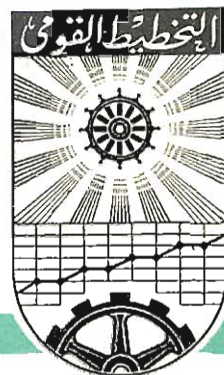


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STRUCTURAL CHANGES OF THE EGYPTIAN INDUSTRY

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Contents

	<u>Page</u>
I. Introduction.	1
II. Industrial sector in the early Fifties.	4
III. Post-1952 policies and changes in the structure of industry.	6
III. 1. The period of the Fifties.	6
III. 2. The period of the Sixties.	9
IV. Structure of industry and the complex of macro-economic variables.	14
IV. 1. Employment absorption and its regional distribution	15
IV. 2. Productivity trends.	17
IV. 3. Satisfaction of domestic demand.	18
IV. 4. Internal consistency of the industrial sector.	20
IV. 5. Development and structure of exports.	21
V. Concluding comments.	23
V. 1. Egyptian stage of industrialization.	23
V. 2. The suitable profile of industry.	24
V. 3. Some evaluation comments.	26
V. 4. Recommendations.	30
Tables	
1. Industry by the two main-sub-sectors (Gross value added), 1952-1968/69.	35
2. Percentage distribution of gross value added of manufacturing industry by categories of use, 1952-1966/67.	36
3. Percentage distribution of planned and actual industrial investments on manufacturing categories and mining and quarrying industries, 1957-1969/70.	37

I. Introduction:- (1)

The purpose of the paper is to evaluate - in a summarized form - the changes in the profile of Egyptian industry during the period 1952-1968. This is done from the macro-economic point of view. The conclusions of evaluation are - modestly enough - to give some directions to be noticed in drawing up the strategy for the future industrialization of the country during the remaining early stages of industrialization.

The term industry - in the present paper - includes mining, quarrying and manufacturing branches of industry. The classification of industry into branches is done according to ISIC.⁽²⁾ But to give the stress to the main essence of the structural change without unuseful details about each branch, manufacturing branches are grouped, according to some different criteria, to certain categories. For instance, according to the criterion of the main use of the products of each manufacturing branch, it is distinguished among consumer-goods industries, capital-goods

(1) This paper is a presented summary of one of the studied problems in: Hassan Abd-Elaziz Hassan, The Problems of Industrial Development in The U.A.R., Unpublished Ph. D. Thesis, The Central School of Planning and Statistics, Faculty of Economic and Social Sciences, Warsaw, 1972.

(2) "ISIC" is the abbreviation of "U.N. Indexes of The International Standard Industrial Classification of All Economic Activities".

industries and intermediate-goods industries,⁽¹⁾ and according to the criterion of the kind of the use, it is distinguished between consumer-oriented industries and investment-oriented industries.⁽²⁾

The study begins with a small review about the industrial sector in the early fifties. Hence, it investigates the direction change of the structure of industry over the period 1952-1968 and illustrates to what extent it was in accordance to the drawn policies of industrialization. The next ^{point} / - as a pre-step for evaluation - investigates the influence of the explained structural-pattern of the development of the industrial sector on certain main important macro-economic variables such as employment absorption and its regional distribution, productivity levels, satisfaction of domestic demand, internal-consistency of the industrial sector, and the development and structure of exports. The last point - namely

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- (1)- Consumer-goods industries include the following manufacturing branches:-
food products and beverages, tobacco manufacture, textiles, apparel and foot-wear, wood products and furniture, printing and publishing and miscellaneous.
- Intermediate-goods industries include the following manufacturing branches:-
ginning and pressing, paper and paper products, leather and leather products, rubber products, chemicals, petroleum and coal products, non-metallic mineral products and metal products.
- Capital-goods industries include the following:-
electrical and non-electrical machinery and transportation means industries.
- (2) Concerning the second classification, a distinction is made within the category of intermediate-goods industries between intermediate-goods for the production of consumer goods and intermediate goods for the production of capital goods. Then, consumer-oriented industries include the first part plus consumer-goods industries, and investment-oriented industries =

concluding comments - benefits with all the previous analysis in evaluating the change in the structure of Egyptian industry and in giving certain directions for the future development in the structure of Egyptian industry. To give a scientific base for the evaluation and recommendations, the point of concluding comments begins with a small comment on the present (-1968) stage of Egyptian industrialization and a short theoretical comment on the suitable profile of industry.

= include the second part phys capital-goods industries. These classifications are used - with a little difference - by Dr. F. R. Fahmy, see; F. R. Fahmy, Growth Pattern of Manufacturing Sector in Egypt, Memo No. 386, I.N.P., Cairo, January 1964, pp. 1:2.

II. Industrial Sector in The Early Fifties:

In the early fifties, industry was a small economic sector. It accounted for, nearly, L.E. 158.4 millions or 14.9 per cent of the gross national product in 1952/53⁽¹⁾ and contributed with, about, 8.5 per cent of the total employment in 1947. At the same time, industrial exports represented a small portion. It accounted, in 1952, for nearly L.E. 11.6 millions, i.e. 8 per cent of total exports, from which finished products represented 3.2 per cent of total exports.

Principal industries up to that time were those customary in free-enterprise underdeveloped countries, based to great extent on domestic raw materials, mainly of agricultural origin, and had their insured domestic market. In 1952, mining and quarrying industry accounted for a small proportion of 7.7 per cent of the gross value added by industrial sector.⁽²⁾ Manufacturing industry, which represented the most part of the industrial sector was dominated by consumer-goods industries. They accounted for nearly two thirds (63.9 per cent) the gross value added by manufacturing industry in 1952. Intermediate-goods and capital-goods industries accounted for the rest, viz. 31.0 and 5.1 per cent respectively.⁽³⁾ The most part; nearly three quarters; of intermediate-goods output took its way as

(1) at fixed 1959/60 market prices.

