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LONG-TERM PROSPECTS
OF
INDUSTRIAL DEVELOPMENT IN
SYRIA *

prepared by the
Secretariats of UNIDO and ECMA

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This study was prepared by Dr. Aymen Midani, Consultant, Professor of Finance, Faculty of Business Administration, Lebanese University, and Dr. Atif Kubarsi, Consultant, Professor of Economics, McMaster University. It is a part of the preparations for the Fifth Industrial Development Conference for Arab States and has been reproduced without formal editing. Dr. A. Midani is responsible for the preparation of Chapters I through VI and Dr. A. Kubarsi prepared Chapter VII on manufacturing sector in the year 2000. The description and classification of countries and territories and the arrangement of material in this publication should not be considered as implying any judgement by the Secretariat of UNIDO on the legal status of any country or territory, its boundaries or economic system. The views expressed herein do not necessarily reflect those of the United Nations.

P R E F A C E

This country study has been jointly prepared by the secretariates of ECMA and UNIDO as part of the work programme relating to periodic review and analysis of industrial trends and potentials in the ECMA region. The indepth country studies will provide also the building blocks for visualizing a regional picture for the industrial development of the ECMA region.

An important objective of this programme is to monitor industrial trends and potentials for meeting the targets of the Lima Declaration and Plan of Action and the New International Economic Order. More specifically this study will be presented as background document for the Fifth Arab Industrialization Conference, Algiers, 18-25 November 1979 and the Third UNIDO Conference, New Delhi, 21 January to 8 February 1980.

The study consists of seven chapters, the first six chapters cover the historical performance in manufacturing for the period 1963-1977. The last chapter presents scenarios for Syrian manufacturing in the year 2000. Overall development planning and the performance of industry in the economy are analysed in the first two chapters. Chapter III is devoted to industrialization policies and strategies, while chapters IV and V analyze the detailed industrial programmes and actual performance of the manufacturing sector. Foreign trade in manufacturing products are dealt with in chapter VI.

Consistent time series was not available for manufacturing variables at the desired level of disaggregation (3 digit ISIC) for the period under study. Special effort was made and with the help of CBS in Syria, a roughly comparable manufacturing time series for the required variables were constructed, for the period 1963-1977. These with details about methodology and procedure followed are presented in Appendix C.

The study include three additional appendices. Appendix A contains aggregate statistical tables for the Syrian economy while Appendix D covers the construction of an implicit price index for Syrian industrial output. Appendix B gives names and locations of the public sector manufacturing companies.

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CHAPTER I
DEVELOPMENT PLANNING IN SYRIA

Introduction

The establishment on a significant scale of modern industrial enterprises in Syria was started by private entrepreneurs as early as mid forties and early fifties. Up until 1964, manufacturing industry was largely dominated by the private sector and during this period, the role of the public sector has been mainly regulatory and promotional and planning was practically confined to the public sector. With the transformation of the country into a socialist state in 1964, major means of production in the country including industrial establishments were transferred to the public sector through nationalization. Consequently, planning has been assuming a dominant role in the country's economic and industrial development.

The first attempt at centralized planning for economic development in Syria was made in 1959 when the country was united with Egypt as part of the United Arab Republic. In that year a law no. 133 was issued outlining a ten-year economic and social development programme for the period 1959-1968.

In 1960, and after the separation of Syria from the UAR, a re-evaluation of the ten-year programme was made which resulted in breaking it up into two phases. The first phase was to cover the period July 1960 - June 1965, and that was the First Five Year Economic and Social Development Plan of Syria. The second phase was planned to cover the period July 1965 - June 1970. However, toward the end of the First Plan, the Legislative Decree No. 137 of August 7, 1965 was issued extending the plan period to the end of 1965.

Since then Syria went through an additional three Five Year Economic and Social Development Plans. These are: the Second Five Year Plan 1966-1970, the Third Five Year Plan 1971-1975, and the Fourth Five Year Plan 1976-1980 which is still under implementation.

In this chapter, a detailed comparative analysis of these plans will be made. The analysis will cover the essential aspects of the plans such as objectives, investment programmes, strategies and sub-strategies, and sources of financing. A modest attempt will be also made at evaluating the implementation performance of these plans. This will be done in terms of a comparative analysis of the financial rates of spending among the plans and within economic sectors. A separate section will be devoted to the identification and assessment of the problems which impeded the efficient execution of the plans.

Objectives of the Economic Development Plans.

In each of the Economic and Social Development Plans of Syria, a network of objectives was established. This network includes two levels: General objectives and sectoral objectives. The general objectives highlight the strategies of the plan and specify the growth targets for the aggregate economic variables. The sectoral objectives, on the other hand, elaborate the national development strategies into more specific sectoral development sub-strategies and also state quantitative production targets for the economic sectors.

Discussion of the objectives at this juncture will concentrate on the general objectives only. This will of course include the underlying economic development strategies and the growth objectives for the aggregate economic variables. The analysis will point out the similarities and differences in objectives among the four plans. Sectoral objectives, except for those of the industrial sector which will be analysed in chapter III, will not be discussed in order not to divert the focus of attention from the main purpose of this study.

General objectives.

A comparative analysis of the general objectives of the four Five Year Economic and Social Development Plans of Syria should distinguish between the First Plan and the three following plans in terms of the purposes and the market organization prevailing at the time the plans were implemented. The first Five Year Plan had the limited purpose of having the Government undertake

the investments required for developing the infrastructure in irrigation, agriculture, transportation and communications, mining, electricity, and services sectors of the economy; as well as investing in the big industrial projects (e.g. fertilizers, steel, ..., etc.) which the private sector is unlikely to get into. The economy was then largely a free market economy where almost all economic activities were dominated by the private sector. Thus, the First Plan aimed at stimulating higher rates of growth in the economy than would be attainable had investment been left to the private sector alone. More specifically, the objectives of the plan were stated as follows:-

1. To double national income in ten years.
2. To provide equal opportunities for all citizens.
3. To build an industrial base in the economy.
4. To stabilize agricultural production.
5. To promote price stability.

However, with the advent of the Second Five Year Plan all large firms in manufacturing industry were nationalized, and the major means of production in the economy came under Government control. Thus, the main responsibility for developing the economy transferred to the Government and the Public Sector. This is apparent in the evolution of the objectives in the Second, Third, and Fourth plans. An examination of those objectives reveals a high degree of commonality among them across the plans.

The development objectives which are common to both the Second and the Third Plans may be restated as follows :

1. To transform Syria into a socialist society and to develop the country within this framework.
2. To build an industrial base which is compatible with the country's agricultural and natural resource potential.
3. To improve the economic and social standards of rural areas by providing job opportunities and better public and social services.
4. To promote science and technology.

Two objectives were common in the Second and the Fourth plans, namely:

1. To mobilize manpower resources, raise their productivity and solve the unemployment problem.
2. To achieve a better spacial location of development projects geographically in order to promote regional development.

The Third and Fourth Five Year Plans had two objectives in common. These are:

1. To change the structure of the national economy by building a developed agro-industrial economy which can provide a strong basis for sustained growth.
2. To take advantage of the geographical location of the country and develop the transportation and communications network within the country and with the rest-of-the-world, especially with the Arab countries.

The Third Plan included other objectives, which are:

1. To develop agriculture by making optimal use of water resources; increasing and diversifying agricultural crops and animal farm products; intensifying the use of fertilizers, improved seeds, and agricultural equipment, training farm workers; and spreading the cooperative system.
2. To increase and diversify exports.
3. To gradually increase the Government control over internal home trade.
4. To raise the standards of services in health, education, housing, culture, social and public administration.

The Fourth Five Year Plan defined more ambitious strategic objectives by aiming at achieving higher degrees of self-sufficiency in the country.

These objectives are:

1. To develop, exploit and preserve natural resources (agricultural and mineral) of the country.
2. To achieve self-sufficiency in the major food stuffs and clothing products, and to reach a higher degree of self-sufficiency in all the other products.
3. To raise nutrition standards, especially in the consumption of meats.

4. To produce all sources of energy locally, whenever that is feasible economically and technically.
5. To locally manufacture all agricultural producers goods, and to move in that direction with respect to other capital goods.
6. To increase government revenues by improving the tax collection mechanism.
7. To modernize the public administration system and raise the efficiency of its services.
8. To improve the trade balance and achieve a surplus in it.
9. To expand the experiment of decentralization of government (i.e. local administration).

National Quantitative Objectives.

The Five Year Plans have also established growth objectives for the aggregate economic variables such as: gross domestic product and its sectoral components, consumption, savings, investment, employment, exports, imports, and the permitted price level increases. These objectives are summarized in Table I-1.

The First Five Year Plan aimed at achieving a real rate of economic growth of 40 per cent over the Five-Year period, or an average rate of 7 per cent annually. Sectoral incomes were planned to grow at an average annual rate of 5.7 per cent in agriculture, 9.2 per cent in industry, and 15.8 per cent in building and construction. The rate of savings out of GNP was expected to rise from 11.5 per cent in the base year to 14.3 per cent in the Fifth Year, thus increasing national savings by 40 per cent over the period. Private consumption was to increase by an average annual rate of growth of 6.2 per cent. Given a population growth of 2.5 per cent annually, the plan estimated per capita income and consumption to grow at the rates of 4.5 per cent and 3.6 per cent annually respectively. Employment was expected to create 185 thousand new jobs.^{1/}

^{1/} First Five Year Plan, pp. 20, 25-27

Table I-1 - Aggregate economic variables objectives in the Four Five Year Economic and Social Development Plans of Syria

	First Five Year Plan 1960/61-1965		Second Five Year Plan 1966-1970		Third Five Year Plan 1971-1975		Fourth Five Year Plan 1976-1980	
	Periodic growth Rate	Average annual growth Rate	Periodic growth Rate	Average annual growth Rate	Periodic growth rate	Average annual growth Rate	Periodic growth rate	Average annual growth Rate
A. Gross domestic product	40.0	7.0	41.5	7.2	48.3	8.2	76.2	12.0
1. Agriculture	32.0	-	27.9	5.0	-	5.1	46.9	8.0
2. Industry, mining, power and energy	55.0	-	30.6	5.5	-	15.8	104.7	15.4
3. Building & construction	108.0	-	-	-	-	11.5	110.3	16.0
B. Total consumption	-	-	-	-	-	-	75.0	11.9
1. Private consumption	34.5	-	36.9	6.5	38.8	6.8	62.8	10.2
2. Government consumption	40.0	-	27.6	5.0	47.0	8.0	107.4	15.7
C. Savings	40.0	-	88.5	-	99.3	14.8	80.2	12.5
D. Investment	-	-	-	7.2	66.5	10.7	74.3	11.8
E. Exports	-	-	20.9	-	37.0	6.5	40.3	7.0
F. Imports	-	-	26.6	-	27.6	5.0	43.6	7.5
G. Employment	-	-	19.0	-	-	4.7	26.8	4.9
H. Price level increase	-	-	-	-	-	-	30.0	-

- Sources:** 1) United Arab Republic, Ministry of Planning, The Economic and Social Development Plan of Syria for the Years 1960/61-1964/65, Damascus, July 1960, pp. 20-21.
- 2) State Planning Commission, The Second Five Year Plan for Economic and Social Development: 1966-1970, Damascus, 1967, pp. 11-13.
- 3) State Planning Commission, The Third Five Year Economic and Social Development Plan of Syria: 1971-1975, Damascus, January 1971, pp. 8-9.
- 4) State Planning Commission, The Fourth Five Year Economic and Social Development Plan of Syria: 1976-1980, Damascus, January 1976, pp. 7-10.

The Second Five Year Plan aimed to achieve a real rate of economic growth of 41.5 per cent over the Five Year period, or 7.2 per cent annually. Income originating in agriculture was planned to grow annually at 5.0 per cent, while that of industry by 5.5 per cent over the period. The planned average annual rates of growth for the other economic variables were as follows: 6.5 per cent for private consumption, 5.0 per cent for government consumption, 13.5 per cent for savings, 3.9 per cent for exports, and 4.0 per cent for imports. Employment was envisaged to increase by 19 per cent over the five years period; that is providing 230,559 job opportunities of which 98,142 were expected to be permanent new jobs. The remainder would represent an increased utilization of existing employment.^{1/}

The Third Five Year Plan established a higher target real rate of economic growth of 43.3 per cent over the period, or 8.2 per cent annually. Just like in the previous plan, the agricultural sector was planned to grow at 5 per cent annually. However, the industrial sector target rate of growth was raised to 15.8 per cent per year. Government consumption was not to increase faster than 3 per cent annually, while the growth in private consumption was not to exceed 6.8 per cent annually. Savings were to grow at the rate of 14.8 per cent annually. Exports and imports were to increase at the annual rates of 6.5 and 5 per cent respectively. Employment in the economy was planned to increase at 4.7 per cent annually.^{2/}

The Fourth Five Year Plan had a more ambitious growth targets for it aimed to achieve a real rate of economic growth of 12 per cent annually. The growth rates of the agriculture and industry sectors were set at 8 per cent and 15.4 per cent respectively. Private consumption was allowed to increase at the rate of 10.2 per cent, while government consumption was expected to increase at 15.7 per cent annually. Savings were to grow at the rate of 12.5 per cent annually. Investment was to increase at 11.0 per cent per year.

1/ Second Five Year Plan, pp.44, 50, 53-54, 140-141.

2/ Third Five Year Plan, pp. 8-9.

Exports and imports were expected to grow at the rates of 7 and 7.5 per cent, respectively. Employment was planned to increase at 4.9 per cent annually. The price level increase over the period was not to exceed 30 per cent.^{1/}

Investment Programs of the Four Five Year Plans

The estimated investments required to achieve the stated objectives of each of the Four Five Year Economic and Social Development Plans witnessed a very sharp increase between the First and the Fourth Plans. Thus, while the investment requirements of the First Plan were estimated at SL 2.7 billion, the figure rose to SL 4.9 billion in the second plan, then to SL 8 billion in the Third Plan, and to an overwhelming figure of SL 54 billion in the Fourth plan. A summary of the investment programs of the four plans and their distribution among economic sectors and by public and private sectors is presented in Table I-2. The Table shows that the planned share of the private sector in the investment programs exhibits a systematic decline. It fell from 36.8 per cent in the First Plan to only 17.3 per cent of the total investment in the Fourth Plan. However, the private sector was expected to continue to play a major role in the housing construction, agriculture and irrigation sectors of the economy.

A close examination of the distribution of the investment programs of the public sector among the economic sectors is reflected in the development strategies which underly each of the four plans.

The First Five Year Plan

The First Five Year Plan assigned top priority to the irrigation and land reclamation sector which was allocated SL 780 million, or 39.2 per cent of the public sector investments. The purpose of this large investment was to stabilize agricultural output, traditionally the largest but the most volatile productive sector, by reducing its dependence on rainfall and increasing the areas of irrigable land.

1/ Fourth Five Year Plan, pp.7-10.

Table 1.2 - Investment programs of the Four Five Year Economic and Social Development Plans and their distribution among economic sectors and by public and private sectors (SL million)

	First Five Year Plan 1960/61-1965				Second Five Year Plan 1966-1970				
	Public		Private		Public		Private		
	invest- ment	% of total	invest- ment	% of total	invest- ment	% of total	invest- ment	% of total	
Euphrates Dam project	-	-	-	-	651	16.8	-	651	13.1
Irrigation & land reclamation	780	39.2	50	30.5	155	4.4	150	305	6.2
Agriculture	95	4.8	175	9.9	136	3.9	300	436	8.8
Industry and mining	235	11.8	-	8.6	348	10.0	50	399	8.0
Power and energy	274	13.8	-	10.0	612	17.7	-	612	12.4
Transportation & communications	387	19.4	150	19.7	769	22.2	125	894	18.0
Public utilities & housing	47	2.3	245	10.7	503	14.5	755	1 278	25.8
Services	171	8.6	111	10.4	280	8.1	100	380	7.7
Total	1 989	100	731	100	3 454	100	1 500	4 955	100

"Continued"

Table 1.2 "Continued"

	Third Five Year Plan 1971-1975 ^{1/}			Fourth Five Year Plan 1976-1980 ^{4/}		
	Public sector invest- ment	% of total invest- ment	Private sector invest- ment	Public sector invest- ment	% of total invest- ment	Private sector invest- ment
Euphratus Dam project	1 593	24.7	-	7 439	16.6	-
Irrigation & land reclamation	212	3.3	140	1 095	2.4	2 500
Agriculture	436	6.7	140	1 904	4.2	-
Industry & mining	1 173	18.2	150	9 889	22.0	1 400
Power and energy	1 014	15.7	-	7 985	17.8	-
Transportation & communications	783	12.1	100	5 136	11.5	500
Public utilities & housing	586	9.0	903	3 997	8.9	4 088
Services	650	10.1	120	7 332	16.4	900
Total	6 447	100	1 553	44 777	100	9 388
			8 000	54 166		100
						15.2
						14.9
						20.8
						14.7
						10.4
						6.6
						13.7

Sources: 1/ The First Five Year Plan, Ibid., p. 12-13

2/ The Second Five Year Plan, Ibid., p. 12

3/ The Third Five Year Plan, Ibid., pp. 31, 34

4/ The Fourth Five Year Plan, Ibid., p. 43

The second priority in the plan was given to the transportation and communications sector which was allocated SL 387 million, or 19.4 per cent of the investment. The strategy was to link the production centers of the economy with the markets and with the ports of exports. This was to be achieved by constructing a network of roads, railroads, and communication systems to facilitate the commodity flows across the country. Railroad projects received SL 173 million, thus accounting for the largest proportion of the investment in this sector. Roads and bridges were allocated SL 74 million, and SL 67 million went to developing the communications systems.

The energy and power sector ranked third with investment allocations of SL 274 million, or 13.8 per cent of the investment. The energy (petroleum) sub-sector accounted for SL 211 million of the investment with SL 63 million going to developing the electricity sub-sector. The special emphasis placed on petroleum stems from the strategic consideration of developing this sub-sector to become a major foreign exchange earner for a country whose foreign currency revenues fluctuate widely with the fluctuations in agricultural production and hence exports.

The industry and mining sector came in the fourth place on the list of priorities in the First Plan, and was allocated SL 235 million, or 11.8 per cent of the investment. Of this sum SL 205 million were allocated to manufacturing industry and SL 30 million to mining. The purpose of the investments in mining was to conduct geological surveys to obtain information about the mineral resources of the country.

The Second Five Year Plan

The Second Plan gave top priority to developing the transportation and communications sector by allocating SL 769 million, or 22.2 per cent of the public sector investments to it. The emphasis on this sector was in recognition

of its strategic importance for other sectors, especially agriculture, industry and trade. Thus, the plan aimed to achieve the following objectives in this sector:

(1) To expand horizontally the roads network by constructing new roads, increasing the lengths of paved roads, and raising the standards of the main highways.

(2) To construct new railroads with international standards and modernize the existing network.

(3) To expand the capacity of seaports, acquire modern port equipment, complete the second major Syrian seaport at Tartous, and build small fishing ports.

(4) To construct a new international airport in Damascus, modernize other airports and acquire new passenger air carriers.

(5) To expand the coverage of the television broadcasting to cover the entire country.

(6) To develop telephone, telegraph, postal and weather forecasting services.

The second priority of the plan was the Euphrates Dam Project which was allocated SL 651 million, or 18.8 per cent of the investment. The project aimed at constructing gravel dam which is capable of storing 7.3 billion m³ of water, building a power generation station consisting of 8 units which has a capacity of 800 thousand KW and which can produce 1.6 billion KWH annually, and irrigating 640 thousand hectares of land. It was estimated to cost SL 635 million for the dam, and SL 503 million for the power station. Total investment required for the project including the housing project near the dam site and the irrigation and land reclamation works was estimated at SL 1,281 million.

The third priority in the plan was given to the power and energy sector which was allocated SL 612 million, or 17.7 per cent of the investment. Of this sum, SL 417 million were allocated to the petroleum sub-sector and SL 195 million

to electricity. The strategy in the petroleum sub-sector was to establish an integrated oil industry in all the aspects of exploration, production, transportation, storage and refining. As for the electricity sub-sector, the strategy was to develop the industry in the production, transmission, and distribution sides with the purposes of reducing the cost of electricity and ensuring the utilization of the power that will be generated by the Euphrates Dam Project.

Public utilities and housing came in the fourth level of priority followed by industry and mining, and were allocated SL 503 million and SL 348 million, respectively.

The Third Five Year Plan

The Third Plan was primarily an extension of the Second Plan, for 54.3 per cent of the public sector investment was allocated for completion of projects underway (i.e., projects which were started in the Second Plan, but were not completed). The distribution of the investment between carryover projects and new projects and new projects in each of the economic sectors is shown in Table I-3 below.

The plan also identified a number of standby projects in each economic sector and estimated their capital investment requirements, but without making any allocations for them.

The structure of the public sector investment program in the Third Plan indicates that the primary strategic concern of the plan was the completion of the Euphrates Dam Project in 1975. Hence the project was allocated SL 1,593 million, or 24.7 per cent of the investment, for completion of the Dam and for the reclamation of 38,700 hectares of land which would provide employment for 53 thousand workers.

Table I.3 - Distribution of the Public Sector Investment between
new and carryover projects in the Third Plan
(SL million)

	Carryover projects	New Projects	Total	Carryover as percentage of sectoral total
Euphratus Dam project	1 593	-	1 593	100
Irrigation and land reclamation	57	155	212	27
Agriculture	177	259	436	40.6
Industry and mining	616	557	1 173	52.5
Power and energy	299	715	1 014	29.5
Transportation & communications	578	205	783	73.8
Public utilities and housing	64	522	586	10.9
Services	113	537	650	17.4
TOTAL	3 497	2 950	6 447	54.3

Source: Third Five Year Plan, pp 31, 34.

The industry and mining sector was given the second priority in the Plan with allocations of SL 1,173 million, or 18.2 per cent of the investment. Of this sum SL 1,033 million was allocated to manufacturing industry. The strategy for manufacturing industry was to complete building the industrial base by modernizing existing industries, and constructing new industries for the exploitation of agricultural and mineral resources of the country. Special emphasis was also placed on the manufacturing of producers goods. The mining subsector was allocated SL 140 million, of which SL 109 million was allocated to the General Phosphate and Mines Company which is charged with the exploitation of the Syrian phosphate and rock salt mines.

The third priority in the plan was assigned to the Power and Energy Sector with allocations of SL 1,014 million, or 15.7 per cent of the investment. The share of the energy sub-sector was SL 736 million. The strategic objectives of this investment were essentially to:

1. Complete the exploration efforts throughout the country in search for new oil fields in order to increase the national oil reserves.
2. Expand the exploitation of existing oil fields and develop and exploit the new, discovered fields.
3. Raise the capacity of the crude oil pipeline.
4. Expand the refining capacity of Syrian crude oil by constructing a new refinery with a capacity of 2 million tons annually.
5. Raise the storage capacity of oil products.

The investment strategy in the electricity subsector, which was allocated SL 278 million, was essentially twofold. First, to provide for the electricity needs of the country in the years prior to the generation of hydro-electric power from the Euphratus Dam Project. Second, to construct the networks required for the transmission and distribution of electric power, especially that which will be generated by Euphratus Project.

The Fourth Five Year Plan

The Fourth Five Year Plan may also be considered as a mere continuation of the previous plan since 61 per cent of the public sector investment was allocated to carry over projects. The detailed distribution of the investment between new and carryover projects by economic sector is presented in Table I.4 below. As before the plan also identified standby projects for which no allocations were made.

TABLE I.4 DISTRIBUTION OF THE PUBLIC SECTOR INVESTMENT BETWEEN NEW AND CARRYOVER PROJECTS IN THE FOURTH PLAN (SL MILLION)

	Carryover projects	New projects	Total	Carryover as percentage of sectoral total
Damphatus Dam project	7 379	60	7 439	99.2
Irrigation and land reclamation	456	639	1 095	41.6
Agriculture	1 226	677	1 904	64.4
Industry and mining	7 402	2 487	9 889	74.8
Power and energy	4 277	3 708	7 985	53.5
Transportation & communications	3 481	1 655	5 136	67.8
Public utilities and housing	983	3 014	3 997	24.6
Services	1 969	5 363	7 332	26.8
Total	27 173	17 604	44 777	60.7

Source: Fourth Five Year Plan, p. 46.

Industry and mining received the largest allocation in this plan which amounted to SL 9,889 million, or 22 per cent of the investment. Of this sum, manufacturing industry received SL 9,487 million, and mining SL 402 million. Thus the Fourth Plan may truly be considered as the plan of developing the industrial base of the economy, although 75 per cent of the allocations to manufacturing industry were appropriated to carryover projects from the previous plan. In the mining subsector, SL 336 million were allocated to the General Company of Phosphate and Mines to develop the existing phosphate plants and to construct new ones as well as to develop the rock salt mines. The General Asphalt Company received SL 11.3 million to develop the asphalt quarrying sites and processing plants. Geological surveys were allocated SL 55 million. The investment in the mining sector was in consistency with the strategy of developing, extracting and processing the mineral resources of the country.

The second investment priority in the Fourth Plan was given to the Power and Energy Sector which was allocated SL 7,985 million, or 17.8 per cent of the public sector investment. The share of the power sub-sector in this sum was SL 4,879 million distributed as follows:

	<u>Investment (SL million)</u>
Power generation	2 455
Power transmission	1 316
Power distribution	600
Electrification of rural areas	320
Improving means of production	138
	<hr/>
	4 879

The energy sub-sector, on the other hand, received SL 3,106 million distributed as follows.

	<u>Investment (SL million)</u>
Petroleum production	1 422
Petroleum transportation	211.5
Petroleum refining	1 187.2
Petroleum products storage and distribution	275.0
Vocational training	<hr/>
	10.5
	3 106.2

The main strategy which governed the investment in the power and energy sector was to attempt to produce locally all sources of energy, whenever that is economically and technically feasible, for the purposes of providing a continuous supply of electricity and fuel to the productive sectors of the economy and have a surplus for export. Additionally the power sub-sector was to expand the linkage of the electric current with the neighbouring Arab countries (e.g. Lebanon and Iraq).

The third priority in the plan was given to the Euphratus Project which was allocated SL 7,439 million, or 16.6 per cent of the resources. In fact the construction of the Dam was actually completed in 1975. However, the land reclamation and irrigation projects are still underway.

The fourth investment priority was assigned to the transportation and communications sector which was allocated SL 5,136 million, or 11.5 per cent of the investment. The objectives governing the investment in this sector may be summarized as follows:

1. To continue to emphasize road transportation as the basic means for moving passengers and commodities.
2. To complete the international network of roads and railroads and provide for their linkages for the purpose of raising the effectiveness of the transportation sector.
3. To develop and better utilize the capacities of transport facilities such as airports, seaports, highways, and railroads which were established in previous plans.
4. To complete the network of secondary highways connecting the major highways and railroads, to enable a better utilization of the capacity of the latter.
5. To expand the telephone services in the population centres.

Source of Financing the Development Plans

The financing of the public sector investments in the Five Year Plans of Syria was provided for largely from internal resources. The financing was derived from four major sources.

- (1) The surpluses of public sector enterprises of economic nature which include: banking and finance, trade, agriculture, public utility, and industrial organizations, as well as Syrian crude oil export revenues.
- (2) The surpluses of public and local (municipal) administrations.
- (3) Other sources which primarily include the Public Debt Fund Surplus and bank loans.
- (4) Irregular sources.

A summary of the planned financing out of these sources for each of the Four Five Year Plans is presented in Table I.5.

A close examination of the table reveals a number of points. First, the local sources of financing have provided an increasing proportion of the public sector investment financing needs as the plans progressed. More specifically, while only 54.3 per cent of the financing needs were expected to be derived from local sources in the First Plan, this ratio increased to 67.6 per cent in the Second Plan and to 86.6 per cent in the Third Plan. It was 81.8 per cent in the Fourth Plan. In absolute terms the difference between the investment financing needs and what could be obtained from local sources of financing was SL 909 million in the First Plan, but increased to a total of SL 8,140 million in the Fourth Plan. Second, the surpluses of public enterprises engaged in economic type of activity have increasingly become the most important source of local financing. These enterprises have accounted for 23.4 per cent of the local sources of financing in the First Plan, 66.5 per cent in the Second Plan and 80.1 per cent in the Third Plan. However, their planned contribution fell to 53.8 per cent in the Fourth Plan. Fourth, perhaps the single most important of these enterprises is

Table I.5 Sources of financing public sector investments in the Four Five Year Economic and Social Development Plans (SL million)

	First Five Year Plan		Second Five Year Plan		Third Five Year Plan		Fourth Five Year Plan	
	Amount	%	Amount	%	Amount	%	Amount	%
A. Surplus of public enterprises of economic nature	402	23.4	1 551	66.5	4 475	80.1	19 702	53.8
1. Banking & finance sector	145		393	16.8	712	12.7	1 738	4.7
2. Trade sector	-		173	7.4	259	4.6	1 999	5.4
3. All other public organizations of economic activity	131		785	33.7	1 207	21.6	7 117	19.4
4. Revenues from export of Syrian crude oil	100		200	8.5	2 237	40.0	8 702	23.7
5. Agriculture sector	26		-		60	1.0	146	-
B. Surplus of public and local administrations	110	6.3	317	13.6	470	8.4	3 810	10.4
C. Other resources	518	30.1	212	9.1	265	4.7	475	1.3
1. Public Fund Bonds	98		110		-		30	
2. Bank loans	-		102		265		445	
3. Budget surplus	420		-		-		-	
D. Irregular resources	50	3.0	250	10.7	375	6.7	12 650	34.5
E. Foreign borrowing	640	37.2	-		-		-	
F. Total (A + B + C + D + E)	1 720	100.0	2 330	100.0	5 585	100.0	36 637	100.0

Sources: 1/ First Five Year Plan, *Ibid.*, p. 28
2/ Second Five Year Plan, *Ibid.*, p. 67
3/ Third Five Year Plan, *Ibid.*, pp. 106-108.
4/ Fourth Five Year Plan, *Ibid.*, pp. 226-228.

the Syrian Petroleum Company. As can be seen from Table I.5, expected revenues from the export of Syrian crude oil have increased from SL 100 million in the First Plan to SL 8,702 million in the Fourth Plan, reflecting both the increase in the volume of production and the quadrupling of oil prices after the 1973 war. Oil export revenues alone accounted for 23.7 per cent of the local sources of financing in the Fourth Plan. Finally, it might be noted that the irregular resources of financing have amounted to SL 12.6 billion in the Fourth Plan, or 34.5 per cent of the total of local resources.

Evaluation of the Implementation of the Five Year Development Plans

The implementation of the Five Year Economic and Social Development Plans did not proceed as expected in the Plans. Actual investment expenditures fell short of the final appropriation hence leading to unfavourable rates of implementation. Furthermore, a number of problems and difficulties arose which impeded the execution of the developmental projects. This section attempts to assess the performance of the Five Year Plans and highlight the problems which prevented the fulfillment of their objectives. Analysis of planned financing and actual implementation is used as an indicator or a rough assessment of planning performance.

Actual Expenditure vs. Final Investment Appropriations

During the course of implementation of the Five Year Plans, the public sector investment programmes were subjected to modifications which resulted, generally, in an upward revision of the final appropriations in the Annual Development Budgets. The excess of final appropriations over planned investments was relatively insignificant in the first two plans, 8.3 and 7.9 per cent, respectively. However, in the Third Plan the excess was as high as 91.4 per cent.

A number of factors may have contributed to the differences between planned investments and final appropriations. Perhaps the more important of these factors are the following:

(1) Changes in the project priorities which have resulted in dropping some planned projects and/or adding new ones.

(2) Poor estimates of capital investment costs for some projects at the initial planning stage, which necessitated making additional appropriations at the time of contracting for such projects.

(3) Cost over-runs during the execution of some projects which required supplementary fund allocations for them.

A summary of the final appropriations and the actual investment expenditures of the public sector distributed by economic sector in each of the Four Plans are presented in Table I.6.

It can be seen from the table that a total of SL 24.5 billion has been actually spent on development projects in the Three Five Year Plans and the first two years of the Fourth Plan. The rate of financial spending (actual expenditures to final appropriations) in the First Plan was a low 56 per cent (60.7 per cent of the planned investment). It has exhibited an improvement in the Second and the Third Plans by rising to 70 per cent. However, it fell slightly to 68.6 per cent in the first two years of the Fourth Plan as final appropriations amounted to SL 1,687 million.^{1/}

A comparative analysis of the expenditure rates among the productive economic sectors over the Four Plans shows that the power and energy sector has consistently been the best performer, followed by the transportation and communications sector. The industry and mining sector demonstrated high rates of expenditure in the Second Plan and the first two years of the Fourth Plan. The lowest rates of spending have consistently been in agriculture.

A more detailed presentation of the actual expenditures and final appropriations of the manufacturing industry, mining, petroleum, and electricity subsectors is shown in Table I.7 below.

^{1/} State Planning Commission, Implementation of the National Economic Plan Follow-up Report, 1977.

Table I.6 - Final appropriations and actual investment expenditures of the public sector in the Four Five Year Economic and Social Development Plans (SL million)

	First Five Year Plan 1960/61-1965		Second Five Year Plan 1966-1970		Third Five Year Plan 1971-1975		Fourth Five Year Plan 1976-1980	
	Final appropriations	Actual expenditures	Final appropriations	Actual expenditures	Final appropriations	Actual expenditures	Planned investments	1976-77 actual expenditures
Euphrates Dam project	-	-	651	377	1 731	1 252	7 439	835
Irrigation and land reclamation	434	47.0	182	107	235	138	1 995	273
Agriculture	114	41	144	18	905	472	1 904	250
Industry & mining	140	37.8	537	394	2 726	1 550	9 889	3 895
Power & energy	349	75.4	757	741	3 446	2 596	7 985	2 602
Transportation and communications	472	55.5	921	623	1 651	1 195	5 136	1 449
Public utilities and housing	425	55.5	356	255	483	307	3 997	1 362
Services	221	149	180	92	1 167	1 077	7 332	1 477 ^{a/}
TOTAL	2 155	1 208	3 728	2 607	12 341	8 587	44 777	12 141

Sources: 1/ Second Five Year Plan, *Ibid.*, pp. 434, 445, 450, 461, 465, 467, 469.

2/ State Planning Commission, *Implementation of the National Economic Plan Follow-up Reports*, for the years 1966, 1967-68 1969, 1970, 1975, 1977.

3/ Includes capital expenditures of internal trade organizations which accounted for SL 242 million.

Table I.7 -- Final Appropriations and actual public sector expenditures in the industry, mining, power and energy sectors in the Four Five Year Economic and Social Development Plans (SL Million)

	First Five Year Plan 1960/61-1965				Second Five Year Plan 1966-1970			
	Final appropriations	% of total	Actual expenditures	Rate of expenditure	Final appropriations	% of total	Actual expenditures	Rate of expenditure
Industry	123.2	25	42	34.1	701	54	620	88.4
Mining	24.2	5	12.9	53	2	0.1	1.4	70.0
Petroleum	208.1	42.6	159.0	76.4	398.5	30.8	403.7	101.0
Electricity	133.4	27.3	101.4	76	195.0	15.0	175.4	90.0
TOTAL	488.9	100.0	315.3	65	1 295.0	100.0	1 200.5	92.6

	Third Five Year Plan 1971-1975				Fourth Five Year Plan 1976-1980			
	Final appropriations	% of total	Actual expenditures	Rate of expenditure	Planned expenditure	% of total	Final appropriations	Rate of expenditure
Industry	3 116	50.6	1 736	55.7	10 719	60.0	5 344	4 434
Mining	180	2.9	122	67.8	402	2.2	166	66
Petroleum	1 694	27.4	1 503	88.7	1 919	10.7	1 028	730
Electricity	1 182	19.1	784	66.3	4 879	27.2	1 400	1 249
TOTAL	6 172	100.0	4 145	67.1	17 919	100.0	7 938	6 479

Source: Compiled from State Planning Commission Annual Follow Up Reports, Ibid.,
 1/ Includes oil refining.

The total investment in these four sub-sectors over the Four Plans amounted to SL 12,140 million distributed as follows:

	<u>Actual Investment</u> <u>(SL million)</u>
Manufacturing industry	6 832
Petroleum	2 796
Electricity	2 310
Mining	<u>202</u>
	12 140

The figures show that over twice as much was invested in manufacturing industry as in the three other sub-sectors, although with a disproportionately much lower yield as will be seen later. In terms of implementation performance, it appears that the rates of financial spending have been highest in the petroleum and electricity sub-sectors. The rate of expenditure in manufacturing industry was reasonably high in the Second Plan and in the first two years of the Fourth.

Problems Facing the Implementation of Development Plans

The problems which have obstructed the implementation of the Five Year Development Plans in Syria may be classified into seven major groups. They are:

- (1) Bureaucratic routine in government decision making processes.
- (2) Inadequacy of feasibility studies for the development projects.
- (3) The shortage of competent manpower in public enterprises and in government agencies.
- (4) Financial problems.
- (5) Delays in receiving machinery and equipment at project sites.
- (6) Shortages of some essential construction materials.
- (7) Reluctance of local construction contractors to bid for the civil works of the public sector projects.

A detailed discussion of each group of problems is in order.

It is generally known that government's laws, regulations and procedures are rigid and some times out-dated as they stress form at the expense of substance. In a sense, they are incompatible with the requirements of fast and efficient decision making. The administrative and financial systems and procedures which govern the functioning of the public sector enterprises in Syria are no exception. In fact they have been one of the major obstacles in the face of the efficient implementation of the Development Plans. Long delays in decision making have been common and frequent, thus leading to a slowdown in the execution of development projects and to a significant cost over-runs in those projects. The delays in decision making manifest themselves in a number of ways, such as:

(1) Delays in issuing the Annual Development Budget, which implies that all expenditures on the development projects have to wait until the budget is out.

(2) Delays in contracting for development projects and their requirements which arise from long and complicated procedures of the Competitive Bidding and Contracts Law.

(3) Delays in the evaluation of bid offers and the selection of the best offer.

(4) Delays in approving the contracts by higher authorities after they are concluded.

(5) Delays in issuing import permits for development projects by the Ministry of Economy and International Trade.

(6) Delays arising from the procedures involved in the purchase and acquisition of title to land sites for the projects.

The second group of problems relates to the inadequacy of the initial economic, technical, engineering design and other studies for some of the development projects. The inadequacy of technical feasibility studies and poor technical specifications have generally caused delays in contracting for

a project or necessitated further bidding and contract negotiating during implementation in order to cover aspects of the project that were inappropriately considered before. In either case interruptions in the time table of execution for some projects have resulted. For other projects, engineering design studies were either substandard or delivered late which resulted in delaying the civil works and hence the entire execution of the projects.

The third set of problems arose from the serious shortage of qualified manpower of all types in government agencies and public sector enterprises. This includes managerial talent at all levels, technicians, and skilled labor shortages. The inadequate pay-scales and lack of incentive schemes in Government have been a major contributing factor to this shortage. The result has been a reduced effectiveness in the administration of the development programmes.

The fourth group of problems has to do with the shortage of financing, both in foreign and local currencies. The financing problem has taken many forms, the more outstanding of which have been:

(1) Delays by the Commercial Bank of Syria to open letters of credit to suppliers abroad, at times, due to inavailability of foreign exchange.

(2) inability of the public sector enterprises embarking on development projects to take full advantage of the pledged international loans and credit facilities, because of the failure of the management of such enterprises to provide the foreign financing parties with the required studies and other information about the projects.

(3) Weak liquidity position of many of the public sector enterprises which hindered their ability to keep up with large cash expenditures on the new projects. High debt ratios in the capital structure of these enterprises coupled with the large size of the new projects only helped make the liquidity problem of such enterprises get worse.

The fifth group of problems manifested itself in delays in receiving the shipments of machinery and equipment at the project site, consequently delaying the completion of many projects. A number of factors have contributed to this problem in varying degrees. Some of these factors are:

- (1) Failure of the foreign supplier to meet delivery dates.
- (2) Congestion of seaport which prevented the prompt unloading of cargo from the ships.
- (3) Inability to clear shipments from the seaports fast enough due to the red tape involved. Some enterprises were just plain careless by not attempting to clear their shipments on time.
- (4) Shortages in the means of road transportation (i.e. trucks) to carry cargo to its ultimate destination at the prevailing controlled shipping tariff rate structure.

The sixth problem contributing to the slow pace of implementation of the development plans has been the shortages of some basic construction materials such as cement, steel, wood, etc. The shortages of such materials had the effects of putting off most construction works behind schedule.

Finally, there is the problem of the insufficiency of construction contracting capabilities in both the public and the private sectors in comparison with the size and number of the development projects to be constructed. The private sector contractors have been reluctant to bid for civil works of the public sector projects either because they did not have the technical, organisational and financial capabilities to handle such big projects; or because they were discouraged by the terms and conditions stipulated by Government for payments on works performed. The public sector construction contracting capabilities, on-the other hand, had been limited in the earlier development plans. However, as need grew bigger, a number of public sector construction companies were established to handle the large development projects. In fact, 14 such companies have been established since 1974. They specialise in all branches of the building and construction industry including the construction of roads, bridges, railways, housing, irrigation, and public utilities infrastructure.^{1/}

^{1/} Syrian Planning Minister Reviews the New Development Plan and offers guarantees for prospective investors, Al-Itisaf wal-Annal Arab Business Magazine, vol. I, no. 2 (May 1979), p. 26.

