops;
b. Small factories, such as the handlooms, which work for wages and which have no definite production;
c. Government-owned factories.

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Since 1952, the censuses of Industrial Production, further, excluded industrial establishments employing less than 10 workers. On the other-hand, industrial establishments (employing 10 workers or more) engaged in repair and maintenance work and those providing industrial services to other establishments have been included in the scope of the Censuses.

The General Frame of the Five Year-Plan, 1960-1965, gives, in value terms, the output of the various major groups of the manufacturing sector for the years 1959/60-1964/65. It also gives the planned target for 1969/70 for the whole of the manufacturing sector; in other words, it does not mention the figures of the output of each major group of industry. Applying the information concerning the development of production in the individual major groups during the period 1959/60-1964/65 to the somewhat more aggregated plan figures for 1969/70, it was possible to arrive at a set of target figures for the latter year which was as detailed as the paln for 1964/65.1)

It will, thus, be seen that the absolute figures of the industrial output for the years 1950/1970 can't be presented on a comparative basis. Yet, since we are concerned with the changes in the output ratios of the different categories of the manufacturing sector, we can therefore depend upon these ratios as indicaters of the growth pattern of the manufacturing sector.

4. <u>Results:</u>

Table I shows a rough classification of the manufacturing industries of Egypt, on the basis indicated earlier, as between consumer-goods, intermediate-goods and capital-goods. It will be seen that the share of those three groups of industries in 1950 is in the ratio of 39.5 : 12.6 : 1. The very smallness of the share of the net value added by the capital-goods

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1) Dr. Hans Linnemann, <u>The long-run development of different sectors of the U.A.R. economy</u> (Cairo; Institute of National Planning (Memo No. 285), April 1963) .

category (2 percent) suggests that the greater part of the output of the intermediate-goods industries was devoted to the needs of the consumer-goods industries category. If this assumption is correct, it will be seen (Table 11) that about 79 per cent of the net value added by the intermediate-goods category was in industries producing goods required for the consumer-goods category.

Table 111 shows the classification of manufacturing industries in Egypt into the two broad sub-sectors, viz., the consumer-goods sub-sector and the investment-goods sub-sector. It will be seen that the ratio, for 1950, works out to 13: 1. In other words, 93 per cent of the net output of the manufacturing sector in 1950 was devoted to or contributing to the production of consumer-goods. This shows that consumer-goods industries overwhelmingly dominated the structure of the manufacturing sector at the begining of the fifties; the investment goods sub-sector was of very minor importance, contributing to only 7 per cent of the net value added by the manufacturing sector.

The share of the three categories of industries, viz., consumer, intermediate, and capital-goods industries, during the decade 1952-1960, indicates that there had been no remarkable change in the sturcture of the manufacturing industries, regardless of the moderate increase in the relative importance of the intermediate-goods industries category. Thus, as table 1 shows, consumer-goods industries contributed to 65 per cent of the (gross) value added by the manufacturing sector in 1960 (as against 74 per-cent in 1960 and 68 cent in 1952); intermediate-goods industries contributed to 32 per cent in 1960 (as against 24 per cent in 1950 and 28 in 1952); and capital - goods industries contributed to 3 per cent in 1960 (as against 2 per cent in 1950 and 4 per cent in 1952). But, in spite of the moderate increase in the share of the intermediate-goods industries category over the decade 1952-1960 (viz., from 24 per cent in 1950 to 32 per cent in 1960), there was a noticeable change in the distribution of this category as between consumer-goods and capital-goods industries. Table 11 shows that 40 per cent of the gross value-added by the intermediate-goods industries in 1960 was absorbed by industries producing goods required for the capital-goods industries (as against 21 per cent and 23 per cent in 1950 and 1952 respectivetly). This was mainly due to the considerable increase in the production of fertilizers (in the chemicals group of industry) and iron and steel (in the basic-metals group of industry). Consequently, the relative importance of the investment-goods industries sub-sector in the manufacturing sector increased from 7 per cent in 1960 to 10 per cent in 1952 and to 16 per cent in 1960. Consumer-goods industries sub-sector, however, absorbed 84 per cent of the (gross)value-added by the manufacturing sector in 1960. Thus, consumer-goods industries still dominated the structure of manufacturing sector right up to the beginning of the 'sixties.