(2) See table No. 1.

(3) See table No. 2.

an intermediate goods for consumer-goods industries and most of the rest was for building and construction activities. Therefore, consumer-oriented industries accounted for 88.2 per cent of the gross value added by manufacturing industry, while investment-oriented industries accounted for the rest small part of 11.8 per cent. Within manufacturing industry the predominance was for the branch of food products and tobacco manufacture. This branch contributed with about 41.9 per cent of the gross value added of the manufacturing industry. Textiles industry came in the second place contributing with a share of 11.0 per cent.⁽¹⁾

These industries substituted, mainly, previously simple-imported consumer commodities. By the early fifties, the process of import substitution of these commodities had nearly come to an end. "Further and impressive rates of expansion in the output of processed food and textiles could only be achieved either if local demand for manufactured goods grew rapidly, if the efficiency of industry improved substantially, or via exports".⁽²⁾ But, the prospects of these possibilities appeared limited.

(1) The data are in fixed 1959/60 prices; see the sources under table No. 2.

(2) P. O'Brien, The Revolution in Egypt's Economic System, Royal Institute of International Affairs, Oxford University Press, London, 1968, p. 20.

III. Post-1952 Policies and Changes in the Structure of Industry:

Over the period 1952-1968 industrial sector expanded with relatively high growth rates. Gross value added by industry has been more than doubled one and half times from L. E. 163.5 millions in 1952 to L.E. 420 millions in 1968/69; enhancing the share of the industrial sector in the gross national product with about 3.7 : 6.5 percentage units from 14.9 per cent in 1952/53 to 21.4 per cent in 1968/69. This expansion has been, mainly, due to the expansion of manufacturing industry which accounted for more than 90 per cent of the gross value added by industry. Concerning mining and quarrying industry - the other component part of the industrial sector - in addition to its small share, its gross value added increased with smaller annual rate, during the period 1952-1964/65, has not flourished to a positive-higher rate except during the last two years 1967/68 and 1968/69 due to crude petroleum production.

III.1. The Period of the Fifties: This period had witnessed, early, the activities of the Permanent Council of National Production, and later the implementation of the first part of the First Industrial Programme. Basic industries were stressed by the Council of National Production. The First Industrial Programme took with the policy of realizing a balance between consumer and producer goods industries on the base of realizing self-sufficiency in producing all what can be produced locally without neglecting the expansion of the industrial goods having foreign markets and possessing the domestic elements of success in addition to

the development of basic industries. Generally, the policies of industrialization before 1960/61 were of the character of import substitution one. As against the early fifties nearly completed import substitution of simple consumer goods, the targeted import substitution process was thought to be in the fields of expanded consumer demand, imported durable-consumer goods, intermediate producer's goods and capital goods.

For fulfilling these policies certain priority criteria were indicated. But, there are great doubts about their fulfillment because of the lengthy and often contradictory list of priorities, and the mostly lack of accurate economic studies to the selected projects. At any how, in selecting and expanding industrial projects, there were great react to the pressure of the market to meet the unplanned expanded consumer demand on the account of the expansion of intermediate and capital goods industries. It is clear from the table No. 3, that during the implemented part of the First Industrial Programme, 1957-1959/60, apart from certain deficiencies in the comparision,⁽¹⁾ the proportional share of actual allocated investments to consumer-goods industries was more than the planned target. This was on the account of decreasing the proportional shares of actual allocated investments to intermediate and capital-goods industries.

(1) Such as the possibility of correction which might have been done over the second part of the period of the First 5-Year Industrial Programme, and the shortage up to June 1960 in fulfilling the planned investment target with 35.5 per cent.

Within manufacturing sector, the most striking phenomenon is the increase in the predominance of consumer-goods industries which accounted in 1959/60 for 66.7 per cent of the contributed gross value added by manufacturing industry as against 63.9 per cent in 1952. The most expensive manufacturing branch was textiles industry which accounted in 1959/60 for 23.5 per cent of the contributed gross value added by the manufacturing industry with 12.5 percentage units increase than its 1952 percentage share. In addition to the expansion in consumer-goods industries certain diversification has happened -- especially next to 1955 -- in the side of some modern durable-consumer goods and some intermediate-goods -- such as iron and steel, chemicals, petroleum products, etc. -- and to little extent capital industrial goods. But, the growth of manufacturing industry by its three use categories (namely, consumer, intermediate and capital goods) was with a slight structural change. This slight structural change was biased to increase the relative part of consumer-goods industries, during the period 1952-1959/60, with 2.8 percentage units of the gross value added by manufacturing industry and to decrease those of intermediate and capital-goods industries with 2.4 and 0.4 percentage units respectively.

It is important to note that excluding from the previous analysis, the two year 1952 and 1953; during which consumer and capital-goods industries attained relatively high growth rates while intermediate-goods industries attained a minus growth rate; the relative share of consumer-goods industry, during the period 1954-1959/60, stabilizes while that of intermediate-goods industry increases with 1.7 percentage units and that of capital-goods industry decreases with the same 1.7 percentage units. (1)

(1) See Table No. 2.

Considering the classification of manufacturing industry by the two main categories consumer-oriented and investment-oriented industries, it is possible to say that, during the period 1952-1959/60, in spite of the increase in the share of consumer-goods industries with 2.8 percentage units and the decrease in the share of capital-goods industries with 0.4 percentage units, there was a relative noticeable change in the allocation of the output of intermediate-goods industries between them mainly due to the considerable increase in the production of fertilizers and iron and steel.⁽¹⁾ Consequently, the proportional share of the category of investment-oriented industries to gross value added of manufacturing industry increased from 11.8 per cent in 1952 to 13.2 per cent in 1959/60, while that of consumer-oriented industries decreased consequently from 88.2 per cent in 1952 to 86.8 per cent in 1959/60.