CHAPTER II

PERFORMANCE OF THE ECONOMY AND THE MANUFACTURING INDUSTRY

Introduction

This chapter is an attempt to analyse the performance of the economy over the period 1960-1977. The analysis will be conducted in terms of: gross domestic product; gross fixed capital formation; employment; price levels; exports and imports. The performance of these variables in the manufacturing sector will also, wherever possible, be considered.

The Syrian economy, as will be seen, has undergone a significant development since 1960. During this period three Five-Year Economic and Social Development plans were implemented, with the Fourth (ending in 1980) well underway. The growth and the structural changes that took place in the economy have very much been influenced by these plans. Therefore, in the following, the data and the periods under discussion correspond to those covered by the successive plans.

Economic Trends and Structure

The GDP of Syria, measured at constant prices, increased from SL 2,962 millions to SL 10,360 millions during the period 1960-1977, representing an average annual rate of growth of 7.6 per cent. The growth rates increased over the successive periods of the plan see Table II.1. In the fifties and before the development plans were introduced, the economy was growing at an average annual rate of 2.6 per cent only.

During the sixties, GDP increased from SL 2,962 million in 1960 to SL 5,616 million in 1970: an average annual real rate of growth of 6.6 per cent. And a higher rate was achieved in the seventies when GDP rose to SL 10,360 million in 1977, representing an average annual rate of real growth of 9.1 per cent. Table II.1 also shows the growth rates recorded by major economic sectors in different periods. During the 1960-1977 period, the sectors recording higher growth rate than GDP were respectively government, services, mining and manufacturing, building and construction and finance and insurance in that order.

Table II.1 Average Annual Compound Rates of Growth of GDP and its Components at Constant 1965 Prices in Different Periods (per cent)

Sectors	1953- 1960	1960- 1965	1965- 1970	1970- 1975	1975- 1977	1960- 1970	1970- 1977	1960- 1977
Agriculture, forestry and fisheries	-5.57	16.21	2.39	7.25	2.82	6.53	5.96	6.30
Mining & manufacturing ^{2/}	8.07	5.49	8.89	11.81	9.62	7.17	11.18	8.81
Building & construction	6.42	-0.68	6.65	11.11	26.91	2.92	15.41	7.89
Transport & communication	-6.35	5.27	9.67	12.30	-15.44	7.44	4.27	6.13
Wholesale & retail trade	16.66	3.44	5.32	11.72	4.92	4.38	9.73	6.55
Finance & insurance	7.42	10.02	1.98	9.93	11.86	5.92	10.48	7.78
Ownership of dwelling	2.57	2.79	2.76	3.65	6.79	2.78	4.54	3.50
Government	15.07	16.62	9.97	15.68	3.94	13.25	12.20	12.81
Services	4.52	9.80	6.09	9.53	14.32	7.93	10.88	9.13
TOTAL	2.63	8.17	4.72	10.83	3.75	6.61	9.0	7.49

^{1/} Source: Central Bureau of Statistics, Statistical Abstract of Syria, 1977, 78.
^{2/} Compound rates of growth including electricity, gas and water.

In terms of the contribution of major economic sectors to the growth of GDP in the same period, manufacturing and mining came first. Other main sectors by order of importance were government, wholesale and retail, and agriculture. The contribution of the remaining sectors and in different periods are summarized under:

Contribution of Major Economic Sectors to GDP Growth, 1960-1977
(Constant 1963 Prices)

	<u>1960-70</u>	<u>1970-77</u>	<u>1960-77</u>
	<u>P e r c e n t a g e s</u>		
Agriculture	20.4	12.2	15.1
Mining and Manufacturing	20.9	25.7	24.0
Building and Construction	1.5	5.8	4.2
Transport and Communication	12.0	4.5	7.2
Wholesale and Retail Trade	13.1	19.3	17.1
Finance and Insurance	2.0	2.6	2.3
Ownership of Dwelling	3.1	2.7	2.8
Government	18.9	18.7	18.6
Services	8.1	9.0	8.7
	100.0	100.0	100.0

Table II.2, shows changes in the relative contribution of each sector in order to establish the major structural changes that took place in the economy during the period under consideration.

The first thing to be noticed is the decline in the share of agricultural sector. As table II-2 shows, until recently, the Syrian economy was dominated by the agricultural sector. Its share in GDP amounted to 36.7 per cent in 1953. But from 1960 onwards this share continued to decline reaching as low as 16.7 per cent in 1977. The net gainers were mining and industry. Their combined share increased from 13 per cent in 1953 to 18.7 per cent in 1960, and to 22.5 per cent in 1977. These trends, prevailed even when an average percentage shares are calculated so as to isolate the effects of the bad agricultural crop years.

Table II-2
 Gross Domestic Product at Market Prices and
 its Sectoral Distribution in Selected Years.
 (Values in SL Million at constant 1963 Prices)

Sectors	Gross Domestic Products							Percentage of total						
	1953	1960	1965	1970	1975	1977		1953	1960	1965	1970	1975	1977	
Agriculture, forestry and fisheries	909.4	612.1	1 297.1	1 152.7	1 635.5	1 729.0		36.7	21.0	29.1	20.5	17.4	16.7	
Mining & manufacturing ^{1/}	322.3	554.7	724.6	1 109.1	1 938.4	2 329.3		13.1	18.7	10.3	19.7	20.6	22.5	
Building & construction	77.0	119.0	115.0	158.7	268.7	432.8		3.1	4.0	2.6	2.8	2.8	4.2	
Commodities sectors	(1 304.7)	(1 285.9)	(2136.7)	(2 420.5)	(3 842.6)	(4 491.1)		(52.8)	(43.4)	(48.0)	(43.1)	(40.9)	(43.4)	
Transport & communication	468.0	304.0	393.0	623.4	1 113.3	835.4		19.0	10.3	8.8	11.1	11.8	8.1	
Wholesale & retail trade	221.0	650.0	770.0	997.8	1 736.5	1 911.6		8.9	22.0	17.3	17.7	18.5	18.4	
Finance and insurance	40.9	67.5	108.8	120.0	132.7	241.1		1.7	2.3	2.4	2.1	2.0	2.3	
Ownership of dwelling	221.0	264.0	303.0	347.2	415.4	473.7		8.9	8.9	6.8	6.2	4.4	4.6	
Government	76.0	203.0	438.0	704.3	1 458.9	1 576.3		3.1	6.8	9.8	12.5	15.5	15.2	
Services	138.0	188.0	300.0	403.2	635.6	830.7		5.6	6.3	6.7	7.2	6.7	8.0	
Non-commodity sectors	(1 164.9)	(1 676.5)	(2312.8)	(3 195.9)	(5 552.4)	(5 868.8)		(47.2)	(56.6)	(52.0)	(56.9)	(59.1)	(56.6)	
Total	2 469.6	2 962.3	4 449.5	5 616.4	9 395.0	10 359		100.0	100.0	100.0	100.0	100.0	100.0	

Source: Central Bureau of Statistics, Statistical Abstracts of Syria, 1977, 1978.

^{1/} Including electricity, gas and water.

<u>Average percentage share in GDP</u>	<u>1953</u>	<u>1960-65</u>	<u>1966-70</u>	<u>1971-75</u>	<u>1976-77</u>
Agriculture	36.7	28.2	24.4	18.7	17.6
Mining & industry	13.1	16.4	17.7	20.3	21.7

These percentages clearly show that the share of GDP arising from agriculture has followed a trend of systematic decline, while that of the mining and industry sector has followed a systematic increase.

The second noticeable change in the structural composition of the Syrian economy has been the large and continuous increase in the share of the public administration sector. The share of this sector has increased from a meagre 3 per cent in 1953 to 15.2 per cent in 1977. This is a reflection of the increasing role government played in the economy. The share of dwelling has declined over the period under consideration from 8.9% in 1953 to 4.6% in 1977, while the share of services recorded a modest increase.

The third observation relates to the relative stability in the shares of building and construction, transport and communications, trade and finance.

Classifying the economy into commodity and non-commodity producing sectors shows that since 1960, the share of the latter in total GDP has been relatively stable. Finally, the annual growth rates of the GDP, as can be seen below have been quite erratic. This can be explained by a multiplicity of factors including the degree of the implementation of the development plans during the period, as well as the incident of two wars.

Annual Growth Rates of the GDP
Current Prices 1961 - 1977

<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
8.7	23.7	-0.06	9.3	2.3	-2.9	5.3	4.4	15.5	2.4
<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>			
10.1	9.7	2.2	19.0	13.8	7.5	2.6			

For a better understanding of the performance of the Syrian economy, further analysis of the growth rates of GDP and its sectoral components during each of the Five Year Plan periods will be made. During 1961-1965 the economy grew at an average annual rate of 8.5 per cent. This was higher than not only the rate of growth in the fifties, but also the planned rate of growth of 7 per cent. The sectors with highest growth rates in this period were the government and the agriculture. They grew at an average annual rate of 16.6 and 16.2 per cent respectively. The growth rate of the industry and mining sector was only 5.5 per cent against a planned growth rate of about 9 per cent and a rate of 8 per cent in the fifties. It seems that the nationalisation of industry in 1964 and 1965, and the organisational problems faced by the public sector agencies in managing the nationalized firms, had an initial adverse effect on industrial output. The housing construction and the trade sectors, which are largely dominated by the private sector, have experienced a serious decline in their growth rate in this period. The former grew at a negative rate (compared to a planned rate of 15.8 per cent) and the latter grew at an average rate of 3.4 per cent annually, compared to 16.7 per cent in the fifties. This poor performance may also be attributed to the high economic uncertainty following the nationalisations which made entrepreneurs refrain from investing.

The period of 1966-1970 was a time of high economic and political uncertainty. The Government continued to tighten its control over the economy in pursuit of the socialist approach to economic development. Furthermore, a major breakout of war with Israel took place in June 1967 in which Syria was involved. The war had accentuated the economic and political uncertainties in the country and the economy suffered a further set-back. The growth of GDP declined to an average annual rate of 4.8 per cent, compared to the planned rate of 7.2 per cent in the Second Five Year Plan. The government and the transportation and communications sectors, however, remained among the high growing sectors. Government sector grew at an average annual rate of 10 per cent, which was twice the planned rate. Transportation and communications sector grew at the rate of 9.7 per cent annually. Industry and mining performed better than planned by growing at an average annual rate of 9 per cent, compared to the target rate of 5.5 per cent. Agricultural production fluctuated widely in this period. The GDP arising from agriculture grew at a negative annual rate of 2.3 per cent, compared to a planned growth rate of 3.0 per cent. Building construction and trade activities picked up slowly and increased at an average annual rate of 3.1 and 5.3 per cent respectively.

The period 1971-1975 is perhaps one of the highest growth period in the history of the Syrian economy. The period includes two of the most prosperous years the country has ever had, namely the years 1974 and 1975, when the GDP grew at 19 and 13.8 per cent, respectively. This period is characterized by two major political events. First, following the "corrective movement" within the Ba'ath ruling party, the Government pursued a moderate economic policy. More liberalization was introduced and trade restrictions was eased. The second event was the 1973 war with Israel. The war inflicted serious physical damage to the economy. For example, the Homs petroleum refinery, and a number of power generating stations, oil storage facilities, and sea ports, were

damaged. But the war was followed by a feverish economic activity, whether in reconstructing the war damages or accelerating the execution of the development projects of the Third Five Year Plan. A factor that played an important role in bolstering these activities was the inflow of subsidies and grants from the oil-rich Arab countries. Given all these favourable conditions, the economy grew at an unprecedented rate of 10 per cent, compared to a planned rate of 8.2 per cent. The highest growth sector of the economy in this period was the Government sector which grew at an average annual rate of 15.7 per cent, compared to a planned rate of 8 per cent. The transportation and communications, trade, and building and construction sectors of the economy also grew at higher rates than the economy. Their average annual rates of growth were 12.3, 11.7, and 11.1 per cent respectively. Although industry and mining sector was among the highest growth sectors, an average annual rate of 11.8 per cent, their growth rate nevertheless was below the planned rate of 15.8 per cent. The agriculture sector grew at an average rate of 7.3 per cent, exceeding the planned growth rate of 5.1 per cent.

Finally, in the two year period 1976-1977 (first two years of the Fourth Five Year Plan), the rate of growth of the economy dropped to 5 per cent annually on the average, this was half the growth recorded in the previous period. This slow-down in the economy's growth is due to the recession which has set in at the beginning of 1977, and which has continued to the present time (1979). To elaborate, the economy grew at the rate of 7.5 per cent in 1976, which was well below the 13.8 per cent rate of growth achieved in 1975 and was also below the 12 per cent target annual rate set in the plan. The 1977 growth rate declined sharply to only 2.6 per cent. The seriousness of 1977 recession can be seen better by an examination of the growth rates of GDP and its sectoral components for the four year period 1974-1977, presented below. The figures are self-explanatory, however, one may note two things.

First, the remarkable boom in housing construction which took place in 1976, when the sector grew in one year by 51.6 per cent. Second, the sharp decline in the growth rates of all economic sectors in 1977, except for mining and industry and services, compared to their growth in 1975 and 1976.

TABLE II.3 - ANNUAL REAL GROWTH RATES OF GDP AND ITS SECTORAL COMPONENTS DURING THE YEARS 1974-1977 (Per cent)

Sectors	1974	1975	1976	1977
Agriculture	38.7	6.5	14.7	- 7.9
Mining and industry	27.1	8.1	9.7	9.6
Building and construction	19.6	12.2	51.6	6.2
Transportation and communications	-7.4	26.6	-26.5	2.1
Trade	20.0	31.5	8.1	1.8
Finance	16.0	3.4	24.0	0.9
Ownership of dwellings	3.4	5.4	6.7	6.8
Public administration	19.3	10.5	8.0	0.07
Services	12.7	8.4	15.2	13.4
GDP (TOTAL)	19.0	13.8	7.4	8.6

Source: Computed from GDP data at constant 1963 prices published in the Statistical Abstract of Syria, 1978, pp. 738-739.

Gross Fixed Capital Formation

The growth performance of the Syrian economy is closely linked to the implementation performance of the Five Year Economic and Social Development Plans. One way of measuring the performance of the plans is the growth of capital formation. Data for gross fixed capital formation at constant 1963 prices, its sectoral distribution in selected years, and its rates of growth over a number of years are presented in Table II-4.

Table II-4 Gross Fixed Capital Formation : Its Sectoral Distribution and Growth
(Values in SL Million at Constant 1963 Prices)

Sectors	Gross fixed capital formation					Geometric mean rates of growth (Per Cent)								
	1953	1963	1965	1970	1975	1977	1954-1960	1964-1965	1966-1970	1971-1975	1976-1977	1964-1970	1971-1977	1964-1977
Agriculture, forestry and fisheries	n.a.	96	67	210	266	185	n.a.	-16.46	13.58	4.84	-16.61	4.03	-1.80	1.08
Mining & manufacturing ^{1/}	n.a.	109	106	152	945	1,306	n.a.	- 1.38	7.48	44.12	17.56	4.87	35.97	19.41
Transport & communications	n.a.	105	95	135	240	392	n.a.	- 4.88	7.28	12.20	27.80	3.65	16.45	9.87
Housing	n.a.	131	104	202	250	358	n.a.	-10.90	14.20	4.36	19.67	6.38	8.52	7.45
Other sectors	n.a.	84	85	89	304	410	n.e.	0.59	0.92	27.85	16.13	0.83	24.38	11.99
Total	n.a.	525	457	788	2 005	2 651	n.a.	-6.70	11.51	20.53	14.98	5.97	18.92	12.26
GFCF as Per Cent of GDP	-	17.2	10.3	14.0	21.3	25.6	-	-	-	-	-	-	-	-

Source: Central Bureau of Statistics, Statistical Abstract of Syria, 1971, 1977-78.

^{1/} Including electricity, gas and water.

An examination of the data presented in Table II.4 shows the level, the rate of growth, and the structure of gross fixed capital formation. In the second half of the seventies, the annual level of capital formation has risen appreciably above its level in the early sixties. Gross fixed capital formation in 1977 for example reached SL 2,651 million, in 1963 it was only SL 525 million. In terms of rate of growth of gross fixed capital formation, the compounded average annual rate of 6 per cent in the sixties, jumped to 19 per cent annually in the 1971-1977 period. In this latter period, capital formation in the mining and industry sector grew at a striking average annual rate of 36 per cent, compared to only 5 per cent annually in the sixties. The high rate of capital accumulation has been reflected in the increasing share of gross fixed capital formation in GDP, rising to 26 per cent in 1977, or about double the percentage in 1963.

As for the distribution of gross fixed capital formation among the various economic sectors, an average of the annual shares of each sector over a specified number of periods has been calculated. The results are presented in Table II-5.

Table II-5 The Sectoral Structure of Gross Fixed Capital Formation (Current Prices) (Million SL. and Percentage)

Economic Sector	1963-65		1966-70		1971-75		1976-77	
	SL.	%	SL.	%	SL.	%	SL.	%
Agriculture	263	16.8	554	13.8	2 121	15.8	1 263	6.9
Mining & industry	339	21.7	1 104	27.5	5 421	40.4	8 691	47.5
Transportation & communications	319	20.4	819	20.4	1 377	10.3	2 772	15.2
Housing	378	24.2	960	24.0	2 562	19.1	2 768	15.3
Other sectors	264	16.9	572	14.3	1 930	14.4	2 766	15.1
Total	1 563	100.0	4 009	100.0	15 411	100.0	18 280	100.0

Source: The Syrian Arab Republic. Statistical Abstract 1971, 1978

Three main points can be made here. First, there has been a large and continual increase in capital formation in mining and industry. For while on average this sector accounted for 21.7 per cent of the total annual gross fixed capital formation during 1963-1965, its share increased steadily in the succeeding years until it reached the highest of all sectors and by far exceeded the share envisaged in the plans. Second, in contrast, the share of agriculture in total gross fixed capital formation was much lower than it was envisaged in the plans. The annual share of the agriculture sector in total gross fixed capital formation reached the peak of 16 per cent in the 1971-75 period. This coincided with the acceleration of works and completion of construction at the Euphratus Dam. However, during 1976-1977 agriculture's share in capital formation dropped appreciably to 7.1 per cent. Third, capital formation in housing construction exhibited a trend of systematic decline. Its average annual share in total capital formation declined from 24.2 per cent during 1963-1965 to 15.3 per cent during 1975-1977.

Although gross fixed capital formation is not comparable with investment allocations in the plans, which are given in net terms, and notwithstanding the pitfalls of analysis at current prices, it may still give rough indication of the plans performance. During the period 1963-1977, total fixed capital formation has consistently been below the planned total investment programmes, the exception was the third five year plan 1971-75. In the latter, total gross fixed capital formation exceeded the total investment programme by about 70 per cent. By contrast fixed capital formation in agriculture has been consistently below the planned investment programme and by a large margin while the reverse was true for capital formation in mining and manufacturing.

Regarding the structure of gross fixed capital by various types of construction and equipment, table II-6 shows that about one third of the

Table II-6 The Structure of Gross Fixed Capital Formation at Current Prices by Type of Expenditure

Type of capital expenditure	Average of the annual percentage shares of the type of expenditure over the period			
	1963-65	1966-70	1971-75	1976-77
Housing	24.2	24.0	19.1	18.5
Industrial and commercial building	12.5	7.8	7.7	7.3
Constructions	22.8	25.6	29.7	27.8
Transport equipment	9.7	10.8	12.6	11.7
Machinery and equipment	30.7	31.8	30.9	38.7

Source: The Syrian Arab Republic, Statistical Abstracts, 1971 & 1976.

gross fixed capital formation has consistently been in machinery and equipment. Furthermore, the share of construction activity (excluding housing and non-housing), increased uninterruptedly. It has, on average, risen from 22.9 per cent during 1963-1965 period, to 27.8 per cent in the 1976-77 period.

Finally, as can be seen in table II-7 the ownership composition of the gross capital formation has changed markedly since the early sixties. The trend has expectedly been toward a rising contribution by the public sector and a decline in the share of the private sector. The private sector's contribution to capital formation accounted for 68 per cent in 1963 and declined continuously to reach 30 per cent in 1970. Since then the trend however has

Table II-7 Gross Fixed Capital Formation by Type of Ownership in Selected Years (Values at constant 1963 prices, \$L. Million)

Type of ownership	1963	1965	1970	1975	1977
Public sector	170	241	551	1 306	1 889
Private sector	355	216	237	699	762

Source: The Syrian Arab Republic, Statistical Abstracts, 1966, 1971, 1978.

been reversed and the share began to increase and reached 40.3 per cent in 1977.

Labour Force and Employment

The labour force in Syria is estimated at about one fourth of the population. Table II-8 presents changes in the structure and rate of growth of the labour force for the years 1960, 1970 and 1975.

In terms of structure, it appears that close to one half of the labour force is engaged in agriculture and the sectors' share has increased. The remaining being distributed among all the other economic sectors. Services come second to agriculture. It engaged 13 per cent of the labour force. Manufacturing industry and trade rank third and fourth by engaging about 12 and 9 per cent of the total labour force respectively.

This structure of the labour force does not seem to have changed significantly during 1960-1975. This is true especially with respect to the main employment sectors, namely agriculture, services, and manufacturing. The proportion of the labour force engaged in trade and in building and construction did, however, show a light rise. The percentage of the labour force engaged in trade increased from 7.8 per cent in 1960 to 10.3 per cent in 1975, while that of building and construction increased from 5.1 to 7.1 per cent in the same years.

Mainly because of the increasing share of agriculture, the commodity producing sectors has recorded an increase from 62 per cent in 1960 to 69 per cent in 1975 while the services sector as a whole, recorded a moderate decline.

Table II-8 Labour Force: Structure and Growth by Economic Sectors in Selected Years and Periods (Thousands of workers)

Economic Sector	Labour Force		Periodic growth (Per cent)						
	1960 ^a	1970 ^a	% of total	1975 ^b	% of total	1960-70	1971-75	1960-75	
Agriculture	519	752	45.5	47.9	916	49.8	3.8	4.0	3.9
Mining and quarrying	4	9	0.3	0.6	12	0.7	8.4	5.9	7.6
Manufacturing Industry	125	190	11.0	12.1	211	11.5	4.3	2.1	3.6
Building & construction	58	115	5.1	7.3	130	7.1	7.1	2.5	5.5
Sub-total Commodity Sector			(61.9)	(67.9)		(69.1)			
Electricity, gas & water	7	8	0.6	0.5	10	0.5	1.3	4.6	2.4
Trade	89	145	7.8	9.2	189	10.3	5.0	5.4	5.1
Transport & communication	39	64	3.4	4.1	75	4.1	5.0	3.2	4.5
Finance	-	10	-	0.6	10	0.5	-	0.0	-
Services	144	214	12.6	13.6	239	13.0	4.0	2.2	3.4
Unidentified	67	5	5.9	0.3	-	-	-	-	-
Sub-total non-commodity sector			(30.3)	(28.3)		(28.4)			
Seeking employment for the first time	89	59	7.8	3.8	45	2.5	-33.71	-23.73	-49.44
Total labour force	1 141	1 571	100.0	100.0	1 839	100.0	3.2	3.2	3.2
Population	4 565	6 305			7 354		3.3	3.1	3.2
Labour force % of population	25	25			25				

Sources: 1) Statistical Abstract of Sri Lanka, 1962, pp. 32-33; 1978, pp. 130-131.
 2) Statistical Bulletin of the Ministry of Social Affairs and Labour, 1976, p.26.
^a Census years
^b Estimates

Employment in the Syrian economy, has generally increased at a faster rate than that of the labour force, thus leading to a reduction in the unemployment rate as indicated in Table II-9. Total employment increased from 1.02 million workers in 1960 to 1.47 million workers in 1970, or by about

Table II-9 Labour Force, Employment, Unemployed, and Unemployment Rate in Selected Years. (Thousands of Workers)

	1960	1965	1970	1975	1977
Labour	1 141	1 424	1 571	1 839	1 995
Employment	1 021	1 321	1 470	1 750	1 894
Unemployed	120	103	100	88	100
Unemployment Rate (%)	10.5	7.2	6.4	4.8	5.0

Source: Statistical Bulletin of the Ministry of Social Affairs and Labour.

44 per cent. In the same period, labour force increased by 37.7 per cent, therefore, reducing the unemployment rate from 10.5 per cent in 1960 to 6.4 per cent in 1970. During the period 1970-1977, employment increased by 29 per cent compared to an increase in labour force of 27 per cent. This has led to a further reduction in the unemployment rate to 5 per cent in 1977.

Changes in Price Level

There are three price indices for Syria: one for wholesale prices and two for retail prices in the cities of Damascus and Aleppo. The base year for these indices is 1962, however, new retail price indices using 1970 as a base year have been constructed as of 1977. Table II-10 presents data on changes in price levels in Syria as indicated by the wholesale and the Damascus retail price indices in selected years.

Table (10). Wholesale and Retail Price Indices and their Average Annual Rates of Growth in Selected Periods.

	Price indices: 1962 = 100				Average annual rates of growth (Per Cent)						
	1963	1965	1970	1975	1977	1963-1965	1965-1970	1970-1975	1975-1977		
Wholesale price index	99	100	123	209	256	0.5	4.2	11.2	10.7	3.2	11.0
Damascus retail price index	102	104	123	209	268	1.0	3.4	11.2	13.2	2.7	11.8

Source: Statistical Abstract of Syria.

It can be seen from Table II-10 that the wholesale price index has increased at an average annual rate of 3.2 per cent during the sixties, and at an expectedly much higher rate of 11 per cent in the 1970-1977 period. The same is also true with respect to the retail price index which has recorded an average annual rate of increase of 2.7 and 11.8 per cent respectively, in the same two periods. In fact, the sharp increases in the price level began in 1973. For in the 1965-70 period, wholesale and retail prices increased only by an average annual rate of 4.2 and 3.4 per cent respectively. The average annual rate of increase in the two price indices jumped to 11.2 per cent in the 1970-1975 period. The retail price index of Damascus showed a further increase by rising to an average annual rate of 13.2 per cent in the 1975-77 period. However, the highest inflationary period was that of 1973-77, during which the Damascus retail price index increased at an average annual rate of 14.5 per cent.

Two factors may have been responsible for the high inflation rate in the seventies. The first, is the high inflation rates in the industrial world, which was aggravated further by the fourfold increase of oil prices in 1973, and was reflected in a higher cost of imports for Syria. The second, is the acceleration of investment spending on development projects following the 1973 war. Actual development expenditure in the Third Five Year Plan (1971-1975) amounted to SL 8,587 million, compared to only SL 2,607 million in the Second Five Year Plan (1966-1970). Furthermore, in just the first two years (1976-1977) of the Fourth Five Year Plan, SL 12,134 million were actually spent on development projects. But this high level of investment spending in the 1970-1977 period was not accompanied by a corresponding increase in the level of production; because most of the development projects were still under construction, a situation which contributed to the inflationary spiral in the country.

Foreign Trade

Syria is essentially a net importer country. During the period under review, the gap between exports and imports has been rapidly widening. This can be seen clearly from Table II-11 which presents data on Syria's foreign trade and its growth rates.

**Table II-11 Foreign Trade in Selected Years
(Values in SL Million at Current Prices)**

	Values in Current Prices (SL Million)					
	1953	1960	1965	1970	1975	1977
Exports	376	405	641	775	3 441	4 199
Imports	462	858	810	1 366	6 173	10 497
Trade balance	- 86	-453	-169	-591	-2 732	-6 298

	Compounded average annual rates of growth							
	1953- 1960	1960- 1965	1965- 1970	1970- 1975	1975- 1977	1960- 1970	1970 1977	1960 1977
Exports	1.1	9.6	3.9	19.1	10.4	6.7	16.6	10.7
Imports	9.3	-1.1	11.0	35.2	30.4	4.8	33.8	15.9
Trade balance	26.8	-18.0	28.4	35.8	51.8	2.7	40.2	16.8

Source: Statistical Abstract of Syria.

It can be seen the value of imports has increased from SL 858 million in 1960 to SL 10,497 million in 1977, representing an increase of 12.2 times, or an average annual rate of growth of 16 per cent. The value of exports, on the other hand has increased from SL 405 million to SL 4,199 million in the same period, or by 10.4 times which makes for an average annual rate of growth of

10.7 per cent. This continuously widening imbalance has given rise to a trade deficit which has increased from SL 453 million in 1960 to SL 6,298 in 1977, representing an increase of 14 times, or an average annual rate of growth of 16.8 per cent.

When the annual rates of growth of imports and exports are examined by sub-periods which correspond to the Five Year Plans, it can be observed that the rates of growth of imports have increased, uninterruptedly while those of exports fluctuated widely. More specifically, in the period 1961-1965, imports grew at an average annual rate of -1.1 per cent, compared to 9.6 per cent for exports. In 1966-1970 period, the annual rate of growth of imports increased to 11 per cent, while that of exports dropped to 3.9 per cent. In the 1970-75 period, the annual growth rate of imports jumped to 35.2 per cent, and that of exports increased to 19 per cent. During the two year period 1976-1977, while imports increased at a slightly smaller rate of 30.4 per cent, the absolute value involved was much greater. However, the growth rate of exports dropped significantly to 10.4 per cent.

The wide fluctuation in the rate of growth of exports might be explained by two factors. First, by fluctuation in agricultural output about one fourth of Syria's exports consists of semi processed agricultural products, primarily cotton and grains. ^{1/} The quantities of these exportable commodities fluctuate from one year to another depending on harvest, which in turn depends on fluctuating rain fall and weather conditions. Second, the prices of agricultural produces are determined to a large extent in the world markets and they have witnessed a general decline in the prices of primary goods.

The high rates of growth in imports, on the other hand, are closely related to the large expansion in investment expenditure projects. Thus, imports were

^{1/} Exports of ginned cotton amounted to SL.848.6 million, or 20.2 per cent of total exports in 1977. If the exports of grains (SL.186.4 million) and tobacco (SL.18.4 million) are added to cotton, the three commodity exports would constitute 24.8 per cent total exports. It should be noted in this regard that the major export commodity of Syria since 1973 has been crude oil. The value of crude oil exports in 1977 amounted to SL.2,436 million, or 58 per cent of the country's exports. Thus, it can be seen that just two commodities, oil and cotton, have accounted for 78 per cent of Syria's exports in 1977.

growing at an average annual rate of 33.8 per cent during the 1971-77 which was a heavy development spending period, whereas during 1960-1970 the growth of imports amounted to 4.8 per cent annually. (Table II-11).

The fluctuation in the export growth coupled with steady and high increase in imports resulted in acute trade deficit. The trade deficit has increased from SL 453 million in 1960 to SL 591 million in 1970, or by 30 per cent. In 1977 the deficit jumped to SL 6,298 million, or by about 11 times its level in 1970. In fact, during the 1971-77 period, the average annual rate of increase in the trade deficit reached 40 per cent, compared to only 2.7 per cent annually in the 1961-70 period.

CHAPTER III

INDUSTRIAL DEVELOPMENT POLICIES AND THE INSTITUTIONAL FRAMEWORK

Introduction

The purpose of this chapter is to discuss the industrial development policies and other measures used to promote investment in manufacturing industry. Since the public sector has become the leading sector in industry, its organisational structure as well as the reorganization of this sector will be also reviewed.

I. Industrial Development Policies and Measures to Promote Investment in Manufacturing Industry.

Over the years the Syrian authorities have formulated and implemented a number of policy instruments aiming at promoting investment in manufacturing industry. These may be classified into five groups. (1) Fiscal incentives; (2) Instrument of protection, (3) Financial instruments, (4) Promotion of industrial exports. (5) Policies designed to encourage the inflow of capital from abroad for direct investment. (6) Policies to promote industrial co-ordination with neighbouring Arab countries. A discussion and analysis of the policies in each group is presented here-under.

Granting incentives to infant industry goes as far back as 1952, when Syria had formulated policies to stimulate investment in manufacturing industry. These policies include tax incentives, investment tax credit, exemption from custom duties for imported capital goods, attractive terms to lease public property, supplying electricity at low rates to industry and tariff protection for infant industry.

1. Fiscal Incentives
Tax Incentives

To encourage investment in manufacturing industry Legislative Decree No. 103 was passed in 1952 granting certain privileges to industrial establishments both in the private and the public sectors. To qualify for these privileges, the investments must be related to the establishment of a new industrial enterprise or to the expansion of existing ones. Replacement of machinery and equipment is not covered by this decree. The Decree included the following tax and customs duty exemptions:

- (a) Exemption from customs duties on machinery, tools and equipment imported for the requirements of the enterprises;
- (b) Exemption for six years from the real estate tax for new construction in factories, administrative buildings and housing for workers and employees connected with the establishment; and,
- (c) Exemption from the income tax for all reserve funds allocated for expansion, provided that:
 - (i) the amounts should not exceed ten per cent of annual profits; and,
 - (ii) such reserves should be invested in further expansion of the industrial establishment within a period of two years.
- (d) Exemption from the "tenettu" tax for a period of six years from the beginning of operation; and,
- (e) Exemption from the income tax for a period of three years from the beginning of operation.

The "tenettu" tax referred to above has been abolished by Legislative Decree No. 326 of 23 December 1969, and replaced by an increase in the rates of income tax.

Other incentives.

Apart from incentives mentioned above, other facilities are being extended by the Government in order to promote industrial investment. Among these, mention may be made of the following:

(a) Provision of land on favourable terms

According to Legislative Decree No. 103 of 1952, any entrepreneur who wants to establish an industrial enterprise is given the right to lease for five years State domain land within a limit of 25,000 square metres, with a further right to purchase the land from the State. The beneficiary is not allowed, however, to sell the land or use it for non-industrial purposes.

(b) Subsidized Electric Power

Another incentive to manufacturing industry has been the supply of electric power at low tariff rates. Thus, industrial establishments are provided with a three-tariff power meters to enable them to take advantage of the reduced night tariff and the minimum consumption tariff at peak-load. A reduction in the lighting tariff proportional to the amount of consumption is also given. Furthermore, industrial enterprises requiring power in excess of ten kilowatts are provided with special transforming stations assigned to them.

2. Instruments of Protection

Manufacturing industry in Syria has benefited from the protection normally extended to infant industry. This protection has generally taken the forms of tariffs exemptions and imposition of quantitative restrictions on imports.

Low custom's tariff rates are imposed on the imports of raw materials essential for industry and on industrial machinery and equipment. The tariff on industrial machinery is as low as 1 per cent of value compared to the tariff on non-industrial equipment which could go as high as 100 per cent of value. The same is true of industrial raw materials, which either enjoy a tariff exemption or be subject to low rates not exceeding 1 per cent of value. On the other hand local manufacturers are protected from foreign competition by high tariffs imposed on the imports of industrial goods for which these are locally produced substitutes. Such tariff rates range between 25 and 75 per cent, and may reach 100 per cent of value. An illustration of the tariff rates applicable to some industrial and consumer goods is presented hereunder:

<u>Custom duty percentage of value</u>	<u>Type of goods</u>
1	- Industrial machinery and equipment
	- Agricultural machinery (e.g., motors, pumps, tractors, harvestors, etc.)
	- Raw materials (e.g. tanning and dyeing materials raw hides, rayon fibers, raw wool, mineral oils used in soap manufacturing, industrial chemicals etc.
9	- Materials used in agriculture (e.g. fertilizers)
15	- Scientific, technical and precision equipment
	- Consumer goods like paper, prepared food products, fuels, some fabricated metals.
25-30	- Textiles
50	- Wearing apparels
75-100	- Alcoholic beverages, refrigerators, washing machines, butain gas ovens, chandeliers, etc.

In addition to tariff protection, local manufacturers benefit from quantitative restrictions on the imports of certain goods. These restrictions vary from complete prohibition of imports of certain commodities to controlling the quantities imported through quotas. Complete prohibition is normally put into effect when a certain product is produced locally in sufficient quantity and is of comparable quality and competitive price with the imported one. However, if the local volume of production does not meet local demand, protection is extended through quantitative import restrictions or tariffs.

It should be noted in this connexion that quantitative controls are applied mainly through import licenses. All permitted imports, except those made by state trading agencies, require individual import licenses before the placing of orders when valued at over LS 1,000. The state trading agencies may conclude import transactions and have the goods shipped before an import license is granted: the license must be obtained, however, before customs clearance. (Exempt from import

license, by virtue of Order No. 338 of September 17, 1973, are certain commodities when imported by specified monopoly holders: these include coffee, tea, tobacco, sugar, salt, and rice, when imported by the TAFCO agency).

3. Financial Instruments

Monetary authorities have resorted to indirect and direct machinery for developing industrial activities and meet industry's financial requirements.

In the following pages a review will be made of the institutional sources of industrial finance in Syria. This will be followed by an attempt to analyse the modalities through which the industrial sector in Syria has been acquiring the capital funds necessary for its development.

The Institutional Sources of Industrial Finance

Among the institutional sources of industrial finance in Syrian commercial banks are by far the oldest. Prior to 1966 commercial banks used to participate in the financing of industry and to submit details of their operations to the Central Bank. However as a result of the major reorganization of the banking system took effect in 1966 and 1967, the five commercial banks were amalgamated into one bank, the Commercial Bank of Syria, which specialized in financing external and, to a minor extent, internal trade. Accordingly, all credit operations dealing with industry were transferred from the commercial banks to the Industrial Bank.

The Industrial Bank of Syria came into existence in 1958 as a joint stock company guaranteed by the State, and operating under the supervision of the Ministry of Industry. The Bank became a public institution after its nationalization in 1963. Besides being empowered for extending short, medium and long-term loans, the Bank is expected to provide promotional functions such as technical assistance and advisory services regarding the preparation of feasibility studies. The statutes of the Bank also contain provisions for "participation" in industrial enterprises as founders and/or shareholders.

Deposits constitute an important source of the Bank's resources accounting for more than one half of the total funds at its disposal. Central Bank facilities through refinancing and rediscounting of notes constitute also an important source of financing, the Bank's resources. Thus the Central Bank of Syria gives preferential treatment, in discounting, for papers originating in industry, either through imposing lower discount rates on industrial notes and bills or through permitting industrial papers to have a longer maturity for rediscount.

Highlights of the general financing policies of the Industrial Bank and its relative role in financing Syrian Industry is presented hereunder.

(a) Credit Conditions and Ceiling

The Bank extends medium term loans (less than five years) and long-term loans (less than ten years), provided that:

- (i) the size of the loan does not exceed 95 per cent of the total cost of the project;
- (ii) the amount borrowed is less than 10 per cent of the bank's total resources;
- (iii) the loan falls within the maximum limit of 60 per cent of the customer's credit worthiness.

(b) Security required

For medium and long-term loans, real estate, fixed machinery, financial papers acceptable to the Central Bank as well as goods and bank guarantees are accepted.

For short-term loans, personal guarantees or commercial papers are required.

TABLE III.1 PATTERN OF INDUSTRIAL FINANCE BY MAJOR GROUPS OF INDUSTRIES (PUBLIC SECTOR)
AS OF 12.31.1969

(in thousands of Syrian pounds)

	Paid-up capital, reserves and provisions	Gross fixed assets	Net working capital	Inventory	Total capital invested	External Financing	
						Total financing	Long-term loans
Food Industries	138,710	160,699	42,806	85,631	216,133	77,133	12,628
Tobacco and Cigarettes	49,140	32,099	27,041	63,797	59,140	10,000	-
Textile Industries	307,634	248,809	51,839	156,291	344,886	37,252	8,238
Engineering and Chemicals	221,676	171,372	58,028	65,615	231,131	9,455	1,731
Petroleum Refining	55,497	70,203	17,794	11,102	87,997	32,500	-
Total	772,657	719,182	197,508	382,436	939,287	166,630	22,597

Source: See - "Financing of Industrial Development in Various countries of the Middle East" published in Studies on Development Problems in Selected Countries of the Middle East, United Nations Publication Sales No. E.73.II.C.2.

- (a) Reserves = capital reserves; provisions = deferred payments and accumulated depreciation;
- (b) Equal to the difference between long-term financing (paid-up capital, reserves and provisions plus long-term loans) and gross fixed assets;
- (c) Internal sources of finance (paid-up capital, reserves and provisions) plus external sources of finance;
- (d) Does not reflect the real amount of external financing, since a good part of capital requirements have been provided either from the government or through short-term "roll-over" credits which are not necessarily contracted through banking channels;
- (e) The net value of which is SL 303 million.

(c) Interest rate

	<u>Public Sector</u>	<u>Private Sector</u>	<u>Craft Societies</u>
Short-term loans			
discountable	5.25 %	6.0 %	4.25 %
not discountable	5.5 %	7.0 %	5.5 %
Medium-term loan			
discountable	5.75 %	6.75 %	4.5 %
not discountable	6.0 %	7.5 %	6.0 %

The public enterprises are granted a discount on the interest rate that may reach a maximum of 1.75 per cent. Craft societies enjoy a special treatment and are charged even lower interest rates.