As for the decade 1959/60-1969/70, it will have been noticed that there seems likely to be a noticeable change in the relative importance of the three categories of industries. The share of consumer-goods industries is expected to decline over the decade from 65 per cent (1959/1960) to 49 per cent (1969/70). The share of capital-goods industries is expected to increas from 6 per cent (1995/60) to only 7 per cent (1969/70).

The most significant change corresponding to the shift away from the consumer-goods industries is expected to be a marked increas in the relative importance of the intermediate-goods industries. Thus the share of the group comprising intermediate-goods industries in the manufacturing sector is expected to increase from 29 per cent at the begining of the decade (195-60) to 44 per cent at the end of the decade (1969/70).

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Table 11 shows, however, that over three fifth of the net value added by intermediate-goods industries is/or is expected to be absorbed by industries producing goods required for the consumer-goods industries. Consequentely, over three quarters of the net value added by the manufacturing sector, at the end of the decade, will be absorbed by the industries producing or contributing to the production of consumer-goods industries. It is thus seen that consumer-goods industries will still dominate the structure of the manufacturing sector at the begining of the 'seventieth.

5. Conclusion:

Consumer-oriented industries (i.e. industries producing or contributing to the production of consumer-goods) overwhelmingly dominated the manufacturing sector up to the begining of the 'sixties. Great emphasis has been given to the development of manufacturies in the planned development of the Egyptian economy over the decade 1960-1970. Nevertheless, investment-oriented industries (i.e., industries producing or contibuting to the production of capital goods) is not likely to play a significant role in the structure of the manufacturing sector in the decade 1960-1970. Consumer-oriented industries is, therefore, likely to retain their dominant position until the begining of the 'seventieth.

The most significant characteristic of the growth pattern of the manufacturing sector over the two decades 1950-1970 has been the steady progress in the relative importance of the intermediate-goods industries (i.e. industries producing goods required for the other categories of industry). It is, however, shown that over three fifths of the total production of the intermediate-goods industries is directed to the production of goods for the final consumption.

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It is of great importance, in this connection, to draw the attention to the sheer fact that sizeable amounts of supplies of raw-materials needed for the intermediate-goods industries have to be imported. Among those imports of raw materials are crude-oil and chemical materials. Besides, due to the infancy of the capital-goods industries category, Egypt will have to import most of her requirement of machinery and equipment. Difficulties of the balance-of-payments need, hardly to be stressed.

Greater emphasis on the development of capital-goods industries (particularly light engineering industries and heavy chemicals) has therefore to be considered in drawing the industrial programmes for the next five-years. It is unfortunate, indeed, that many luxurious goods are manufactured in Egypt at present e.g., electric washing machines, television sets, transistor-sets, private cars, refrigerators, etc... whereas, power and automatic looms needed for the most important and thriving industry in Egypt, viz., cotton textiles are still imported.

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10 / 11 / 1963.

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Table No. 1
Classification of Manufacturing Industries into Consumer, Intermediate and Capital Goods Industries in Egypt, 1950-1970.

Value added (L.E. Million)

Major groups:	1950[1]	1952[2]	1960[2]	59/60[1]	64/65[1]	69/70[1]
A. **Consumer-goods Industries:**						
Food products	16.0	13.6	25.6	67.5	85.6	
Beverages	3.6	3.1	3.6	2.6	3.0	140.0
Tobacco manufacture	3.9	5.5	9.2	7.2	11.3	
Textiles (3)	20.8	24.7	52.0	51.1	86.7	138.0
Apparel & footwear	1.4	1.4	1.6	10.3	12.2	20.0
Wood products & Furniture	1.3	1.2	2.1	7.6	10.6	14.0
Miscellaneous	0.4	0.9	1.4	12.1	13.4	18.0
Total consumer-goods industries	47.4 (74%)	50.4 (68%)	95.5 (65%)	158.4 (65%)	222.8 (49%)	330.0 (49%)
B. **Intermediate-goods Industries:**						
Paper & Paper products	0.7	1.0	2.7	1.1	6.6	9.0
Printing & Publishing	2.1	2.0	3.5	9.5	16.4	22.0
Leather & Leather products	0.7	0.4	0.6	1.4	2.1	3.0
Rubber products	0.3	0.3	2.6	2.2	3.3	6.0
Chemicals	2.5	5.6	17.6	12.9	46.3	75.0

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1) Net Value Added .