III.2. The Period of the Sixties:- The First 5-Year Comprehensive Plan, 1960/61-1964/65, stressed the need to expand productive industries with a relatively higher growth rate than that for consumer industries.⁽²⁾ It was indicated that special priority would be given to basic important industries on which the existent industries were dependent or which create the means for establishing new projects either by supplying them with some of their needs or by absorbing their production. This was the targeted

(1) F.R. Fahmy, Ibid., p. 6.

(2) The target was to expand productive industries by 210 per cent and consumer industries by 37 per cent.

policy as well as there were some indicated priorities with certain relative weights for each; but the selected projects were not, mostly, adequately studied and there are certain doubts about the consideration of the indicated investment criteria. The same, during the present period 1960/61-1964/65, the uncontrolled expanded consumer demand had a great influence on the achieved structural manufacturing pattern which was not in accordance to the targeted policy. Actual investments were more proportionally allocated to consumer-goods industries than the planned target and consequently less proportionally allocated to intermediate and capital-goods industries.⁽¹⁾

Really, over the period 1960/61-1964/65, inspite of the loss fulfillment of the planned structural change, there was a noticeable change in the structure of manufacturing industry, as the proportional share of consumer-goods industries in the gross value added by manufacturing industry declined with 10.3 percentage units while those of intermediate and capital goods industries increased with 8.8 and 1.5 percentage units. During this period, in addition to the development of the traditional industries "mostly textiles" there was more expansion of some modern intermediate goods industries such as chemicals, petroleum products etc.⁽²⁾ It is worth to mention

(1) See table No. 3.

(2) By traditional industries it is ment industries which are existent in the Egyptian economy from relatively many years ago. The contrast is ment by modern industries.

that the lead is shifted from textiles industry to chemicals industry. The last industry realized the highest percentage share in the increase of the gross value added by manufacturing industry. Its contribution of the gross value added by manufacturing industry increased from 5.6 per cent in 1959/60 to 12.1 per cent in 1964/65.

It is worth noting that inspite of the relative great expansion in the proportional share of intermediate-goods industries with 8.8 percentage units, there was a very modest change in the distribution of the products of this category as between consumer-goods and capital-goods industries. In 1964/65, a proportional share of about 32.6 per cent of the net output of intermediate-goods industries was absorbed by capital goods industries as against 30 per cent in 1959/60. Then, the allocated share of the output of the category of intermediate-goods to the production of consumer-goods was, still, high. The net result was that the proportional share of the gross value added by investment-oriented industries, to gross value added by manufacturing industry, increased from 13.2 per cent in 1959/60 to 18.4 per cent in 1964/65, while the proportional share of gross value added by consumer-oriented industries decreased to a relatively very high level of 81.6 per cent in 1964/65 as against 86.6 per cent in 1959/60.

Nearly the same investment criteria of the First 5-Year plan were mentioned concerning the selection of industrial projects of the Second 5-Year Plan 1965/66-1969/70,⁽¹⁾ however the approach of annual

(1) UAR, Ministry of Industry, Petrol and Mineral Wealth, Industry and the Policies of Industrialization in the UAR, Arabic Socialist Union, Cairo, July 1970, pp. 4:42. (in Arabic).

plans rather than of five years one was the case. The actual investment data for the period 1965/66-1969/70 show that the proportional share of the allocated investments to consumer-goods industries was greatly decreased than before, while the share of the allocated investments to intermediate-goods industries was greatly increased. But, capital-goods industries were, still, receiving small proportional shares of manufacturing investments. The available data on the structure of manufacturing industry by the three categories of use in 1966/67, show a certain change in the structure of industry in the side of increasing the relative share of consumer lines of production on the account of the productive ones. Yet, this small structural change does not reflect a direct influence of the policy of investment as it is due to certain other deficiencies.⁽¹⁾

In short concerning the structural change of manufacturing industry over the 15 years from 1952 to 1967, it is possible to conclude that inspite of the predominance of consumer-goods industries in the early fifties, these industries have received, directly, more than one-third manufacturing investments and, indirectly, a big share of the high proportional share of the actual allocated investment to intermediate-goods industries. However, these actual achievements were higher than the planned targets, the latter did not neglect the development of this category of industries. Then, consumer-oriented industries accounted in 1966/67 for a high share of the contributed gross value added by manufacturing industry of namely 82 per cent as against a little bit higher share of about 88 per cent in 1952. In contrary,

(1) The followed, at the end of 1965, policy of shrinking the economic activities was greatly responsible for that phenomenon.

investment-oriented industries accounted for 12 per cent of the gross value added by manufacturing industry in 1952 increased a little to 18 per cent in 1966/67. This reflects the small relative actual allocated investment shares to investment-goods industries. Really, these actual shares were less than the planned proportions, but even the planned targets gave less proportional importance to these industries. Intermediate-goods industries, particularly next to 1954, was the most expensive category. A relative big proportional shares of investments have been allocated to this category of industries. The actual proportional shares of investments were, however, less than the planned ones. The most part of the output of this category has been allocated to industrial consumer needs and the rest less part has been allocated to the production of capital goods. Over the whole period the branch of food products and tobacco manufacture has dominated the structure of manufacturing industry by its highest contributed share of gross value added, however this share has declined from 41.9 per cent in 1952 to 25.3 per cent in 1966/67. Textiles industry - occupying the second place within manufacturing industry - was the leading branch over the period 1952-1959/60, and chemicals industry - occupying the third place within manufacturing industry - took the lead over the next period 1960/61-1966/67.