The present relative importance of the Industrial and Commercial banks in providing credit to industry is difficult to assess in view of the paucity of published information on the subject. However, available figures suggest that the contribution of the Industrial Bank of Syria in total credit extended to industry has been increasing after 1965 and accounted for two third of total credit granted to industry early in the seventies mainly as a result of the reorganization of the banking system referred to earlier, by virtue of which, the Industrial Bank became the only competent organization concerned with banking operations for the industrial sector, whether public, private, mixed or co-operative. It is worth noting, in this connexion, that in spite of these specialization measures which took place, commercial banks continued to account for around 30 per cent of total credit granted to industry during the same period. Despite these developments, the proportion of credits extended by specialized and non-specialized institutions to total credit extended by the banking system continued to be low, not exceeding 13 per cent on the average during the period 1966-1970.

The financing of new public industrial establishments through the industrial bank dates from 1973; prior to that date all public sector enterprises were financed directly from the treasury. At present public industrial enterprises still draw the major part of their financial resources for new investments from the treasury. Most industrial bank's loans to these enterprises remain of a short-term nature.

Available information over a number of years and until 1974 indicate that about 90 per cent of the bank's loans were granted to the public sector, especially to the textile industry while the private sector accounted for less than 10 per cent of the total.

The Financing of Industry

A comprehensive and clear picture of the modalities through which the industrial sector in Syria has been acquiring the capital funds necessary for its expansion is extremely difficult to depict in view of the lack of information relating to the private industrial sector which continued to account for a substantial part of industrial output. (around 50 per cent). A fairly representative indication of these modalities could be derived from information existing for the public industrial sector and relating to a consolidated picture of the capital requirements and its sources of finance in the various industry groups early in the 1970's. These information are shown in Tables (III.1) and (III.2) below:

TABLE III.2 SELECTED ASPECTS OF INDUSTRIAL FINANCING (PUBLIC SECTOR)
AS OF 12.31.1969

	External financing as a per cent of total capital invested ^{a/}	Gross fixed assets as a per cent of capital and provisions ^{b/}	Inventory as a per cent of capital and provisions ^{c/}	Inventory as a per cent of net working capital	Per cent of short-term financing to total external financing
Food industries	36	116	62	200	16
Tobacco and cigarettes	17	65	130	236	-
Textiles	11	93	51	301	22
Engineering and chemicals	4	77	30	113	18
Petroleum refining	37	126	20	62	-

Source: Same as previous table.

Note: For definitions see table

- a) Capital invested includes provisions for accumulated depreciation and deferred payments. In the absence of figures on current liabilities, the real magnitude of external financing cannot be assessed.
- b) This figure is on the low side. Due to the absence of figures on current liabilities the real magnitude of external financing could not be assessed.
- c) Capital and provisions = paid-up capital, retained profits and capital reserves plus provisions for accumulated depreciation and deferred payments.

Upon examining the above two tables the following observations could be made :

(a) "Own capital" defined as paid-up capital plus provisions and reserves is by far the most important source of funds. The proportion ranges from a high percentage of more than 95 per cent in large industrial groups such as engineering and chemicals, to a low of around 64 per cent in the food industries;

(b) Depreciation rates are rather high averaging two thirds of the cost of fixed assets implying that most machinery, equipment and buildings are relatively old and need replacement;

(c) There is a tendency towards over accumulation of inventories, almost double the working capital.

In the absence of details on the structure of current liabilities, it was not possible to determine how inventory accumulation was financed. Available figures suggest that the level of short-term loans contracted by Syria industries was far below the inventory requirements. As a matter of fact, the amount of total outstanding loans extended by the banking sector during this same period was very inadequate to finance such an accumulation of inventories, accounting for less than one half of the accumulated inventories. This means that Syrian industry had been resorting to other sources of finance to meet its fixed as well as working capital needs. Most probably, such sources were provided either directly from the Government, or through short-term "roll-over" credits which are not necessarily contracted through banking channels, but, rather, effected directly among the trading partners in the form of trade credits.

On the basis of the foregoing indications, the following main conclusion emerges:

(a) The future expansion of Syria industry will very much depend on the availability of long-term financial resources which would make possible the replenishment of the depreciated fixed assets;

(b) Every effort should be made to avoid excessive inventory accumulation which tends to overburden the already limited financial resources; and,

(c) Investments out of retained earnings should be encouraged. Profits, however, should not be the result of monopolistic situations created by protection and leading to artificially high prices, but, rather the result of a more efficient utilization of the factors of production coupled with an optimally large volume of sales.

4. Incentives to promote exports

Three instruments have been used to promote exports by fiscal means, namely, the rebate of customs duties, Government subsidy and the establishment of free zones. These instruments are reviewed below :

Rebates of Customs Duties

To give an impetus to the exports of manufactured goods, the Government adopted a policy of refunding import duties and other taxes to exporters in accordance with Legislative Decree No. 87 of 1967. Two basic points were provided by the Decree :

1. Rebate of customs duties and fiscal and municipal duties levied on imported materials used in the manufacture of local goods when such goods are exported.
2. Exemption of locally manufactured products or materials used in their manufacture from the agricultural production tax and the fiscal and municipal duties and taxes, or their total or partial rebate upon export.

Industrial Exports Development Funds:

Another measure to promote industrial exports was the establishment of the Syrian Industrial Exports Development Fund in accordance with the Legislative Decree No. 147 of 1970. It was to replace the Cotton Textile Export Promotion

Fund which has been in existence since 1956. The main tasks assigned to the newly established fund may be summarized as follows:

1. To plan the export promotion policy of Syrian manufactured products.
2. To carry out marketing studies.
3. To subsidize exports.
4. To offer paid consultancy services to public and private sector enterprises.
5. To collect information on potential export markets.
6. To propose participation in international fairs.

Free Zones :

To encourage the establishment of export-oriented industries, a new policy was adopted in 1971 to expand free zones in the country. To this extent, a General Organisation of Free Zones was set up according to Legislative Decree 18 of 1971, with a view to developing managing and exploiting these zones. At present, there are six free zones in Syria located in Damascus, Adra, Aleppo, Lattakia, Tartous, and Damascus International Airport. In addition, there is the Joint Syrian-Jordanian Free Zone which is run by independent company and is located at the borders between the two countries. These zones are outside the domain of customs authorities which should provide an incentive for export-oriented industry to locate and benefit from cheap labour and the availability of certain materials. By the end of 1977, the number of industrial establishments operating in the Damascus, Aleppo and Lattakia Free Zones reach 27, occupying a total land area of 16,691 m². These industrial establishments produce wearing apparels, drugs, tooth pastes, perfumes, car air conditioners, rugs, canned food, salted ballies, etc.

5. Policies relating to Foreign Investment

In an attempt to encourage the inflow of capital from abroad for direct investment in economic development projects or for deposit at the banks of the country, a Legislative Decree No. 348 of 1969 was issued. The Decree aimed primarily to attract the inflow of liquid capital of Syrian immigrants and Arab nationals by providing safeguards against nationalization and by allowing the repatriation of profits and capital. Perhaps the more important provisions of this Decree are the following:

1. Investments cannot be expropriated or confiscated except by law, whereby a fair and immediate compensation will be paid.
2. Up to 50 per cent of the net profits resulting from such investments are allowed to be transferred abroad in the same currency in which the capital was brought into the country, or in any other currency acceptable to the Bureau of Foreign Exchange at the Central Bank of Syria, which determines the rate of exchange. The remaining portion of the profits is to be invested in expanding the enterprise or in new projects.
3. Repatriation of the capital invested may begin five years after the investment is made and at the rate of 25 per cent per year, in the original currency of the capital or in any other currency acceptable to the Bureau of Foreign Exchange.
4. Investors may request the transfer abroad of their capital in the same form in which it was entered into the country, at any time after the lapse of six months if difficulties arise which prevent the actual investment of such capital. Time deposits in banks may be transferred abroad upon date of account expiration.

5. Arab and foreign experts and foremen coming from abroad to Syria to work in such projects, are allowed to transfer abroad a part of their salaries and wages within the limits stipulated by the Central Bank of Syria.
6. The Central Bank of Syria guarantees the transfer abroad of capital that was originally transferred into the country in accordance with this Legislation.

To give further assurances to Arab investors of adequate compensation against non-commercial risks (e.g. nationalisation or expropriation), Syria ratified in 1971 the Convention of the Arab Investment Guarantee Institution of Kuwait.

6. Industrial Co-operation Policies with Arab States:

Expansion of the domestic market has been of major concern to Syrian Authorities and recent developments in this regard have been the Syrio-Jordanian industrial coordination and the more recent Syrian-Iraqi comprehensive cooperation following the rapprochement between the two countries at the end of 1978.

The Syrio-Jordanian industrial co-operation started in 1975, and aimed at coordinating the industrial development plans in the two countries according to the following principles :

1. To have the scope of the coordination encompass all the new industrial projects which any of the two countries intends to establish.
2. To exchange information about the projects under construction.
3. To study the industrial projects listed in the economic development plans prior to approving them in order to coordinate among them.

4. To achieve specialization in similar industries.
5. To adopt the principle of joint ventures in industrial projects.
6. To process the raw materials available in each of the two countries and substitute locally produced goods for imports.^{1/}

In order to bring about effectively industrial coordination between the two countries, a joint Syrian-Jordanian Industrial Company and a Joint Industrial Free Zone Company were established. One of the main purposes of the industrial company was to establish, own, and operate industrial projects in both countries. Its capital was set at JD 20 million equally shared. In 1976, it was decided that the Company takes the preliminary measures for establishing or participating in the following projects: tiles, building bricks, aluminium sections, wearing apparels, white cement. In 1977, it was approved that the company participate in the wearing apparel project which was to be established in Damascus. It was also decided to select an international consulting house to conduct a techno-economic, and financial study and prepare the technical specifications for the white cement project which the company intends to construct in Jordan.

As for the Syrian-Jordanian Industrial Free Zone, a land site was selected at the borders between the two countries, and JD 5 million equally shared was appropriated for developing the zone.

The Syrian-Iraqi coordination is of more recent origin. It started with the rapprochement between the two countries in December of 1978. A number of joint committees have been formed to coordinate activities of the two countries at all levels. The main thrust of the cooperation at the manufacturing industry level, has been to come up with a fully co-ordinated industrial development plan as part of the next five year economic and social development plans in each of the two countries. Both such plans are to start in 1981.

^{1/} Abdul Mahaymen Al Khatib, Prospects of the Syrian-Jordanian Industrial Coordination and Its State of Progress, Damascus, 1977.

II. Measures regulating the development of Industry

In addition to the above mentioned measures that aimed at promoting industrial development, the Syrian authorities have at various points in time, enacted a set of measures with a view to regulating and controlling industrial concerns. This includes measures relating to granting permits for the establishment of industrial enterprises, price and profit controls, and to drawing the lines of demarcation between the activities of the public and the private sectors in manufacturing industry.

Industrial Permits:

In 1958, a Law No. 21 was passed which required the granting of a "permit" by the Ministry of Industry for the establishment of any new industrial enterprise or the expansion of an existing one. Applicants fill special forms available at the Ministry of Industry and submit them together with all the relevant documents. After a preliminary examination by the appropriate department at the Ministry, the applications are referred to the "Industrial Permits Commission" which is headed by the Deputy Minister of Industry and whose members represent the Ministries of Economy and Foreign Trade, Supplies and Internal Trade, Housing and Public Utilities, Health, The General Directorate of Customs, the Directorate of General Mobilization, and the Chamber of Industry. The Commission evaluates the application on the basis of the economic needs of the country and the possibilities of local and export demand, all within the general framework of the Five Year Development Plan. The Commission also takes into consideration the co-ordination requirements between the public and the private sectors. Thus, when dealing with a private sector application, a careful effort is made to avoid conflict with the present and the planned lines of business of the public sector industrial enterprises. The Commission submits its recommendation to the Minister of Industry who makes the final decision for granting the industrial permit.

Price and Profit Policies:

Price policies have traditionally been handled by the Ministry of Economy and Foreign Trade. In 1960 and upon the establishment of the Ministry of Supplies and Internal Trade, a Law No. 123, was passed transferring all matters dealing with supplies and pricing to the new Ministry. In 1969 a Legislative Decree No. 158 was issued which further elaborated the pricing functions of the Ministry as follows :-

1. To execute the pricing policies of the state.
2. To formulate pricing policies in the retail trade.
3. To determine the selling prices of all goods produced or imported by the public sector organizations, and to attempt to keep these prices stable.
4. To determine the allowed profit margins to all types of business (i.e. manufacturers, importers, wholesale and retail traders).

It should be noticed that the Ministry of Supplies and Internal Trade does not act alone in determining price and profit policies. After such policies are formulated by the Ministry, they have to be approved by the Economic Committee before the former can implement them. The Economic Committee is a ministerial-level Sub-Committee headed by the Deputy Prime Minister for Economic Affairs. It is, among other things, the highest price policy formulation authority in the country. However, Decree No. 158 specified the issues which ought to be referred by the Ministry to the Economic Committee. These include:

1. The basis of the general price policy.
2. The retail prices of essential goods.
3. The prices of consumers goods which ought to be sold below cost, and the party that should bear the losses (only relevant for public sector manufactured goods).
4. The prices of consumer goods produced or imported by public sector organizations.

It is clear from the above discussion that prices of industrial goods, especially those produced by the public sector enterprises are administered prices. Furthermore, the management of the public sector industrial enterprises have little or no authority over the price policy of their products. The prices of these products are determined by the Ministry of Supplies and Internal Trade, but ultimately by the Ministerial Economic Committee. Thus, it is observed that some products which are considered luxury products are sold at such prices which yield high monopolistic profits, while other products which are considered essential are sold at prices below cost (i.e. subsidized). This has created serious price distortions which have adversely affected the performance of the public sector enterprises.

Guidelines Identifying the Branches of Industry in which the Private Sector can Operate:

In an attempt to restore confidence to the private sector which has been largely shaken by the nationalization of industry in the mid 1960's, and to encourage investments by this vital sector in manufacturing industry, an indicative list approved by the Government was issued in 1971, which clearly identifies the branches of industry in which each of the private, public and mixed sectors can operate. This list was meant to provide guidelines for the granting of industrial permits within the general framework of the Government Development policy. The guidelines defined the industries which are exclusively restricted to the operations of the public sector as those which:

1. Rely on mineral resources in their production processes.
2. Require a large scale production facilities, and where the products are largely standardized in nature.
3. Produce basic goods for local consumption such as food and those which produce strategic products.

Furthermore, the indicative list specified 110 industrial commodities which the private sector can engage in manufacturing.

III. The Institutional framework of Industrial Development

Manufacturing industry in Syria has gone through a number of significant institutional changes, including the nationalization of major industrial establishments which have led to the eventual emergence of the industrial public sector as the leading sector in industry. Furthermore, as the industrial public sector grew, its organization also changed. In this section, a detailed discussion will be made of the developments in the institutional framework affecting manufacturing industry, and the organizational changes of the industrial public sector.

Organizational Development

Manufacturing industry in Syria was originally started by private entrepreneurs who set up a number of modern industrial establishments in the mid-forties and early fifties which took the corporate form of business.

Industry prospered during the 1950's, but remained primarily light consumer's good oriented industry which relies basically on the processing of Syrian agricultural crops such as cotton, sugar beets, wheat, fruits, and vegetables, ..., etc. During this period, industrial regulation and other policy matters were vested in a Directorate of Industry at the Ministry of Economy.

In 1958, the Ministry of Industry was established by Law No. 212, to handle all matters relating to industry and mineral resources. In the same year the Industrial Bank was established by Law No. 177 of 1958, and the Ministry of Planning was created in 1960/61. This was followed by the formulation of the First Five Year Economic and Social Development Plan, whereby the Government proposed to undertake the establishment of large industrial project.

The Public Industrial Sector and its organization

As indicated earlier, Syrian manufacturing industry was largely dominated by the private sector until 1964. The role of Government was essentially that of regulation and promotion. In 1964 and 1965, and in

accordance with the new socialist policy of the state, the major means of production in the country were nationalised. The nationalization included 108 industrial companies. The value of the fixed assets of the companies was estimated at about SL 200 million.

Two organisations attached to the Ministry of Industry were created. The first was the General Commission of the Industrial Public Sector whose main function was to administer the nationalised firms. The second was the General Organisation for the Implementation of Industrial Projects (GOIIP). The main function of this Organisation was to supervise the construction of new major industrial projects from start to completion, then turn them to the appropriate industrial organisation to operate them.

One of the major tasks of the General Commission of the Industrial Public Sector was to reorganize the nationalised industrial firms in order to ensure specialization and integration in the production processes for the purpose of raising efficiency. Thus, a merger movement was initiated which consequently reduced the number of nationalised industrial companies from 108 to 44. The Commission was later dissolved and was replaced by three specialised industrial organisations according to a Legislative Decree No. 21 of March 1967. These organisations were:

- The Union of Food Industries
- The Union of Textile Industries
- The Union of Engineering and Chemical Industries

As the public sector industrial companies grew in size, number of establishments, and product-line diversity a further reorganization was deemed necessary to facilitate the management of this sector. Thus, in 1974, Legislative Decree No. 18 was issued which delegated a significant part of

decision making authority to the Board of Directors of the public sector enterprises. The Decree also specified that the Board of Directors of a public sector enterprise will be selected from the functional area (i.e. finance, production, marketing, technical, etc.) as directors of the same enterprise. This was immediately followed in 1975 by a number of other Decrees which had the effect of replacing the three former public sector specialized industrial unions with six new General Organizations, namely:

- The General Organization of Food Industries
- The General Organization of Sugar Industries
- The General Organization of Textile Industries
- The General Organization of Chemical Industries
- The General Organization of Engineering Industries
- The General Organization of Cement Industries

The number of public sector industrial companies which these specialized industrial General Organizations administer reached 80 by the end of 1978, distributed as follows:

- 7 companies in the sugar industries
- 22 companies in the textile industries
- 13^{1/} companies in the chemical industries^{1/}
- 11 companies in the engineering industries^{2/}
- 9 companies in the cement industries

A complete list of these companies and their location appear in Appendix (B).

^{1/} include industries engaged in leather, footwear, glass and electric lamps manufacturing.

^{2/} include basic metals, fabricated metals and machinery, paper tissues, wood and matches industries.

The above mentioned industrial organizations belong administratively to the Ministry of Industry. In addition, there are six other public sector industrial organizations which belong to other ministries. These are:

- Homs and Banias Petroleum Refining Companies, which belong to the Ministry of Petroleum and Mineral Resources.
- The General Organization of Grain Mills which belongs to the Ministry of Supplies and Internal Trade.
- The General Organization of Cotton Ginning and the General Organization of Tobacco, both of which belong to the Ministry of Economy and International Trade.
- The General Organization of Defence Industry, which belongs to the Ministry of Defence.
- The General Organization of Blood and Medical Products, which belong to the Ministry of Health.

IV. Manpower Training.

Manufacturing industry has benefited from the manpower technical training facilities extended by the Ministries of Education, Higher Learning, and Industry. These Ministries have established a number of vocational and technical training schools covering a wide range of trades in order to meet the growing demand of both the public and the private sectors for skilled labor and technicians. In fact, the Ministry of Industry has spent SL 16 million on vocational training over the Four Five Year Plan.

Technical education and vocational training is conducted at various levels. These include technical junior colleges, industrial high schools and vocational training centers. Furthermore, special emphasis has been placed on management training and development.

The technical junior colleges have been established to meet the increasing need for technicians who play such a vital role in the hierarchy of technical staff between engineers and skilled workers. These colleges offer a two-year program to high school graduates who upon successful completion of the program are awarded a diploma which qualifies them to work as assistant engineers or as instructors at the industrial high schools. The more important of these junior colleges are the following:

Aleppo Industrial College: It was established in 1960 by the Ministry of Education. The purpose of the college is to train technicians in the following areas of specialization. Metal works, general mechanics (engines and cars), and carpentry. The training capacity of the college is 200 students per program.

The Industrial Junior College: It was established in 1970 at Damascus University. Its purpose is to train technicians in electrical installations and equipment, electronics and car engines. The training capacity is 200 students per program.

Petroleum and Metals Professions College: Established at Homs in 1969 by the Ministry of Oil, it has two branches one in Damascus and the other at the oil fields in Rumailan. The college trains technicians in the following specialities: chemistry, petrochemistry, industrial power generation, geology, oil production, transportation and storage as well as digging for oil. The training capacity is 250 students per program.

In 1975, the Ministry of Industry established six such technical junior colleges for training technicians in the various branches of industry in which the public sector is active. These colleges are:

<u>Name of College</u>	<u>Training Capacity</u>
Textile Industries College - Damascus	240 students
Engineering Industries College - Damascus	138 students
Chemical Industries College - Damascus	300 students
Chemical Industries College - Homs	200 students
Food Industries College - Damascus	150 students
Agricultural Equipment College - Aleppo	186 students

These six junior colleges graduated 617 technicians in 1977 who were appointed in the public sector industrial companies. Furthermore, 725 students were accepted in those colleges for the academic year 1977-1978.

Vocational training is offered at three different types of institutions. First, industrial high schools which exist throughout the country and belong to the Ministry of Education. These schools offer training in such skills as electricity, electronics, metal works, car engines, wireless, carpentry, welding textile, ..., etc. The training programs are offered to holders of secondary school degree holders who follow a three year course at the end of which they receive an industrial high school degree. The training capacity of these high schools is 12,000 students per program. Second, the Ministry of Industry has established two large vocational training centers in Damascus and Aleppo. They provide training in metals, general mechanics, electricity, construction, carpentry, and textiles. Most of the training programs at these centers extend for a 40 week period, at the end of which the graduates are awarded a certificate which qualifies them to become semi-skilled labor. The two centers graduated 815 students in 1977 and 1,300 students were accepted for the following year programs. Third, some of the public sector industrial companies offer their own training programs to train new workers and up-grade the skills of existing workers. The most important of such schools are perhaps those of electronics, electrical engines, rubber industries, cables, metal industries, azotic fertilizers, leather tanning, porcelain, asbestos, glass and electric lamps and batteries.

In addition to technical education and vocational training, management development has been receiving increasing attention. Thus, in 1967 the Center of Management and Productivity Development was established as a joint venture between the ILO and the Ministry of Industry. The Center aims to develop the managerial enterprise managers at all levels by offering training programs designed for this purpose. Training programs are offered in the fields of industrial engineering, marketing, finance, production, management, cost, accounting, inventory control, and organization and methods. The length of the training programs vary from one week to three months.

CHAPTER IV
INDUSTRIAL PROGRAMMES IN THE FIVE YEAR PLANS

Industrial development in Syria has received an increasing attention over the Four Five-Year Economic and Social Development Plans as evidenced by the size and the relative share of the investments that have been allocated to it. Thus the planned public sector investments in manufacturing industry while amounted only SL 205 million in the First Plan, almost doubled in the Second Plan to become SL 398.4 million. In the Third Plan the investment figure more than doubled and reached SL 1,051 million. In the Fourth Plan it increased by ten times to become SL 10,694 million. This staggering increase in the planned investment in manufacturing industry reflects also the growth in the relative importance of this sector in relation to the other sectors of the economy. More specifically, planned investment in manufacturing industry accounted for only 10 per cent of the total public sector investment in the First Plan. It has increased systematically over the Second (11 per cent) and Third Plan (16 per cent) to reach 24 per cent in the Fourth Plan.

This Chapter will discuss the industrial programmes and the underlying strategies which have guided investment in manufacturing industry in each of the four Five Year Plans. This will be done through presentation and analysis of the programmes and a description of the major industrial projects in each Plan.

Industrial Development Programme of the First Five Year Plan.

At the time the first Five Year Plan was prepared, the Syrian economy was largely dominated by the private sector. The purpose of the investment programme in industry was to identify projects for the private sector to invest

in, and to have the Government invest in big industrial projects which the private sector may neither have the willingness nor the financial capabilities to get into. Thus, industry was allocated a modest SL 205 million to be invested by both the public and the private sectors, distributed as shown in the following Table.

Table IV-1 Investment Programme in Manufacturing Industry in the First Five Year Plan

Industry and Project	Planned Investment (SL Million)	Percentage of total
<u>Chemical Industry</u>	<u>131</u>	<u>64</u>
- Nitrogenous Fertilizer Plant	90	
- Phosphatic Fertilizer Plant	4	
- Sulphuric Acid Plant	4	
- Ordinary Soda	7	
- Other chemicals	26	
<u>Engineering Industries</u>	<u>31</u>	<u>15</u>
- Iron rods plant	18	
- Other engineering	13	
<u>Food Industries</u>	<u>38</u>	<u>18.5</u>
- Expansion of sugar plant	13	
- Other food projects	15	
- Tobacco	10	
<u>Miscellaneous</u>	<u>5</u>	<u>2.4</u>
<u>Total</u>	<u>205</u>	<u>100</u>

Source: First Five Year Plan, Ibid, p. 131

The chemical industry received the largest proportion of the investment, this alone accounted for 64 per cent of the planned investment in industry. Food and tobacco received 18.5 per cent of the investment, and engineering industries received 15 per cent.

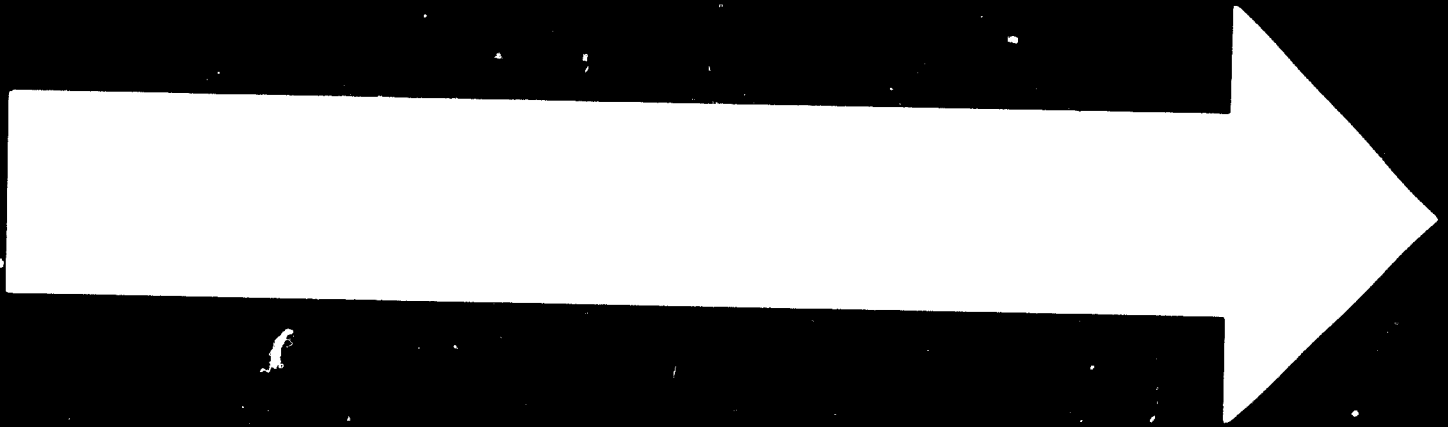
Perhaps the most important project in the chemical industry was the construction of nitrogenous Fertilizer Plant with a production capacity of 120,000 tons annually. The project was estimated to cost SL 90 million and to employ 1,000 workers. Given the size of the project, it was planned to be undertaken by the Government. The other projects in chemicals included phosphatic fertilizers, sulphuric acid, paints, drugs, glass, china products, rubber and plastics. They were estimated to cost SL 41 million and were left for the private sector.

It appears from the investment program in the chemicals industry that the main emphasis was placed on the manufacturing of fertilizers. This reflects a strategy of integrating industrial with agricultural development.

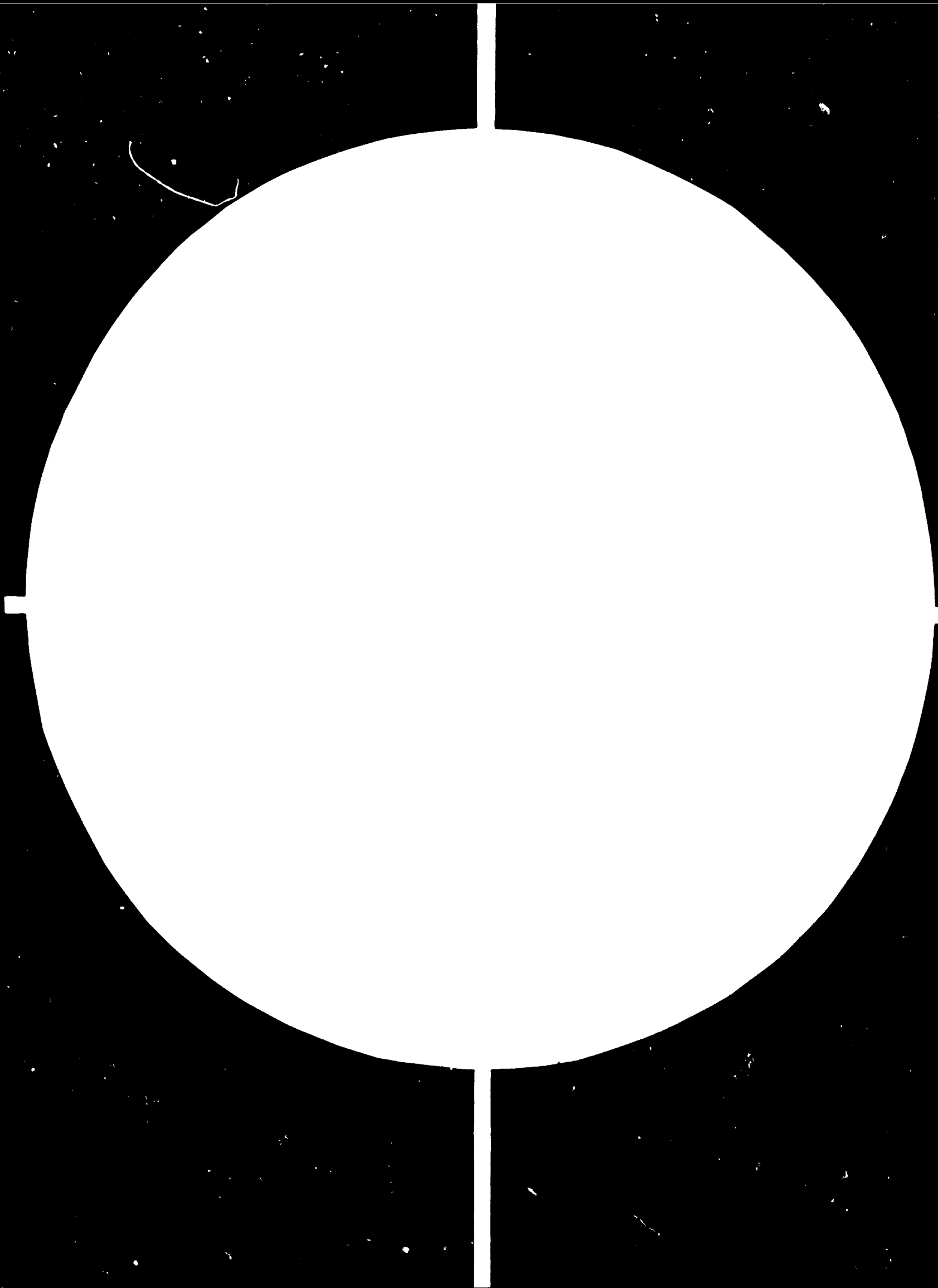
The food industry including tobacco was allocated SL 38 million for investment in food canning, vegetable oils, and sugar refining. Perhaps the main project in the food industry was to expand the production capacity of the existing sugar company to 6,000 tons daily at an estimated cost of SL 13 million. A new project for drying 30,000 tons of onions annually was also included. The project was estimated to cost SL 1 million and to employ 62 workers. Except for the expansion of the tobacco industry, traditionally a government monopoly, all the projects in the food industry were left for the private sector.

The investment program in the food industry seems to reflect a strategy of developing agricultural based industry. That is an industry which utilizes agricultural output and processes it to meet the local demand for food stuffs and to export the surplus.

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The engineering industries were allocated SL 31 million. The major project in this industry was the construction of an iron rods plant with a production capacity of 20,000 tons. The project was estimated to cost SL 18 million and to employ 300 workers. This project reflects a strategy of establishing a basis for heavy industry in the country, and to produce an essential type of construction materials locally. All of the projects in the engineering industry were left for the private sector.

Industrial Development Programs of the Second Five Year Plan.

Planned public sector investment in manufacturing industry amounted to SL 398 million in the second Five Year Plan, which is about twice as much as was allocated in the First Plan. Two reasons may be offered to explain this increase. First, since the nationalisation of large industrial establishments the responsibility of industrial development has shifted from the private to the public sector. Second, the very low rate of implementation of industrial projects in the First Five Year Plan as will be seen later.

The Second Five Year Plan may be considered as a major turning point for manufacturing industry in Syria. For with the Government control of industry, the industrial public sector started to emerge as a leading sector.

Given the temporary nature of the organisational structure of the industrial public sector during the Second Five Year Plan Period, it was deemed more useful to reclassify the investment program of manufacturing industry by major industrial classes and not according to the public sector industrial organizations as will be done for the Third and Fourth Plans. The attempted reclassification of the investment program in manufacturing industry is presented in Table IV-2.

Table IV-2 Planned Investment in the Public Sector Manufacturing Industry in the Second Five Year Plan

Branch of Industry	Investment (SL Million)	Percentage of total
Food industries	62.7	15.7
Textils industries	59.2	14.8
Chemical industries	5.2	54.0
Wood, paper, leather and plastics	.0	0.5
Non-metallic mineral products	.1	1.7
Basic metal industries	24.0	6.0
Fabricated metal industries	8.7	2.2
Vocational and management training and industrial research	16.6	4.1
Others	2.9	0.7
Total	398.4	100.0

Source : Second Five Year Plan, *Ibid.*, pp. 169-172.

A close examination of Table IV-2 reveals the chemical industry, like in the First Plan, received the largest proportion of the investment, or 54 per cent. This is clearly due to the capital intensity nature of the planned projects in the fertilizer and in petroleum refining industries. The food and textile industries ranked a distant second and third by being allocated 15.7 and 14.8 per cent, respectively. A more detailed presentation and analysis of the investment program and a discussion of the major industrial projects in each branch of industry will be made in the following.

Investment Programme in the food industry.

The food industry was allocated SL 65 million for its projects. New employment to be generated by these projects was estimated at 1,182 jobs. The distribution of the investment among projects is presented in Table IV-3.

Table IV-3 **Planned Investment in the Public Sector**
Food Industry in the Second Five Year Plan

Project	Investment (SL million)	Employment (Workers)	Production Capacity
Expansion and replacement	8.0	-	
Milk and dairy products (2 plants)	1.8	84	30 tons milk/day each
Canning and food preserving	5.0	-	
Onion & vegetables drying	8.0	204	32,800 tons fresh onions
Al-Ghab Sugar Plant	21.5	660	45,000 tons/year
Grain mills: (Five new mills plus expansion of 10 old ones)	13.9	200	600 tons/day + 470 tons day added capacity
Automatic bakeries	3.9	34	10 tons/shift each, 40 tons/2 shifts
Tobacco	0.6	-	
	<u>64.7</u>	<u>1,182</u>	

Source: Second Five Year Plan, Ibid., pp. 169-172.

Three objectives in the food industry may be identified. First, to raise the efficiency of existing food establishments by replacing obsolete equipment. Second, to expand production capacity of major foodstuffs (i.e. flour and sugar) by constructing a new sugar refinery and a number of new grain mills. Third, to expand the food canning and preserving industry which utilizes local agricultural output.

It can be seen from Table IV-2 that the Plan has allocated SL 8 million for expansion and replacement investment. Twelve existing establishments in food industry benefited from this program. The distribution of these

establishments among the branches of the food industry was as follows :-

	Investment SL (Thousands)
2 Canning companies	790
6 Vegetable oil companies	6 401
1 Sugar refining company	311
3 Biscuits companies	748
<hr/>	<hr/>
12 Total	8 250

Source: Second Five Year Plan, Ibid., pp. 289-293.

The major new industrial projects in the food industry, however, were the Al-Ghab sugar refinery, the grain mills, and the onion and vegetable drying plant. A brief discussion of each of these projects is in order.

Al-Ghab Sugar Plan Project:

This project was a carry-over from the first Five Year Plan. Its purpose was to construct a plant at Al-Ghab Valley which produces sugar from sugar beets. Production was expected to begin in 1967 at an initial capacity of 25,000 tons annually, of which 8,000 tons from sugar beets and 17,000 tons of refined sugar. Production capacity was to eventually reach 45,000 tons in 1971, of which 25,000 tons from sugar beets. The project was estimated to cost SL 31 million, of which SL 9.5 million were expended in the First Plan. The Second Plan allocated SL 21.5 million for completing the project. ^{1/}

^{1/} Second Five Year Plan, Ibid., pp. 260.261.

Grain Mills Project: The purpose of this project was twofold. First, to construct five new automatic grain mills with a combined production capacity of 600 tons/day. The mills were to be located in the following cities :

<u>City location</u>	<u>Production capacity Ton/Day</u>
Damascus	200
Hama	100
Edlib	100
Lattakia	100
Al-Hasaka	100
	<u>600</u>

Second, to expand the production capacity of ten of the existing grain mills from 710 to 1,180 tons/day. Thus, by 1970 when the project is completed, the country's grain mill capacity will be 1,780 tons/day. The project was estimated to cost SL 14 million and to provide employment for 200 workers. ^{1/}

Onion & Vegetable drying Plant Project:

The purpose of the project was to build a plant which will process the agricultural production surplus of fresh onions which was expected to reach 30,000 tons annually in 1970, and to export the output. The project was originally designed to transform 32,900 tons of fresh onions into 4,000 tons of dried onion slices. A plant of that size would have cost SL 8 million and employed 204 workers. However, the project, was contracted for with a French concern for a capacity of 14,400 tons of fresh onions at the cost of SL 4.5 million. ^{2/}

^{1/} Ibid., pp. 261-262

^{2/} Ibid., pp. 365-366

Investment Programme in the Textile Industry.

The textile industry was allocated SL 59 million for projects that were expected to generate employment for 1,050 workers. The distribution of the investment program among projects is presented in Table IV-4, which reflects two main objectives.

Table IV-4 Planned Investment in the Public Sector
Textile Industry in the Second Five Year Plan

	Investment (SL million)	Employment (Workers)	Production Capacity
Expansion and replacement	26.5	-	
Thin Fiber Plant	16.0	450-750	4,125 tons of thin cotton fiber.
Cotton ginning mills (3 plants)	16.7	300	80,000 tons ginned cotton
	<u>59.2</u>	<u>1 050</u>	

Source: Second Five Year Plan, Ibid., pp. 169-172.

The first was to increase, diversify and improve the quality of output in the industry for the purposes of meeting the growing local demand and capturing the export market potential. To achieve this strategic objective, the plan allocated SL 27 million for expansion and replacement investment. Sixteen existing establishments benefited from this program. The fund allocation among these establishments was made in such a way to assure coordination and specialization among the different textile firms in the industry in order to improve the rate of capacity utilization, and hence raise efficiency. The second objective was to invest in projects which would increase the degree of local processing in the textile industry. This would have the favourable effects of reducing the imports of intermediate consumption materials (e.g. fibers), as well as reducing the percentage of agricultural output (e.g., cotton) exports in raw materials form which command a lower price than exports of manufactured goods. Thus, the major new projects in the textile industry were the thin fiber plant and the cotton ginning mills. A brief description of these two projects is in order.

Thin Fiber Plant Project.

The purpose of the project was to construct a plant which will utilize 9,500 tons of Syrian ginned cotton in order to produce 4,125 tons of thin cotton fibers annually. The operation would require 50,000 spindles and 750 workers. The project was to be constructed over two stages. The first stage was to be completed in the Second Five Year Plan, whereby the plant will operate with 30,000 spindles and employ 450 workers. The investment required was estimated at SL 16 million. The expansion of the project to the ultimate designed capacity was to be undertaken in the Third Plan. Execution of the project was assigned to the General Organization for Implementation of Industrial Projects.

Cotton Ginning Mills Project.

The Second Plan allocated SL 16.7 million to the General Commission of Cotton Ginning and Marketing. Of this sum SL 10.5 million were allocated for the construction of three groups of modern (saw-type) ginning mills. Two of these mills were to be built in Der Al-Zor and one in Aleppo, for their proximity to the cotton production centers. The saw-ginned type of cotton produced by these mills was considered to be more profitable for export purposes given the international demand for it, and thus higher price it commands. The three mills were estimated to employ 300 workers and to have a production capacity of 80,000 tons of ginned cotton.

The remaining SL 6.2 million were allocated to complementary investments such as the construction and equipping of modern warehouses that would provide technically sound storage conditions for ginned cotton. ✓

✓ Ibid, p. 368.

Investment Programme in the Chemical Industry.

The investment program in the chemicals industry was the largest of any other branch of industry. It was estimated to cost SL 215 million and to create 780 new jobs. The distribution of the planned investment among various projects is presented in Table IV-5.