2) Gross Value Added.

3) Including cotton ginning and pressing activities.

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Petroleum products	1.6	6.4	2.0	21.2	48.5	76.0
Non-metallic mineral products	4.7	3.2	8.2	9.1	12.1	16.0
Basic metals	1.1	1.2	7.6	7.3	48.6	69.0
Metal products	1.4	1.2	2.0	6.3	13.7	19.0 (1)
Total intermediate-goods industries	15.1	21.3	46.8	71.0	197.6	295.0
	(24%)	(28%)	(32%)	(29%)	(43%)	(44%)
C. Capital-goods industries:						
Machinary & Electrical machinery	0.4	0.5	2.2	5.4	15.1	21.0 1)
Transport equipment	0.8	2.3	2.7	8.2	19.4	28.0 1)
Total Capital-goods industries	1.2	2.8	4.9	13.6	34.5	49.0
	(2%)	(4%)	(3%)	(6%)	(8%)	(7.0)
A:B:C:	39.5:12.6:1	18:7.6:1	19:9:1	12:5:1	7:6:1	7:6:1

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1) Dr. Linnemann's estimates for the net value added by the four major groups: Metal products; Machinery; Electrical machinery; and Transport equipment were given under one item "Metallic products." We broke down this item into its four components according to their proporinate importance in 64/65.

Table No. II

Classificantion of Intermediate Goods Industries into Consumer and Capital Goods Industries in Egypt

A. 1950

	%[1]		Net Value Added (L.E. 1000)
A. Net Value Added by Industries Producing Goods Required for the Consumer-Goods Industries:			
Paper and paper products	80		0.560
Printing and publishing	90		1.890
Leather & leather products	80		0.560
Rubber products	75		0.225
Chemicals	75		1.875
Petroleum products	75		1.200
Non-metallic mineral products	80		3.760
Basic metals	75		0.825
Metal products	75		1.050
		(79%)	11.945
B. Net Value Added by Industries Producing Goods Required for the Capital-Goods Industries:			
Paper and paper products	20		0.140
Printing and publishing	10		0.210
Leather & leather products	25		0.140
Rubber products	20		0.075
Chemicals	25		0.625
Petroleum products	25		0.400
Non-metallic mineral products	20		0.940
Basic metals	25		0.275
Metal products	25		0.350
		(21%)	3.155

1) Percentages given to represent the proportions of the value of production, of those major groups of industry, going to the two categories.

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Table No. 11

B. 1952 / 1960.

	1952		1960	
	%	L.E. Million	%[1]	L.E. Million
A. Gross Value Added by Industries Producing Goods Required for the Consumer-Goods Industries:				
Paper and paper products	80	0.800	80	2.160
Printing and publishing	90	1.800	90	3.150
Leather & leather products	80	0.320	80	0.480
Rubber products	75	0.225	50	1.300
Chemicals	75	4.200	50	8.800
Petroleum products	75	4.800	75	1.500
Non-metallic mineral products	80	2.400	60	4.920
Basic metals	75	0.900	60	4.560
Metal products	75	0.900	60	1.200
		16.345		28.070
		(77%)		(60%)
B. Gross Value Added by Industries Producing Goods Required for the Capital-Goods Industries:				
Paper and paper products	20	0.200	20	0.540
Printing and publishing	10	0.200	10	0.350
Leather and leather products	20	0.080	20	0.120
Rubber products	25	0.075	50	1.300

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Chemicals	25	1.400	50	8.800
Petroleum products	25	1.600	25	0.500
Non-metallic mineral products	20	0.800	40	3.280
Basic metals	25	0.300	40	3.040
Metal products	25	0.300	40	0.800
		4.955		18.730
		(23%)		(40%)

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1) Percentages given to represent the proportions of the value of production, of those major groups of industry, going to the two categories.

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Table No. II

C: 1959/60, 1964/65, 1969/70.