Still some comments have to be mentioned on the other component part of the industrial sector, namely, mining and quarrying industry. It accounted for a very small share of the contributed gross value

added by industry which did not exceed 9.0 per cent in 1968/69 (or even about 6.0 per cent during the previous few years) as against about 8.0 per cent in 1952. Extraction of petrol and natural gas accounted for the most part of the output of mining and quarrying industry. During the early fifties, petroleum extraction contributed with more than 80.0 per cent of its value added decreased, latter on, to more than two-thirds due to the exploitation of iron ore resources for the production of steel. Then the contribution of other mineral resources has been so low. This case reflects the poor known mineral resources. Allocated investments to the exploration of potential reserves of mineral resources have been very modest inspite of the very wide desert. In this concern, actual investments were less than the planned targets as petroleum extraction absorbed the most share of the allocated investments to mining and quarrying industry.⁽¹⁾

IV. Structure of Industry and The Complex of Macro-Economic

Variables:

The process of industrialization has many implications on the different macro-economic variables; such as, employment, productivity and each of the demand and supply aspects of the national economy. Industrial sector as the most expansive economic sector in the national

(1) See table No. 3.

economy, and industrial policies as some among the other economic policies have not only affected the main macro-economic variables but also influenced by them. The task, here, is to illustrate the influence of the previously indicated structural pattern of the development of the industrial sector - as one of the main important industrial policies - on some main important macro-economic variables to be able, latter on, to evaluate the Egyptian practice concerning the studied problem.

IV.1. Employment absorption and its regional distribution: Over the twenty years 1947-1967/68 agricultural share to total employment by all the economic sectors decreased from 61.6 per cent to 50.3 per cent while the share of industry increased from 8.6 per cent to 11.3 per cent and that of services increased from 27.8 per cent to 34.8 per cent. It is clear, that inspite of the relative great decrease in the share of agriculture to total employment with nearly 9.6 percentage units, the increase in the share of industry has been only about 2.1 percentage units; absorbing an employment share of only 14.9 per cent of the total increase in employment over that long period. Services sector absorbed alone a little less than one-half (47.3 per cent) the increase in total employment during that 20 years period; particularly the general government services and personal services. Then it is possible to notice that the problem of underemployment was transferred - or at least spread - from the agriculture into services.⁽¹⁾

(1) As it is mentioned in; D. C. Mead, Growth and Structural Change in The Egyptian Economy, Richard D. Irwin, INC., Illionis, 1967., p.131.

Concerning industry, it is worth to note that, even, a part of about 35 per cent of the increase in industrial employment, during the period 1947-1960, was due to the occurred average decrease in the weekly working hours per worker from 51 hours in 1947 to 48 hours in 1960. Also, a part of about 17.1 per cent of the increase in industrial employment, during the period 1959/60-1964/65, was a result to the occurred decrease in the weekly working hours per worker to 42 hours during that period. It is convenient to add more, that this big part does not represent all employment due to social considerations, however, it may be its important part.

The different industrial policies were responsible for the industrial low absorption of labour in comparison with capital outlays; mainly, the policies of the scales and techniques of production, all over the studied period; in addition to, the policy of the structure of industry, especially next to 1959/60. The previously explained structural change on erecting and more expanding modern industrial products (durable - consumer, intermediate and capital goods) particularly next to 1955 - or more next to 1959/60 - was coincident with what may be called the category of less labour absorbing industries - in comparison with capital outlays - and what may be called less labour scattering industries among governorates. Apart from the policy of location of industries, the less scattering labour among governorates has been, directly, due to the relatively more expansion of highly localized industries; and, indirectly, due to what may be called backwash effects or in other words the created competition within these industries dismissing a part of smaller size establishments from most of the other governorates.

IV. 2. Productivity trends: Apart from the influence of the other industrial policies, the explained predominance and expansion of what may be called traditional industries (mostly consumer-goods industries), during the period 1952-1960, had the effect of realizing an increase in the productivity of manufacturing industry inspite of their absolute low levels of productivity than the other manufacturing branches. The other manufacturing branches; which had higher absolute levels of productivity; had witnessed next to 1955 the erection and expansion of modern industrial products (durable-consumer, intermediate and capital goods). This diversification of production - with the introduction of these new lines of production - had, however, a negative effect on the level of productivity of manufacturing industry. But, the negative effect was less than the occurred greatly increase in the productivity of the expanded traditional industries, during the period 1952-1960, with a final result an increase in the productivity of the industrial sector.

For the next period 1959/60-1966/67, in difference to the previous period, the change in the structure of manufacturing industry was in the side of increasing the proportional share of intermediate and capital goods industries at the total gross value added by manufacturing industry. These industries had higher absolute levels of productivity. But inspite of this structural change; apart from the other industrial policies; labour productivity by manufacturing industry has, only, slightly increased because of the small increase or even minus growth rates of the productivity of some of the manufacturing branches.

In short, it is possible to notice that the predominance of the "low labour-productivity industries" - traditional industries - during the period 1952-1960 had the influence of more than to compensate the negative productivity contribution of the "high labour productivity industries" - modern industries - that resulted from their expansion next to 1955. And the changed structure of manufacturing industry, next to 1959/60, in the side of "high labour productivity industries" did not result in a worth improve in the productivity of the industrial sector due to the negative growth rates of the productivity of some industrial branches. Many factors have been responsible for these unexpected trends of the productivity which have been accompanied with the change in the structure of industry in the side of increasing the share of high labour productivity industries. A reference to some of these factors - the most important to the concern of the present paper - will be indicated letter on. It is worth to note more that traditional industries have, mostly, appeared in a relatively better productivity situation because they have been already mature and competitive during the studied period.

IV. 3. Satisfaction of domestic demand: Concerning the satisfaction of domestic demand by the achieved structure of domestic industry, it have- a priori - to stress that as domestic demand was not subject to planning, the satisfaction of domestic demand by domestic industrial production, however, is a good achievement, it does not mean, directly, that it is the best achievement for realizing the long term requirements of development.