Table IV-5 Planned Investment in the Public Sector Chemical Industry in the Second Five Year Plan

Project	Investment (SL Million)	Employment (Workers)	Production Capacity
Expansion and replacement	6.0	-	
Nitrogenous Fertiliser Plant	71.9	400	148,500 tons annually
Phosphate Fertiliser Plant	25.0	380	102,000 tons annually
Development of Home Oil Refinery	112.3	-	increase capacity from 1.2 to 1.7 million tons annually.
	<u>215.2</u>	<u>780</u>	

Source: Second Five Year Plan, Ibid., pp. 169-172.

Two main objectives guided the investment program in the chemical industry. First, to establish new chemical industries which utilize Syrian mineral resources for material inputs, and whose output can be used in other economic sectors (e.g. agriculture) to raise productivity. A good example of this is the two fertilizer plants. As part of this in the development of the existing chemical industry (e.g. oil refining) in the direction of increasing the degree of utilization of Syrian minerals (e.g., Syrian crude oil in this case). The second objective was to modernize other chemical industries for the purpose of increasing, diversifying, and improving the quality of their output.

Thus, the plan allocated SL 6 million for expansion and replacement investment. Six establishments benefit from this program distributed as follows:

	<u>Investment SL (thousands)</u>
2 Glass and glass products	2 950
1 Pottery and china	1 630
1 Liquified gases	230
1 Liquified batteries	130
1 Drug and medicines	1 000
1 Paints	100
1 Cleaners	35
Total	<u>6 075</u>

Source : Second Five Year Plan, Ibid., pp. 286-287.

The major new industrial projects in the chemicals industry, however, were the two fertilizer plants and the development of the Homs Oil Refinery. A brief discussion of these projects is made below.

Nitrogenous Fertilizer Plant Project.

This project was a carry-over from the First Plan where only SL 6 million was spent on it out of a planned investment of SL 90 million. However, the project went through a number of modifications in its technical specifications, and the desired production capacity was raised from 110,000 to 148,500 tons annually. Thus, the Second Plan allocated SL 72 million for completing the project in 1969. The project was expected to provide employment for 400 workers. ^{1/}

Phosphate Fertilizer Plant Project

The project idea arose upon the discovery of phosphate in Syria while conducting geological surveys in the First Plan. Further explorations led to the discovery of significant deposits in Al-Balukiah and Khnaifies regions in the Palmyra desert area. It was estimated that the phosphate

^{1/} Ibid., p 258.

reserves of Al-Sharkiah were about 140 million tons of 24.2 per cent concentration, while those of Khnaifies were about 15.5 million tons of 28.5 per cent concentration.

Given the availability of the raw material and the growing demand for chemical fertilizers arising from the expansion of cultivable land areas as well as the increased farming intensity in agriculture, it was decided to construct the phosphate fertilizer plant and locate it near Homs. Production was expected to start in 1969 with a capacity of 75,000 tons annually of triple-super phosphate and to increase gradually to reach 102,000 tons in 1972 when the plant goes into full operation. The project was estimated to employ 380 workers, and the plan allocated SL 25 million for it. ^{1/}

Development of Homs Oil Refinery:

The purpose of the investment program in oil refining was twofold. First, to expand the refining capacity from 1.2 to 1.7 million tons annually. The refinery would continue to use the Iraqi crude oil. This project was estimated to cost SL 1.2 million and to be completed in 1967. Second, to modify the Homs oil refinery by installing new units which will make possible the refining of the thicker and higher sulphur content Syrian crude oil. This program was estimated to cost SL 11' million and to be completed in 1968. ^{2/}

Investment Programme in the Fabricated Metal Industry.

The fabricated metal industry was allocated SL 8.7 million in the Second Plan. The distribution of this investment among projects is presented in Table IV-6.

^{1/} Ibid., p. 257.

^{2/} Ibid., pp. 252-256.

Table IV-6 Planned Investment in the Public Sector Fabricated Metal Industry in the Second Five Year Plan

Project	Investment (SL Million)	Employment (Workers)	Production Capacity
Expansion and replacement	2.3	-	
Water meters plant	2.3	40	50,000 units annually
Electric Meters Plant	1.3	82	50,000 units annually
Dry Batteries plant	2.3	130	16 million battery annually
Telephone sets and exchanges	<u>0.5</u>	<u>30</u>	
Total	8.7	282	

Source: Second Five Year Plan, *Ibid.*, pp. 169-172.

The objective of the SL 2.3 million expansion and replacement investment programme were several. First, to improve the quality of output by replacing obsolete with modern and more efficient equipment. Second, to raise the degree of local manufacturing by internalizing some external production processes into the industry. Third, to diversify the product line of some establishments which have excess capacity and can acquire the capability of producing new product if only small marginal investments are made. Two establishments benefited from this programme, namely, the Arab Cables Company and the Barada-Hafez Household Appliances Company.

A new section for the manufacturing of Aluminium cables (400-16mm² diameters) at the cost of SL 1 million was decided to be constructed at the Arab Cables Co. The output of this project was to supply the cable requirements for the expansion programs in the transmission and distribution of electricity, hence substituting for the imports of the more expensive imported copper cables. The Project was planned to go into full production in 1968.^{1/}

^{1/} *Ibid.*, p. 287

The expansion projects of the Barada Hafez Household Appliances Company, essentially a refrigerators manufacturer, included the construction of sections for the production of elevators, cooking ovens, gas operated water heating tanks, and electric fans. These new product lines use basically the same underlying technology as presently utilized in the production of refrigerators. Furthermore, they would help eliminate the excess capacity problem the company suffers from and which arises from the seasonality of the demand for refrigerators. The capital investment cost was estimated at SL 1.3 million.^{1/}

The other projects planned in the fabricated metal industry included four new plants for the production of water and electricity meters, dry batteries, and the assembly of telephone sets and telephone exchanges. The water and electricity meters plants were designed to produce 50,000 units each to meet the expected growth in the demand for such meters which will arise from planned expansion in the water and electricity services.^{2/} The combined cost of these two projects was estimated at SL 3.6 million, and the resulting employment at 122 workers.

The batteries plant project was a carry-over from the First Plan where SL 2.2 million was spent on it out of a total cost of SL 3.6 million. The Second Plan allocated SL 1.4 million for completing the project and SL 916 thousand for operating it in the first five months of production. The plant was designed to produce 16.4 million batteries of various types and sizes, to be used for lighting, radio, and telephone purposes. The project was expected to provide employment for 130 workers.^{3/}

1/ Ibid., p. 288

2/ Ibid., p. 364

3/ Ibid., p. 363

The telephone sets and exchanges assembly project was an expansion of the Syrian Electronics Company which manufactures television sets. The purpose of the project was to assemble telephone sets as well as automatic and semi-automatic telephone exchanges. The investment required was estimated at SL 500 thousand, and employment at 30 workers. Production was expected to start in 1967.^{1/}

Investment Programmes in Other Branches of Industry.

The other industrial projects of the Second Five Year Plan are presented in Table IV-7.

Table IV-7 Other Planned Industrial Investments of the Public Sector
in the Second Five Year Plan

Project	Investment (SL Million)	Employment (Workers)	Production Capacity
Wood, paper, leather & plastic	2.0	-	
Asbestos Cement Plant	6.1	, -	
Building bricks plant	1.0	60	8.1 million bricks annually
Iron Rods Plant	24.0	191	105,000 tons/ 3 shifts annually
Total	33.1	251	

Source: Ibid., pp. 169-172.

The investment in those projects apparently aimed at developing the construction materials type industries in order to meet the growing demand for residential and non-residential construction. Perhaps, the two main projects in Table(IV-7) are the Iron Rods Plant and the Asbestos Cement Plant. A discussion of these projects is in order.

Iron Rods Plant Project.

This project is a carry-over from the First Plan. Its purpose was to produce iron rods of 6-25 mm diameters to meet the demand for steel for

^{1/} Ibid., p. 364.

construction estimated at 65,000 tons annually and which was expected to double by 1970. The project would also save foreign exchange by substituting for imported steel which was estimated to cost the country SL 24 million annually. The plant was to be constructed over two stages. The first stage was planned to be completed in 1969 when the plant would produce 75,000 tons annually per two shifts. The second stage was planned for completion in 1971, whereby production capacity would rise to 105,000 tons annually per three shifts. The plant was designed to use imported semi-finished steel masses for input. The Second Plan allocated SL 24 million for the project, however, it was contracted for at the lower cost of SL 18.5 million. The project was expected to provide employment for 191 workers.

Asbestos Cement Plant.

The project represents a vertical expansion of the National Cement Company of Damascus in the direction of using its cement output as input for producing asbestos cement pipes and sheets. The demand for such products, especially pipes was expected to grow fast with the planned expansion of water irrigation and disposal and sewerage systems. The demand for sheets to use as ceiling and walls in factories, warehouses, and animal farms was also expected to be high. The project was estimated to cost SL 6.1 million.^{1/}

Finally, the Second Plan assigned special attention to manpower training and industrial research and allocated SL 16.6 million for investment in these areas. A more detailed discussion of these projects was made earlier in this chapter.

Industrial Development Programme of the Third Five Year Plan.

Planned investment of the public sector in manufacturing industry more than doubled in the Third Five Year to reach SL 1,051 million. However, about half the investment (45.3 per cent) was allocated for completion of industrial projects started in the Second Plan. Thus, the Third Plan may be considered

^{1/} Ibid., p. 361.

as a continuation of the Second Plan in the manufacturing industry sector of the economy. Furthermore, the industrial public sector started out the plan period with a different organizational structure as three industrial unions were created as have been discussed before. The planned industrial investment program of the public sector and its distribution among the various public sector industrial organizations are shown in Table (IV-8).

Analysis of the information presented in the Table shows that the Union of Engineering and Chemical Industries was allocated SL 270 million, which amounts to 26 per cent of the total investment in manufacturing industry. However, when the investment of SL 81 million allocated to the chemical and engineering projects being executed by the General Organization for Implementation of Industrial Projects (GOIIP) and the investment allocated to the other public sector organization which also operate in engineering and chemical industries (e.g. oil refining, tractors, and defense) are added, the investment figure rises to SL 518 million, or about 50 per cent of the total investment in manufacturing. The textile industry ranked second and was allocated SL 308 million, which amounts to 29 per cent of the manufacturing investment. The figure represents the sum of the allocations of the Textile Union, the Cotton Ginning Commission, and the textile projects being executed by the GOIIP which amounted to SL 37 million. The food industry including tobacco ranked third and was allocated SL 192.5 million, or 18.3 per cent of the manufacturing investment. Again the figure is the sum of the allocations of the food projects executed by GOIIP and those of the Grain Mills Commission and the Tobacco Monopoly. It should be also noted that the plan allocated SL 12.5 million each for industrial research and vocation and management training.

A more detailed presentation of the investment program analysis of the underlying strategies, and a discussion of the main projects in each of the industrial public sector organizations will be made in the following:

IV-8 **Planned Public Sector Investment in Manufacturing Industry
in the Third Five Year Plan Distributed According to Industrial
Organisations (SL Million)**

	Carryover Projects	New Projects	Total	Percentage of total
Vocational training	4.4	-	4.4	0.4
Industrial Research & Tests Centre	12.6	-	12.6	1.2
Management Development Centre	8.1	-	8.1	0.8
Union of Food Industries	39.8	40.7	80.5	7.6
Grain Mills Commission	-	66.2	66.2	6.3
Tobacco Monopoly	-	36.5	36.5	3.5
Union of Textile Industries	48.8	204.4	253.2	24.1
Cotton Ginning Commission	-	51.0	51.0	4.8
Union of Engineering & Chemical Industries	203.3	66.8	270.1	25.7
Ross Oil Refinery	-	18.4	18.4	1.7
Tractors and Mechanical Products Co.	97.3	-	97.3	9.3
General Organization of Defense Industries	-	51.0	51.0	4.8
General Organization for Implementation of Industrial projects	61.6	40.0	101.6	9.7
TOTAL	475.9	575.0	1 050.9	100.0

Source : Third Five Year Plan, *Ibid.*, pp. 60-70.

Investment Programme of the Union of Food Industries.

The Union of Food Industries was allocated SL 80.5 million in the Third Five Year Plan. Of this sum, 49.4 per cent was allocated for completion of 11 carryover projects from the Second Plan and 50.6 per cent for 9 new projects. The distribution of the investment program among projects is presented in Table IV-9.

The main objectives of the above investment program was to develop a food industry which utilizes the country's agricultural output for material input. To this extent, the food canning and preserving, vegetable oil, and beverages industries were stressed in the plan. A brief description of the main new projects will be made below.

The Beer Plant Project.

The purpose of this project was to establish a beer plant in Damanous with a production capacity of 5 million liters annually. Such a plant would meet the growing demand for beer in the southern part of the country, save transportation costs arising from the Aleppo plant north, and export the production surplus. The project was estimated to cost SL 25.5 million, and was allocated SL 7.5 million in the plan. The plant would employ 114 workers. It was expected that in the early years of production, half of the output would be exported.

The Yeast Plant Project.

The project aimed at establishing a plant in Homs to manufacture yeast using molasses (a by-product of the sugar refinery plant in Homs) to meet the local demand and provide a surplus for export. The plant will belong administratively to the Sugar Refinery Company. Production capacity was designed at 6 tons/day, but could be increased to 7 tons. Capital investment was estimated at SL 4 million, and employment at 32 workers.

Table IV-9 Planned Investment in the Union of Food Industries
in the Third Five Year Plan

Project	Investment (S.L. thousands)
A. Carryover Projects	<u>39 792</u>
1. Expansion of Modern Canning Co.	2 315
2. Expansion of Oils & Soaps Manufacturing Co.	605
3. Expansion of Damascus Food Products Co.	1 342
4. Expansion of Syrian Biscuits Co.	400
5. Expansion of Syrian Dairy Products Co.	1 387
6. Expansion of Syrian Grapes Processing Co.	320
7. Expansion of Syrian Sugar Manufacturing Co.	6 100
8. Expansion of Hama Oils Co.	1 578
9. Onion & Vegetable Drying Plant	200
10. Syrian Vegetable Oils Manufacturing Co.	9 780
11. Al-Shark Food Products Co.	2 765
12. Previous Debts	13 000
B. New Projects	<u>40 700</u>
1. Beer Plant	7 500
2. Animal Feed Plant	4 000
3. Yeast Manufacturing Plant	4 000
4. Jablah Canning Plant	3 000
5. Syrian Company of Potashio Processing & Marketing	1 965
6. Lattakia fatty acids Plant	1 235
7. Citric Acid Plant	12 500
8. Baby Food & Fruit Juices Plant	3 000
9. Hilib Canning Plant	3 500
C. TOTAL A + B	<u>80 492</u>

Source: Third Five Year Plan, *Ibid.*, p. 62-63.

Food Canning and Preserving Projects.

Two plants were planned to be established, one in Jablah and the other in Edlib. Both plants would specialize basically in the processing of peas and tomatoes in addition to other vegetables. Each plant will have a production capacity of 1,300 tons annually, which could be raised to 2,000 tons. Capital investment was estimated at SL 3 million for the Jablah Plant and SL 3.5 million for the Edlib Plant. Employment was estimated at 65 permanent and 150-200 seasonal employees for each. Both plants were expected to export most of their output.

The Postashio Processing & Marketing Project.

The project aimed at establishing a company for grading and packaging crop and marketing it locally and abroad. Production capacity would be 10-15 tons per hour. The production refuse would be transformed into construction materials or fertilizers. The cost of the investment was estimated at SL 2 million.

Baby Food and Fruit Juices Plant Project.

The purpose of this project was three-fold, namely, to substitute for imports, take advantage of the availability of material inputs (vegetables and fruits) locally, and to export the production surplus. Production capacity would be 5,000 tons annually. Capital investment was estimated at SL 3 million, and employment at 76 permanent and 100-150 seasonal workers. It was expected that 50 per cent of the output will be exported.

Investment Programme of the General Commission of Grain Mills.

The commission was allocated SL 66.2 million in the Third Plan for the construction and modernisation of 13 mills and for building 15 new warehouses for flour and grains storage. All of these projects were new. The distribution of the investment program among the projects is shown in Table IV-10.

Table IV-10 Planned Investment in the General Commission of Grain Mills in the Third Five Year Plan

Project	Investment (SL Million)
1. Construction of <u>four</u> new grain mills	17.9
2. Modernisation of <u>Nine</u> old grain mills	20.0
3. Lentils Processing Plant	0.5
4. Construction of 15 warehouses	26.4
5. Other	1.4
TOTAL	66.2

Source : Third Five Year Plan, Ibid., p. 69.

The investment aimed essentially at expanding the grain mill capacity of the country in order to meet the growing local demand for flour. It also aims at achieving a more balanced geographical distribution of the mills throughout the country to minimize transportation costs. A brief description of the projects is in order.

New Grain Mills Project.

The project involved the construction of four new grain mills with a combined production capacity of 500 tons per day, at an estimated cost of SL 18 million. The location and production capacity of the individual mills were as follows :-

Location	Capacity TON PER DAY
Dumouss	200
Fartous	100
Barna	100
Rakbah	100
Total	500

Modernization of Grain Mills Project.

The project aimed at modernizing and expanding the production capacity of nine old mills located in Damascus, Homs, Aleppo, and Al-Kamishly. The project would provide an additional grain mill capacity of 585 tons/day, thus raising annual capacity from 474,000 to 649,500 tons annually. The project cost was estimated at SL 20 million.

Construction of new Warehouses:

The project involved the construction of 15 modern warehouses throughout the country to provide technically and economically sound conditions for the storage of flour and grains. The project cost was estimated at SL 26.4 million.

Investment Programs of the Tobacco Monopoly.

The tobacco industry is one of the old industries in Syria, however, its output was neither sufficient nor of acceptable quality. Thus, a strategy was adopted in the Third Plan to expand production capacity of high quality cigarettes by constructing a new plant which would utilize a higher percentage of Syrian grown tobacco in the manufacturing process. The plant would have a production capacity of 2,100 tons annually, and would employ 46 workers. Capital investment was estimated at SL 12.5 million. Production was expected to start in 1974. The other projects of the tobacco monopoly are shown in Table IV-11.

Table IV-11 Planned Investments in the Tobacco Monopoly in the
Third Five Year Plan

Project	Investment SL million
Construction of a New Cigarette Plant	12.5
Construction of a Plant Building in Lattakia	4.5
Modernization of the Aleppo Plant	3.5
Construction of warehouses in Jablah & Lattakia	6.0
Acquisition of Equipment and motor vehicles	<u>10.0</u>
Total	36.5

Source: Third Five Year Plan, Ibid., p. 70.

Investment Programme of the Union of Textile Industries.

Textile is one of the oldest branches of industry in Syria. The development and expansion of this industry took a high priority in the Third Five Year Plan by allocating SL 253.2 million to it, or about one fourth of the total investment in manufacturing industry. Compared with the Second Plan this investment represented a six fold increase. The investment program of the Union of Textile Industries is presented in Table IV-12.

It can be seen from the Table that the Textile Union was allocated SL 204 million for 20 new projects, and SL 49 million for replacement investment and old debts. The underlying objectives of this investment program was to expand the weaving and knitting capacity in a way that will increase the degree of local processing in the industry. More specifically, the strategic objective was to use more of the Syrian ginned cotton and wool to convert to fibers. This has the dual advantage of substituting for the imports of fibers, and of getting higher price for the exported surplus than would be the case when exporting raw cotton and wool. A brief description of the Textile projects is in order.

Fibre-Textile Projects: The purpose of these projects was to expand ing of the existing textile establishments by adding 151,000 spindles and looms for the manufacturing of cotton and wool fibers and textiles. These projects would utilize 273,000 tons of Syrian ginned cotton to produce 22,000 tons of fiber, and would also use 100,000 tons of wool. The projects were estimated to cost SL 160 million and to employ 3,564 employees.

Wearing Apparel and Underwear Project: This project represented a major expansion of Al-Shark Underwear Co. Its purpose was to establish a wearing apparel manufacturing unit, and to double the Company's underwear output. The combined cost of the two projects was estimated at SL 23.6 million.

Table IV-12 **Planned Investment in the Union of Textile Industries
in the Third Five Year Plan**

Project	Investment SL Million
A. <u>Carryover projects</u>	<u>48.8</u>
1. Replacement Investment	35.0
2. Previous debts	13.8
B. <u>New Projects</u>	<u>204.4</u>
1. Expansion of Homs Co. by 30,000 cotton spindles and 500 cotton looms	36.8
2. Expansion Al-Shahba Co. by 15,000 spindles	10.3
3. Expansion of Hama Plant by 30,000 cotton spindle	20.7
4. Wool washing project	4.0
5. Expansion of wood spindles of Modern Industries Co.	13.1
6. Wool spindles of United Commercial & Industrial Co.	3.1
7. Expansion of National Co. by 5,000 wood spindles	5.9
8. A new unit in Damascus consisting of 500 cotton spindles	14.9
9. Expansion of Modern Co. by 60 looms	4.7
10. Wool rugs project	2.3
11. Expansion of Silk Rug Co. by 4 looms	0.7
12. Expansion of Nylon Fiber & Stocking Co.	5.6
13. Construction of the Wool Blankets Establishment	1.5
14. Spare parts unit in Damascus	2.4
15. Underwear Project of Al-Shark Co.	13.7
16. Spare parts unit in Aleppo	2.4
17. Wearing Apparel Unit at Al-Shark Co.	9.8
18. Experimental Design & Test of Chemicals Centre	0.4
19. Quality Control Centre	1.5
20. Construction of two units with 35,000 spindle each in Bdlib and Der Al-Zore	50.1
C. TOTAL A + B	<u>253.2</u>

Source: Third Five Year Plan Ibid., pp. 61-62

The wearing apparel project was the first attempt to introduce this industry into Syria on a large scale. The project would use 31,100 tons of different types of textiles to produce 325,000 dozens of clothing. It was estimated to cost SL 10 million, and employ 1,500 workers.

The underwear expansion project would use an additional 1,000 tons of cotton to produce 60,000 dozens of underwear, thus contributing to an increased utilization of Syrian ginned cotton. The project was estimated to cost SL 13.7 million and to employ 360 workers.

Expansion of the Nylon Fibers and Stocking Co.: The project involved the expansion of the Company's Nylon fiber plant for the purpose of transforming 630 tons of woolen-nylon fiber into 600 tons of nylon polyester fiber. It was expected that 200 tons of the output will be exported. The project was estimated to cost SL 5.6 million and to employ 102 workers.

Investment Programme of the General Commission for Cotton Ginning and Marketing.

The General Commission for Cotton Ginning and Marketing was allocated SL 51 million for modernizing two existing mills and the construction of two new mills which utilize the saw-type ginning technology. The new technology was supposed to lower the cost of ginning and to make the output more suitable for the needs of the local textile industry and for the export market demand. The expansion of the cotton ginning production capacity had become essential to cope with the planned expansion in the textile industry. The production capacity of the new mills would be 90,000 tons of ginned cotton annually. The mills would provide employment for 105 workers.

Investment Programme of the Union of Engineering & Chemical Industries.

The union of Engineering and Chemical Industries was allocated SL 270 million, the largest investment allocation of any of the other public sector organizations. However, 75 per cent of this amount (SL 203 million) went to carryover projects and replacement investment. New projects which were 20 in number received SL 66.8 million. The detailed list of the projects and their corresponding investment allocations are presented in Table IV-13.

Table IV-13 Planned Investment in the Union of Engineering and Chemical Industries in the Third Five Year Plan

Project	Investment \$ Million
A. <u>Carryover projects</u>	<u>205.3</u>
1. Expansion & Replacement investment	42.1
2. Developing Syrian Batteries Co.	2.5
3. The Three Cement Plants Project	150.0
4. Bicycle Tyres Project	3.5
5. Decoy nets project	2.0
6. Batteries Plant Project	1.0
7. Aleppo Tannery Project	1.8
8. Plastic Machinery Project	0.3
B. <u>New Projects</u>	<u>66.8</u>
1. Electrical sealed compressors unit for refrigerators	2.4
2. Developing Barada Refrigerators Plant	3.7
3. Polyesterreen Project	1.2
4. Refrigerators radiators	1.0
5. Developing existing cables plant	4.0
6. Developing Household Appliances Plant	1.0
7. Renewal of Kleenex Plant Machinery	1.0
8. Metal Structures Projects	5.5
9. Expansion of Matches Plant	2.5
10. Expansion of Paints Co.	0.6
11. Developing Al-Nasr TV Co.	3.0
12. Expansion of Wood Plant - Lattakia	1.0
13. Expansion of Drugs Co.	2.0
14. Plastic Machinery	4.0
15. Developing the Glass Plant	24.0
16. Manual Glass Blowing Unit	1.1
17. Nails Plant Project	0.7
18. Expansion of Porcelain Industry	2.5
19. Building Bricks Project	4.5
20. Expansion of Tannery Plants	1.0
C. TOTAL A + B	<u>270.1</u>

Source : Third Five Year Plan, Ibid., pp. 63-64.

The investment program was basically to develop existing establishments in this industry for the purpose of increasing output, raising efficiency, improving the quality of output, and increasing the degree of local manufacturing. This last purpose was especially relevant in the household appliances industry, where the plan made attempts to have more of the refrigerators component be manufactured locally. The two real big projects of the Union of Engineering and chemical Industries were the three new cement plants and the modernization of the glass company. A brief description of these two projects is in order.

The Three Cement Plants Project: The decision to build three new cement plants was made during the implementation of the Second Five Year Plan, although the project was not initially included in the plan. It was the serious shortage of cement which prompted the decision. The Plants were to be located in Masalmia - Aleppo, Kfaryhim - Hama, and Adra - Damascus. The combined production capacity of the three plants was 1.2 million tons annually. The plants were expected to employ 1,200 workers. The project was estimated to cost SL 574 million, and the Third Plan allocated SL 150 million for it.

Developing the Damascus Glass Plant: The glass industry is one of the relatively old industries in Syria. More than 90 per cent of the raw material input for the industry is available locally. Furthermore, the industry benefits from the availability of an abundant supply of skilled and inexpensive labour. Given these favourable conditions for success of the industry, the project aimed at increasing production capacity of glass to 13,500 tons annually, in addition to 2,000 tons of china products. The project was allocated SL 24 million.

Investment Programme of Projects Undertaken by the General Organization for Implementation of Industrial Projects:

The General Organization for Implementation of Industrial Project has played a significant role in the economic and social development of Syria by undertaking to supervise the construction execution of major new industrial projects. In the Third Plan, the organization was allocated SL 102 million for its projects. The distribution of the investment among the projects appears in Table IV-14.

Table IV-14 Planned Investment of the General Organization for
Implementation of Industrial Projects in the Third Five Year Plan

<u>Project</u>	<u>Investment (SL Million)</u>
Nitrogenous Fertilizer Plant	26.0
Thin Fiber Plant	3.7
Iron Pads Plant	10.4
Electrical Engine Plant	4.5
Cold Storage Warehouses (12 warehouses)	5.3
Grapes Processing Plants (2 Plants)	2.8
Onions & Vegetables Drying Plant	1.2
Phosphate Fertilizers Plant	40.0
Other	<u>7.8</u>
TOTAL	101.6

Source: Third Five Year Plan, Ibid., pp. 64-65.

It can be seen from the Table that all the projects are carryover from the Second Plan. Most of these projects have been described before, except perhaps for the Electric Engines Plant which will be described here.

Electric Engines Plant Project: This was initially a standby project in the Second Plan, and it was decided to go through with it during the course of the plan. The plant would produce 65,000 electric engines annually, and was located in Lattakia. The Third Plan allocated SL 4.5 million for its completion.

Tractors and Mechanical Products Company: This project is a Syrian-Spanish joint venture which was started in the Second Plan. The purpose of the project was to assemble tractors and their engines. The project was allocated SL 97 million in the Third Plan.

Investment Programs in the Petroleum Refining Industry:

The Third Plan allocated SL 19 million to industrial projects complementary to petroleum refining. These projects are listed below.

Table IV-16 Planned Public Sector Investment in Manufacturing Industry in the Fourth Five Year Plan Distributed According to Industrial Organizations (SL. Million)

Industrial Organizations	Carryover Projects	Now Projects	Total	Percentage of Total
Ministry of Industry		16.0	16.0	
Industrial Research & Tests Center	10.1	-	10.1	
Management Development Center	3.0	-	3.0	
Vocational Training	11.0	60.0	71.0	0.7
General Organization of Food Industry	134.0	29.6	163.6	1.5
General Organization of Sugar	616.1	1.3	617.4	5.8
General Organization of Grain Mills	356.8	15.5	372.3	3.5
General Organization of Tobacco	50.5	85.5	136.0	1.3
General Organization of Textile Industry	1 142.5	85.5	1 228.0	11.5
General Organization of Cotton Ginning	65.0	-	65.0	0.6
General Organization of Chemical Industry	2 909.3	493.0	3 402.4	31.8
Homs Oil Refinery	15.1	122.1	137.2	1.3
Banias Oil Refinery	963.0	87.0	1 050.0	9.8
General Organization of Blood & Medical Prods.	-	11.5	11.5	0.1
General Organization of Cement	1 095.6	1 475.0	2 570.6	24.0
General Organization of Engineering Industry	653.3	20.0	673.3	6.3
Tractors & Mechanical Products Co.	150.0	-	150.0	1.4
General Organization for Implementation of Industrial Projects	17.0	-	17.0	
TOTAL	8 192.3	2 502.0	20 694.3	100.0

Source: Fourth Five Year Plan, *Ibid.*, pp. 59-91.

Third Plan. The industrial public sector had a different organizational structure at the beginning of this plan. The three industrial unions were replaced by six industrial general organizations, as discussed before. The distribution of the planned public sector investment according to the industrial organizations in the Fourth Plan is presented in Table IV-16.

The Table shows that, like all the previous plans, the chemical industry received the largest proportion of the investment funds. Its share in the Fourth Plan amounted to 43 per cent of the total investment in manufacturing industry. The General Organization of Chemical Industries alone was allocated SL 3,402 million, or 32 per cent of the total manufacturing industry investment. Petroleum refining was allocated SL 1,187 million, or 11 per cent of the total. Large investments were also planned in the cement industry which was allocated SL 2,571 million, or 24 per cent of the total investment in manufacturing. The food industry including sugar refining, grain mills and tobacco; and the textile industry including cotton ginning received 12 per cent each of the total investment. The engineering industries received a relatively smaller share of the investment (7.7 per cent) in this plan and was allocated SL 823 million. Furthermore, the Fourth Plan allocated SL 71 million for vocational training, SL 3 million for management training, and SL 10 million for the Industrial Research and Test Center.

Investment Programme of the General Organization of Food Industries.

The General Organization of Food Industries was allocated SL 163.5 million in the Fourth Five Year Plan. Of this sum, SL 134 million was assigned for the completion of six carry-over projects and for expansion and replacement investment. The Organization had an additional six new projects which were allocated SL 29.6 million. The distribution of the investment program among projects is presented in Table IV-17.

The main objective of the food industry programme appear to have been the expansion in food canning and preserving which utilizes agricultural output and has an export potential. Thus, the plan included the construction of three food canning plants and two cans manufacturing units. The food preserving projects and the spaghetti project will be described below.

The Food Canning and Preserving Plants Project: Three food canning plants were to be established in Al-Mayadine, Al-Basakah and Edlib with a combined production capacity of 11,000 tons annually. Al-Mayadine and Al-Basakah plants would have a capacity of 3,000 tons each annually, while the Edlib Plant will have a production capacity of 5,000 tons. The capital investment required for the three plants was estimated at SL 60 million, and were allocated SL 33 million. These plants would employ 242 workers.

The Spaghetti Plant Project: This plant was to be established in Dara'a with a production capacity of 4,000 tons annually. It was estimated to cost SL 12 million and was allocated SL 8.6 million. It would employ 100 workers.

Investment Programme of the General Organisation of Sugar: The Organisation was allocated SL 617 million investment in six carryover projects and one new project. The bulk of this investment was to be spent on the completion of four new sugar refining plants as can be seen from Table TV-18.

The investment was to expand this industry with the purpose of reaching self-sufficiency in this essential food stuff. A brief description of the projects is in order.

Sugar Refining Plants Projects: The project aimed at the construction of four sugar refining plants with a production capacity of 50,000 tons annually for each in Al-Bakrah, Maskarah, southern Al-Ghab, and Der Al-Zor. The four plants were estimated to cost SL 793 million, and were allocated SL 568 million. New employment was estimated at 2,000 workers.

Table IV-18 Planned Investment of the General Organisation of Sugar in the Fourth Five Year Plan

Project	Investment SL Million
A. <u>Carryover Projects</u>	<u>616.1</u>
1. Expansion and replacement	42.1
2. Sugar Refinery Plant - Al-Rakrah	169.7
3. Al-Thawrah Sugar Refinery - Maktama	167.0
4. Southern Al-Ghab Sugar Refinery	167.0
5. Der Al-Zor Sugar Refinery	64.4
6. Yeast Manufacturing Plant in Hama	4.6
7. Organisation Offices	1.4
B. <u>New Projects</u>	<u>1.3</u>
8. Project for the Production of dry yeast feed	1.3
C. TOTAL A + B	<u>617.4</u>

Source : Fourth Five Year Plan, Ibid., p. 66.

Investment Programme of the General Organisation of Cotton Mills:

The Organisation was allocated SL 372 million. Primarily for the completion of its projects from the Third Plan. These projects included the construction of four new mills, the modernisation of nine old ones, and the construction of 15 warehouses.

Investment Programme of the General Organisation of Tobacco:

The tobacco industry was allocated SL 136 million distributed as follows:

Table IV-19 Planned Investment of the General Organization of Tobacco in the Fourth Five Year Plan

Project	Investment (SL Million)
A. <u>Carryover projects</u>	50.5
1. Lattakia New Cigarettes Plant	43.0
2. Jablah Warehouses	7.5
B. <u>New Projects</u>	85.5
1. Damascus Cigarettes Plant and Warehouses	65.0
2. Tartous Warehouses	15.5
3. Motor Vehicles	,5.0
C. TOTAL A + B	136.0

Source: Fourth Five Year Plan, Ibid., p. 117

Investment Programme of the General Organization of Textile Industries:
 The General Organization of Textile Industries was allocated SL 1,228 million for 23 projects. Of these projects, 20 were carryover from the Third Plan and were allocated the bulk of the investment, or SL 1,143 million. Of the three new projects, the major project was the construction of a fibers plant in Hlib which will operate 75,000 spindles. It was allocated SL 71.5 million. The distribution of the investment among the various projects is shown in Table IV-20.

An examination of the Table reveals that the investment pattern in this industry remained as it was in the Third Plan. However, one may observe the increasing emphasis placed on the wearing apparel industry with two plants being constructed in Aleppo, one for men's apparel and one for Women's apparel, in addition to the expansion of the Damascus plant. This reflects a policy of producing ready-made clothing on a large scale with the objective of reaching self-sufficiency in clothing products. A brief description of the main projects is in order.

Expansion of Homs Company: The purpose of the project was to expand the Homs Company by 37,000 spindles with a production capacity of 7,563 tons of fibers spinning annually. The project cost was estimated at SL 110 million and was allocated SL 75.5 million. The project will provide employment for 876 workers.

Construction of Fibers plant in Der Al-Zor: The project aimed at the construction of a fibers plant at Der Al-Zor with 37,000 spindles that can produce 7,563 tons of fibers annually. The project cost was estimated at SL 110 million, and was allocated SL 74.5 million in the plan. The project would provide employment for 1,099 workers.

Construction of a Thin Fibers Plant at Edlib: The purpose of the project was to construct a thin fibers plant at Edlib with 20,000 turbine spindles. Production capacity would be 10,620 tons of thin fibers annually. The project was estimated to cost SL 160 million, and was allocated SL 149 million. The project would employ 1,160 workers.

Lattakia Textile Unit: The project aimed at the construction of a textile unit in Lattakia which can produce 20 million meters of textiles annually. The project cost was estimated at SL 102 million, and was allocated SL 97 million. The project would employ 616 workers.

Construction of Fibers Plant at Al-Hasakah: The purpose of the project was to construct a fibers plant at Al-Hasakah with 75,000 spindles. The plant would produce 13,700 tons of fibers annually, and provide employment for 2,150 workers. The project cost was estimated at SL 175 million, and was allocated SL 165 million.

Construction of Fibers Plant at Der-Al-Zor: The purpose of the project was to construct a fibers plant with 75,000 spindles at Der Al-Zor. The plant would produce 13,700 tons of fibers annually, and would employ 2,150 workers. The project was estimated to cost SL 71.5 million, and was allocated SL 71.3 million.

Table IV-20 Planned Investment of the General Organization of Textile Industries in the Fourth Five Year Plan

Project	Investment (SL Million)
A. Carryover projects	<u>1 142.5</u>
1. Expansion & replacement	165.0
2. Expansion of Homs Co. by 37,000 spindles	75.5
3. Construction of a plant with 37,000 spindles at Der Al-Zor	74.5
4. Wool washing plant - Hama	27.4
5. Experimental Design Centre - Damascus	15.0
6. Expansion of Underwear Plant - Damascus	20.4
7. Expansion of wearing apparel plant - Damascus	25.1
8. Expansion of Nylon Stockings Co. - Damascus	10.0
9. Construction of plant with 20,000 cotton spindles at Hlib	149.0
10. Lattakia Textile Unit	97.3
11. Construction of Plant with 75,000 spindles at Al-Harakah	165.2
12. Construction of plant with 75,000 spindles at Der-Al-Zor	71.3
13. Expansion of National Company of Aleppo by 10,000 spindles	40.0
14. Expansion of Modern Industries Co. - Damascus by 60 wool looms	9.7
15. Expansion of Thin Fiber Plant - Hama	10.3
16. Installation of 75,000 spindles of Jablah	80.7
17. Wool Rugs Plant - Al-Suwaidah	14.0
18. Women Wearing Apparel Unit - Aleppo	32.0
19. Men Wearing Apparel Unit - Aleppo	41.4
20. Spinning Waste Plant - Aleppo Spinning Wheels	15.0
21. Wool Rugs Plant - Aleppo	3.8
B. New Projects	<u>85.5</u>
1. Installation of 75,000 spindles at Hlib	71.5
2. Spare parts unit - Damascus	6.5
3. Spare parts unit - Aleppo	7.5
C. Total A + B	<u>1 228.0</u>

Source: Fourth Five Year Plan, Ibid., pp. 63-64.

Expansion of National Company of Aleppo: The purpose of the project was to expand the National Company of Aleppo by 10,000 wool spindles which would produce 1,900 tons of wool fibers annually and employ 275 workers. The project was estimated to cost SL 50 million, and was allocated SL 40 million.

Construction of Fibers Plant at Jablah: The project aimed at the construction of a fibers plant with 75,000 spindles at Jablah. The plant would produce 11,000 tons of fibers annually, and would employ 2,052 workers. The cost estimate for the project was SL 203 million, and was allocated SL 81 million.

Construction of Wool Rugs Plant at Al-Suwaideh: The purpose of the project was to construct a plant at Al-Suwaideh that would produce 195,000 m² of wool rugs annually and employ 176 workers. The project cost estimate was SL 35 million, and was allocated SL 14 million.

Women's Wearing Apparel Unit (Aleppo): The project aimed at constructing a women's clothing manufacturing unit at Aleppo, which can produce 630,000 pieces annually and employ 852 workers. The project was estimated to cost SL 35 million, and was allocated SL 32 million.

Men's Wearing Apparel Unit (Aleppo): The project aimed at constructing a men's clothing manufacturing unit at Aleppo to produce 630,000 pieces annually and employ 852 workers. The project was estimated to cost SL 46 million, and was allocated SL 41 million.

Fibers from Waste Plant (Aleppo): The project aimed at the construction of a plant at Aleppo which will transform fiber waste into 2,000 tons of fibers annually. The project cost was estimated at SL 18 million, and was allocated SL 15 million.

Investment Programme of the General Organization of Cotton Ginning:

The Organization was allocated SL 65 million in the Fourth Plan primarily for the completion of projects started in the Third Plan. The distribution of the investment among projects is shown in Table IV-21. The investment strategy in this branch of industry remained as it was in the Third Plan, namely, modernizing the industry and expanding its production capacity.

Table IV-21 Planned Investment in the General Organization of Cotton Ginning in the Four Five Year Plan

Carryover projects	Investment (SL Million)
1. Modernisation of Hama Ginning Mill	1.4
2. Modernisation of Aleppo Ginning Mill	46.8
3. Construction of Saw-Type Ginning Mill, Edlib	6.7
4. Construction of Saw-Type Ginning Mill, Al-Hasakah	10.0
TOTAL	65.0'

Source: Fourth Five Year Plan, Ibid., p. 117.

Investment Programme of the General Organization of Chemical Industries:

By far, the largest amount of investment in manufacturing industry was allocated to the General Organization of Chemical Industries, which had 18 projects. Of these projects, only two were new and the remainder were carryover projects. The new projects were allocated SL 493 million and the carryover project SL 2,909 million. It should be noticed, however, that some of these projects are perhaps the biggest industrial projects ever constructed in Syria. For as it can be seen from Table IV-22 below, just five of these projects (e.g. the two phosphate fertilizers plants, the ammonia urea, the paper, and the tyres plant) accounted for 78 per cent of the investment.