	1959/60		1964/65.		1969/70.	
	%[1]	L.E.Million	%[1]	L.E.Million	%[1]	L.E.Million
A. Net Value Added by Industries Producing Goods Required for the Consumer-Goods Industries:						
Paper and paper products	80	880	80	5.280	80	7.200
Printing and publishing	90	8.550	90	14.760	90	19.800
Leather & leather products	80	1.120	80	1.680	80	2.400
Rubber products	75	1.650	75	2.475	75	4.500
Chemicals	60	7.740	60	21.780	60	45.000
Petroleum products	75	15.900	75	36.375	75	57.000
Non-metallic mineral products	60	5.400	60	7.260	60	9.600
Basic metals	60	4.380	60	29.160	50	34.500
Metal products	75	4.725	60	8.220	50	9.500
		50.405		132.990		189.5000
		(71%)		(67%)		(64%)
B. Net Value Added by Industries Producing Goods Required for the Capital-Goods Industries:						
Paper and paper products	20	0.220	20	1.320	20	1.800
Printing and publishing	10	0.950	10	1.640	10	2.200
Leather and leather products	20	0.280	20	0.420	20	0.600

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Rubber products	25	0.550	25	.825	25	1.500
Chemicals	40	5.160	40	18.520	40	30.000
Petroleum products	25	5.300	25	12.125	25	19.000
Non-metallic mineral products	40	3.640	40	4.840	40	6.400
Basic metals	40	2.920	40	19.440	50	34.500
Metal products	25	1.575	40	5.480	50	9.500
		20.595		64.610		105.500
		(29%)		(33%)		(36%)

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1) Percentages given to represent the proportions of the value of production, of those major groups of industry, going to the two categories.

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Table No. (III)

Ratio of Consumer-Goods Industries to Investment-Goods Industries in Egypt, 1950/1970.

A. Consumer-Goods Industries:	1950	1952	1960	59/60	64/65	69/70
1. Food products	16.0	13.6	25.6	67.5	85.6	
2. Beverages	3.6	3.1	3.6	2.6	3.0	140.0
3. Tobacco manufactures	3.9	5.5	9.2	7.2	11.3	
4. Textiles	20.8	24.7	52.0	51.1	86.7	138.0
5. Apparel & Footwear	1.4	1.4	1.6	10.3	12.2	20.0
6. Wood products & Furniture	1.3	1.2	2.1	7.6	10.6	14.0
7. Paper & Paper products	0.6	0.8	2.2	0.9	5.3	7.2
8. Printing & publishing	1.9	1.8	3.1	8.5	14.8	19.8
9. Leather & leather products	0.6	0.3	0.5	1.1	1.7	2.4
10. Rubber products	0.2	0.2	1.3	1.6	2.5	4.5
11. Chemicals	1.9	4.2	8.8	7.7	27.8	45.0
12. Petroleum products	1.2	4.8	1.5	15.9	36.4	27.0
13. Non-metalic mineral products	3.8	2.4	4.9	5.5	7.3	9.6
14. Basic metals	0.8	0.9	4.6	4.4	29.2	34.5
15. Metal products	1.0	0.9	1.2	4.7	8.2	9.5
16. Miscelleneous	0.4	0.9	1.4	12.1	13.4	18.0
Total Consumer-Goods Industries	59.4	66.7	123.6	208.7	356.0	519.5
	(93%)	(90%)	(84%)	(86%)	(78%)	(77%)
B. Investment-Goods Industries:						
7. Paper & Paper products	0.1	0.2	0.5	0.2	1.3	1.8
8. Printing & publishing	0.2	0.2	0.4	1.0	1.6	2.2

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9. Leather & leather products	0.1	0.1	0.1	0.3	0.4	0.6
10. Rubber products	0.1	0.1	1.3	0.6	0.8	1.5
11. Chemicals	0.6	1.4	8.8	2.2	18.5	30.0
12. Petroleum products	0.4	1.6	0.5	5.3	12.1	19.0
13. Non-metallic mineral products	0.9	0.8	3.3	3.6	4.8	6.4
14. Basic metals	0.3	0.3	3.0	2.9	19.4	34.5
15. Metal products	0.4	0.3	0.8	1.6	5.5	9.5
16. Machinery & Electrical machinery	0.4	0.5	2.2	5.4	15.1	21.0
17. Transport equipment.	0.8	2.3	2.7	8.2	19.4	28.0
Total Investment-Goods Industries	4.3	7.8	23.6	43.3	98.9	154.5
	(7%)	(10%)	(16%)	(14%)	(22%)	(23%)
A:B	13:1	8.5:1	5.1:1	6.1:1	3.6:1	3.4:1