First; as to consumer-goods industries, apart from the modest increase in prices and - to some extent - the repressed inflation, the expansion of these industries through import-substitution has been going forward as long as the available natural domestic resources permit with, even, a net exportable surplus.

Second; as to capital-goods industries the gap between the supply and demand has been widening over time, as nearly one-third of the gross investments has been imported. This imported high percentage share - apart from local outlays for adjusting machines and equipments for work - is greatly near to the percentage share of equipments, machines and transportation means to gross investments. This means the mostly dependence on imports for obtaining these goods.

Third; as to intermediate-goods industries, their domestic supply increased with higher annual growth rates than those of their demand. Then, during the period 1952-1959/60, import-substitution process decreased, slightly, the average propensity of imports of processed intermediate goods (relative to industrial production). During the next period, 1960/61-1964/65, import substitution process was going on reducing the total amount of processed-intermediate-goods imports relative to industrial production, but with less speed than before in spite of the higher growth rate of the production of this category in comparison with the growth rate of industrial production. The reason may return to the higher import needs of the new erected industrial projects. Then, it is possible to say

while import substitution process for industrial consumer goods was, nearly, a completed one as most as the available natural domestic resources permit, import substitution process for intermediate and capital goods was, only, enough to satisfy a part of the increase in their demand, leaving an increased volumes to be imported.

Lastly, related to the imports of intermediate raw materials, they have greatly increased due to the shortage of natural mineral and agricultural resources.

IV. 4. Internal-consistency of the industrial sector: To study the internal consistency or the integration within the industrial complex a use of input/output tables is done for calculating the change in backward and forward linkage effects from 1954 to 1966/67.

On one hand, with exception the case of some consumer-goods industries, backward linkages of most of manufacturing branches have declined because of the shortage in natural mineral resources and the increased gap between the expanded and diversified domestic industrial production of intermediate and capital-goods on one side, and the more resulted increased demand on these goods on the other side, with a result of increasing their required imports.

On the other hand, the ability of the industrial complex on realizing forward linkages (within itself and with the other productive economic sectors) has declined in most of the concerned industrial

branches because, mainly, of the growth of demand on intermediate and capital goods with more volumes than their expanded and diversified corresponding output with a result of increasing the required imported part.

The adjustment of domestic industrial production according to the actual domestic needs by means of foreign trade (i.e. imports and exports) was not always the easy way out for solving the internal inconsistency of the industrial product mix. Some deficiencies appeared - physically - in certain forms; such as, excess capacities, stock increase and shortages. The shortage in raw materials, spare parts and other current inputs was responsible for more than two-thirds the unutilized capacities. Especially the shortage in raw materials was the most important cause for the excess capacities of some modern industries such as chemicals, metallic and engineering industries. The accumulated stocks of some industrial products, raw materials and spare parts were another form of certain deficiency in the consistency of the product mix of the industry as well as the deficiency in studying foreign markets and the miss-organizational forms of utilizing raw materials and spare parts.
(1)

IV. 5. Development and structure of exports: Total exports increased from L.E. 137.3 millions in 1953 to L.E. 246.5 millions in 1967/68, with average annual growth rates of 7.4, 8.4 and - 2.4 per cent during the

(1) The followed, at the end of 1965, shrinking policy had an influence on the appeared deficiencies.

periods 1953-1959/60, 1960/61-1964/65 and 1965/66-1967/68 respectively.⁽¹⁾ During the year 1968/69 exports increased with about 23.4 per cent.

Over the studied period, exports have witnessed a quite structural change in the side of increasing the part of industrial exports and pari-passu decreasing the part of agricultural exports. Industrial exports, as a percentage share of total exports, are more than tribled from 10.2 per cent in 1953 to 35.7 per cent in 1968/69, i.e., reaching a little more than one-third total exports. But, inspite of this quite structural change, the structure of industrial exports has been dominated by, nearly, the same traditional industrial exports; with only a change in the relative importance among them. Exports of textiles industry accounted, in 1968/69, for more than one-half (56.1 per cent) total industrial exports; while exports of the new industrial products were very slight. At any how, during the early stages of development, it is not expected to witness important changes in the structure of exports.

It is worth, however, to say that the relative increase in the share of industry to total exports may - to some extent - not be a real one because certain exports were, only, possible with continuous subsidies, or with foreign receipts covering only the foreign currency-cost of their required imported inputs, or with accompanied imports of nearly the same products.⁽²⁾ It is possible to say, with nearly the

(1) In 1953 exports were lower than before due to the end of the export Korean Boom.

(2) Alfonse A. Kadis, A quick Illustration to Our Foreign Trade during the period 1959/60-1965/66, I.N.P., Cairo, 1968, p. 19. (in Arabic).

exception of textiles industry, that the process of industrialization has not achieved export promotion task. This may be due to the policy of industrialization by itself which has given the most interest to import-substitution, and to the false-idea that excess production would automatically turn into exports in addition to some miss-organizational executive factors. However, lately, certain emphasis has been directed to link the sector of foreign trade with the structure of domestic production to create real possibilities for increasing industrial exports.

V. Concluding Comments:

V.1. Egyptian stage of industrialization: It is worth to say that Egypt is, still, in the early stages of industrialization. In a U.N.'s study, countries were grouped into four classes according to their degree of industrialization. The lowest class of industrialization included countries with manufacturing value added per capita of less than \$ 50.⁽¹⁾ In 1963, Egyptian per capita manufacturing value added accounted for \$ 30.2 (which was only less with about 13.5 per cent than that of 1968.) This

(1) U.N., Patterns of Industrial Growth 1938-1958, Department of Economic and Social Affairs, U.N., New York, 1960, p.437.

Note: In that study the indicated classes of industrialization are fixed in 1953. Then, Considering the increase in prices and the great advance in technology, the upper limits of categorising the classes of industrialization may, better, be raised.