Table IV-22 Planned Investment of the General Organization of Chemical Industries in the Fourth Five Year Plan

Project	Investment (SL Million)
A. <u>Carryover projects</u>	<u>2 909.4</u>
1. Expansion and replacement	60.0
2. Damascus leather Tanning Centre	22.9
3. Aleppo Tannery	52.0
4. Aleppo Glass Plant	142.0
5. Electric Lamps Plant (Aleppo)	77.0
6. Damascus Detergent Plant	59.3
7. Triple-super-phosphate Plant (Homs)	741.7
8. Amonia Urea Fertilizer Plant (Homs)	737.5
9. Paper Plant (Der Al-Zor)	339.2
10. Baby Food Plant (Damascus)	16.3
11. Tyres Plant (Hama)	379.7
12. Four Footwear Plants (Damascus, Suwaida, Nabik, Misiaf)	66.9
13. Developing Damascus Glass Plant	158.3
14. Developing Damascus China Products Plant	3.6
15. Developing Arab Drugs Company - Damascus	6.0
16. Developing Paints Company - Damascus	30.0
17. Developing National Rubber Company	17.0
B. <u>New projects</u>	<u>493.0</u>
1. Triple-super-phosphate Plant - Der-Al-Zor	450.0
2. Damascus Cow Leather Tanning Plant	43.0
C. Total A + B	<u>3 402.4</u>

Source: Fourth Five Year Plan, Ibid., p. 62-63.

Analysis of the investment program shown above reveals the following: First, a strong emphasis was placed on developing the fertilizers industry as evidenced by the construction of three fertilizer plants in addition to the nitrogenous fertilizer project which was completed in the Third Plan. This reflects the dual strategy of producing all the fertilizers requirements of agriculture and of exploiting and processing the country's mineral resources (e.g. phosphate in this case). Second, there was a tendency in the plan to modernize and expand, what might be considered, traditional industries in Syria such as leather tanning and glass. These industries rely on local material input sources and have a promising export potential. Thus, the leather tanning industry was allocated SL 118 million, and the glass industry SL 304 million. Third, the investment program included also the establishment of completely new industries such as paper, tyres, footwear, and electric bulbs manufacturing. A brief description of the major projects is in order.

Amonia-Urea Fertilizer Plant Project: The purpose of the project was to produce 300,000 tons of amonia and 315,000 tons of urea fertilizers annually. Total cost of the project was estimated at SL 1,000 million, and was allocated SL 737.5 million in the Plan. The project would employ 996 workers and was located i. Homs.

Triple-super-phosphate Plant Project: The plant's production capacity was increased to become 450,000 tons of triple-super-phosphate fertilizer annually. Total cost of the project was estimated at SL 800 million, and was allocated SL 741.7 million in the Plan. The project would employ 851 workers and was also located in Homs which has emerged as the petrochemical industry centre of the country.

Tyres Plant Project: The project was designed to produce 460,000 car tyres, 720,000 tubes, and 220,000 bicycles and motorcycles tyres. Total cost of the project was estimated at SL 80 million and was allocated SL 77 million. The project would employ 598 workers and was located in Aleppo.

The Four Footwear Plants Project: The purpose of the project was to construct four footwear plants in Damascus, Suwaida, Nabek, and Misiaf with a combined production capacity of 4.2 pairs of shoes. The project cost was estimated at SL 80 million and was allocated SL 67 million. The project would provide employment for 2,000 workers.

Investment Programme in the Petroleum Refining Industry:

Petroleum refining was allocated SL 1,187 million in the Fourth Plan. Of this sum, SL 137 million was allocated to projects related to the Homs Oil Refinery and SL 1,050 million for the construction of the new Banias refinery. The distribution of the investment among projects is presented in Table IV-23.

Analysis of the projects in the Table indicates no change in the investment strategy in this vital industrial branch. One may observe, however, the expansion of the petroleum refining capacity by building a new refinery which utilizes a much higher percentage of Syrian crude oil than the Homs Refinery. The output of this refinery would be used to meet the growing local demand for petroleum products and for exports. The description of the main projects is in order.

Gasoline Improvement Unit (Homs Refinery): The project aims at the installation of a gasoline improvement unit which produces 333,000 metric tons annually of 95-96 octan gasoline. The project cost was estimated at SL 100 million, and the Plan allocated SL 61 million for it.

Asphalt Production Unit (Homs Refinery): The project aims at refining 200,000 tons annually of the heavy Syrian fuel to produce 120,000 tons of asphalt. The project cost was estimated at SL 31 million, and was allocated SL 20 million in the plan.

Table IV-23 Planned Investment in the Petroleum Refining Industry
in the Fourth Five Year Plan

Project	Investment (SL Million)
A. <u>Homs Petroleum Refinery</u>	<u>137.2</u>
<u>Carryover Projects</u>	
1. Closed circuit Project	3.1
2. Expanding storage capacity for Car Oils Mixing Plant	1.0
3. Reconstruction of the Refinery	5.0
4. Fractionating Unit	<u>6.0</u>
Total carryover projects	15.1
<u>New Projects</u>	
1. Polluted Water Treatment Unit	38.6
2. Nitrogen Production Unit	1.7
3. Gasoline Improvement Unit	60.8
4. Asphalt Production Unit	20.0
5. Studies of Car Oils Production Unit	<u>1.0</u>
	<u>122.1</u>
B. <u>Banias Petroleum Refinery</u>	<u>1 050.0</u>
1. Construction of Refinery (carryover)	963.0
2. Providing Refinery with Al-Sin River Water (new)	50.0
3. Polluted Water Treatment Unit (new)	25.0 [^]
4. Workers Housing Project (new)	12.0
C. <u>Total for Petroleum Refining</u>	<u>1 187.2</u>

Source: Fourth Five Year Plan, Ibid., 69-70.

Banias New Petroleum Refinery: The project aims at the construction of a new petroleum refinery at the coastal city of Banias with a refining capacity of 6 million tons of crude petroleum annually. The crude used will be half Syrian and half imported crude. The project was estimated to cost SL 1,258 million, and was allocated SL 1,050 million in the Plan.

Investment Programme of the General Organization of Cement Industries.

The shortage of cement has been one of the major problems impeding the execution of economic development projects in Syria. To remedy this problem, the Third Five Year Plan made allocations for the construction of three plants. However, during the implementation of the plan and as the shortage of cement was getting worse, it was decided to build two more plants at Tartous and Shik Saied. In the Fourth Plan, it was decided to build an additional five plants. Thus, the Fourth Plan allocated SL 2,571 million, or about one fourth of the total investment in manufacturing industry, to the cement industry. The distribution of this investment among the projects is shown in Table IV-24.

It can be seen from the Table that the plan allocated SL 2,451 million for ten new cement plants. The plants have a combined production capacity of 3.66 million tons annually. When this is added to the production capacity of the existing four cement plant, total cement production capacity of the country would reach 4.4 million tons annually in 1982. The plan also aimed to expand the production of other building materials such as porcelain and sanitary equipment. A brief description of these projects is in order.

First and Second Tartous Cement Plant: The Tartous Cement Plant was a carryover from the Third Plan. In the Fourth Plan, it was decided to expand it such that it would operate four production lines with a production capacity of 1,600 tons daily each. The project was estimated to cost SL 754 millions, and it was allocated SL 728 million. The project would employ 2,000 workers.

Table IV-24 Planned Investment of the General Organization Cement
Industries in the Fourth Five Year Plan

Project	Investment (SL Million)
1. <u>Carryover projects</u>	<u>1 095.6</u>
1. Expansion and replacement	21.0
2. The Three Cement Projects at Musalmia, Kfrayhin and Adra	217.5
3. Tartous First Cement Plan	353.1
4. Shik Saied Cement Plant	405.0
5. Porcelain Plant - Hama	9.0
6. Bathroom Accessories (sanitary equipment)	35.0
7. Aleppo Asbestos Plant	55.0
B. <u>New projects</u>	<u>1 475.0</u>
1. Tartous Second Cement Plant	375.0
2. Musalmia-Aleppo Second Cement Plant	150.0
3. Al-Rastan Cement Plant	200.0
4. Adra Second Cement Plant	350.0
5. Aleppo New Cement Plant	400.0
C. <u>Total A + B</u>	<u>2 570.6</u>

Source: Fourth Five Year Plan, Ibid., 65-66.

Shik Saied Cement Plant: The plant would operate two production lines with daily capacity of 1,500 tons each. The project would employ 750 workers. The Project was estimated to cost SL 425 million, and was allocated SL 405 million.

Second Musalmia Cement Plant: This plant has one production line with a capacity of 1,000 tons daily. It would employ 350 workers. The cost of project was estimated at SL 150 million.

Aleppo Asbestos Plant: The purpose of this project was to manufacture 21,000 tons annually of asbestos pipes, and employ 207 workers. The project cost was estimated at SL 70 million, and was allocated SL 55 million for completing it.

The Porcelain Plant: The purpose of the project was to produce 30 million tiles annually and employ 207 workers. The project cost was estimated at SL 22 million, and was allocated SL 9 million for completing it.

Bathroom Accessories Project: The project would produce 5,000 tons annually of sanitary equipment and employ 354 workers. The cost of the project was estimated at SL 25 million, and was allocated SL 35 million for completing it.

Investment Programme - General Organization of Engineering Industries: The General Organization of Engineering Industries operates nine establishments which produce a wide spectrum of products. The product line includes household electrical appliances, television and telephone sets, cables, basic metals, electrical engines, plywood, matches, pencils, structural metals, paper tissues, car batteries, etc. The Organization was allocated SL 653 million for the completion of its projects from the Third Plan. The distribution of the investment among the projects is shown in Table IV-25.

Table IV-25 **Planned Investment in the General Organization of
Engineering Industries in the Fourth Five
Year Plan**

Project	Investment (SL Million)
A. <u>Carryover projects</u>	<u>653.3</u>
1. Expansion and replacement	60.0
2. Aleppo Cable Plant	98.0
3. Scrape Metal Melting Plant	147.0
4. Metal Pipes Plant	42.0
5. Aluminium Sections Plant (Lattakia)	29.0
6. Pencils Plant construction and expansion	9.8
7. Battery boxes plant (Aleppo)	13.0
8. Developing Barada Company Plants	102.0
9. Developing Damascus Cable Plant	15.0
10. Developing Syrian Electronics Company	50.0
11. Developing Kleenex Company	3.0
12. Developing Wood and Matches Company	23.0
13. Developing Electric Engines Company	30.0
14. Developing Metal Structures Company	31.5
B. <u>New projects</u>	<u>20.0</u>
1. Baby Toys plant	<u>20.0</u>
C. <u>Total A + B</u>	<u>673.3</u>

Source: Fourth Five Year Plan, Ibid., 61-62.

The investment strategy in the Organization of Engineering Industries stressed the development of heavy industry in Syria. Thus, a substantial investment was made to expand the iron rods plant by adding a scrap iron melting unit and a unit for manufacturing metal pipes. A second strategy was to expand the production capacity of other products and also introduce new products such as colored TV, TV tubes, electric engines, pencils, plastic matches, battery boxes, etc. A brief description of the projects is in order.

Aleppo Cables Plant: The project aimed at the construction of a cables plant in Aleppo which would produce 2,500 tons of copper cables and 4,000 tons of aluminium cables annually. The plant would employ 1,018 workers. The project cost was estimated at SL 131 million, and was allocated SL 98 million for completing it.

Developing Damascus Cables Plant: The project aimed at expanding the production capacity of the Damascus copper cables plant by 5,000 tons annually at a cost of SL 45 million. The plan allocated SL 15 million for completing the project.

Aluminium Sections Plant: The purpose of the project was to build a plant at Lattakia which will produce 400 tons of aluminium sections and employ 155 workers. The project cost was estimated at SL 45 million, and was allocated SL 29 million for completing it.

Scrap Iron Melting Plant: The purpose of the project was to construct a scrap iron melting plant at the iron rods factory with a production capacity of 120,000 tons of pellets. The plant would employ 388 workers. The cost of the project was estimated at SL 215 million, and was allocated SL 147 million for completing it.

Metal Pipes Plant: The purpose of the project was to construct yet another plant at the iron rods factory to produce 20,000 tons of metal pipes annually. The plant would employ 104 workers. The project was estimated to cost SL 58 million, and was allocated SL 42 million for completing it.

Developing the Structural Metal Company: The purpose of this project was to develop the structural metal company of Adra, Damasous, by expanding its production capacity of household and industrial boilers and tanks, expanding its machine tool workshops, and constructing a body workshop for buses. The project was estimated to cost SL 69 million, and was allocated SL 31.5 million for completing it.

Developing Barada Household Appliances Company: The purpose of the project was to expand the production capacity of Barada Households Appliances Company to 200,000 refrigerators annually. The project was estimated to cost SL 125 million, and was allocated SL 102 million to complete it.

Battery Boxes Plant: The purpose of the project was to construct a plant in Aleppo to manufacture battery boxes with a capacity of 150,000 boxes annually. The project cost was estimated at SL 16.4 million, and was allocated SL 13 million for completing it. The plant would employ 40 workers.

Developing Syrian Electronics Company: The project aimed at developing the Syrian Electronics Company with the purposes of increasing the degree of local manufacturing of TV components and for assembling colored TV sets in addition to black and white TV. Thus the plan included the following projects: two workshops for manufacturing plastic and metal TV components, a plant in Aleppo to manufacture TV tubes, and a plant to produce styropore to be used in the packaging of finished TV sets. Furthermore, the plan aimed to raise production capacity to 200,000 units of black and white TV sets and 50,000 units of colored TV. The project was estimated to cost SL 77 million, and was allocated SL 50 million for completing it.

Developing the United Arab Company for Matches and Plywood: The project aims at developing the company by expanding its plywood production capacity, expanding and diversifying its matches product line, and building a plant to manufacture pencils. The plan allocated SL 23 million for the completion of these projects.

The pencils plant would have a capacity to produce a minimum of 25 million pencils. The project was estimated to cost SL 21.5 million and to employ 80 workers.

The expansion of the matches production involved the addition of new product lines which would produce 720 gross of plastic box matches and 3,600 gross of carton box matches per shift. The expansion program also included the acquisition of complementary equipment for wood cutting, carton cutting, and printing. The project cost was estimated at SL 41 million, which also included a production line for covering plywood with plastic foils.

Developing the Kleenex Company: The purpose of the project was to diversify output of the Company by adding new product lines to manufacture baby napkins and pocket tissue packs. The project cost was estimated at SL 5 million, and was allocated SL 3 million for completing it.

Implementation Performance of Industrial Development Plans:

The implementation of the industrial development has generally lagged, sometimes drastically, behind the planned performance as measured by the rates of financial expenditure and the speed of execution of the industrial projects. Furthermore, implementation performance exhibited a wide variation from one plan to another as can be seen from Table IV-26. The present statistical data pertaining to final appropriations, actual investment expenditures and rates of financial spending for the public sector's industrial organizations in each of the four Economic Development Plans.

Analysis of the data presented in Table IV-26 reveals a number of significant points about the performance of industrial plans over the period 1960-1977 in Syria. First, except for the First Plan, final appropriations for the public sector industrial enterprises have exceeded the planned investment figures. More specifically, final appropriations in the Second and Third Plans have exceeded planned investment by 76 and 196 per cent, respectively. In the Fourth Plan, final appropriations for the first two

Table IV-26 Final Appropriations and Actual Investment Expenditures of the Public Sector
Manufacturing Industry Organisations in the Four Five Year Economic and
Social Development Plans (8L Million)

	First Five Year Plan 1960/61 - 1965		Second Five Year Plan 1966-1970					
	Final appro- priations	% of mfg. total	Actual Rate of Final expen- diture	% of appro- priation total	Actual Rate of expen- diture			
Ministry of Industry	28.0	22.7	10.5	37.5				
Vocational Training	10.5	8.5	5.9	61.0	2.8			
Industrial Research & Tests Centre	1.3	1.0	-	61.0	9.3			
Management Development Centre	0.3	1.0	-	4.6				
General Organisation of Food Industries	6.9	5.6	2.7	39.1	62.0			
General Organisation of Sugar Industries								
General Organisations of Grain Mills	5.7	4.6	0.7	12.3	23.0			
General Organisations of Tobacco	13.2	10.7	9.5	72.0	5.0			
General Organisations of Textile Industries								
General Organisations of Cotton Ginning								
General Organisations of Engineering Industries								
General Organisations of Chemical Industries								
General Organisations of Cement Industries								
General Organisations for Implementation of Industrial Projects	45.4	36.8	9.8	22.0	344.0			
Bharatnagar Tractors Company								
H&M Oil Refinery	7.4	6.0	2.4	32.4	165.0			
Denias Oil Refinery								
General Organisation of Defence Industries	4.5	3.6	0.5	11.0	6.0			
General Organisation of Food & Medical Industries	-	-	-	-	-			
Total Manufacturing Industry	123.2	100.0	42.0	34.1	701	100	620	86.4

208 83.7
161 97.6
5 83.3
- - -

years of the plan amounted to 50 per cent of the planned investment figure for the entire plan. However, in the first Plan final appropriations were 40 per cent below the planned investment.

Second, the rate of actual expenditures to final appropriations in the public sector manufacturing industry has been very low in the First and the Third Plans in comparison with their level in the Second Plan and the first two years of the Fourth Plan. Thus, despite the fact that final appropriations in the First Plan were 40 per cent below the planned investment the rate of actual expenditures amounted to only 34 per cent of the final appropriations. The rate would be much lower, 20 per cent, if compared to the planned investment figure. This implies that the First Plan has failed drastically in achieving its objectives in the manufacturing industry sector of the economy. The rate of expenditures exhibited a significant improvement in the Second Plan by rising to 88.4 per cent. In the Third Plan, it fell to 55.7 per cent. However, it rose again in the First Two years of the Fourth Plan to reach 83 per cent.

Third, over the period 1960-1977, the public sector actual investment in manufacturing industry amounted to SL 6,832 million. Excluding the industrial projects which have been undertaken by the General Organisation for Implementation of Industrial Projects and which fall in different industrial classifications, actual investment in the chemical industry including oil refining has been by far the largest, for it amounted to SL 2,668 million, or 39 per cent of the total. The textile industry including cotton ginning received SL 1,304 million or 19 per cent of the total. The food and beverage industry ranked third with an actual investment of SL 909 million, or 13 per cent of the total. The engineering industry came in the last place with an investment spending of SL 635 million, or 9 per cent of the total.

Fourth, a comparative analysis of the rates of spending of the different public sector industrial organizations shows a wide variation from one plan to another. However, one may observe that the textile industry has been the best performer throughout by recording a rate of spending of 122 per cent in the Second Plan, 91 per cent in the Third Plan, and 118 per cent in the First two years of the Fourth Plan. The food industry rate of spending stayed in the neighborhood of 62-63 per cent, except in the Second Plan where it was 62 per cent. The rates of spending of the other industrial organizations did not exhibit any stable pattern.

To make the discussion of the implementation performance of the industrial development program more complete, it might be useful to list the industrial projects which have been completed recently. Table IV-27 presents such a list for projects included in the Fourth Five Year Plan, which have been completed and started production in the first three years of the Fourth Plan, namely, 1976-1978.

Table IV-27

Industrial Projects Completed in the First Three Years (1976-1978) of the Fourth Five Year Plan Distributed According to the Industrial Public Sector Organizations which Administer Them

Industrial Organization - Projects	Product	Unit	Production Capacity
<u>General Organization of Food Industries</u>			
Yeast Manufacturing Plant in Homs	Yeast	Ton	8 per day
Damascus Beer Plant	Beer	Million Liter	5 annually
Development of Al-Sbark Food Products Co.			
Daraa Spegetti Plant			
Expansion of Damascus Dairy Products Plant			
<u>General Organization of Sugar</u>			
Rakka Sugar Plant			
Maskamah Sugar Plant			
<u>General Organization of Tobacco</u>			
Lattakia Cigarettes Plant	Cigarettes	Ton	1 208 per day
<u>General Organization of Grain Mills</u>			
18 Warehouses through the country			
<u>General Organization of Textile Industries</u>			
Expansion of Hama Fibers Plant	Cotton fibers	Ton	4 000 annually
Expansion of United Arab Industrial Co.	Textiles	Million meters	20 annually
Centre of Experimental Textile Designs	Experimental design	Thousand m ²	95 annually
Wool Yugs Plant Aleppo	Wool carpets		
Expansion of Nylon and Stockings Co., Damascus	Polyester	Ton	1 400 annually
Expansion of Homs Co. by 37,000 spindles	Cotton fibers	Ton	7 563 annually
Wool washing Plant, Hama	Washed wool	Ton	2 000 annually
Underwear Plant, Damascus	Underwear	Million pieces	21 annually

Table IV-27 (Cont'd.)

Industrial Organization - Project	Product	Unit	Production capacity
Wearing Apparel Plant, Damascus	Ready-made clothing	Thousand pieces	630 annually
Expansion of Modern Co. by 20,000 looms	Wool textile	Ton	260 annually
Men's Wearing Apparel Plant, Aleppo			
Women's Wearing Apparel Plant, Aleppo			
Wool Rugs Plant, Suwaidah			
Der Al-Zor Plant of 37,000 cotton spindles			
<u>General Organization of Chemical Industries</u>			
Czech Petroleum Refining Unit (Homs Refinery)	Petroleum products	Million tons	1.7 annually
Damascus Leather Tannery	Tanned Leather	Number	3 000 per day
Aleppo Leather Tannery	Tanned Leather	Number	2 400 per day
Aleppo Glass Plant	Glass & bottles	Thousand tons	40 annually
Baby Food Plant	Baby foods	ton	1 500 annually
Four Shoes Plants	Shoes	Million pairs	4.2 annually
Chemical Cleaners Plant, Adra	Cleaners	Ton	2 per hour
<u>Nitrogen Production Unit (Homs Refinery)</u>			
<u>General Organization of Cement</u>			
Hama Cement Plant	Cement	Ton	1 000 per day
Hama Porcelain Plant	Porcelain tiles	Tile	30 million annually
Hama Sanitary Equipment Plant	Bathroom equipment	Ton	5 000 annually
Adra Cement Plant			
Aleppo Asbestos Cement Plant			

Table IV-27 (Cont'd)

Industrial Organization - Project	Product	Unit	Production Capacity
<u>General Organization of Engineering Industries</u>			
Pencils Plant, Damascus	Pencils	Million pencils	25 annually
Expansion of Metal Structures Company	Microbus Bodies	Number	4 per day
Colored TV Plant	Colored TV	Thousand units	50 annually
Styropore Plant			
Plastic Matches Plant	Matches	Gross	720 per shift
Aluminium Sections Plant		Ton	4 000 annually
Development of Kleenex Co.	Baby napkins, pocket tissue packs	Box	536, 226 per shift
Metal Pipes Plant, Hama	Metal pipes	Thousand tons	20 annually
Aleppo Copper Cables Plant			
Aleppo TV Tubes Plant			

Sources: 1) State Planning Commission, Follow Up Report of the Investment Plan in the Industry, Mining, Power, and Energy Sectors of the Economy for the Year 1976.

2) State Planning Commission, The Investment Plan in the Industry, Mining, Power, and Energy Sectors of the Economy for the year 1977.

Table IV.26. Final Appropriations and Actual Investment Expenditures of the Public Sector Manufacturing Industry Organizations in the Four Five Year Economic and Social Development Plans (SL Million)

Ministry of Industry	First Five Year Plan 1960/61-1965				Second Five Year Plan 1966-1970			
	Final appropriations	% of mfg. total	Actual expenditures	Rate of expenditure%	Final appropriations	% of mfg. total	Actual expenditures	Rate of expenditure%
	28.0	22.7	16.5	4.5				
Vocational Training	10.5	8.3	5.9	61.0	2.8			
Industrial Research & Tests Centre	1.3	1.0	-	-	2.3		7	41.1
Management Development Centre	0.3	-	-	-	4.6			
General Organization of Food Industries	6.9	5.6	2.7	39.1	62.0	8.8	51	82.2
General Organization of Sugar Industries								
General Organization of Grain Mills	5.7	4.6	0.7	12.3	23.0	3.3	19	82.6
General Organization of Tobacco	13.2	10.7	9.5	72.0	5.0	0.7	3	60.0
General Organization of Textile Industries					27.0	3.8	33	122.0
General Organization of Cotton Ginning					26.0	3.7	24	92.3
General Organization of Engineering Indus.					26.0 ^a	3.7	29	111.0
General Organization of Chemical Industries								
General Organization of Cement Industries								
General Organization for Implementation of Industrial Projects	45.4	36.8	9.8	22.0	344.0	49.1	288	83.7
Euphratus Tractors Company								
Homs Oil Refinery	7.4	6.0	2.4	32.4	165.0	23.5	161	97.6
Banias Oil Refinery								
General Organization of Defense Ind.	4.5	3.6	0.5	11.0	6.0	0.8	5	83.3
General Organization of Blood & medical industries								
Total Manufacturing Industry	123.2	100.0	42.0	34.1	761	100	620	88.4

"Continued"

Table IV.28. "Continued"

	Third Five Year Plan 1971-1975				Fourth Five Year Plan 1976-1980				
	Final approp- riations	% of mfg. total	Actual expen- ditures	Rate of expen- ditures%	Planned expen- ditures	% of mfg. total	Final approp- riations	Actual expen- ditures	Rate of expen- ditures%
Ministry of Industry	16				16		1.5	1.0	66.7
Vocational Training	5		4	80.0	71	0.7	21.7	6.1	28.1
Industrial Research & Tests Centre	13		6	46.1	10		5.8	4.4	75.8
Management Development Centre	-		-		3		0.7	0.4	57.1
General Organization of Food Industries	90	2.9	56	62.2	164	1.5	117.0	74.0	63.2
General Organization of Sugar Industries	30	1.0	15	50.0	617	5.7	594.0	494.7	83.3
General Organization of Grain Mills	116	3.7	75	64.6	372	3.5	155.8	120.5	77.3
General Organization of Tobacco	199	3.4	82	78.1	136	1.3	54.0	29.2	54.1
General Organization of Textile Industries	471	15.1	429	91.0	1 264	11.8	624.0	737.5	118.0
General Organization of Cotton Ginning	52	1.7	46	88.4	65		42.0	34.7	82.6
General Organization of Engineering Indus.	318	10.2	178	56.0	673	6.3	382.2	415.6	109.0
General Organization of Chemical Industries	815	26.1	185	22.7	3 403	31.7	1 659.0	1 358.4	81.9
General Organization of Cement Industries	364	11.7	300	82.4	2 571	24.0	842.0	522.1	62.0
General Organization for Implementation of Industrial Projects	19	0.6	15	79.0	17		16.0	7.2	45.0
Euphratus Tractors Company	97	3.1	17	17.5	150	1.4	32.0	-	
Homs Oil Refinery	201	6.4	184	91.5	137	11.1 ^{b/}	88.0	54.7	62.2
Baniyas Oil Refinery	369	11.8	125	33.8	1 050		689.5	568.6	82.5
General Organization of Defense Ind.	51	1.6	19	37.2	-		-		
General Organization of Blood & medical industries	-		-	-	11		18.0	4.7	26.1
Total Manufacturing Industry	3 116	100	1 736	55.7	10 730	100	5 343.6	4 433.8	83.0

Sources:

- 1/ State Planning Commission, Second Five Year Economic & Social Development Plan: 1966-1970, pp.
- 2/ State Planning Commission, The Annual National Economic Plan Follow Up Reports of 1970, 1975.
- 3/ State Planning Commission, The Annual Follow Up Report of the Investment Plan in the Industry
Mining, Power and Energy Sectors of the Economy.

a/ The figure is for the General Organization of Engineering and Chemical Industries including
Cement Industries since they were not split up then.

b/ The percentage is for both oil refineries.

CHAPTER 7

THE DEVELOPMENT OF SYRIAN MANUFACTURING

Introduction

Having discussed in the above chapters the overall plans and performance of the economy and in some details the industrialization policies, strategies and industrial programmes we now turn to analyse and examine in some depth the structure and performance of the manufacturing sector.

This chapter, therefore examines first the global and aggregate indicators of manufacturing industries and then proceeds to detailed analysis of major individual industries, ascertaining the weaknesses in its structural composition.

The analysis shall be conducted in terms of gross value of output, gross value added, employment and investment in manufacturing. Most of the detailed time series data on manufacturing used in the analysis has been prepared for the purpose of this study. Methods of collection, preparation and limitations are detailed in appendix C to this study.

Syrian manufacturing has a comparatively long history that lends itself to analysis over time and it is intended in this chapter to examine the characteristics and pattern of industrial growth with the view to assign a typology of industrialization for manufacturing in Syria.

The analysis therefore shall be conducted under the following headings:

- (i) The industrial sector and its composition;
- (ii) the growth of manufacturing;
- (iii) manufacturing structure and trends;
- (iv) capital investment in manufacturing;
- (v) employment trends and structure in manufacturing;
- (vi) ownership structure in manufacturing;
- (vii) public sector in manufacturing;
- (viii) private sector in manufacturing, and
- (ix) labour productivity in manufacturing.

TABLE V.1. SENEGAL, THE INDUSTRY SECTOR CONTRIBUTION TO GROSS DOMESTIC PRODUCT IN PRODUCERS' VALUE, SELECTED YEARS (SL MILLION AND PERCENTAGE AT CONSTANT PRICES 1963 = 100)

	1963	1965	1970	1971	1972	1973	1974	1975	1976	Average Annual Growth rates		
										1963/70	1970/76	1963/76
Industry	631	725	1 109	1 204	1 326	1 411	1 779	1 900	2 028	8.1	10.1	9.0
Mining and quarrying	2	3	124	150	173	221	323	400	380	60.0	18.7	40.4
Manufacturing	594	669	895	955	1 039	1 051	1 328	1 355	1 525	5.8	8.9	7.3
Electricity, gas and water	35	53	90	99	114	139	128	145	123	13.5	5.2	9.7
PERCENTAGE SHARE IN INDUSTRY												
Industry	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Mining and quarrying	0.3	0.4	11.2	12.5	13.0	15.7	18.2	21.1	18.7			
Manufacturing	94.1	92.3	80.7	79.3	78.4	74.5	74.6	71.3	75.2			
Electricity, gas and water	5.6	7.3	8.1	8.2	8.6	9.8	7.2	7.6	6.1			
PERCENTAGE SHARE IN GDP												
Industry	15.9	16.3	19.7	19.5	19.5	20.3	21.5	20.2	20.0			
Mining and quarrying	0.1	0.1	2.2	2.4	2.6	3.2	3.9	4.3	3.7			
Manufacturing	14.9	15.0	15.9	15.4	15.3	15.1	16.1	14.4	15.0			
Electricity, gas and water	0.9	1.2	1.6	1.7	1.7	2.0	1.5	1.5	1.3			

Source: U.N. Yearbook of National Accounts 1977, p. 1148

To isolate the effect of the services sectors, table V.2 shows the contribution of the commodity producing sectors to commodity GDP. The data indicated that the industrial sector as a whole has increased its share in total commodity GDP rising from 32.4 per cent in 1963 to 51.9 per cent in 1973 and declining to 46.2 per cent in 1976. Similarly manufacturing after rising from 30.5 per cent in 1963 to a peak 38.7 per cent in 1973 declined to 34.7 per cent by 1976. The share of mining was rising continuously from 0.1 per cent in 1963 to 10.4 per cent in 1975 and decreasing only in 1976 to 8.6 per cent.

The growth in manufacturing

The average annual rates of growth in constant MVA for the various industry branches in selected periods are presented in table V.3. The overall rate of growth for the period under review was about 7 per cent, a rate that is marginally below the corresponding GDP rate of growth. The highest growth rate in overall manufacturing was recorded during the period 1976-1977, 13.7 per cent and the lowest rate of 2.8 per cent, was recorded during the period 1966-1970. These data reveal also that growth rate in MVA increased by more than 2.5 times when comparing the two sub-periods 1963-1970 (3.8 per cent) and 1970-1977 (10.2 per cent). The factors behind this performance have been analysed in detail in Chapter II above. As table V.9 indicates this period of rapid growth experienced a rapid rise in investment in manufacturing roughly an eight fold increase over the earlier period. The 1970-1977 MVA growth rate is marginally higher than the corresponding growth rate recorded for GDP, and the rate of growth of MVA in the period 1963-1970 is markedly below the corresponding annual growth rate of GDP.

TABLE V.2. SYRIA, CONTRIBUTION BY COMMODITY PRODUCING SECTORS TO COMMODITY GROSS DOMESTIC PRODUCTS SELECTED YEARS 1963-1976. (SL MILLION AND PERCENTAGE IN PRODUCER'S VALUE AT CONSTANT PRICES 1963 = 100)

	1963	1965	1970	1971	1972	1973	1974	1975	1976
<u>Total commodity producing sectors</u>	1 946	2 037	2 421	2 596	3 055	2 717	3 553	3 838	4 389
- Agriculture, hunting, forestry & fishing	1 196	1 297	1 153	1 187	1 525	1 106	1 535	1 669	1 891
- Industry:	631	725	1 105	1 204	1 326	1 411	1 779	900	2 028
Mining	2	3	124	150	173	221	323	400	380
Manufacturing	594	669	895	955	1 039	1 051	1 328	1 355	1 525
Electricity, gas and water	35	53	90	99	114	139	128	145	123
- Building and construction	119	115	159	205	204	200	239	269	470
<u>Percentage of total commodity producing sector</u>									
- Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
- Agriculture	61.5	58.8	47.6	45.7	49.9	40.7	43.2	43.5	43.1
- Industry	32.4	35.6	45.8	46.4	43.4	51.9	50.1	49.5	46.2
Mining	0.1	0.1	5.1	5.8	5.6	8.1	9.1	10.4	8.6
Manufacturing	30.5	32.9	37.0	36.8	34.0	38.7	37.4	35.3	34.7
Electricity, gas and water	1.8	2.6	3.7	3.8	3.7	5.1	3.6	3.8	2.8
- Construction	6.1	5.6	6.6	7.9	6.7	7.4	6.7	7.0	10.7

Source: UN Yearbook of National Accounts 1977, p. 1147.

Table No. (V.3) SYRIA, AVERAGE ANNUAL RATES OF GROWTH OF GROSS VALUE ADDED IN OVERALL MANUFACTURING INDUSTRY, SELECTED PERIODS 1963-1977, AT CONSTANT PRICES 1970=100 (PERCENTAGES)

ISIC Code	C a t e g o r y	1963-1966		1966-1970		1970-1975		1975-1977		1963-1977	
		1963-1966	1966-1970	1966-1970	1970-1975	1975-1977	1963-1970	1970-1977	1963-1977	1977	
31	FOOD, BEVERAGES AND TOBACCO										
311/2	Food manufacturing	6.0	-2.8	7.8	5.6	0.9	7.5	4.0			
313	Beverages	14.2	-4.7	8.6	3.3	3.0	7.0	5.0			
314	Tobacco	-4.3	1.2	7.4	17.5	-1.2	10.2	4.4			
		-1.4	-0.7	6.9	7.2	-1.0	7.0	2.9			
32	TEXTILE, WEARING APPAREL AND LEATHER										
321	Textiles	8.2	1.1	6.8	20.0	4.1	10.5	7.2			
322	Wearing apparel	7.4	0.4	5.3	21.3	3.3	9.7	6.5			
323	Leather products	24.8	7.1	16.8	14.3	14.4	16.1	15.2			
324	Footwear	-2.9	12.4	13.5	10.4	5.5	12.6	9.0			
		14.9	5.8	16.6	15.4	9.6	16.2	12.9			
		-20.1	14.3	8.0	17.7	-2.0	10.7	4.2			
33	WOOD AND WOOD PRODUCTS										
331	Wood and cork	12.9	2.6	4.0	-6.7	6.9	0.8	3.8			
332	Furniture and fixtures	-25.1	17.6	8.7	20.9	3.1	12.1	4.2			
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING										
341	Paper and Paper products	20.9	18.6	1.3	29.9	19.6	8.8	14.1			
342	Printing and publishing	6.3	38.4	-38.1	370.0	23.6	10.4	16.8			
		23.4	15.3	5.8	14.6	18.7	8.3	13.8			
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.										
351/2	Chemical products	16.8	16.8	11.6	7.9	16.8	10.5	13.6			
353	Petroleum refinery	34.2	-0.6	38.0	-10.8	13.0	21.8	17.3			
354	Misc. products of petroleum & coal	11.4	22.8	2.0	23.8	17.8	34.9	12.9			
355	Rubber products, n.e.c.	7.5	15.6	-0.4	4.4	12.1	0.9	6.3			
356	Plastic products, n.e.c.	115.4	130.0	21.8	0.7	61.0	15.3	36.3			
		-0.1	7.7	-1.0	33.3	4.0	7.7	5.9			
36	NON-METALLIC MINERAL PRODUCTS										
361	Pottery, china, earthenware	5.8	0.5	-1.0	-9.0	2.8	-3.3	-0.4			
362	Glass and glass products	-2.4	9.7	-1.0	41.1	4.3	9.5	6.9			
369	Other non-metallic mineral products	5.7	26.7	13.3	-6.4	17.2	7.3	12.1			
37	BASIC METAL INDUSTRIES										
371	Iron and steel basic industries	5.7	26.7	7.6	1.5	17.2	5.8	11.4			
372	Non-ferrous metal basic industries	-2.3	12.5	20.4	13.4	5.9	18.3	12.0			
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT										
381	Fabricated metal products except mach. & equipment	-29.2	29.8	15.1	17.4	0.1	15.7	7.6			
382	Non-electrical machinery	64.5	-0.8	23.3	10.0	23.2	19.3	21.2			
383	Electrical machinery, appliances	65.7	1.5	29.7	9.8	25.2	23.7	24.4			
384	Transport equipment	-	-	-	-	-	-	-			
385	Professional & scientific control equipment	-	-	-	-	-	-	-			
39	OTHER MANUFACTURING INDUSTRIES	-43.3	13.6	-40.0	405.0	12.4	10.7	11.6			
3	TOTAL MANUFACTURING	5.1	2.8	8.8	13.7	3.8	10.2	6.9			

Source: Calculations are based on table C-10 Appendix C.

Now we turn to the analysis of growth in individual industries. The highest growth rate industries were paper and products, chemicals, basic metals and fabricated metal products.

MVA in paper and products increased from SL 3 million in 1963 to about SL 19 million in 1977, representing an average rate of growth of 14.1 per cent. This growth was largely generated in the privately owned printing and publishing industry, whose MVA increased from SL 2.5 million in 1963 to SL 14.6 million in 1977.

The chemicals, petroleum, rubber and plastics industry experienced a six-fold increase in MVA, rising from SL 26.2 million in 1963 to SL 156.2 million in 1977, representing an average annual rate of growth of 13.6 per cent. This industry division had the highest share of capital investment in this period (table V.9). The highest growth rate within the industry division was recorded by plastic products, an annual rate of growth of 36.3 per cent followed next by chemical products, 17.3 per cent and petroleum refinery, 12.9 per cent. The growth in the plastic industry was primarily generated by the private sector. The growth in petroleum refinery which is predominantly in the public sector is largely due to expanding the Home Oil Refinery.

MVA in basic metal industries increased from SL 4.4 million in 1963 to about SL 22 million in 1977, representing an annual average rate of growth of 12.1 per cent. The investment in this industry was primarily made by the public sector for the construction of the iron rods plant which started production in 1972.

In the fabricated metal industries MVA increased from SL 49.4 million in 1963 to SL 240.4 million in 1977, about five fold increase, and representing an average annual rate of growth equal to 12 per cent. Starting from a low base, electrical and non-electrical machinery recorded very high average annual rates of growth, 24.4 per cent and 21.2 per cent respectively for the period under study.

Food, beverages and tobacco manufacturing recorded the lowest average annual growth rates of 4 per cent. Textiles (7.2 per cent) and non-metallic products division (5.9 per cent) rates of growth were roughly comparable to the overall average rate of growth in manufacturing.

Average rates of growth alone are misleading indicators to structural changes as they tend to be biased with respect to new industries starting from a low base. A better indicator is the contribution of individual industrial branches to MVA growth which are presented in table V.4. These data reveal a different picture. Only four industry divisions contributed 88 per cent to the total MVA growth. The textiles and allied recording from 1963 to 1977, the highest contribution to MVA growth, 36.8 per cent. Followed next by food, beverages and tobacco, 18.3 per cent. Fabricated metals 19.6 per cent and chemicals and allied 13.4 per cent.

Having discussed the trends and contribution to growth of the various industrial branches, the next section will be devoted to a detailed analysis of the structural changes in manufacturing that emerged.

Manufacturing structure and trends

In the following, analysis of structural composition and trends in manufacturing and by major groups and branches of industries is carried out mainly in terms of gross value added (MVA) at constant prices as the best measurement to represent contributions by industrial branches. However, to ascertain if there is significant differences in analysis of industrial structure by using alternative measurements of output we shall first compare briefly manufacturing structure in terms of gross value added and value of gross output both in constant prices and second compare manufacturing value added at constant and at current prices.