Egyptian level was slightly higher than the average for developing countries (\$ 26.8), but greatly less than the average for each of the entire world economy (\$ 203.4), developed market economies (\$ 501.7), and centrally planned economies (\$ 416). In the same year (1963), some Latin American developing countries like Argentina, Chile, Mexico, and Brazil had the levels \$ 166.1, \$ 140.1, \$ 73.9 and \$ 58.5 which were greatly higher than the Egyptian level of industrialization.⁽¹⁾ The same result that Egypt is, still, in the early stages of industrialization appears by using different other comparative criteria.⁽²⁾

V. 2. The suitable profile of industry: One of the most essential tasks that is required to be faced by the developing economy is that of deciding; what is the most suitable profile of industry according to its real conditions. The profile of industry has to make precise allowance for all the specific conditions of the country. Studying, in this concern, the historical experience of capitalist and socialist countries, the actual conditions of developing countries, the different recommended models of industrialization, the present situation of international trade and the different forms of regional integration and co-operation among developed countries - studying all of these aspects -

(1) U.N., The Growth of World Industry- 1967 Edition, Vol. I, U.N. Department of Economic and Social Affairs, New York, 1969, pp. 294:297.

(2) Such as, among others, the following ones:-
- The relative share of industry in the GNP.
- Structure of the industrial sector.
- Per Capita output of the principal industrial products.
- Labour productivity by branches of industry.

the question of regional integration among groups of developing countries has appeared as an important one in giving each country the best chance of developing certain suitable lines in each of consumer and producer's industries. Really, the question of regional integration is so essential, but also, practically, not an easy one according to the circumstances of many developing countries. However, developing countries have to learn from the experience of both of Western European and Socialist Countries in this field. It has to be added that this collaboration should not be closed between the regional groups of developing countries in a form of regional autarky. There is a need to establish, moreover, real external economic relations with certain other countries.

It is worth to refer to some small comments mentioned by E. Knauthe;

"The developing countries are being faced with both the problem of underdevelopment and the problem of technological revolution going on in the industrialized countries. Sometimes developing countries consider the first one to be their only problem. However, the problem of development cannot be solved along the lines of unspecified industrialization ... Even a rapid industrialization in all fields like the classical model will not create an effective national economy which could form the basis of national welfare". ... "The technological revolution calls for an integrated development, i.e. integrated in international division of labour"... "The country in question should link its new industry with the world system of division of labour from the very beginning..."(1)

(1) Erhart Knauthe, Industrialization, Planning & Financing in Developing Countries, Technical Fundamentals, Edition Leipzig, G.D.R., 1970, pp. 10, 12.

Then, there is a need to integrate the sector of foreign trade within the development of the other economic sectors, through which - under the roles of real economic relations with some other countries that pertain international division of labour - it is possible to the national economy to produce more or less than proportionally nationally needed from the different branches of the national economy. The leading branches have to satisfy the national needs and the demands of exports as far as they have to cover imports of products which are not produced by the national economy.

V. 3. Some evaluation comments: On the light of the foregoing exposition of the change in the structure of Egyptian industry over the period 1952-1968 and the previous shorttheoretical comment, it is possible to give some evaluation notes on the Egyptian practice.

In the case of Egypt, the limited agricultural-food and mineral resources as against the increased population pressure and the requirements of the industrialization process let it greatly indispensable to distribute investments among industrial branches from the point of view of their influence on the balance of trade. At the same time, foreign trade relations have to be based on the previously explained international collaboration. Unfortunately, this has not been, mostly, the occurred case. Exports have been planned as dependent variables, their volumes - as surpluses - depended on the other variables, such as, investment, production and consumption. The same has been related to imports which depended also on the targets of production, investment and

consumption.⁽¹⁾ In the field of cooperation with other countries, there are some agreements with some countries, but they have not the form of long-term duration as an international division of labour. Certain agreements were conducted among Egypt, Yugoslavia and India, and there are some projects among Arab countries. These agreements, however, have not yet played their full role. Then, due to these considerations which were, moreover, accompanied by expanded uncontrolled consumption and relatively low productivity, there were certain deficiencies in the branch structure of industrial sector. It is possible to mention the following ones:-

First: The given more attention to consumer-goods industries was more than could be justified on long-term considerations. Apart from exports of textiles, the expansion of consumer-goods has been, mainly, an import-substitution character, and consequently for facing the expanded unplanned domestic consumer demand. The expansion of these industries may be justified as they absorbed more labour and more spread them among governorates as well as they characterized by comparative advantage because of the mostly use of domestic raw materials and the availability of their needed skillness. But, on the light of the experience of some other countries and the present conditions of developing countries, these advantages are short-run ones. If it was possible to control the expansion of domestic

(1) See; Alfons A. Kadis, Planning of Foreign Trade, Memo. No. 915, INP, Cairo, 1969, pp. 4:5. (in Arabic).

consumer demand and consequently if it was possible to export these saved volumes; the expansion of these industries would have been justified. But, the occurred case was that the allocated resources to these industries were wasted by the expanded domestic demand. It is right, that import-substitution process by establishing these industries was nearly a complete one as mostly the domestic natural conditions permit, nevertheless it created certain burden on the balance of trade either directly through their import requirements of machinery, equipments and other inputs or indirectly through import needs of the accompanied established intermediate-goods industries.

Second: The development of capital-goods industries has been given a little relative attention than it could be justified on long-term considerations. Basic capital-goods industries which are needed for building the investment base for the process of economic development - represented in machinery-building industries - have been, nearly neglected. Then, the process of development has depended, mainly, with an increasing volumes on imports of these products.