Table V.5 summarizes the share of industries in total manufacturing measured in terms of gross value added and gross value of output at constant prices. These data show that for practically all the industrial groups and branches there is no real difference in the direction of change in industrial composition, when

Table (V-4) Syria, Contribution to Manufacturing Value Added Growth by Industrial Branches in Overall Manufacturing Industry, Selected period, 1963-1977, at current prices 1970=100 (percentages)

ISIC Code	Category	63-77	63-70	70-77
31	FOOD, BEVERAGES AND TOBACCO	18.3	8.1	20.7
311/2	Food Manufacturing	11.0	13.4	10.4
313	Beverages	1.0	- 0.5	1.3
314	Tobacco	6.3	- 4.7	9.0
32	TEXTILE, WEARING APPAREL AND LEATHER	36.8	37.4	36.6
321	Textiles	28.9	27.8	29.3
322	Wearing Apparel	5.5	7.2	5.2
323	Leather products	0.8	0.9	8.4
324	Footwear	1.4	1.5	1.4
33	WOOD AND WOOD PRODUCTS	3.0	- 2.6	4.3
331	Wood and cork	0.2	1.0	0.0
332	Furniture and fixtures	2.8	- 3.6	4.2
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	1.6	4.0	1.1
341	Paper and Paper products	0.4	0.9	0.3
342	Printing and Publishing	1.2	3.1	0.8
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	13.4	27.5	10.0
351/2	Chemical Products	3.3	3.4	3.3
353	Petroleum Refinery	7.9	19.9	5.0
354	Misc. Products of Petroleum & Coal	-	-	-
355	Rubber Products, n.e.c.	0.6	2.7	7.6
356	Plastic Products, n.e.c.	0.8	1.5	0.6
36	NON-METALLIC MINERAL PRODUCTS	5.1	6.9	4.6
361	Pottery, China, Earthenware	-	-	-
362	Glass and Glass Products	- 0.0	0.9	- 0.3
369	Other non-metallic mineral products	5.1	5.9	4.9
37	BASIC METAL INDUSTRIES	1.8	4.9	1.1
371	Iron and Steel Basic Industries	-	-	-
372	Non-ferrous Metal Basic Industries	1.6	4.9	0.9
38	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	19.6	13.2	21.2
381	Fabricated Metal Products except Machinery & Equipment	7.9	0.2	9.7
382	Non-electrical Machinery	5.7	7.0	5.4
383	Electrical Machinery, Appliances	6.1	5.9	6.0
384	Transport Equipment	-	-	-
385	Professional & Scientific Control Equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	0.4	0.7	0.3
3	TOTAL MANUFACTURING	100.0	100.0	100.0

Source: Calculations are based on table C-10, Appendix C

Table No. (V.5) SYRIA, PERCENTAGE SHARE OF GROSS VALUE ADDED AND GROSS OUTPUT IN OVERALL MANUFACTURING INDUSTRIES FOR SELECTED YEARS AT CONSTANT PRICES 1970=100 (PERCENTAGE)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Value Added	Output	Value Added	Output	Value Added	Output	Value Added	Output	Value Added	Output
31	FOOD, BEVERAGES AND TOBACCO	39.4	40.2	40.4	41.9	32.2	36.6	30.8	36.5	26.5	33.5
311/2	Food manufacturing	17.5	28.6	22.5	33.0	16.5	29.0	16.4	28.0	13.5	24.9
313	Beverages	1.8	1.4	1.4	0.9	1.3	0.9	1.2	1.2	1.3	1.5
314	Tobacco	20.0	10.2	16.5	8.0	14.4	6.7	13.2	7.3	11.7	7.1
32	TEXTILE, WEARING APPAREL AND LEATHER	34.6	38.9	37.8	38.2	35.2	36.5	32.2	32.4	36.0	33.6
321	Textiles	32.2	35.8	34.4	34.7	31.2	32.4	26.6	27.5	30.3	28.4
322	Wearing apparel	1.8	1.8	2.3	2.0	2.7	2.8	3.9	3.1	3.9	3.3
323	Leather products	0.6	0.6	0.4	0.9	0.6	0.7	0.8	1.0	0.7	1.1
324	Footwear	0.5	0.6	0.7	0.5	0.7	0.5	1.0	0.8	1.1	0.9
33	WOOD AND WOOD PRODUCTS	6.0	3.6	2.6	2.5	4.0	3.8	3.9	3.6	4.2	3.6
331	Wood and cork	0.5	0.4	0.6	0.7	0.6	0.7	0.5	0.7	0.3	0.6
332	Furniture and fixtures	5.5	3.2	2.0	1.8	3.4	3.1	3.4	2.9	3.8	3.0
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	0.5	0.9	0.7	0.7	1.3	0.9	0.9	1.0	1.2	1.2
341	Paper and Paper products	0.1	0.3	0.1	0.2	0.3	0.2	0.0	0.3	0.3	0.4
342	Printing and publishing	0.4	0.6	0.5	0.6	1.0	0.7	0.9	0.7	0.9	0.8
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	4.2	5.7	5.8	6.6	0.6	10.4	10.9	10.4	9.8	10.8
351/2	Chemical products	0.8	1.2	1.6	1.7	1.4	1.8	4.6	3.4	2.8	2.4
353	Petroleum refinery	2.8	2.2	3.3	4.1	6.7	7.4	5.0	5.8	0.9	7.4
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	0.7	0.5	0.7	0.6	1.1	0.9	0.7	0.8	0.6	0.6
356	Plastic products, n.e.c.	0.0	0.0	0.1	0.2	0.4	0.4	0.6	0.5	0.5	0.4
36	NON-METALLIC MINERAL PRODUCTS	6.5	4.6	5.4	3.8	6.5	4.5	4.1	3.7	5.6	4.0
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	1.3	0.8	1.3	1.0	1.2	0.8	0.8	0.6	0.5	0.5
369	Other non-metallic mineral products	5.2	3.7	4.1	2.8	5.3	3.7	3.3	3.1	5.1	3.5
37	BASIC METAL INDUSTRIES	0.7	0.6	0.7	0.8	1.7	0.9	2.0	1.7	1.4	1.6
371	Iron and steel basic industries	-	-	-	-	-	-	0.5	0.8	0.1	0.7
372	Non-ferrous metal basic industries	0.7	0.6	0.7	0.8	1.7	0.9	1.5	0.9	1.3	0.9
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	7.9	5.1	6.4	5.3	9.1	6.1	15.2	10.4	15.1	11.4
381	Fabricated metal products except mach. & equipment	6.8	4.1	2.1	1.8	5.3	3.2	7.0	4.6	7.5	5.1
382	Non-electrical machinery	0.6	0.5	2.5	2.1	2.1	1.7	4.0	3.2	3.7	3.3
383	Electrical machinery, appliances	0.5	0.6	1.8	1.4	1.7	1.2	4.2	2.6	3.9	3.0
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	0.2	0.2	0.2	0.2	0.3	0.2	0.0	0.2	0.3	0.2
3	TOTAL MANUFACTURING	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculations are based on tables C-4 and C-10 Appendix C.

measurement is made in terms of manufacturing gross value added and gross value of output. With respect to their share in total manufacturing for most of industrial groups and branches (except for three) the differences discerned are small or insignificant. In food manufacturing, one of the three exceptions, its share in total MVA was consistently much lower than its share measured in gross value of output. The 1977 share in MVA was 13.5 per cent compared to a GVO of 24.9 per cent in the same year. The reverse is true in the tobacco industry when a higher share was consistently recorded for MVA. The percentage in total MVA in 1977 was 11.7 per cent compared to 7.1 per cent measured in terms of GVO. In the fabricated metal products, machinery and equipment industries a moderately higher share was also recorded for MVA's share than in GVO. In the year 1977, these shares were 15.1 per cent and 11.4 per cent respectively. The differential in the above three industries probably reflect the heavy subsidized prices in the food industries and the monopoly prices in the two other industries.

The difference in the manufacturing structure arising from differences in price trends in various industries are presented in table V.6. These data indicate that for all industrial groups and branches practically the same direction of changes are observed when using either measurement. With respect to the effect of price differentials on the share in total MVA, they were pronounced in two major sectors. Food, beverages and tobacco recording higher share at constant prices and the reverse for textiles, wearing apparel and leather. For the rest of industries the desparties were moderate or insignificant.

The structure and trends in the manufacturing sector that emerged over the period under study are summarized in table V.7 and V.8. The analysis shall be carried out by industrial group and branches, by broad classifications, namely traditional and non-traditional industries and by broad end-use, consumer durables and non-durables, intermediates and capital goods industries.

Two industrial groups account for the major portion of MVA in industry in Syria. Food, beverages and tobacco, and the textiles, wearing apparel and leather, have produced more than 62 per cent of total MVA in 1977. Textiles

Table No. (V.6) SYRIA, PERCENTAGE SHARE OF GROSS VALUE ADDED IN OVERALL MANUFACTURING INDUSTRY
SELECTED YEARS 1963-1977 AT CONSTANT (1970=100) & CURRENT PRICES (PERCENTAGES)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Cnstant	Current	Cnstant	Current	Cnstant	Current	Cnstant	Current	Cnstant	Current
31	FOOD, BEVERAGES AND TOBACCO	39.4	29.4	40.4	34.7	32.2	32.2	30.8	24.2	26.5	20.0
311/2	Food manufacturing	17.5	13.0	22.5	19.3	16.5	16.5	16.4	12.9	13.5	10.2
313	Beverages	1.8	1.4	1.4	1.2	1.3	1.3	1.2	1.0	1.3	1.0
314	Tobacco	20.0	14.9	16.5	14.2	14.4	14.4	13.2	10.3	11.7	8.8
32	TEXTILE, WEARING APPAREL AND LEATHER	34.6	39.8	37.8	41.3	35.2	35.2	32.2	34.7	36.0	38.9
321	Textiles	32.2	37.0	34.4	37.6	31.2	31.2	26.6	28.6	30.3	32.7
322	Wearing apparel	1.8	1.6	2.3	2.5	2.7	2.7	3.9	4.2	3.9	4.2
323	Leather products	0.6	0.6	0.4	0.5	0.6	0.6	0.8	0.8	0.7	0.8
324	Footwear	0.5	0.6	0.7	0.7	0.7	0.7	0.7	1.1	1.1	1.1
33	WOOD AND WOOD PRODUCTS	6.0	8.8	2.6	3.4	4.0	4.0	3.9	6.3	4.2	5.8
331	Wood and cork	0.5	0.7	0.6	0.8	0.6	0.6	0.5	0.8	0.3	0.5
332	Furniture and fixtures	5.5	8.1	2.0	2.6	3.4	3.4	3.4	5.5	3.8	5.3
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	0.5	1.4	0.7	1.0	1.3	1.3	0.9	1.0	1.2	1.2
341	Paper and Paper products	0.1	0.2	0.1	0.1	0.3	0.3	0.0	0.0	0.3	0.3
342	Printing and publishing	0.4	1.2	0.6	0.9	1.0	1.0	0.9	0.9	0.9	0.9
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	4.2	6.9	5.8	8.8	9.6	9.6	10.9	11.3	9.8	11.9
351/2	Chemical products	0.8	1.3	1.6	2.4	1.4	1.4	4.6	4.7	2.8	3.4
353	Petroleum refinery	2.8	4.5	3.3	5.0	6.7	6.7	5.0	5.1	5.9	7.1
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	0.7	1.1	0.7	1.1	1.1	1.1	0.7	0.7	0.6	0.7
356	Plastic products, n.e.c.	0.0	0.0	0.1	0.2	0.4	0.4	0.6	0.6	0.5	0.6
36	NON-METALLIC MINERAL PRODUCTS	6.5	7.6	5.4	5.0	6.5	6.5	4.1	4.5	5.6	7.0
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	1.3	1.5	1.3	1.2	1.2	1.2	0.8	0.8	0.5	6.1
369	Other non-metallic mineral products	5.2	6.1	4.1	3.8	5.3	5.3	3.3	3.7	5.1	6.4
37	BASIC METAL INDUSTRIES	0.7	0.4	0.7	0.5	1.7	1.7	2.0	5.1	1.2	2.7
371	Iron and steel basic industries	-	-	-	-	-	-	0.5	1.2	0.1	0.2
372	Non-ferrous metal basic industries	0.7	0.4	0.7	0.5	1.7	1.7	1.5	3.9	1.1	2.5
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	7.9	5.0	6.4	4.7	9.1	9.1	15.2	12.4	15.1	12.1
381	Fabricated metal products except mach. & equipment	6.8	4.3	2.1	1.5	5.3	5.3	7.0	5.7	7.5	6.0
382	Non-electrical machinery	0.6	0.4	2.5	1.8	2.1	2.1	4.0	3.3	3.7	3.0
383	Electrical machinery, appliances	0.5	0.3	1.8	1.3	1.7	1.7	4.2	3.4	3.9	3.1
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	0.2	0.8	0.2	0.6	0.3	0.3	0.0	0.6	0.3	0.4
3	FOFAL MANUFACTURING	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculations are based on tables C-7 and C-10 Appendix C.

Table V.7. Syria, Gross Value added in Overall Manufacturing Industries, selected years 1963-1977 (Million S.L. and Percentage) at constant prices (1970=100)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
31	FOOD, BEVERAGES AND TOBACCO	245.9	39.4	292.7	40.4	261.1	32.2	380.3	30.8	423.8	26.5
311/2	Food manufacturing	109.3	17.5	162.8	22.5	134.2	16.5	202.7	16.4	215.2	13.5
313	Beverages	11.4	1.8	10.0	1.4	10.5	1.3	15.0	1.2	20.7	1.3
314	Tobacco	125.2	20.0	119.9	16.5	116.4	14.4	162.6	13.2	186.9	11.7
32	TEXTILE, WEARING APPAREL AND LEATHER	216.4	34.6	273.9	37.8	286.2	35.2	398.2	32.2	574.1	36.0
321	Textiles	201.2	32.2	249.2	34.4	253.2	31.2	328.1	26.6	483.0	30.3
322	Wearing apparel	8.6	1.8	16.7	2.3	22.0	2.7	47.8	3.9	62.5	3.9
323	Leather products	3.5	0.6	3.2	0.4	5.1	0.6	9.6	0.8	11.7	0.7
324	Footwear	3.1	0.5	4.7	0.7	5.9	0.7	12.7	1.0	16.9	1.1
33	WOOD AND WOOD PRODUCTS	37.5	6.0	19.1	2.6	32.6	4.0	48.0	3.9	61.5	4.2
331	Wood and cork	3.2	0.5	4.6	0.6	5.1	0.6	6.2	0.5	5.4	0.3
332	Furniture and fixtures	34.3	5.5	14.4	2.0	27.5	3.4	41.8	3.4	61.1	3.8
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	3.0	0.5	5.3	0.7	10.5	1.3	11.2	0.9	15.9	1.2
341	Paper and Paper Products	0.5	0.1	0.6	0.1	2.2	0.3	0.2	0.0	4.4	0.3
342	Printing and publishing	2.5	0.4	4.7	0.5	8.3	1.0	11.0	0.9	14.5	0.9
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	26.2	4.2	41.7	5.8	77.6	9.6	134.2	10.9	156.2	9.8
351/2	Chemical products	4.8	0.8	11.6	1.6	11.3	1.4	56.5	4.6	64.9	2.8
353	Petroleum refinery	17.3	2.8	23.9	3.3	54.4	6.7	61.3	5.0	54.0	5.9
354	Misc. products of petroleum and coal	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	4.1	0.7	5.1	0.7	9.1	1.1	8.9	0.7	5.7	0.6
356	Plastic products, n.e.c.	0.1	0.0	1.0	0.1	2.8	0.4	7.5	0.6	7.6	0.5

Table V.7. (Cont'd..) Syria, Gross value added in overall Manufacturing Industries, selected years 1963-1977
(Million S.L. and Percentage) at constant prices (1970=100)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
36	NON-METALLIC MINERAL PRODUCTS	40.3	6.5	39.5	5.4	53.1	6.5	50.4	4.1	89.5	5.6
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	8.1	1.3	9.6	1.3	9.8	1.2	9.3	0.8	7.7	0.5
369	Other non-metallic mineral products	32.2	5.2	29.9	4.1	43.3	5.3	41.1	3.3	81.8	5.1
37	BASIC METAL INDUSTRIES	4.4	0.7	5.2	0.7	13.4	1.7	25.0	2.0	21.9	1.4
371	Iron and steel basic industries	-	-	-	-	-	-	5.7	0.5	2.0	0.1
372	Non-ferrous metal basic industries	4.4	0.7	5.2	0.7	13.4	1.7	19.3	1.5	19.9	1.3
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	49.4	7.9	46.1	6.4	74.0	9.1	186.9	15.2	240.4	15.1
381	Fabricated metal products except machinery and equipment	42.5	6.8	15.1	2.1	42.8	5.3	86.4	7.0	119.1	7.5
382	Non-electrical machinery	4.0	0.6	17.8	2.5	17.2	2.1	49.0	4.0	59.3	3.7
383	Electrical machinery, appliances	2.9	0.5	13.2	1.8	14.0	1.7	51.3	4.2	61.9	3.9
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	1.1	0.2	1.5	0.2	2.5	0.3	0.2	0.0	5.1	0.3
3	TOTAL MANUFACTURING	624.3	100.0	725.2	100.0	911.0	100.0	1234.2	100.0	1596.6	100.0

Source : Table C-10, Appendix C.

Table V.8 Syria, MANUFACTURING GROSS VALUE ADDED IN OVERALL MANUFACTURING INDUSTRY, CLASSIFIED BY END-USE, SELECTED YEARS 1963-1977, (SL MILLION AND PERCENTAGES AT CONSTANT PRICES 1970=100)

End-Use	1963		1966		1970		1975		1977	
	MVA	%	MVA	%	MVA	%	MVA	%	MVA	%
Consumer goods	503.2	80.6	601.4	82.9	602.4	74.3	890.3	72.1	1,148.1	71.9
Non Durable	465.9	74.6	572.8	79.0	558.1	68.8	789.7	63.9	1,017.5	63.7
Durable	37.3	6.0	28.6	3.9	44.3	5.5	100.6	8.2	130.6	8.2
Intermediate goods	26.7	4.3	42.2	5.8	77.0	9.5	126.9	10.3	153.0	9.6
Capital goods	94.4	15.1	82.2	11.3	131.6	16.2	217.0	17.6	295.2	18.5
Total	624.3	100.0	725.8	100.0	811.0	100.0	1,234.2	100.0	1,596.3	100.0

Source: Calculations are based on table C-10 Appendix C.

- 1/ - Non Durable consumer goods include:-
Food products, beverages, tobacco, textiles, wearing apparel, leather products, footwear, printing and publishing, and other manufacturing industries.
- Durable consumer goods include:-
Furniture and fixtures, plastic products, electrical machinery.
- Intermediate goods include:-
Paper and products, industrial chemicals, petroleum refineries, misc. petroleum and coal products and rubber products.
- Capital goods include:-
Wood and cork, glass and products, other non-metallic mineral products, iron and steel, non-ferrous metals, metal products, and non-electrical machinery.

wearing apparel and leather contributed 36 per cent, whereas food, beverages and tobacco accounted for more than 26 per cent. One major branch within the textiles and allied have made the largest contribution to MVA namely textiles. This is the largest single industry in Syria and is responsible for 84 per cent of MVA in the textiles division and 30 per cent of total MVA in 1977.

But the pattern of growth of the MVA within the two industrial divisions just mentioned reveals a declining trend. The share of the two divisions in total MVA has dropped from 74 per cent in 1963, to 62.5 per cent in 1977. This is largely due to the decline in the share of food products from 39.4 per cent in 1963 to 26.5 per cent in 1977.

The third largest industrial division in Syria is the fabricated metal products, machinery and equipment. It contributed 15.1 per cent of MVA in manufacturing in 1977, roughly twice its share in 1963. The metal products industry is the largest in this division, contributing half the division's MVA and 7.5 per cent of total manufacturing in 1977. The share of the electrical and non-electrical machinery industries are increasing rapidly and are expected to figure more prominently in the future.

Chemicals, petroleum, coal, rubber and plastic products industries rank fourth in importance. It accounted for about 10 per cent of total manufacturing output in 1977, an increase of 5.6 percentage points over its level in 1963. The major industry in this division is petroleum refining. It contributed 60.2 per cent of the MVA in the division and 6 per cent of overall output in manufacturing in 1977. The relative importance of the chemical industries is expected to increase in the near future when a number of major projects including fertilizers plants, and tyre plant, now under construction start production in 1980.

The above analysis indicate the dominance of traditional industries that generally include food, beverages and tobacco and textiles in addition to the non-metallic mineral products industries. These industries are usually associated with the early stages of industrial development. While the combined share of these industries declined from 80.5 per cent in 1963, by over a 12 percentage point, they still produced in 1977 a high proportion of total output in manufacturing, 68 per cent.

The following analysis of industrial structure by major end-use gives further support to the above pattern and stage of industrial development in Syria. Table V.8 indicates the industrial structure classified roughly by major end-use, consumer, intermediate and capital goods industries. These data show, a decline in the consumer non-durable's share in total MVA from 74.6 per cent in 1963 to 63.7 per cent in 1977, and a rather moderate rise in the share of consumer durables from 6.0 per cent to 8.3 per cent in the same years respectively.

The share of industries producing intermediates more than doubled, rising from 4.3 per cent in 1963 to 9.6 per cent in 1977. But this was to a large extent due to the increase in the oil refining activities.

To complete the picture capital goods industries have also been producing a higher share of total MVA increasing from 15.1 per cent in 1963 to 18.5 per cent in 1977. The development of these industries should not be exaggerated, since the major contribution in this group of industries have been made by industries catering for the construction sector. Only a modest progress has been made in the core of these industries namely heavy engineering and capital equipment manufacturing industries. Thus in fabricated metal products, machinery and equipment the main engineering industries that developed have been producing durable consumers goods, heavily dependent on imported components and parts, with only few industries producing capital equipment and machinery.

Capital investment in manufacturing

Chapters II and IV showed that during the period under study a large and continued increase in capital formation was channelled into mining and manufacturing and the latter recorded by far the highest rate of growth among

the major economic sectors. Consequently, this sector's share in total capital formation increased steadily until reaching the highest share of all sectors. Furthermore analysis of the industrial plans showed also that by and large investment have been concentrated in certain priority industries. More specifically, in the two major traditional industries, namely, food manufacturing and textiles and in new industries investment has been concentrated in the development of chemicals (mainly fertilizers) and petroleum refinery. Two other industries that received second priority in terms of investment were non-metallic industries (cement) and fabricated metal products. Tables V.9 to V.11 concurs with the above and present a summary of investment in total manufacturing, by branches and by the public and private sectors over the period 1966-1977. These data highlights the following:

- The magnitude of the increase in investment is indicated by the fact that cumulative capital investment in total manufacturing increased from an annual average of SL 75 million in 1966-1970, to SL 575 million in 1971-1977, or roughly an eight fold increase.
- In the period 1966-1977, 74 per cent of total investment was concentrated in few industries, food manufacturing, 16.5 per cent; textiles, 15.6 per cent, chemical products mainly fertilizers, 16.4 per cent; petroleum refinery, 16.7 per cent; and cement 9.7 per cent. The same industries combined, shared about 64 per cent of total manufacturing investment in the period 1966-1970.
- As for the public sector, its share in total investment has been as expected, dominant and rising over the period under study. In 1966-1977 the public sector share was 95 per cent of total investment, compared to 91.5 per cent in 1966-1970 and 95.2 per cent in 1971-1977.
- Capital investment in private sector manufacturing summarized in table V.10 shows a high share of investment in food products, textiles and chemical products, similar to the pattern in over-all manufacturing. However, the greatest concentration of investment in the private sector, 31 per cent, is in fabricated metal products.

Table No. Table V-9 *Sydia*. CUMULATIVE CAPITAL INVESTMENT IN OVERALL MANUFACTURING INDUSTRY, SELECTED PERIODS 1966-1977.
(\$1 MILLION AND PERCENTAGE AT CONSTANT PRICES 1970=100)

ISIC Code	C a t e g o r y	1966-1970			1971-1977			1966-1977		
		Cumulative 1966-70	Annual average	%	Cumulative 1971-77	Annual average	%	Cumulative 1966-77	Annual average	%
31	FOOD, BEVERAGES AND TOBACCO	90.0	18.0	24.0	777.6	111.1	19.3	867.6	72.3	19.7
311/2	Food manufacturing	82.1	16.4	21.9	643.4	91.9	16.0	725.5	60.5	16.5
313	Beverages	2.7	0.5	0.7	39.1	5.6	1.0	41.8	3.5	2.0
314	Tobacco	5.2	1.0	1.4	95.2	13.6	2.4	100.4	8.4	2.3
32	TEXTILE, WEARING APPAREL AND LEATHER	77.5	15.5	20.7	747.0	106.7	18.6	824.5	68.7	18.7
321	Textiles	73.8	14.8	19.8	613.5	87.6	15.2	687.3	57.3	15.6
322	Wearing apparel	2.3	0.46	0.6	75.2	10.7	1.9	77.5	6.5	1.8
323	Leather products	0.6	0.1	0.1	54.5	7.8	1.4	55.1	4.6	1.2
324	Footwear	0.6	0.6	0.2	3.5	0.5	0.1	4.3	0.4	0.1
33	WOOD AND WOOD PRODUCTS	0.6	0.1	0.1	4.8	0.7	0.1	5.4	0.5	0.1
331	Wood and cork	0.6	0.1	0.1	4.8	0.7	0.1	5.4	0.5	0.1
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	0.0	0.0	-	88.5	12.6	2.2	88.5	7.4	2.0
341	Paper and Paper products	0.0	0.0	-	88.5	12.6	2.2	88.5	7.4	2.0
342	Printing and publishing	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	150.3	30.1	40.2	1396.8	199.5	34.7	1547.1	128.9	35.1
351/2	Chemical products	76.8	15.3	20.3	646.7	92.4	16.1	723.5	60.3	16.4
353	Petroleum refinery	71.6	14.3	19.1	664.9	95.0	16.5	736.5	61.4	16.7
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	1.0	0.2	0.3	72.9	10.4	1.8	73.9	6.2	1.7
356	Plastic products, n.e.c.	1.1	0.2	0.3	11.8	1.7	0.3	12.9	1.1	0.3
36	NON-METALLIC MINERAL PRODUCTS	19.1	3.8	5.1	669.0	95.6	16.6	688.1	57.3	15.6
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-
362	Glass and glass products	3.2	0.64	0.9	256.7	36.7	6.4	259.9	21.7	5.9
369	Other non-metallic mineral products	15.8	3.16	4.2	412.4	58.9	10.2	428.2	35.7	9.7
37	BASIC METAL INDUSTRIES	10.4	2.08	2.8	56.3	8.0	1.4	66.7	5.6	1.5
371	Iron and steel basic industries	10.4	2.08	2.8	56.3	8.0	1.4	66.7	5.6	1.5
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	28.3	5.66	7.6	285.0	40.7	7.1	313.3	26.1	7.1
381	Fabricated metal products except mach. & equipment	10.5	2.1	2.8	122.2	17.5	3.0	132.7	11.1	3.0
382	Non-electrical machinery	9.6	1.9	2.5	121.2	17.3	3.0	130.8	10.9	3.0
383	Electrical machinery, appliances	8.3	1.66	2.2	41.9	6.0	1.0	50.2	4.2	1.1
384	Transport equipment	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	375.8	74.86	100.0	4025.0	574.9	100.0	4400.8	366.8	100.0

Source: Calculations are based on table C-19 Appendix C.

Table No. (V-11) SYRIA. CUMULATIVE CAPITAL INVESTMENT IN THE PUBLIC SECTOR INDUSTRY SELECTED PERIODS 1966-1977
\$1 MILLION AND PERCENTAGE AT CONSTANT PRICES 1970 = 100

ISC Code	C a t e g o r y	1966 - 1970		1971 - 1977		1966 - 1977				
		Cumulative 1966-70	Annual average	Per cent	Cumulative 1971-77	Annual average	Per cent	Cumulative 1966-77	Annual average	Per cent
31	FOOD, BEVERAGES AND TOBACCO	83.55	16.71	24.31	736.82	105.26	19.24	820.37	68.36	19.65
	311/2 Food manufacturing	76.24	15.25	22.18	605.96	86.57	15.82	682.2	56.85	16.34
	313 Beverages	2.19	0.44	0.64	41.5	5.93	1.08	43.69	3.64	1.05
	314 Tobacco	5.11	1.02	1.48	95.2	13.6	2.49	100.31	8.36	2.40
32	TEXTILE, WEARING APPAREL AND LEATHER	65.35	13.07	19.01	703.51	100.5	18.37	768.86	64.07	18.42
	321 Textiles	65.35	13.07	19.01	587.64	83.95	15.34	652.99	54.42	15.64
	322 Wearing apparel	-	-	-	63.18	9.03	1.65	63.18	5.27	1.51
	323 Leather products	-	-	-	52.15	7.45	1.36	52.15	4.34	1.25
	324 Footwear	-	-	-	-	-	-	-	-	-
33	WOOD AND WOOD PRODUCTS	0.58	0.12	0.17	3.37	0.48	0.09	3.95	0.33	0.09
	331 Wood and cork	0.58	0.12	0.17	3.37	0.48	0.09	3.95	0.33	0.09
	332 Furniture and fixtures	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	-	-	-	88.47	12.64	2.31	88.47	7.37	2.18
	341 Paper and Paper products	-	-	-	88.47	12.64	2.31	88.47	7.37	2.12
	342 Printing and publishing	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	146.33	29.27	42.57	1363.5	194.75	35.60	1509.83	125.82	36.17
	351/2 Chemical products	73.84	14.77	21.48	623.67	89.10	16.28	697.51	58.13	16.71
	353 Petroleum refinery	71.51	14.30	20.8	664.96	116.47	21.28	736.47	73.90	21.2
	354 Misc. products of petroleum & coal	0.5	0.1	0.15	67.7	9.67	1.77	68.2	5.68	1.63
	355 Rubber products, n.e.c.	0.7	0.14	0.20	7.0	1.0	0.18	7.7	0.64	0.18
	356 Plastic products, n.e.c.	19.13	3.83	5.57	669.01	95.57	17.47	688.14	57.35	16.49
36	NON-METALLIC MINERAL PRODUCTS	-	-	-	-	-	-	-	-	-
	361 Pottery, china, earthenware	-	-	-	-	-	-	-	-	-
	362 Glass and glass products	3.23	0.65	0.95	256.82	36.69	6.71	261.65	21.80	6.27
	369 Other non-metallic mineral products	15.9	3.18	4.63	410.89	58.70	10.71	426.79	35.57	10.23
37	BASIC METAL INDUSTRIES	10.38	2.08	3.03	56.33	8.05	1.47	66.71	5.56	1.60
	371 Iron and steel basic industries	10.38	2.08	3.03	56.33	8.05	1.47	66.71	5.56	1.60
	372 Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	18.45	3.69	5.37	208.37	29.77	5.44	226.82	18.90	5.43
	381 Fabricated metal products except mach. & equipment	2.53	5.06	7.36	60.28	8.61	1.57	62.81	7.13	2.05
	382 Non-electrical machinery	8.39	1.68	2.44	112.48	16.07	2.94	120.87	10.07	2.89
	383 Electrical machinery, appliances	7.61	1.52	2.21	35.68	5.10	0.93	43.29	3.61	1.04
	384 Transport equipment	-	-	-	-	-	-	-	-	-
	385 Professional & scientific control equipment	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	343.77	68.75	100.0	3830.51	547.2	100.0	4174.3	347.86	100.0

Source: Calculations are based on table C-21 appendix C.

Employment trends and structure in manufacturing

Employment in manufacturing totalled 198,259 workers in 1977, almost 10.4 per cent of total employment in the economy. During the period under study employment in manufacturing has doubled; increasing from 96,498 workers in 1963 to 198,259 in 1977 and representing an average annual rate of growth of 5.3 per cent. However in the two sub-periods 1963-1970 and 1970-1977 the annual rate of growth of employment in manufacturing doubled, rising from 3.5 per cent to 7 per cent in the two periods respectively. (Table V.12 and V.13).

The two major industries in terms of contribution to MVA are also the dominant employers; textiles, wearing apparel and leather industries absorbed in 1977, 42.4 per cent of those employed in manufacturing and the food beverages and tobacco industries employed another 26.6 per cent. The major other employer industries contributed a much lower share, furniture and fixtures absorbing in 1977 6.7 per cent of total employment other non-metallic mineral products accounting for another 5.1 per cent.

The structure of employment has not changed markedly since 1963. However, significant changes were recorded in three industries: textiles, food products and furniture and fixtures. Employment in textiles experienced over a five fold increase, from 11,837 in 1963 to 60,707 in 1977, and their share in employment in total manufacturing jumped from 12.3 per cent to 30.6 per cent in the two years respectively. The remaining two industries experienced a reverse trend; the share of food products in total employment in manufacturing dropped from 28.2 per cent in 1963 to 20.2 per cent in 1977 and in the furniture and fixtures industry from 12.5 per cent to 6.7 per cent respectively.

In the 1963-1970 sub-period employment in manufacturing increased from 96,498 to 123,127 workers indicating an average annual rate of growth of 3.5 per cent. But for most industries the average annual growth rate of employment was negative or recorded a very small growth. (Table V.13). This was especially true in the private sector where employment dropped sharply after the nationalization and did not make significant gains until 1970. (Tables V.16 and V.17). The public sector, on the other hand, increased its employment from 34,766 workers in 1966 to 46,502 workers in 1970 or by 33.7 per cent.

Table No. V-12 Series, Total Employment and the Industrial Composition in Overall Manufacturing Sector, Selected Years 1955-1977

ISIC Code	Category	1955		1965		1970		1975		1977	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
31	Manufacture of Food, Beverage, and Tobacco	14,293	35.6	35,897	36.2	36,688	29.8	49,598	27.5	52,650	26.6
311/2	Food Products	7,154	28.2	28,350	28.6	27,556	22.4	34,001	21.1	40,099	20.2
314	Beverages	6,770	25.8	16,547	16.6	9,132	7.4	15,597	8.4	12,551	6.4
314	Tobacco	5,229	6.5	6,634	6.7	9,093	6.5	9,037	5.4	9,714	4.9
32	Textile, Wearing Apparel, and Leather Industries	21,094	22.5	22,800	23.0	48,514	39.4	77,466	43.0	84,088	42.4
321	Textiles	11,837	12.3	12,350	12.8	37,088	30.1	54,094	31.2	60,707	30.6
322	Wearing Apparel, except Footwear	6,960	6.6	6,715	6.8	7,682	6.2	14,258	7.9	15,496	7.8
323	Leather and Products	2,350	2.4	2,417	2.4	1,822	1.5	3,293	1.8	3,610	1.9
324	Footwear	1,127	1.2	1,318	1.3	2,002	1.6	3,821	2.1	4,395	2.1
33	Manufacture of Wood Products, incl. Furniture	15,744	22.3	13,995	14.0	10,696	8.7	14,611	8.1	15,779	8.0
331	Wood and Cork Products, except Furniture	3,640	3.8	3,745	3.8	1,678	1.4	2,351	1.3	2,530	1.1
334	Furniture and Fixtures	12,104	12.5	10,250	10.2	9,000	7.3	12,260	6.8	13,249	6.7
34	Manufacture of Paper and Paper Products, Printing and Publishing	1,445	1.5	1,559	1.6	1,258	1.0	1,670	1.0	1,983	1.0
341	Paper and Products	1,179	0.2	1,017	0.2	212	0.2	300	0.2	369	0.2
342	Printing, Publishing	1,266	1.3	1,372	1.4	1,046	0.8	1,370	0.8	1,614	0.8
35	Manufacture of Chemicals and Chemical Products, except Plastics and Synthetic Rubber and Plastics	6,069	6.3	6,299	6.3	5,818	4.8	9,267	5.1	10,568	5.3
351	Industrial Chemicals	-	-	-	-	-	-	849	0.5	974	0.5
352	Other Chemical Products	2,687	2.8	2,813	2.8	2,091	1.7	3,513	1.9	3,682	1.9
353	Petroleum Refineries	2,080	2.1	1,950	2.0	2,100	1.7	2,944	1.4	2,884	1.4
354	Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-
355	Rubber Products	1,384	1.3	1,390	1.4	1,173	1.0	1,565	0.9	1,774	0.9
356	Plastic Products, except Synthetic Rubber, Synthetic Plastics, and Synthetic Fibers	88	0.1	142	0.1	474	0.4	776	0.4	1,232	0.6
36	Manufacture of Non-Metallic Mineral Products, except Products of Pottery and Glass	7,172	7.4	7,995	7.6	7,523	6.1	9,209	5.1	11,958	6.0
361	Pottery, China, etc.	-	-	-	-	-	-	-	-	-	-
362	Glass and Products	1,868	1.9	1,770	1.8	1,536	1.2	1,707	0.9	1,737	0.9
369	Other Non-Metallic Mineral Products	5,306	5.5	5,735	5.8	5,987	4.9	7,502	4.2	10,221	5.1
37	Basic Metal Industries	621	0.6	786	0.8	1,325	1.2	3,821	2.1	4,590	2.3
371	Iron and Steel	-	-	-	-	-	-	609	0.3	1,097	0.5
372	Non-Ferrous Metals	621	0.6	786	0.8	1,325	1.2	3,212	1.8	3,493	1.8
38	Manufacture of Fabricated Metal Products, Machinery and Equipment	6,572	6.8	7,522	7.6	9,183	7.5	13,137	7.3	15,317	7.7
381	Metal Products, except Machinery and Equipment	5,552	5.8	6,105	6.2	6,235	5.1	8,044	4.5	7,882	3.9
382	Machinery and Equipment	638	0.7	780	0.8	1,550	1.3	2,663	1.5	4,164	2.1
383	Electrical Machinery	382	0.4	637	0.6	1,398	1.1	2,430	1.3	3,351	1.7
384	Transport Equipment	-	-	-	-	-	-	-	-	-	-
385	Professional, Scientific, Goods, etc.	-	-	-	-	-	-	-	-	-	-
39	Other Manufacturing Industries	2,886	3.0	2,874	2.9	1,886	1.5	1,382	0.8	1,448	0.7
3	MANUFACTURING TOTAL	96,458	100.0	99,143	100.0	123,127	100.0	179,959	100.0	198,259	100.0

SOURCE: Calculations are based on Table C-25, Appendix C.

Table No. V-13 Syria, Average Annual Growth Rates of Employment in Overall Manufacturing Industry, Selected Periods 1963-1977 (Percentage)

ISIC Code	Category	1963-65	1966-70	1971-75	1976-77	1963-70	1970-77	1963-77
31	MANUFACTURE OF FOOD, BEVERAGES AND TOBACCO	2.31	0.44	6.13	3.24	0.97	5.29	3.11
311/2	Food products	2.10	-0.57	6.64	2.72	0.19	5.51	2.81
313	Beverages	2.44	3.40	10.26	27.03	3.12	14.81	8.81
314	Tobacco	3.20	3.95	3.66	0.40	3.74	2.71	3.22
32.	TEXTILE, WEARING APPAREL AND LEATHER INDUSTRIES	2.52	16.31	9.80	4.14	12.19	8.15	10.15
321	Textiles	2.14	24.56	8.66	4.03	17.69	7.32	12.39
322	Wearing apparel, except footwear	2.59	2.72	13.17	26.26	2.69	16.76	6.54
323	Leather and products	1.41	-5.49	12.57	4.71	-3.57	10.26	3.11
324	Footwear	8.14	8.72	13.80	4.78	8.55	11.15	9.84
33.	MANUFACTURE OF WOOD PRODUCTS INCLUDING FURNITURE	-6.02	-5.11	6.43	3.92	-5.37	5.71	0.02
331	Wood and cork products except furniture	1.43	-14.83	6.98	3.73	-10.47	6.04	-2.56
332	Furniture and fixtures	-8.38	-2.35	6.33	3.95	-4.11	5.65	0.65
34.	MANUFACTURE OF PAPER AND PAPER PRODUCTS, PRINTING & PUBLISH.	3.87	-4.29	5.93	8.97	-2.03	6.79	2.29
341	Paper and products	2.21	2.54	7.19	10.91	2.45	8.24	5.30
342	Printing, publishing	4.10	-5.39	2.05	8.54	-2.77	3.86	1.75
35.	MANUFACTURE OF CHEMICALS AND CHEMICAL, PETROLEUM, COAL, RUBBER AND PLASTIC PRODUCTS	1.85	-1.50	9.68	6.48	-0.55	8.76	4.00
351	Industrial chemicals	-	-	0.96 ^{1/}	7.10	-	3.37 ^{1/}	-
352	Other chemical products	2.32	-5.76	10.93	2.37	-3.52	8.42	2.27
353	Petroleum refineries	-1.26	1.49	4.07	5.32	0.70	4.43	2.55
354	Misc. Petroleum, coal prod.	-	-	-	-	-	-	-
355	Rubber products	2.85	-3.34	5.93	6.47	-1.61	6.09	2.17
356	Plastic products n.o.o.	44.51	27.26	10.36	26.00	31.97	14.62	22.99
36.	MANUFACTURE OF NON-METALLIC MINERAL PRODUCTS, EXCEPT PROD. OF PETROLEUM AND COAL	2.28	0.05	4.13	13.95	0.68	6.85	3.72
361	Pottory, china etc.	-	-	-	-	-	-	-
362	Glass and products	-2.13	-2.93	2.27	0.87	-2.70	1.87	-0.44
369	Other non-metal. min. prod.	3.77	0.90	4.58	16.73	1.71	7.91	4.77
37.	BASIC METAL INDUSTRIES	12.50	14.17	20.17 ^{1/}	9.60	13.69	17.05 ^{1/}	15.36
371	Iron and steel	-	-	13.82 ^{1/}	34.21	-	21.58 ^{1/}	-
372	Non-ferrous metals	12.50	14.17	16.07	4.28	13.69	12.57	13.13
38.	MANUFACTURE OF FABRICATED METAL PROD. MACHINERY & EQUIPMENT	6.98	4.07	7.42	7.98	4.90	7.58	6.23
381	Metal prods. except machinery and equipment	4.86	0.42	5.23	-1.52	1.67	3.25	2.46
382	Non-electrical machinery	10.57	14.72	11.43	25.05	13.52	15.16	14.34
383	Electrical machinery	29.14	17.03	11.69	17.43	20.36	13.30	16.78
384	Transport equipment	-	-	-	-	-	-	-
385	Professional, scienti. goods etc	-	-	-	-	-	-	-
39.390	OTHER MANUFACTURING INDUSTRIES	-0.21	-8.08	-6.03	3.06	-9.54	-3.52	-6.57
3.	MANUFACTURING: TOTAL	1.37	4.43	7.88	4.96	3.54	7.04	5.28

Source: Calculation, based on Table C-25, Appendix C.