Third: In comparison with the given attention to capital-goods industries - and even consumer-goods industries during the last few years - the given attention to intermediate-goods industries has been a tremendous one. In this concern, it is generally known that intermediate-goods industries are more dependent on the availability of raw material endowments. Then, the critic point is that the given attention to intermediate-goods industries was greatly exceeding the given slight

attention to mineral investigation and exploitation processes. Even petroleum exploitation was lagged behind the expanded demand on crude petroleum oil. Only, lately, petroleum exploitation has jumped up. The result of this case was an increase in the burden of raw material imports in addition to the burden of the required imports of capital machinery for establishing these projects. It was, only, partly possible to meet these increased import requirements with a result of an appearance of some difficulties, such as shortages, unutilized capacities, etc. These difficulties were reflected on the levels of productivity and the internal consistency of the industrial complex. The thorny problem is that the most part of the produced intermediate goods has been oriented to the production of consumer-goods industries. Moreover, the production of the intermediate goods industries was with a little export effect.

The expansion of chemicals and petroleum industrial branches has occupied the lead from 1959/60. This is a convenient fact as these industries contribute positively to the promotion of productivity which is an important factor for accelerating the process of development. It is important to say that one of the "main directions of technological progress is the increasing share of chemicals industry as well as the growing application of chemical products in all branches."⁽¹⁾ It is not possible, however, to evaluate precisely the expansion of these industrial

(1) Karl H. Horn, Structural Changes and Productivity, Memo. No. 773, I.N.P., Cairo, 1967, p. 28.

branches without a study to the product mix of each of them. It is enough, here, to comment that the less existence of capital-goods industries let their output more oriented to consumption needs.

Fourth: The increase of imports during the early stages of development is a normal phenomenon as well as the occurrence of a deficit in the balance of payments is not a strange feature. But, this external unbalance has to not last for long. The most thorny problem related to the Egyptian case is that while the established industrial profile, the shortage in the available known mineral resources and the limited cultivable land - all of these considerations - require a continuous increase in the volume of imports, the established industry does not promote an accompanied - enough - exportable products. Apart from the levels of productivity, certain responsibility may return to the uncontrolled expansion in domestic consumer-demand and the lack of sufficient foreign markets and real economic relations with some other countries. This phenomenon has the result of increasing the needs of foreign finance with its accompanied future burden; as well as it let difficult to meet some of the import requirements with the accompanied explained worse consequences.

V. 4. Recommendations: On the light of all the previous study, following are some notes to be considered in the strategy of the structure of the industrial sector:

First: The most important is to notice the international political position of Egypt and her relations with other countries; such as, Arab, non-allied, socialist and capitalist countries. The strategy will be greatly influenced by the expected economic integration which will be resulted from the Union of Arab Countries. It has to be emphasised that economic integration and cooperation are so important for reinforcing the political unity. Moreover, real economic relations dependent on the international division of labour have to be constructed with some other countries. We refer to the agreements with Yugoslavia and India hoping for their progress into a real economic relations. It goes without saying that certain strategic considerations related to the conflict between Arab countries and the imperialistic forces represented by the Israelian aggression have to be considered.

Second: Apart from the policies of prices and wages, correcting internal and external disequilibrium in the long run depend, mainly, on the adopted investment policies of allocating investment resources to certain industries. In this concern the previous considerations have to play an important role as a guiding or determining factor in selecting import-substitution and export promotion industries.

Third: Investment policies and the co-operation with other countries have to notice the erection and development of certain national leading industries which have to satisfy the national needs and the demands of exports as far as they have to cover imports of products that

are not produced by national economy. Export receipts of industrial products have to consider, moreover, import requirements of the other economic sectors - such as agricultural products -, so long as the industrial sector must play a leading role in the national economy of Egypt.

Fourth: The available natural resources such as high quality cotton, petroleum oil, iron ore, some chemical raw materials and food products have to be considered in the selection of the leading industries which have to be considered within the frame-work of co-operation with other erected countries. The suggested leading industries may be certain industries within the branches of petroleum, chemicals, metallurgies, machinery-building and textiles. The final decision in this concern can not be before knowing the circumstances of the other selected partners. But, priori it may be for the benefit of Egypt to select her leading industries within the suggested ones, as they have been recommended, more or less, by different recent studies.

It goes without saying that within the framework of international cooperation, the development of suggested leading industries entails, more or less, the development of some interrelated industries due to the backward and forward linkages which have to be - more or less - created to push forward the process of development. In this concern the most recommended are the different industries which have to take the lead and having at the same time different interrelated relations within the group of leading ones. It is recommended to be

continued in the given recently more attention to the petroleum extraction process for its importance to the process of development and as an exportable product. But, it may be expensive for the coming short period to give the same attention to geological survey and exploitation of the different expected mineral resources as their starting in production can not be except after a long-periods of time. In the beginning it may be wisely to restrict the interest within the fields which benefit the selected profile of industries. Hence, latter on, gradually, it may be possible to widen the process according to the benefits of the economy within the framework of international cooperation considering the results of long gestation periods.

Fifth: The selection of leading industries have to avoid the economy of being lop-sided one. It have to give the economy the possibilities of being - in the course of time - a self-sustained and self-expanded one. This of course, does not mean a self-sufficient economy, as this idea is against our approach concerning developing countries.

The point is that leading industries have to attain high levels of productivity, as well as they have to raise the productivity of other activities due to their direct and indirect effects. Needless to say that the increase in the national average productivity increases the economic surplus and consequently increases the rate of capital accumulation which means an accelerated long run rate of growth. At the same time, high productivity facilitates the opportunities of more exports which facilitate the possibilities of obtaining more imports needed to

the process of development. We have to refer, moreover, to the adherence - within leading industries approach - to science and technology as an important factor for sustaining the rise of productivity.