^{1/} Base year 1972

The highest growth in employment during this period was exhibited in the basic metal division, where employment grew at an average annual rate of 13.7 per cent. This high increase in employment took place in the private non-ferrous metal. (Tables V.13 and V.16).

The textile, wearing apparel and leather division has also demonstrated a high rate of growth in employment during the 1963-1970 period. The rate averaged 12.2 per cent annually. The employment increases in this division were largely provided by the public sector, especially, in its textile and wearing apparel industries. (Tables V.13 and V.14).

Employment in the fabricated metal products division showed an average annual growth rate of 4.9 per cent. Again this increase in the employment was primarily in the public sector, which recorded an average annual growth rate of 12.4 per cent during 1966-1970.

In the 1970-1977 sub-period, performance in employment in manufacturing has been better than in the earlier period, increasing from 123,127 to 198,259 workers, or an average annual rate of growth of 7.0 per cent. The average annual growth rate in the private sector was higher than in the public sector in this period, 8 per cent as against 5.3 per cent, respectively.

The highest rate of growth in employment occurred in the basic metal industries where employment grew at an average annual rate of 17 per cent. Employment in the public sector's iron rods plant increased at an average rate of 21.6 per cent. In the private sector the non-ferrous metals industry employment grew by 12.6 per cent annually.

The chemicals, petroleum, rubber and plastic industry division exhibited the second highest growth in employment averaging 8.8 per cent annually. The private sector showed a higher average annual employment growth rate (11.1 per cent) compared to the public sector (7.2 per cent). The employment gains in the private sector occurred in the plastic and rubber industries. In the public sector, the large increases were in other chemical products industry.

Table (14-14) Syria, Average Annual Index of Growth of Employment for the Public Sector

ISIC Code	Category	1965-65		1966-70		1971-75		1976-77		1965-70		1970-77		1965-77	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
31	Manufacture of Food, Beverages and Tobacco	3.20	18.08	4.28	3.77	13.62	4.13	8.77							
311/2	Food Products	-	8.51	4.38	7.58	-	5.28	6.37							
313	Beverages	-	18.26	21.54	0.32	-	15.05	16.21							
314	Tobacco	3.20	3.95	3.66	0.40	3.74	2.71	3.22							
32	Textile, Wearing Apparel and Leather Industries	-	8.41	4.12	2.92	-	3.78	5.44							
321	Textiles	-	8.66	3.92	3.11	-	3.69	5.47							
322	Wearing Apparel, except footwear	-	6.60	8.37	-0.55	-	5.75	6.05							
323	Leather and Products	-	-2.72	2.54	3.62	-	2.84	0.78							
324	Footwear	-	-	-	-	-	-	-							
33	Manufacture of Wood Products, incl. Furniture	-	5.66	8.77	3.20	-	7.15	4.13							
331	Wood and Cork Products, except Furniture	-	5.66	8.77	3.20	-	7.15	4.13							
332	Furniture and Fixtures	-	-	-	-	-	-	-							
34	Manufacture of Paper and Paper Products, Printing and Publishing	-	9.06	10.83	15.77	-	12.22	11.06							
341	Paper and Products	-	9.06	10.83	15.77	-	12.22	11.06							
342	Printing, Publishing	-	-	-	-	-	-	-							
35	Manufacture of Chemicals and Chemical Products, Petroleum, Coal, Rubber and Plastic Products	-1.26	13.59	8.02	5.32	9.13	7.24	8.18							
351	Industrial Chemicals	-	-	0.96	7.10	-	3.37	-							
352	Other Chemical Products	-	12.58	10.14	6.35	-	9.04	10.32							
353	Petroleum Refineries	-1.26	1.49	4.07	5.32	0.70	4.43	2.55							
354	Misc. Petroleum, Coal Products	-	-	-	-	-	-	-							
355	Rubber Products	-	8.32	0.98	3.63	-	1.73	4.29							
356	Plastic Products n. e. c.	-	22.05	0.55	0.19	-	0.45	7.82							
36	Manufacture of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	-	6.17	1.75	21.89	-	7.14	6.79							
361	Pettery, china, etc.	-	-	-	-	-	-	-							
362	Glass and Products	-	5.74	2.43	0.56	-	1.89	3.27							
369	Other Non-Metallic Mineral Products	-	6.39	1.40	31.73	-	9.27	8.22							
37	Basic Metal Industries	-	-	13.82	34.21	-	21.58	-							
371	Iron and Steel	-	-	13.82	34.21	-	21.58	-							
372	Non-Ferrous Metals	-	-	-	-	-	-	-							
38	Manufacture of Fabricated Metal Products, Machinery and Equipment	-	12.35	19.65	17.93	-	19.15	16.63							
381	Metal Products, except mach. and equipm.	-	23.80	7.20	56.00	-	19.33	20.94							
382	Non-Electrical Machinery	-	8.08	22.03	6.59	-	17.40	13.92							
383	Electrical Machinery	-	13.22	21.48	18.84	-	20.72	17.93							
384	Transport Equipment	-	-	-	-	-	-	-							
385	Professional, Scientific goods, etc.	-	-	-	-	-	-	-							
389	Other Manufacturing Industries	-	-	-	-	-	-	-							
3	MANUFACTURING TOTAL	2.13	7.54	5.09	5.96	26.07	5.34	16.15							

Sources: Calculations based on Table C-27, Appendix C.
1/ Base year 1972

Table (7-15) Syria: Employment and percentage shares of manufacturing industry classes in the public sector in selected years, 1965-1977

ISIC Code	Category	1963		1965		1966		1970		1975		1977	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
31	Manufacture of Food, Beverages and Tobacco	6 229	75.7	6 634	77.3	12 833	36.9	15 228	32.8	18 776	31.5	20 220	30.2
311/2	Food Products	-	-	-	-	5 084	14.6	6 997	15.1	8 667	14.5	10 031	15.0
313	Beverages	-	-	-	-	91	2.6	178	0.4	472	0.8	475	0.7
314	Tobacco	6 229	75.7	6 634	77.3	7 698	22.0	8 053	17.3	9 637	16.2	9 714	14.5
32	Textile, Wearing Apparel and Leather Industries	-	-	-	-	16 044	46.1	22 158	47.7	27 119	45.5	28 728	42.9
321	Textiles	-	-	-	-	15 017	43.2	20 938	45.1	25 382	42.6	26 987	40.3
322	Wearing Apparel, except footwear	-	-	-	-	759	2.1	980	2.1	1 465	2.5	1 449	2.2
323	Leather and Products	-	-	-	-	268	0.8	240	0.5	272	0.4	292	0.4
324	Footwear	-	-	-	-	-	-	-	-	-	-	-	-
33	Manufacture of Wood Products, incl. Furniture	-	-	-	-	341	1.0	425	0.9	647	1.1	689	1.0
331	Wood and Cork Products, except Furniture	-	-	-	-	-	-	-	-	-	-	-	-
332	Furniture and Fixtures	-	-	-	-	341	1.0	425	0.9	647	1.1	689	1.0
34	Manufacture of Paper and Paper Products, Printing and Publishing	-	-	-	-	41	0.1	58	0.1	97	0.1	130	0.2
341	Paper and Products	-	-	-	-	41	0.1	58	0.1	97	0.1	130	0.2
342	Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-
35	Manufacture of Chemicals and Chemical Products, Coal, Rubber and Plastic	2 000	24.3	1 990	22.7	1 796	5.2	3 687	7.9	5 423	9.1	6 015	9.0
351	Industrial Chemicals	-	-	-	-	-	-	-	-	849	1.4	974	1.5
352	Other Chemical Products	-	-	-	-	381	1.0	612	1.3	992	1.7	1 122	1.7
353	Petroleum Refineries	-	-	-	-	788	2.3	2 100	4.5	2 544	4.3	2 844	4.2
354	Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber Products	-	-	-	-	513	1.5	722	1.6	798	1.3	814	1.2
356	Plastic Products n.e.c.	-	-	-	-	314	0.3	253	0.5	260	0.4	261	0.4
36	Manufacture of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	-	-	-	-	2 996	8.6	3 887	8.2	4 152	7.0	5 168	7.2
361	Pottery, Glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and Products	-	-	-	-	1 016	2.9	1 270	2.7	1 432	2.4	1 448	2.2
368	Other Non-Metallic Mineral Products	-	-	-	-	1 980	5.7	2 537	5.5	2 720	4.6	4 720	7.0
37	Basic Metal Industries	-	-	-	-	-	-	-	-	609	1.0	1 097	1.7
371	Iron and Steel	-	-	-	-	-	-	-	-	609	1.0	1 097	1.7
372	Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-
38	Manufacture of Fabricated Metal Products, Machinery and Equipment	-	-	-	-	215	2.1	1 138	2.4	2 283	4.2	3 284	4.8
381	Metal Products, except watch and equipment	-	-	-	-	86	0.2	202	0.4	286	0.5	696	1.0
382	Non-Electrical Machinery	-	-	-	-	346	1.0	472	1.0	1 277	2.1	1 451	2.2
383	Electrical Machinery	-	-	-	-	283	0.8	465	1.0	1 230	2.1	1 737	2.6
384	Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-
388	Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-
39	Other Manufacturing Industries	-	-	-	-	-	-	-	-	-	-	-	-
3	MANUFACTURING TOTAL	8 229	100.0	8 584	100.0	34 766	100.0	46 502	100.0	59 616	100.0	66 931	100.0

Source: Calculations are based on Table C-27, Appendix C.

Table (1-16) Syria, Annual Rates of Growth of Employment for the Private Sector, Industry in Selected Periods, 1965-1977 (Percentage)

ISIC Code	Category	1963-65		1966-70		1971-75		1976-77		1985-70		1970-77		1965-77	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
31	Manufacture of Food, Beverages and Tobacco	2.11	-6.01	7.37	2.91	2.91	-3.76	6.08	1.04						
311/2	Food Products	2.10	-6.22	7.37	1.24	-3.92	5.58	0.72							
313	Beverages	2.44	-0.27	7.37	35.53	0.50	14.76	7.39							
314	Tobacco														
32	Textile, Wearing Apparel and Leather Industries	2.52	2.96	13.80	4.79	2.83	11.15	6.91							
321	Textiles	2.14	5.43	13.80	4.78	4.48	11.15	7.76							
322	Wearing Apparel, except footwear	2.59	-0.04	13.80	4.79	0.71	11.15	5.80							
323	Leather and Products	1.41	-8.13	13.80	4.80	-5.50	11.16	2.50							
324	Footwear	8.14	8.72	13.80	4.78	8.55	11.15	9.84							
33	Manufacture of Wood Products and Furniture	-6.02	-5.88	6.33	3.95	-5.92	5.65	-0.30							
331	Wood and Cork Products, except Furniture	1.43	-19.66	6.34	3.94	-14.13	5.65	-4.75							
332	Furniture and Fixtures	-8.38	-2.35	6.33	3.95	-4.11	5.65	0.65							
34	Manufacture of Paper and Paper Products, Printing and Publishing	3.87	-5.20	5.67	8.54	-2.69	6.48	1.79							
341	Paper and Products	2.21	-3.81	5.68	8.50	-2.13	6.48	2.09							
342	Printing, Publishing	4.10	-5.29	5.67	8.54	-2.77	6.48	1.75							
35	Manufacture of Chemicals and Chemical, Petroleum, Coal, Rubber and Plastic Products	3.34	-13.12	12.32	8.09	-8.71	11.09	0.71							
361	Industrial Chemicals														
362	Other Chemical Products	2.32	-12.06	11.26	0.77	-8.17	8.15	-0.34							
363	Petroleum Refineries														
364	Misc. Petroleum, Coal Products														
365	Rubber Products	2.85	-20.16	12.34	9.07	-14.17	11.40	-2.22							
366	Plastic Products n.e.c.	44.51	9.25	18.48	37.18	18.34	23.55	20.92							
36	Manufacture of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	2.28	-13.11	6.36	7.01	-8.97	6.54	-1.52							
361	Pottery, china, etc.														
362	Glass and Products	-2.13	-32.07	1.44	2.53	-24.60	1.75	-12.41							
368	Other Non-Metallic Mineral Products	3.77	-9.61	6.69	7.26	-5.98	6.85	0.23							
37	Basic Metal Industries	12.50	14.17	16.07	4.28	13.69	12.57	13.13							
371	Iron and Steel														
372	Non-Ferrous Metals	12.50	14.17	16.07	4.28	13.69	12.57	13.13							
38	Manufacture of Fabricated Metal Products, Machinery and Equipment	6.98	-1.55	5.16	5.13	2.93	5.15	4.03							
381	Metal Products, except machinery and equipment	4.86	-0.24	5.16	-4.30	1.19	2.36	1.78							
382	Non-Electrical Machinery	10.57	6.69	5.15	39.91	7.78	14.09	10.89							
383	Electrical Machinery	29.14	7.93	5.16	15.98	13.61	8.15	10.84							
384	Transport Equipment														
388	Professional, Scientific goods, etc.														
39	Other Manufacturing Industries	-0.21	-8.08	-6.03	3.06	-5.90	-3.52	-4.71							
3	MANUFACTURING - TOTAL	1.29	-3.29	9.45	4.46	-2.00	8.00	2.88							

Sources: Calculations are based on Table C-26, Appendix C.

Table No. (16-17) Size, Employment and Percentage Shares of Manufacturing Industry Classes in the Private Sector, Selected Years 1955-1977

SIC Code	Category	1963		1965		1966		1970		1975		1977	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
20	Food, Beverages and Tobacco	28 064	31.8	29 263	32.3	21 007	30.5	21 460	28.0	30 620	25.5	32 430	24.7
21	Textile, Wearing Apparel and Leather Industries	21 694	24.6	22 800	25.2	20 750	30.1	26 376	34.4	50 347	41.8	55 280	42.1
22	Chemical and Allied Products	11 037	13.4	12 350	13.6	13 017	18.9	16 090	21.0	30 712	25.5	33 780	25.7
23	Non-metallic Mineral Products	6 300	7.2	6 715	7.4	5 161	7.5	6 702	8.7	12 793	10.6	14 047	10.7
24	Metal Industries	2 350	2.7	2 417	2.7	1 060	1.5	1 582	2.1	3 021	2.5	3 318	2.5
25	Transport Equipment	1 127	1.3	1 318	1.5	1 504	2.2	2 008	2.6	3 021	3.2	4 195	3.2
26	Professional, Scientific Goods etc.	15 744	17.8	13 905	15.3	9 967	14.5	10 273	13.4	13 964	11.6	15 090	11.5
27	Other Manufacturing	3 640	4.1	3 745	4.1	1 237	1.8	1 253	1.6	1 704	1.4	1 841	1.4
28	Manufacturing	12 104	13.7	10 160	11.2	8 730	12.7	9 080	11.8	12 260	10.2	13 249	10.1
29	Manufacturing of Paper and Paper Products, Printing and Publishing	1 445	1.6	1 559	1.7	1 178	1.7	1 194	1.6	1 573	1.3	1 893	1.4
30	Paper and Printing	179	0.2	187	0.2	161	0.2	154	0.2	203	0.2	239	0.2
31	Printing and Publishing	1 266	1.4	1 372	1.5	1 017	1.5	1 040	1.4	1 370	1.1	1 654	1.2
32	Manufacturing of Chemicals and Chemical Products, Except Petroleum, Rubber and Plastic Products	4 069	4.6	4 345	4.8	1 547	2.2	2 151	2.8	3 044	3.2	4 491	3.4
33	Industrial Chemicals	2 667	3.0	2 813	3.1	913	1.3	1 479	1.9	2 521	2.1	2 960	2.0
34	Other Chemical Products	-	-	-	-	-	-	-	-	-	-	-	-
35	Petroleum Refineries	-	-	-	-	-	-	-	-	-	-	-	-
36	Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-
37	Rubber Products	1 314	1.5	1 390	1.5	511	0.8	451	0.6	807	0.7	960	0.7
38	Plastic Products S. S. C.	68	0.1	142	0.2	83	0.1	221	0.3	516	0.4	713	0.5
39	Manufacturing of Non-Metallic Mineral Products, Except Petroleum, Rubber and Plastic Products	7 194	8.1	7 905	8.3	3 118	4.5	3 716	4.8	5 097	4.2	5 790	4.4
40	Pottery, Glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-
41	Glass and Pottery	1 040	1.2	1 170	1.3	226	0.3	256	0.3	275	0.2	289	0.2
42	Other Non-Metallic Mineral Products	5 386	6.0	5 735	6.3	2 892	4.2	3 460	4.5	4 782	4.0	5 501	4.2
43	Basic Metal Industries	621	0.7	786	0.9	1 396	2.0	1 525	2.0	3 212	2.7	3 493	2.7
44	Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-
45	Non-Ferrous Metals	621	0.7	786	0.9	1 396	2.0	1 525	2.0	3 212	2.7	3 493	2.7
46	Manufacturing of Fabricated Metal Products, Machinery and Equipment	6 372	7.5	7 522	8.3	8 074	11.7	8 044	10.5	10 344	8.6	11 433	8.7
47	Metal Products, except machinery and equipment	5 552	6.3	6 105	6.7	6 140	8.9	6 013	7.9	7 758	6.4	7 106	5.4
48	Non-Electrical Machinery	636	0.7	780	0.9	915	1.3	1 078	1.4	1 366	1.2	2 713	2.1
49	Electrical Machinery	382	0.5	637	0.7	1 019	1.5	933	1.2	1 000	1.0	1 614	1.2
50	Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-
51	Professional, Scientific Goods etc.	2 086	3.3	2 874	3.2	1 830	2.7	1 886	2.5	1 362	1.1	1 488	1.1
52	Other Manufacturing	88 269	100.0	90 559	100.0	68 847	100.0	76 625	100.0	120 343	100.0	131 388	100.0
3. MANUFACTURING - TOTAL		88 269	100.0	90 559	100.0	68 847	100.0	76 625	100.0	120 343	100.0	131 388	100.0

Source: Calculations are based on Table C-26, Appendix C.

Employment in the textile, wearing apparel and leather division grew at an average annual rate of 8.2 per cent. Again the private sector showed a higher rate, 11.2 per cent compared to 3.8 per cent annually for the public sector. The gains in employment in this division occurred primarily in the wearing apparel, footwear, and leather industries in the private sector.

Employment in the fabricated metal products industry division grew at an average annual rate of 7.6 per cent. In the public sector, the growth rate was a high 19.2 per cent compared to 5.2 per cent annually in the private sector.

The non-metallic mineral products exhibited an average annual increase in employment of 6.8 per cent. The gains in both the public and the private sectors were about equally high.

Finally, the food, beverages and tobacco and the wood and furniture divisions exhibited a similar growth rate in employment which averaged 5.3 and 5.7 per cent annually respectively. In the former division the growth in the private sector was higher, while in the latter division the growth in the public sector was higher.

Ownership Structure in the Syrian manufacturing

Up to 1965, the manufacturing sector was mostly in the hands of the private sector. Public sector ownership was confined to petroleum refining and tobacco industry. Following the nationalization of the large manufacturing establishments in 1964-1965, the ownership structure radically changed. The share of private sector dropped in 1966 to 48.7 per cent of the total MVA and in 1970 to 39.6 per cent. But the private sector managed to regain some of its losses in the later years. In 1975 it represented 45.4 per cent of the total MVA. The share, however, marginally declined to 42.4 per cent in 1977. (Table V.18).

Table V.19 shows the change in the share of the private sector in each of the major manufacturing groups in the years 1966 and 1977.

Table No. (V.10) CYRIA, PRIVATE SECTOR SHARE IN TOTAL MANUFACTURING GROSS VALUE ADDED BY MAJOR MANUFACTURING BRANCHES SELECTED YEARS 1963-66 = (SL MILLION AT CONSTANT PRICES 1970-100)

ISIC Code	C a t e g o r y	1963			1966			1970			1975			1977		
		Value	%	Value	Value	%	Value	Value	%	Value	%	Value	%	Value	%	
31	FOOD, BEVERAGES AND TOBACCO	120.6	49.0	151.3	51.7	86.6	33.2	149.8	39.4	160.5	37.9	146.0	67.5	146.0	70.0	
311/2	Food manufacturing	109.3	100	145.4	89.3	77.2	57.5	139.4	68.8	146.0	67.5	146.0	67.5	146.0	67.5	
313	Beverages	11.3	100	5.9	59	9.4	89.5	10.4	69.3	14.5	70.0	14.5	70.0	14.5	70.0	
314	Tobacco															
32	TEXTILE, WEARING APPAREL AND LEATHER	216.4	100	124.6	45.5	104.5	36.5	165.5	41.6	218.1	38.0	134.5	27.8	134.5	27.8	
321	Textiles	201.2	100	104.8	42.1	76.2	30.1	102.1	31.1	134.5	27.8	56.4	90.2	56.4	90.2	
322	Wearing apparel	8.6	100	12.4	74.2	17.7	80.5	42.7	89.3	56.4	90.2	10.3	88.0	10.3	88.0	
323	Leather products	3.5	100	2.6	81.3	4.7	92.2	7.9	82.3	10.3	88.0	16.9	100	16.9	100	
324	Footwear**	3.1	100	4.8	100	5.9	100	12.7	100	16.9	100	68.3	*	68.3	*	
33	WOOD AND WOOD PRODUCTS	37.5	100	17.5	91.6	30.0	92.0	45.7	95.2	68.3	*	7.2	-	7.2	-	
331	Wood and cork	3.2	100	3.0	65.2	2.5	50	4.0	64.7	7.2	-	61.1	100	61.1	100	
332	Furniture and fixtures	34.3	100	14.4	100	27.5	100	41.7	100	61.1	100	15.8	83.6	15.8	83.6	
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	3.0	100	5.2	98.1	9.2	87.6	12.0	100	15.8	83.6	1.2	27.3	1.2	27.3	
341	Paper and paper products	0.5	100	0.5	100	0.9	40.9	1.0	100	1.2	27.3	14.6	100	14.6	100	
342	Printing and publishing	2.5	100	4.7	100	8.3	100	11.0	100	14.6	100	37.8	24.2	37.8	24.2	
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS	9.0	34.4	10.9	26.1	9.3	12.0	39.2	29.2	25.6	57.0	25.6	57.0	25.6	57.0	
351/2	Chemical products	4.8	100	9.1	78.4	6.3	55.8	27.2	48.1	-	-	-	-	-	-	
353	Petroleum refinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
355	Rubber products, n.e.c.	4.1	100	1.5	29.4	2.0	22.0	6.4	71.9	6.2	63.9	6.0	78.9	6.0	78.9	
356	Plastic products, n.e.c.	0.1	100	0.3	33.3	1.0	39.3	5.6	74.4	6.0	78.9	22.6	44.8	22.6	44.8	
36	NON-METALLIC MINERAL PRODUCTS	40.3	100	11.3	28.6	15.9	29.9	22.6	44.8	25.4	28.4	-	-	-	-	
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
362	Glass and glass products	8.1	100	2.4	25	2.3	23.4	1.8	12.4	1.4	18.2	24.0	29.3	24.0	29.3	
369	Other non-metallic mineral products	32.2	100	8.9	29.8	13.6	31.4	20.8	50.6	24.0	29.3	19.2	76.8	19.2	76.8	
37	BASIC METAL INDUSTRIES	4.4	100	5.2	100	13.4	100	13.4	100	19.9	90.9	19.9	90.9	19.9	90.9	
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
372	Non-ferrous metal basic industries	4.4	100	5.2	100	13.4	100	13.4	100	19.9	90.9	19.9	90.9	19.9	90.9	
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	49.4	100	25.6	55.5	49.5	66.9	101.2	54.1	126.7	52.7	101.2	85.0	101.2	85.0	
381	Fabricated metal products except mach. & equipment	42.5	100	14.2	94.0	40.0	93.5	82.0	94.9	101.2	85.0	11.6	23.7	13.4	22.6	
382	Non-electrical machinery	4.0	100	7.1	39.9	5.7	53.1	11.6	23.7	13.4	22.6	7.6	14.7	12.1	19.5	
383	Electrical machinery, appliances	2.9	100	4.3	32.1	3.8	27.1	-	-	-	-	-	-	-	-	
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	OTHER MANUFACTURING INDUSTRIES	1.1	100	0.2	13.3	0.2	8.0	0.3	6.7	0.4	7.8	0.4	7.8	0.4	7.8	
3	TOTAL MANUFACTURING	481.7	77.2	353.2	48.7	320.9	39.6	560.0	45.4	677.6	42.4	677.6	42.4	677.6	42.4	

Source: Calculations are based on tables C-10 and C-11 Appendix C

* MVA in public sector reported negative value.

Table V.19 CHANGE IN SHARE OF PRIVATE SECTOR IN TOTAL MVA,
1966 AND 1977
(Percentage)

ISIC Code	Major Industrial Group Ranking	Private Sector Percentage Contribution to Total MVA	
		1966	1977
37	Basic metal industries	100.0	90.9
34	Paper, printing and publishing	98.1	83.9
33	Wood and furniture	91.6	(1)
38	Fabricated metal products	55.5	52.7
31	Food, beverages and tobacco	51.7	37.9
36	Non-metallic mineral products	28.6	28.4
32	Textile wearing apparel and leather	45.5	38.0
35	Chemical, petroleum, coal, rubber and plastics	26.1	24.2

Source: Table V.18.

- (1) In 1977 negative MVA estimated for the public sector prevented meaningful comparison. The private sector is still maintaining its dominance in this field of activities.

The ownership structure in 1966 the year that followed nationalization is summarised as follows:

- Prior to the construction of the iron rods plant by the public sector, the private sector owned 100 per cent of the industrial activities related to the basic metal industries. These activities consist largely of small establishments dealing with metals melting, shaping and other basic metal works.

- The private sector contributed 98.1 per cent of the total MVA in the paper, printing and publishing industry. This is largely accounted for by the printing and publishing industry, which besides from the government printing press and the newspapers publishing houses, is completely owned by the private sector.

- In the wood and furniture industrial group, the private sector contributed 91.6 per cent of total MVA. This is largely accounted for by the furniture and fixtures industry which is almost wholly owned by the private sector.
- In the fabricated metal products industrial group, 55.5 per cent of total MVA was contributed by private sector establishments, mainly in the metal products industry.
- The widely spread activities of the private sector in the food products and beverages industries accounted for its contribution of 51.7 per cent of the total MVA of this major industrial group.
- In the non-metallic mineral products, the private sector contributed 28.6 per cent of the total MVA by virtue of its activities in the glass and construction materials industries.
- Furthermore the private sector contributed 45.5 per cent of the total MVA of the textile, wearing apparel and leather major industrial group. This was largely accounted for by the footwear, wearing apparel and leather industries in which the private sector was very active.
- Finally, in the chemicals branch of industry, the private sector contributed 26.1 per cent of the total MVA. This is largely due to this sector's intense activities in the other chemical products industry such as detergents, cleansers, soaps, paints and matches; and in the rubber and plastic products.

Since 1966 in the wood products industry, the private sector was able to increase its share in total MVA from 91.6 per cent in 1966 to 95.2 per cent in 1975 ^{1/}. However in the majority of the industrial group, total MVA has either declined or changed only marginally

^{1/} See footnote to table V.19.

In terms of employment, the private sector still provides the bulk of the employment in manufacturing industry. In 1965, the sector provided 91.3 per cent of manufacturing employment, but in 1966 it dropped to 66.4 per cent. However, in 1977 this sector was still engaging two thirds of manufacturing employment. The share of the private sector in the employment of each industry class is presented in Table V.20.

It can be seen from the table that the pattern of employment intensity of the private sector in the various industry classes follows very closely that of output, discussed above. Otherwise, the table is self-explanatory and no further comments will be made on it.

Public sector in manufacturing industries

This sector presents a comparative analysis of changes in the manufacturing industries structure in the public sector. These are summarized in tables V.21-23 and V.15. The analysis will be conducted in terms of real MVA and employment. Major and planned projects are also described briefly in each sector.

MVA in manufacturing produced by the public sector industry amounted to SL 919 million in 1977. About two thirds of this output (67.4 per cent), was produced by two divisions: textile, wearing apparel and leather, and by food, beverages and tobacco. Their respective share was 37.9 and 28.7 per cent. The textiles industry, which is the largest industry in the public sector, contributed 37.9 per cent of total MVA in manufacturing. By far the largest branch within the textile industry is cotton ginning.

It should be emphasized at this point that the public sector has been expanding its activities in all branches of textile, wearing apparel, leather and footwear. In the textile industry a number of new projects are scheduled to begin production between 1977 and 1980. They include five fiber plants, a textile plant, a plant for wool washing, and two wool rugs plants. In fact three of the

Table V-20 Syria, Private sector percentage contribution to employment in each class of manufacturing industry in selected years, 1963-1977
(percentage)

ISIC Code	Category	1963	1965	1966	1970	1975	1977
31	MANUFACTURE OF FOOD, BEVERAGES & TOBACCO	81.0	81.5	62.1	58.5	62.0	61.6
311/2	Food products	100.0	100.0	79.8	74.6	77.2	75.0
313	Beverages	100.0	100.0	90.7	83.5	73.2	83.3
314	Tobacco	0.0	0.0	0.0	0.0	0.0	0.0
32	TEXTILE, WEARING APPAREL & LEATHER INDUS.	100.0	100.0	56.4	51.3	65.0	65.8
321	Textiles	100.0	100.0	46.4	43.5	54.8	55.5
322	Wearing apparel, except footwear	100.0	100.0	87.2	87.2	89.7	90.6
323	Leather and products	100.0	100.0	79.9	36.8	91.7	91.9
324	Footwear	100.0	100.0	100.0	100.0	100.0	100.0
33	MANUFACTURE OF WOOD PRODS. INCL. FURNITURE	100.0	100.0	96.7	96.0	95.6	95.6
331	Wood and cork prods., except furniture	100.0	100.0	78.4	74.7	72.5	72.8
332	Furniture and fixtures	100.0	100.0	100.0	100.0	100.0	100.0
34	MANUFACTURE OF PAPER & PAPER PRODUCTS PRINTING AND PUBLISHING	100.0	100.0	96.6	95.4	91.2	93.4
341	Paper and products	100.0	100.0	79.7	72.6	67.7	61.8
342	Printing and publishing	100.0	100.0	100.0	100.0	100.0	100.0
35	MANUFACTURE OF CHEMICALS & CHEMICAL, PETRO- LEUM, COAL, RUBBER & PLASTIC PRODUCTS	67.0	69.0	46.0	36.8	41.5	42.7
351	Industrial chemicals	-	-	-	-	0.0	0.0
352	Other chemical products	100.0	100.0	70.6	70.7	71.8	69.5
353	Petroleum refineries	0.0	0.0	0.0	0.0	0.0	0.0
354	Misc. petroleum, coal products	-	-	-	-	-	-
355	Rubber products	100.0	100.0	50.9	38.4	51.6	54.1
356	Plastic products n.e.o.	100.0	100.0	42.1	46.6	66.5	78.8
36	MANUFACTURE OF NON-METALLIC MINERAL PRO- DUCTS, EXCEPT PRODS. OF PETROLEUM & COAL	100.0	100.0	51.0	49.4	54.9	48.4
361	Pottery, china etc.	-	-	-	-	-	-
362	Glass and products	100.0	100.0	18.3	16.8	16.1	16.6
369	Other non-metallic mineral products	100.0	100.0	59.3	57.7	63.7	53.8
37	BASIC METAL INDUSTRIES	100.0	100.0	100.0	100.0	84.1	75.1
371	Iron and steel	-	-	-	-	0.0	0.0
372	Non-ferrous metals	100.0	100.0	100.0	100.0	100.0	100.0
38	MANUFACTURE OF FABRICATED METAL PRODUCTS MACHINERY AND EQUIPMENT	100.0	100.0	91.9	87.6	78.7	74.6
381	Metal products except mach & equipment	100.0	100.0	98.6	96.8	96.4	91.1
382	Non-electrical machinery	100.0	100.0	72.6	69.5	52.0	65.2
383	Electrical machinery	100.0	100.0	78.3	66.7	49.4	48.2
384	Transport equipment	-	-	-	-	-	-
385	Professional, scientific goods, etc.	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	100.0	100.0	100.0	100.0	100.0	100.0
3	MANUFACTURING : TOTAL	91.5	91.3	66.4	62.2	66.9	66.2

Source: Calculations are based on Tables C-25 and C-26, Appendix C.

Table (7-21) SYRIA, AVERAGE ANNUAL RATES OF GROWTH OF GROSS VALUE ADDED IN THE PUBLIC SECTOR INDUSTRY, SELECTED PERIODS 1963-1977, AT CONSTANT PRICES 1970=100 (PERCENTAGE)

ISIC Code	C a t e g o r y	1963-1966		1966-1970		1970-1975		1975-1977		1970-1977		1966-1977	
		1966	1970	1970	1975	1975	1977	1970	1977	1970	1977	1977	1977
31	FOOD, BEVERAGES AND TOBACCO												
311/2	Food manufacturing	4.1	5.4	5.7	5.7	6.9	6.1	5.8					
313	Beverages	-	34.5	2.1	5.4	5.4	3.0	13.5					
314	Tobacco	-	-28.0	33.1	15.2	15.2	27.7	3.6					
32	TEXTILE, WEARING APPAREL AND LEATHER												
321	Textiles	-1.4	-0.7	6.9	7.2	7.2	7.0	21.8					
322	Wearing apparel	-	5.2	5.1	23.7	23.7	10.1	8.2					
323	Leather products	-	0.0	3.5	24.2	24.2	10.2	8.3					
324	Footwear	-	-9.6	32.0	-6.5	-6.5	4.9	3.1					
33	WOOD AND WOOD PRODUCTS												
331	Wood and cork	-	12.9	-40.1	-	-	-	-					
332	Furniture and fixtures	-	12.9	-40.1	-	-	-	-					
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING												
341	Paper and Paper products	-	30.0	-	-	-	13.7	37.0					
342	Printing and publishing	-	30.0	-	-	-	13.7	37.0					
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS												
351/2	Chemical products	21.3	21.9	6.8	11.6	11.6	21.7	13.0					
353	Petroleum refinery	-	17.7	42.4	-18.6	-18.6	21.4	20.0					
354	Misc. products of petroleum & coal	11.4	22.8	2.4	23.8	23.8	8.1	13.3					
355	Rubber products, n.e.c.	-	72.6	-18.8	16.6	16.6	-10.0	14.1					
356	Plastic products, n.e.c.	-	-	1.1	-8.2	-8.2	-1.7	-					
36	NON-METALLIC MINERAL PRODUCTS												
361	Pottery, china, earthenware	-	7.2	-5.6	51.8	51.8	8.1	7.8					
362	Glass and glass products	-	1.0	0.0	-7.6	-7.6	-2.2	-1.1					
369	Other non-metallic mineral products	-	9.1	-7.5	69.0	69.0	9.9	9.6					
37	BASIC METAL INDUSTRIES												
371	Iron and steel basic industries	-	-	-	-41.0	-41.0	-	-					
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-					
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT												
381	Fabricated metal products except mach. & equipment	-	4.6	28.5	15.1	15.1	24.5	16.9					
382	Non-electrical machinery	-	29.4	9.5	102.3	102.3	30.4	30.1					
383	Electrical machinery, appliances	-	1.8	26.6	10.8	10.8	21.9	14.1					
384	Transport equipment	-	3.8	33.5	7.2	7.2	25.4	17.1					
385	Professional & scientific control equipment	-	-	-	-	-	-	-					
39	OTHER MANUFACTURING INDUSTRIES												
3	TOTAL MANUFACTURING	38.0	7.2	6.5	6.4	6.4	19.3	9.4	8.6				

Source: Calculations are based on Table C-12 Appendix C.

TABLE V-22. SYRIA, CONTRIBUTION TO MANUFACTURING VALUE ADDED GROWTH
BY INDUSTRIAL BRANCHES IN THE PRIVATE SECTOR INDUSTRY,
SELECTED PERIODS 1963-1977, AT CONSTANT PRICES 1970 = 100)
PERCENTAGES

ISIC Code	Category	1963-77	1963-77	1970-77
31	FOOD, BEVERAGES AND TOBACCO	20.4	21.1	20.7
311/2	Food manufacturing	18.7	20.0	19.3
313	Beverages	1.6	1.1	1.4
314	Tobacco	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	0.9	69.6	31.8
321	Textiles	-34.3	77.7	16.3
322	Wearing apparel	24.4	- 5.7	10.8
323	Leather products	- 1.0	- 0.7	-0.8
324	Footwear	7.0	- 1.7	3.1
33	WOOD AND WOOD PRODUCTS	15.7	4.7	10.7
331	Wood and cork	2.0	0.4	1.3
332	Furniture and fixtures	13.6	4.2	9.4
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	6.5	- 3.9	1.9
341	Paper and paper products	0.3	- 0.2	8.4
342	Printing and publishing	6.2	- 3.6	1.8
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	14.7	- 0.2	8.0
351/2	Chemical products	10.6	- 0.9	5.4
353	Petroleum refinery	-	-	-
354	Miscellaneous products of petroleum and coal	-	-	-
355	Rubber products, n.e.c.	1.1	1.3	1.2
356	Plastic products, n.e.c.	3.0	- 0.6	1.4
36	NON METALLIC MINERAL PRODUCTS	-7.6	15.2	2.7
361	Pottery, china, earthenware	-	-	-
362	Glass and glass products	-3.4	3.6	- 0.3
369	Other non-metallic mineral products	-4.2	-3.4	2.9
37	BASIC METAL INDUSTRIES	7.9	-5.6	1.8
371	Iron and steel basic industries	-	-	-
372	Non-ferrous metal basic industries	7.9	-5.6	1.8
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	39.4	-0.0	21.6
381	Fabricated metal products except machinery & equipment	30.0	1.6	17.2
382	Non-electrical machinery	4.8	-1.1	2.2
383	Electrical machinery, appliances	4.7	-0.6	2.3
384	Transport equipment	-	-	-
385	Professional and scientific control equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	2.0	-0.9	0.7
3	TOTAL MANUFACTURING	100.0	100.0	100.0

Source: Calculations are based on tables C-11 appendix C.