Sixth: What is mentioned before about leading industries approach can not be except a one important part of the suggested guide lines for our future strategy concerning the profile of industry. It is necessary to make better balance between short and long-run requirements of social and economic development. It is required to face certain particular conditions of the economy and to attain certain targets such as utilizing some available local resources, creating more employment opportunities, satisfying certain domestic needs, realizing - with relatively limited resources - quick rise in the standard of living of certain parts of the country, etc. Therefore, even with giving the most emphasis to certain leading industries and the existence of a real economic relations with some other countries, there is a place for some other industries to be developed. The development of these industries is, mostly, for domestic consumption. Then for realizing the indicated tasks, it is recommended to develop these lines of production with less capital-intensive techniques and in small-scale establishments.

Table No. 1
Industry by the Two Main Sub-sectors
(Selected years from 1952 to 1968/69)

(Gross Value Added at 1959/60
Fixed Prices, L.E. Million)

	1952	1954	1959/ 60	1964/ 65	1968/ 69
Mining and Quarrying	12.6	11.0	13.7	19.6	36.6
Manufacturing	150.9	168.2	242.3	365.4	383.4
Total Industry	163.5	179.2	256.0	385.0	420.0

The Percentage Share of:

Mining and Quarrying	7.7	6.1	5.4	5.1	8.7
Manufacturing	92.3	93.9	94.6	94.9	91.3
Total Industry	100.0	100.0	100.0	100.0	100.0

Notes and Sources: The data reproduced from; D. Mead, Growth and Structural Change in Egyptian Economy, Richard D. Irwin INC, Illinois, 1967, pp. 281:285. UAR, Ministry of Planning, A Preliminary Report on the Following-up of the Plan during the Second year 1961/62, Cairo, 1962; Ministry of Planning, A Preliminary Report on The Following-up of the Plan during the Third year 1962/63, Cairo, 1964. (In Arabic); Said A. El-Bawab, The Determinant Factors for the Growth of Mining, Manufacturing and Electricity in the First Five Year Plan (1960/61-1964/65) of U.A.R., Memo No. 780, INP, Cairo, 1967, p. 4, (In Arabic); and UAR, Ministry of Planning, Following-up and Evaluating the Economic Growth of the U.A.R. in 1968/69, Cairo, 1970, p. 33. (In Arabic). A uniform deflator (of 1.262) is multiplied by the value added figures of 1952 and 1954 to change them from 1954 prices to 1959/60 fixed prices. This deflator is calculated from, UAR, Department of Statistics and Census, Ten Years of Revolution (Statistical Atlas), Cairo, 1962, table 9, B. Hansen and D. Mead, The National Income of the UAR 1939-62, Memo, No. 355, INP, Cairo, 1963, table 8; and D. Mead, Ibid., p. 388.

Table No. 2
Percentage Distribution of Gross Value Added
of Manufacturing Industry by Categories of use
(Selected Years from 1952 to
1966/67).

(at 59/60 fixed prices, percentages)

	1952	1954	1959/ 60	1964/ 65	1966/ 67
First Classification					
1- Consumer-goods Industries	63.9	66.7	66.7	56.4	57.8
2- Intermediate-goods Industries	31.0	26.9	28.6	37.4	36.4
3- Capital-goods Industries	5.1	6.4	4.7	6.2	5.8
Total Manufacturing	100.0	100.0	100.0	100.0	100.0
Second Classification					
1- Consumer-Oriented Industries	88.2	87.5	86.8	81.6	82.0
2- Investment-Oriented Industries	11.8	12.5	13.2	18.4	18.0
Total Manufacturing	100.0	100.0	100.0	100.0	100.0

Notes and Sources: See notes and sources of table No. 1, in addition to; UAR, Ministry of Planning, Following-up and Evaluating the Economic Growth of the UAR in 1966/67, Cairo, Aug., 1968, pp. 25:26 and 65 (in Arabic); and F.R. Fahmy, Growth Pattern of Manufacturing Sector in Egypt, Memo No. 386, I.N.P., Cairo, 1964, Tables Nos. II.B. and II.C., except adding ginning and pressing industry to intermediate-goods industries and adding printing and publishing industry to consumer-goods industries.

Table No. 3

Percentage Distribution of Planned and Actual Industrial Investments on Manufacturing Categories and Mining and Quarrying Industries (1957-1969/70)

(Planned investments at fixed base year prices and actual investments at current prices).

	The First Industrial Program		The First 5-year Plan		The Second 5-years plan
	Planned data Nov., 1957- 1962	Actual data Nov., 1957- June, 1960	Planned data 1960/61 1964/65	Actual data 1960/61- 1964/65	Actual data 1965/66-1969/ 1970
<u>Manufacturing Industry</u>					
Consumer-Goods	26.4	34.0	27.6	40.8	41.5
Intermediate-Goods	61.2	58.6	56.9	48.7	55.1
Capital-Goods	12.4	7.4	15.5	10.5	13.5
Total	100.0	100.0	100.0	100.0	100.0
<u>Mining and Quarrying Industry</u>					
Petrol	46.2	82.0	69.2	71.3	71.3
Others	53.8	18.0	30.8	28.7	19.5
Total	100.0	100.0	100.0	100.0	100.0

Notes and Sources: The data are compiled and reclassified from the given figures in: U.A.R., Ministry of Industry, Index of Industries, Cairo, 1961, p. 8:11 (in Arabic); UAR, Ministry of Industry, Program of Industrialization, Cairo, 1961, p. 3. (in Arabic); UAR, Ministry of Industry, The General Position of the First 5-year Industrial Program, Cairo, 1960, pp. 6:45; Said A. El-Bawab, Ibid., p. 12; and UAR, Ministry of Industry, Petrol and Mineral Wealth, Industry and Policies of Industrialization in the U.A.R., Arab Socialist Union, Cairo, July, 1970, p. 45. (in Arabic). The data of the last five years are rough ones due to the difficulty of reclassify the original data.