Table V.23 Syria, Gross Value Added in the Public Sector Industry at Constant Prices (1970=100), 1963-1977

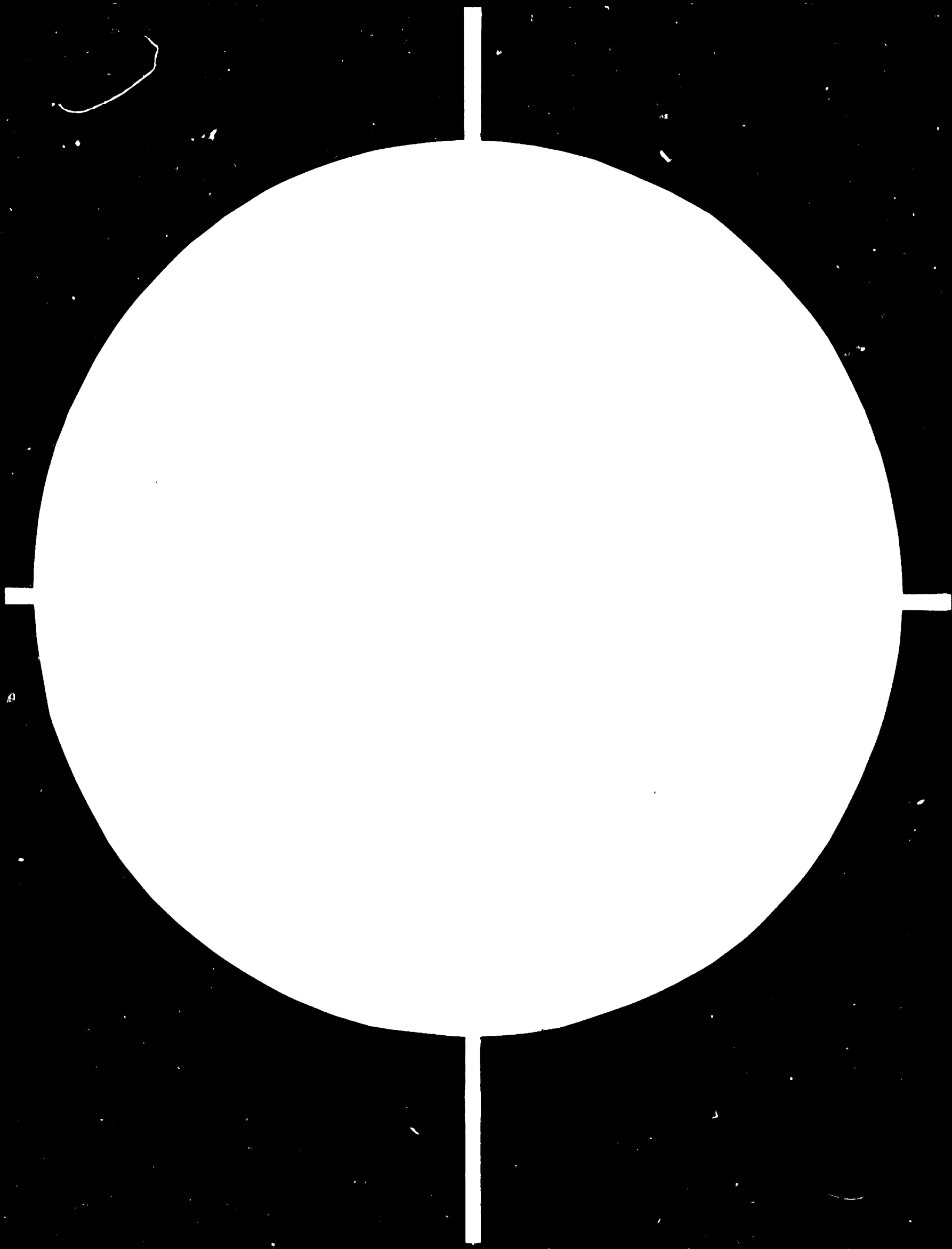
ISIC Code	Category	1963		1966		1970		1975		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
31	FOOD, BEVERAGES AND TOBACCO	125.2	87.9	141.4	38.0	174.5	35.6	230.5	34.0	263.3	28.7
311/2	Food manufacturing	-	-	17.4	4.7	57.0	11.6	63.5	9.3	70.3	7.6
313	Beverages	-	-	4.1	1.1	1.1	0.2	4.6	0.7	6.1	0.6
314	Tobacco	125.2	87.9	119.9	32.2	116.4	23.8	162.6	24.0	186.9	20.3
32	TEXTILE, WEARING APPAREL AND LEATHER	-	-	149.3	40.1	181.7	37.1	232.8	34.3	356.0	38.7
321	Textiles	-	-	144.4	38.8	177.0	36.1	226.0	33.3	348.6	37.9
322	Wearing apparel	-	-	4.3	1.2	4.3	0.9	5.1	0.8	6.0	0.7
323	Leather products	-	-	0.6	0.1	0.4	0.0	1.6	0.2	1.4	0.2
324	Footwear	-	-	-	-	-	-	-	-	-	-
33	WOOD AND WOOD PRODUCTS	-	-	1.6	0.4	2.6	0.5	0.2	0.0	- 1.7	0.2
331	Wood and cork	-	-	1.6	0.4	2.6	0.5	0.2	0.0	- 1.7	0.2
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	-	-	0.1	0.0	1.3	0.3	- 0.1	0.0	3.2	0.3
341	Paper and Paper products	-	-	0.1	0.0	1.3	0.3	- 0.1	0.0	3.2	0.3
342	Printing and publishing	-	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	17.3	12.1	30.9	8.3	68.3	13.9	95.1	14.0	118.4	12.9
351/2	Chemical products	-	-	2.6	0.7	5.0	1.0	29.3	4.3	19.4	2.1
353	Petroleum refinery	17.3	12.1	23.9	6.4	54.4	11.1	61.3	9.0	94.0	10.2
354	Misc. products of petroleum and coal	-	-	3.6	1.0	-	-	-	-	-	-
355	Rubber products, n.e.c.	-	-	0.8	0.2	7.1	1.4	2.5	0.4	3.4	0.4
356	Plastic products, n.e.c.	-	-	-	-	1.8	0.4	1.9	0.3	1.6	0.2

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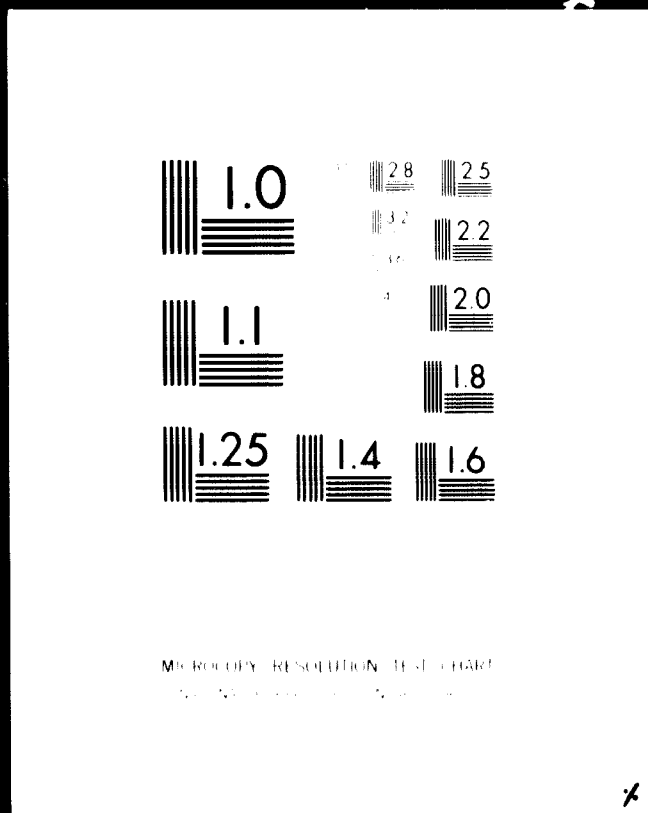


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Table V.26 Syria Gross Value Added in the Private Sector Industry at Constant Prices (1970=100) in selected years 1963-1977 (In Million S.L. & Percentage)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
31	FOOD, BEVERAGES AND TOBACCO	120.6	25.0	151.3	42.8	86.6	26.9	149.8	26.7	160.5	23.7
311/2	Food manufacturing	109.3	22.7	145.4	41.2	77.2	24.0	139.4	24.9	146.0	21.5
313	Beverages	11.3	2.3	5.9	1.6	9.4	2.9	10.4	1.8	14.5	2.1
314	Tobacco	-	-	-	-	-	-	-	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	216.4	44.9	124.6	35.3	104.5	32.6	165.5	29.5	218.1	32.2
321	Textiles	201.2	41.8	104.8	29.7	76.2	23.7	102.1	18.2	134.5	19.8
322	Wearing apparel	8.6	1.8	12.4	3.5	17.7	5.5	42.7	7.6	56.4	8.3
323	Leather products	3.5	0.7	2.6	0.7	4.7	1.5	7.9	1.4	10.3	1.5
324	Footwear	3.1	0.6	4.8	1.4	5.9	1.8	12.7	2.3	16.9	2.5
33	WOOD AND WOOD PRODUCTS	37.5	7.8	17.5	5.0	30.0	9.3	45.7	8.2	68.3	10.1
331	Wood and cork	3.2	0.7	3.0	0.8	2.5	7.8	4.0	0.7	7.2	1.1
332	Furniture and fixtures	34.3	7.1	14.4	4.1	27.5	8.6	41.7	7.4	61.1	9.0
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	3.0	0.6	5.2	1.5	9.2	2.9	12.0	2.1	15.8	2.3
341	Paper and Paper products	0.5	0.1	0.5	0.1	0.9	0.3	1.0	0.2	1.2	0.2
342	Printing and publishing	2.5	0.5	4.7	1.3	8.3	2.6	11.0	1.9	14.6	2.2
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	9.0	1.9	10.9	3.1	9.3	2.9	39.2	7.0	37.8	5.6
351/2	Chemical products	4.8	1.0	9.1	2.6	6.3	2.0	27.2	4.9	25.6	3.8
353	Petroleum refinery	-	-	-	-	-	-	-	-	-	-
354	Misc. products of petroleum and coal	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	4.1	0.9	1.5	0.4	2.0	0.6	6.4	1.1	6.2	0.9
356	Plastic products, n.e.c.	0.1	-	0.3	0.1	1.0	3.1	5.6	1.0	6.0	0.9

Table V.26 (Cont'd.) Syria Gross Value Added in the Private Sector Industry at Constant Prices (1970=100) in selected years 1963-1977 (In Million S.L. & Percentage)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
36	NON-METALLIC MINERAL PRODUCTS	40.3	8.4	11.3	3.2	15.9	4.9	22.6	4.0	25.4	3.7
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	8.1	1.7	2.4	0.7	2.3	0.7	1.8	0.3	1.4	0.2
369	Other non-metallic mineral products	32.2	6.7	8.9	2.5	13.6	4.2	20.8	3.7	24.0	3.5
37	BASIC METAL INDUSTRIES	4.4	0.9	5.2	1.5	13.4	4.2	19.2	3.4	19.9	2.9
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metal basic industries	4.4	0.9	5.2	1.5	13.4	4.2	19.2	3.4	19.9	2.9
38	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	49.4	10.3	25.6	7.2	49.5	15.4	101.2	18.1	126.7	18.7
381	Fabricated metal products except machinery & equipment	42.5	8.8	14.2	4.0	40.0	12.6	82.0	14.6	101.2	14.9
382	Non-electrical machinery	4.0	0.8	7.1	2.0	5.7	1.8	11.6	2.1	13.4	2.0
383	Electrical machinery, appliances	2.9	0.6	4.3	1.2	3.8	1.2	7.6	1.4	12.1	1.8
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	1.1	0.2	1.6	0.5	2.5	0.8	4.8	0.9	5.1	0.8
3	TOTAL MANUFACTURING	481.7	100.0	353.2	100.0	320.9	100.0	560.0	100.0	677.6	100.0

Source: Table C-11, Appendix C.

In terms of employment, the structure of the private sector manufacturing industry is shown in Table V.17.

Private manufacturing employed 131,328 workers in 1977. Two thirds of the employment was in two divisions: textile, wearing apparel and leather and the food and beverages. The number employed represent an increase of 6.2 percentage points over the 1966 level i.e. 66.8 per cent of the total as against 60.6 per cent. The respective employment share of each division was 42.1 and 24.7 per cent. In the textile, wearing apparel and leather division, textile industry alone provided 25.7 per cent of the total employment, while wearing apparel industry provided 10.7 per cent. The food industry provided 22.9 per cent of total employment.

The third largest industry in terms of employment in the private sector is the furniture and fixtures industry, which accounted for 11.5 per cent of the total in 1977. The fabricated metal products division ranks next by providing 8.7 per cent of the employment. The largest employer in this division is the metal products industry, which employed 5.4 per cent of the total in 1977. Finally, the non-metallic mineral products employed 4.4 per cent of the private sector manufacturing employment in 1977.

Labour Productivity in manufacturing

Labour productivity in this study is measured in terms of gross value added per worker and calculated by industry classes in total manufacturing and in the public and private sectors industries. These data along with their average annual growth rates for selected periods are presented in tables V.27 to V.32.

MVA per worker for manufacturing as a whole has increased from SL 6,470 in 1963 to SL 8,053 in 1977, or an average annual rate of growth of 1.6 per cent. The rate of growth in productivity has been due, exclusively to the increase in productivity during the period 1970-1977, an average annual rate of growth of 2.9 per cent compared to a growth in 1963-1970 that was not significantly greater than zero, 0.3 per cent.

TABLE V-27. SYRIA, AVERAGE ANNUAL GROWTH RATES OF GROSS VALUE ADDED PER WORKER IN OVERALL MANUFACTURING INDUSTRY, SELECTED PERIODS 1963-1977 AT CONSTANT PRICES 1970 = 100(PERCENTAGE)

ISIC Code	Category	1963-70	1970-77	1963-77
31	FOOD, BEVERAGES AND TOBACCO	-0.1	1.8	0.8
311/2	Food manufacturing	2.8	1.5	2.1
313	Beverages	-4.2	-4.0	-4.1
314	Tobacco	-4.6	4.2	-0.3
32	TEXTILE, WEARING APPAREL AND LEATHER	-7.2	2.1	-2.6
321	Textiles	-12.2	2.2	-5.3
322	Wearing apparel	11.3	5.0	8.1
323	Leather products	9.4	2.1	5.7
324	Footwear	1.0	4.6	2.8
33	WOOD AND WOOD PRODUCTS	3.6	4.7	4.2
331	Wood and cork	19.4	-5.0	6.5
332	Furniture and fixtures	1.0	6.1	3.5
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	22.0	1.8	11.5
341	Paper and paper products	20.6	2.0	10.9
342	Printing and publishing	22.0	1.7	11.4
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	17.4	1.6	9.2
351/2	Chemical products	17.1	8.6	12.8
353	Petroleum refinery	16.8	3.5	10.0
354	Miscellaneous products of petroleum and coal	-	-	-
355	Rubber products, n.e.o.	13.9	-4.9	4.1
356	Plastic products, n.e.c.	22.0	0.6	10.8
36	NON METALLIC MINERAL PRODUCTS	3.3	0.8	2.1
361	Pottery, china, earthenware	-	-	-
362	Glass and glass products	5.6	-5.2	0.1
369	Other non-metallic mineral products	2.6	1.5	2.0
37	BASIC METAL INDUSTRIES	3.1	-8.4	-2.8
371	Iron and steel basic industries	-	-	-
372	Non-ferrous metal basic industries	3.1	-6.0	-1.5
38	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	0.9	10.0	5.3
381	Fabricated metal products except machinery & equipment	-1.6	12.1	5.1
382	Non-electrical machinery	8.5	3.6	6.0
383	Electrical machinery, appliances	4.2	9.0	6.6
384	Transport equipment	-	-	-
385	Professional and scientific control equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	19.6	14.7	17.1
3	TOTAL MANUFACTURING	0.3	2.9	1.6

Source: Calculations are based on table C-28 appendix C.

TABLE V-28. SYRIA, GROSS VALUE ADDED PER WORKER IN OVERALL
MANUFACTURING INDUSTRY IN SELECTED YEARS 1963-1977
(SL THOUSAND AT CONSTANT PRICES 1970 = 100)

ISIC Code	Category	1963	1966	1970	1975	1977
31	FOOD, BEVERAGES AND TOBACCO	7.17	8.65	7.12	7.70	8.05
311/2	Food manufacturing	4.02	6.46	4.87	5.33	5.39
313	Beverages	13.10	10.19	9.73	8.53	7.30
314	Tobacco	20.10	15.66	14.45	16.87	19.24
32	TEXTILE, WEARING APPAREL AND LEATHER	9.98	7.44	5.90	5.14	6.83
321	Textiles	17.0	8.89	6.81	5.85	7.96
322	Wearing apparel	1.35	2.82	2.86	3.35	4.03
323	Leather products	1.49	2.40	2.80	2.92	3.21
324	Footwear	2.75	3.13	2.95	3.32	4.03
33	WOOD AND WOOD PRODUCTS	2.38	1.85	3.05	3.29	4.21
331	Wood and cork	0.88	2.92	3.04	2.64	2.13
332	Furniture and fixtures	2.83	1.65	3.05	3.41	4.61
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	2.08	4.35	8.39	6.71	9.53
341	Paper and paper products	2.79	3.00	10.38	0.67	11.90
342	Printing and publishing	1.98	4.62	7.98	8.03	8.99
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PROD.	4.33	12.55	13.29	14.48	14.87
351/2	Chemical products	1.79	8.96	5.40	12.95	9.64
353	Petroleum refinery	8.70	30.33	25.91	23.91	33.00
354	Miscellaneous products of petroleum & coal	-	-	-	-	-
355	Rubber products, n.e.c.	3.12	4.89	7.76	5.69	5.47
356	Plastic products, n.e.c.	1.47	5.08	5.91	9.67	6.17
36	NON METALLIC MINERAL PRODUCTS	5.62	6.46	7.06	5.47	7.49
361	Pottery, china, earthenware	-	-	-	-	-
362	Glass and glass products	4.38	7.71	6.42	5.45	4.43
369	Other non-metallic mineral products	6.05	6.14	7.22	5.48	8.00
37	BASIC METAL INDUSTRIES	7.09	3.73	8.79	6.54	4.77
371	Iron and steel basic industries	-	-	-	9.36	1.82
372	Non-ferrous metal basic industries	7.09	3.73	8.79	6.01	5.70
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	7.57	5.25	8.06	14.23	15.70
381	Fabricated metal prod. except mach. & equip.	7.66	2.43	6.86	10.74	15.27
382	Non-electrical machinery	6.27	14.12	11.10	18.40	14.24
383	Electrical machinery, appliances	7.59	10.14	10.10	21.11	18.47
384	Transport equipment	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	0.38	0.82	1.33	3.26	3.47
3	TOTAL MANUFACTURING	6.47	7.00	6.59	6.86	8.05

Source: Calculations are based on table C-10 appendix C.

In the 1970's, seven industries have the highest average productivity they include petroleum refining, tobacco, fabricated metal products, non-electrical machinery, electrical machinery, chemical products and printing and publishing. If one compares the best ten industries in 1963 and 1977, four of the above industries appear also in both years namely petroleum refining, tobacco, fabricated metal products and electrical machinery.

During the period under study, 1963-1977, negative growth or close to zero growth in productivity was recorded in five out of 21 branches; beverages, tobacco, textiles, glass and glass products, and non-ferrous metal industries. The number of industries with negative productivity in the 1963-1970 were four; beverages, tobacco, textiles and fabricated metal products and six in 1970-1977, beverages, wood and cork, rubber products, plastic products, glass products and non-ferrous metal industries.

Tables V.29 and V.30 summarize data on average productivity and their growth rates for the public sector. These data show that overall manufacturing and for most industries average productivity in the public sector is higher than the average productivity in the private sector, usually more than twice the level. In 1977 they were SL 13,600 for the public sector compared to SL 5,300 in the private sector.

Productivity gains in total manufacturing in the public sector averaged in terms of annual rate of growth of 2.4 per cent in the period 1966-1977, compared to a zero growth rate in the period 1966-1970 and a 3.8 per cent in 1970-1977.

Table V.31 and V.32 summarize average productivity and their growth rates for the private sector. MVA per worker decreased continuously from SL 5,410 in 1963 to SL 4,200 in 1970 and then rising in 1975 to SL 4,880 reaching in 1977 roughly the 1963 level of productivity SL 5,300.

TABLE V-29. SYRIA, AVERAGE ANNUAL GROWTH RATES OF MANUFACTURING
GROSS VALUE ADDED PER WORKER IN THE PUBLIC SECTOR
INDUSTRY SELECTED PERIODS 1966-77 AT CONSTANT PRICES
1970 = 100 (Percentages)

ISIC Code	Category	1966-70	1970-77	1966-77
31	FOOD, BEVERAGES AND TOBACCO	0.9	1.80	1.5
311/2	Food manufacturing	23.4	-2.00	6.6
313	Beverages	-64.2	11.00	-11.2
314	Tobacco	-1.9	4.12	1.1
32	TEXTILE, WEARING APPAREL AND LEATHER	-2.7	6.07	2.6
321	Textiles	-1.4	6.16	2.7
322	Wearing apparel	-2.6	-0.70	-1.2
323	Leather products	-7.5	15.71	6.7
324	Footwear	-	-	-
33	WOOD AND WOOD PRODUCTS	2.7	-11.81	-5.9
331	Wood and cork	2.7	-11.81	-5.9
332	Furniture and fixtures	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	75.5	1.33	23.7
341	Paper and paper products	75.5	1.33	23.7
342	Printing and publishing	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	1.9	-2.41	-0.9
351/2	Chemical products	5.9	12.15	9.5
353	Petroleum refinery	-4.0	3.54	0.8
354	Miscellaneous products of petroleum and coal	-	-	-
355	Rubber products, n.e.o.	8.8	-11.49	-4.8
356	Plastic products, n.e.o.	1.3	-1.60	-0.6
36	NON METALLIC MINERAL PRODUCTS	0.9	0.84	0.9
361	Pottery, china, earthenware	-	-	-
362	Glass and glass products	-4.4	-4.11	-4.4
369	Other non-metallic mineral products	1.1	0.63	1.3
37	BASIC METAL INDUSTRIES	-	-	-
371	Iron and steel basic industries	-	-	-
372	Non-ferrous metal basic industries	-	-	-
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	-7.4	4.52	0.2
381	Fabricated metal products except machinery & equipment	7.7	9.25	8.7
382	Non-electrical machinery	-6.0	3.79	0.3
383	Electrical machinery, appliances	-9.5	3.91	-0.9
384	Transport equipment	-	-	-
385	Professional and scientific control equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-
3	TOTAL MANUFACTURING	0	3.76	2.4

Source: Calculations are based on tables C-30 appendix C.

TABLE V-30 SYRIA, GROSS VALUE ADDED PER WORKER IN THE PUBLIC SECTOR INDUSTRY, SELECTED YEARS 1966-1977, SL THOUSAND AT CONSTANT PRICES 1970 = 100

ISIC Code	Category	1966	1970	1975	1977
31	FOOD, BEVERAGES AND TOBACCO	11.08	11.5	12.26	13.03
311/2	Food manufacturing	3.49	8.1	7.29	7.03
313	Beverages	45.07	6.2	9.70	12.89
314	Tobacco	15.63	14.5	6.01	19.24
32	TEXTILE, WEARING APPAREL AND LEATHER	9.31	8.2	8.59	12.39
321	Textiles	9.67	8.5	8.88	12.92
322	Wearing apparel	5.61	4.4	3.51	4.19
323	Leather products	2.27	1.7	6.02	4.72
324	Footwear	-	-	-	-
33	WOOD AND WOOD PRODUCTS	4.74	6.1	3.43	2.53
331	Wood and cork	4.74	6.1	3.43	2.53
332	Furniture and fixtures	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	2.36	22.4	-7.97	24.57
341	Paper and paper products	2.36	22.4	-7.97	24.57
342	Printing and publishing	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	17.18	18.5	11.29	15.60
351/2	Chemical products	6.75	8.2	33.33	18.3
353	Petroleum refinery	30.34	25.9	23.92	-
354	Miscellaneous products of petroleum and coal	-	-	-	-
355	Rubber products, n.e.c.	7.00	9.8	3.34	4.17
356	Plastic products, n.e.c.	6.75	7.1	7.23	6.34
36	NON METALLIC MINERAL PRODUCTS	9.44	9.8	6.69	10.39
361	Pottery, china, earthenware	-	-	-	-
362	Glass and glass products	7.01	5.9	5.27	4.39
369	Other non-metallic mineral products	10.59	11.7	7.43	12.23
37	BASIC METAL INDUSTRIES	-	-	9.39	1.79
371	Iron and steel basic industries	-	-	9.39	1.79
372	Non-ferrous metal basic industries	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	28.65	21.5	30.60	29.29
381	Fabricated metal products except machinery & equip.	10.33	13.9	15.49	25.82
382	Non-electrical machinery	30.78	24.4	29.29	31.66
383	Electrical machinery, appliances	31.49	21.9	35.51	28.64
384	Transport equipment	-	-	-	-
385	Professional and scientific control equipment	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-
3	TOTAL MANUFACTURING	10.49	10.5	10.96	13.6

Source: Calculations are based on tables C-12

TABLE V-31. SYRIA AVERAGE ANNUAL GROWTH RATES OF MANUFACTURES
GROSS VALUE ADDED PER WORKER IN 1967-77
THE PRIVATE SECTOR INDUSTRY, SELECTED PERIODS AT CONSTANT PRICES
1970 = 100 (Percentage)

ISIC Code	Category	1963-70	1970-77	1963-77
31	FOOD, BEVERAGES AND TOBACCO	-1.22	2.91	0.95
311/2	Food manufacturing	-0.66	3.52	1.41
313	Beverages	-3.23	-7.27	-5.27
314	Tobacco	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	-12.2	-0.14	-6.40
321	Textiles	-16.79	-2.28	-9.83
322	Wearing apparel	9.70	6.35	8.01
323	Leather products	10.62	0.47	5.42
324	Footwear	0.97	4.70	2.82
33	WOOD AND WOOD PRODUCTS	2.68	6.51	4.58
331	Wood and cork	12.63	9.89	11.25
332	Furniture and fixtures	11.04	6.23	3.6
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	20.48	1.44	10.55
341	Paper and paper products	11.42	-2.49	4.23
342	Printing and publishing	21.77	1.91	11.39
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	9.69	10.08	9.88
351/2	Chemical products	13.07	12.80	12.93
353	Petroleum refinery	-	-	-
354	Miscellaneous products of petroleum and coal	-	-	-
355	Rubber products, n.e.c.	5.08	5.76	5.42
356	Plastic products, n.e.c.	19.54	4.59	11.81
36	NON METALLIC MINERAL PRODUCTS	-3.83	0.30	-1.79
361	Pottery, china, earthenware	-	-	-
362	Glass and glass products	11.02	-8.92	0.56
369	Other non-metallic mineral products	- 5.99	1.71	-2.22
37	BASIC METAL INDUSTRIES	3.07	-6.04	-1.59
371	Iron and steel basic industries	-	-	-
372	Non-ferrous metal basic industries	3.07	-6.04	-1.59
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	-2.81	8.69	2.78
381	Fabricated metal products except machinery & equipment	-1.93	11.63	4.63
382	Non-electrical machinery	-2.31	-0.97	-1.64
383	Electrical machinery, appliances	-8.39	9.03	-0.06
384	Transport equipment	-	-	-
385	Professional and scientific control equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	19.21	15.10	17.14
3	TOTAL MANUFACTURING	-3.55	3.38	-0.15

Source: Calculations are based on tables C-29.

TABLE V-32. SYRIA, MANUFACTURING GROSS VALUE ADDED PER WORKER IN THE PRIVATE SECTOR INDUSTRY IN SELECTED YEARS 1963-1977 (SL THOUSAND AT CONSTANT PRICES 1970 = 100)

ISIC Code	Category	1963	1966	1970	1975	1977
31	FOOD, BEVERAGES AND TOBACCO	4.36	7.13	4.0	4.89	4.98
311/2	Food manufacturing	3.98	7.28	3.8	4.73	4.84
313	Beverages	13.09	6.68	10.4	8.09	6.13
314	Tobacco	-	-	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	9.99	6.97	4.0	3.27	3.96
321	Textiles	17.02	7.99	4.7	3.33	4.00
322	Wearing apparel	1.36	2.39	2.6	3.33	4.00
323	Leather products	1.48	2.50	3.0	2.63	3.10
324	Footwear	2.71	3.22	2.9	2.75	4.00
33	WOOD AND WOOD PRODUCTS	2.41	1.72	2.9	3.28	4.51
331	Wood and cork	0.87	2.42	2.0	2.34	3.87
332	Furniture and fixtures	2.79	1.61	3.0	3.39	4.58
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	2.09	4.42	7.7	7.61	8.51
341	Paper and paper products	2.72	3.04	5.8	4.70	4.86
342	Printing and publishing	1.99	4.62	7.9	8.03	9.02
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	2.25	7.09	4.3	10.20	8.42
351/2	Chemical products	1.82	9.91	4.3	10.81	9.99
353	Petroleum refinery	-	-	-	-	-
354	Miscellaneous products of petroleum & coal	-	-	-	-	-
355	Rubber products, n.e.c.	3.11	2.91	4.4	7.89	6.51
356	Plastic products, n.e.c.	1.29	3.08	4.5	10.80	6.16
36	NON METALLIC MINERAL PRODUCTS	5.65	3.58	4.3	4.48	4.39
361	Pottery, china, earthenware	-	-	-	-	-
362	Glass and glass products	4.33	10.73	9.0	6.40	4.68
369	Other non-metallic mineral products	6.01	3.00	3.9	4.37	4.39
37	BASIC METAL INDUSTRIES	7.12	3.79	8.8	5.98	5.69
371	Iron and steel basic industries	-	-	-	-	-
372	Non-ferrous metal basic industries	7.12	3.79	8.8	5.98	5.69
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	7.57	3.20	6.2	9.82	11.11
381	Fabricated metal prod. except mach. & equip.	7.57	2.31	6.6	10.58	14.26
382	Non-electrical machinery	6.21	7.83	5.3	8.36	4.95
383	Electrical machinery, appliances	7.57	4.27	4.1	6.37	7.51
384	Transport equipment	-	-	-	-	-
385	Professional and scientific control equip.	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	0.38	0.85	1.3	3.23	3.48
3	TOTAL MANUFACTURING	5.41	4.93	4.2	4.88	5.30

Source: Calculations are based on tables C-11.

Table V.23 (Cont'd..) Syria, Gross Value added in the Public Sector Industry at Constant Prices
(1970-100), 1963-1977 (Million S.L. & Percentage)

ISIC Code	Category	1963		1966		1970		1975		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
36	NON-METALLIC MINERAL PRODUCTS	-	-	28.2	7.6	37.2	7.6	27.8	4.1	64.1	7.0
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	-	-	7.2	1.9	7.5	1.5	7.5	1.1	6.4	0.7
369	Other non-metallic mineral products	-	-	21.0	5.6	29.8	6.1	20.2	3.0	57.7	6.3
37	BASIC METAL INDUSTRIES	-	-	-	-	-	-	5.7	0.8	2.0	0.2
371	Iron and steel basic industries	-	-	-	-	-	-	5.7	0.8	2.0	0.2
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	-	-	20.5	5.5	24.5	5.0	85.8	12.7	113.7	12.4
381	Fabricated metal products except mach. and equipment	-	-	1.0	0.2	2.8	0.6	4.4	0.7	18.0	2.0
382	Non-electrical machinery	-	-	10.7	2.9	11.5	2.3	37.4	5.5	45.9	5.0
383	Electrical machinery, appliances	-	-	8.8	2.4	10.2	2.1	43.3	6.4	49.8	5.4
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	142.5	100.0	372.0	100.0	490.1	100.0	674.2	100.0	919.0	100.0

Source: Table C-12, Appendix C.

With respect to growth in productivity during the period under study, there was no gain in productivity, actually recording a small negative annual growth rate, -0.15 per cent. This was due to the negative average annual growth in productivity, -3.6 per cent recorded for the period 1963-1970. Only in 1970 - 1977, did the private sector record productivity gains, an average annual rate of growth equal to 3.4 per cent. This rate is only marginally lower than the comparable rate for the public sector.

CHAPTER VI
FOREIGN TRADE IN MANUFACTURING INDUSTRY

Introduction.

The purpose of this chapter is to analyse the structure and growth trends in the exports and imports of industrial commodities, in order to determine the degree of dependency of manufacturing industry on the rest of the world. The analysis will be restricted mainly to the 1973-1977 period for which trade data classification by ISIC is available^{1/}

It is useful, however, to start the analysis by examining total exports and imports of Syria classified according to the nature and utilization of products. Such a classification for exports in selected years (1964-1977) is presented in Table(VI.1). It is evident from the data in the table that the bulk (over 80 per cent) of Syria's exports consist of raw materials. The exports of finished products represent about 9 per cent only, and do not seem to show any trends over time. Their share of total exports has fluctuated within a narrow range of 8.1 to 9.9 per cent. The exports of semi-finished products have been declining as their share of total exports has dropped from 7.6 per cent in 1964 to 3.4 per cent in 1977.

When Syrian exports are classified according to the utilization of products, the evidence in the table indicates that the bulk of these exports are for intermediate consumption. Furthermore, there seems to be an increasing trend in that direction, as the share of these exports has increased from 87.2 per cent in 1964 to 90.5 per cent in 1977. In contrast, the exports of goods for final consumption do not only represent a small proportion of total exports, but their share has also been declining, it fell from 12.2 per cent in 1964 to 6.9 per cent in 1977.

^{1/} Prior to 1973, the only trade classification available was according to ISIC.

Table No. (VI.1) Distribution of Exports by Nature and Utilization of Items in Selected Years.
(Values in SL Million at Current Prices)

Nature of Items	1964		1966		1970		1975		1977	
	Value	Percent-	Value	Percent-	Value	Percent-	Value	Percent-	Value	Percent-
Raw materials	566	84.2	527	79.7	697	82.2	3 054	88.8	3 639	86.7
Finished products	55	8.2	62	9.4	71	9.2	279	8.1	416	9.9
Semi-finished products	51	7.6	72	10.9	67	8.6	108	3.1	144	3.4
Total Exports	672	100.0	661	100.0	775	100.0	3 441	100.0	4 199	100.0
Utilization of Items										
Final consumption	82	12.2	83	12.6	114	14.7	245	7.1	291	6.9
Intermediate consumption ⁴	586	87.2	570	86.2	658	84.9	3 159	91.8	3 799	90.5
Fixed assets	4	0.6	8	1.2	3	0.4	37	1.1	109	2.6
Total Exports	672	100.0	661	100.0	775	100.0	3 441	100.0	4 199	100.0

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1970, 1977.

Similar data on imports is presented in table (VI.2). The data show that when imports are viewed according to the nature of product, the imports of finished products seem to be the largest, and that they follow an increasing trend. The share of such imports has increased from 45.2 per cent in 1964 to 51.5 per cent in 1977. An upward trend has also been exhibited in the imports of semi-finished products whose share has increased from 28.6 per cent in 1964 to 31.5 per cent in 1977. However, the imports of raw materials have been declining as their share of total imports has dropped from 26.2 per cent in 1964 to 17 per cent in 1977.

When imports are viewed in terms of product utilization, the evidence in Table (VI.2) shows that the imports of goods for intermediate consumption represent over 50 per cent of the total. However, the trend has been declining as the share of such imports has fallen from 54.4 per cent in 1966 to 52 per cent in 1977. The imports of goods for final consumption have exhibited a systematic decline over time. Their share of the total imports has dropped from 28.4 per cent in 1964 to 13.6 per cent in 1977. Finally, the imports of capital goods which accounted for 17 per cent in 1964, have increased recently their share to 34.4 per cent in 1977, respectively. These trends confirm with similar trends observed in developing countries. Naturally, the early stages of Syria's industrial development is associated with a growing dependency on the rest of the world for imports of goods for intermediate consumption and capital goods. Furthermore, with the increasing volume and diversity of local production, import substitution in the goods for final consumption has been taking place which has reduced the share of such imports in the total.

The structure of industrial commodity exports.

Manufacturing industry share in total exports has exhibited a significant increase recently. For while industrial exports accounted for 29 per cent of total exports in 1973, they have dropped to a low of 13.6 per cent in 1974 as a result of the 1973 war. However, industrial exports picked up as of 1975

Table No. (VI.2) Distribution of Imports by Nature and Utilization of Items in Selected Years.
(Values in \$1 Million at Current Prices)

	1 9 6 4		1 9 6 6		1 9 7 0		1 9 7 5		1 9 7 7	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
<u>Nature of Items</u>										
Raw materials	235	26.2	272	24.7	366	26.8	695	11.3	1 785	17.0
Finished products	405	45.2	479	43.5	551	40.3	2 902	47.0	5 409	51.5
Semi-finished products	256	28.6	350	31.8	442	32.9	2 576	41.7	3 303	31.5
Total Imports	896	100.0	1 101	100.0	1 366	100.0	6 173	100.0	10 497	100.0
<u>Utilization of Items</u>										
Final consumption	255	28.4	274	24.9	331	24.2	1 073	17.4	1 427	13.6
Intermediate consumption	487	54.4	676	61.4	793	58.1	3 310	54.6	5 459	52.0
Fixed assets	154	17.2	151	13.7	242	17.7	1 790	29.0	3 611	34.4
Total Imports	896	100.0	1 101	100.0	1 366	100.0	6 173	100.0	10 497	100.0

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1970, 1977.

and continued to increase until their share became 36.4 per cent in 1977. The value of exports at current prices by industries and their percentages of the total for the period 1973-77 are presented in Table(VI.3).

Two industries account for the bulk of industrial exports. These are the textiles, wearing apparel and leather and the food, beverages and tobacco. In 1973, they exported 87.5 per cent of the total industrial exports. The textiles industry alone accounted for 40.5 per cent. The food products industry accounted for 32.2 per cent, while the tobacco industry accounted for 9 per cent. The fabricated metal products and machinery contributed 6.4 per cent.

The structure of industrial exports has changed somewhat over the 1973-77 period. The textile industry has increased its share significantly as it accounted for 63.4 per cent of total exports in 1977. The main export commodity of this industry is ginned cotton, which is also the second most important export commodity of Syria^{1/}. Ginned cotton exports in 1977 amounted to SL 848.6 million, which represent 55.4 per cent of industrial exports and 20.2 per cent of the country's exports.

The second noticeable change, has been the systematic decline in the share of the food, beverages and tobacco which reached a low of 12.4 per cent in 1977, down from 41.4 per cent in 1973. This is primarily due to the declining shares of the food products and tobacco industries. Thus, although the exports of food products have increased in value over their 1973 level, their share in the total for manufacturing has decreased to 12 per cent in 1977. The tobacco industry exports, on the other hand, have dropped sharply from SL 35 million in 1963 to about SL 2 million in 1977, which reduced the industry's share to 0.1 per cent. This is perhaps due to an increase in the local demand which have left a little surplus for exports.

^{1/} The first major export commodity of Syria is crude oil. Its exports amounted to SL 2,436 million in 1977, or 58 per cent of total value of Syrian exports.

Table No. (VI.3) Value of Exports and Percentages According to ISIC for the period 1973-77 (Values in SL Million at Current Prices)

ISIC Code	Category	1973		1974		1975		1976		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
31	MANUFACTURE OF FOOD, BEVERAGES AND TOBACCO										
311/2	Food products	161.3	41.4	151.9	38.4	137.7	15.3	216.5	16.0	190.1	12.4
313	Beverages	125.5	32.2	98.9	25.0	92.9	10.3	160.1	11.8	183.4	12.0
314	Tobacco	0.9	0.2	0.7	0.2	1.1	0.1	5.2	0.4	4.8	0.3
		37.9	9.0	52.3	13.2	43.7	4.9	51.2	3.8	1.9	0.1
32	TEXTILES, WEARING APPAREL AND LEATHER										
321	Textiles	179.7	46.1	185.3	47.0	548.4	72.1	888.7	65.4	1,021.9	66.8
322	Wearing apparel	157.9	40.5	150.6	40.8	615.1	68.4	837.2	61.6	969.5	63.4
323	Leather products	17.1	4.4	19.8	5.0	26.0	2.9	40.0	2.9	38.2	2.5
324	Footwear	3.3	0.8	2.5	0.6	4.5	0.5	5.8	0.4	8.0	0.5
		1.4	0.4	2.4	0.6	2.8	0.3	5.7	0.4	6.1	0.4
33	WOOD AND WOOD PRODUCTS										
331	Wood and cork	4.7	1.2	4.3	1.0	3.9	0.4	7.5	0.6	17.4	0.9
332	Furniture and fixtures	2.9	0.7	2.3	0.6	1.6	0.2	2.9	0.2	5.2	0.3
		1.9	0.5	1.9	0.4	2.2	0.2	4.6	0.4	9.3	0.6
34	PAPER, PAPER PRODS., PRINTING & PUBLISHING										
341	Paper and paper products	1.3	0.3	1.8	0.4	2.2	0.2	2.1	0.2	2.1	0.1
342	Printing and publishing	1.0	0.2	1.3	0.3	1.9	0.2	1.2	0.1	1.1	0.1
		0.3	0.1	0.6	0.1	0.3	0.2	1.0	0.1	0.9	0.1
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.										
351	Industrial Chemicals	7.1	1.8	8.4	2.0	55.1	6.2	111.2	8.2	126.4	8.4
352	Other chemical products	1.7	0.4	1.8	0.4	4.1	0.5	3.3	0.2	2.7	0.2
353	Petroleum refineries	4.1	1.0	4.4	1.1	6.2	0.7	5.1	0.4	5.8	0.4
354	Misc. Petroleum, coal products	0.4	0.1	0.4	0.1	42.6	4.7	93.7	6.9	108.0	7.1
355	Rubber products	-	-	-	-	-	-	-	-	-	-
356	Plastic products n.e.c.	1.0	0.2	1.5	0.3	1.7	0.2	2.3	0.1	2.4	0.2
		0.3	0.1	0.3	0.1	0.6	0.1	6.9	0.5	7.5	0.5
36	NON-METALLIC MINERAL PRODUCTS										
361	Pottery, china, etc.	4.8	1.2	8.0	2.0	4.1	0.5	19.3	1.4	29.6	1.9
362	Glass and products	-	-	-	-	-	-	-	-	-	-
369	Other non-metallic mineral products	4.7	1.2	7.9	2.0	2.9	0.4	2.8	0.2	2.5	0.2
		0.11	0.0	0.1	-	1.1	0.1	16.5	1.2	27.1	1.8
37	BASIC METAL INDUSTRIES										
371	Iron and steel	1.1	0.3	1.2	0.3	0.4	0.1	8.7	0.7	2.8	0.2
372	Non-ferrous metals	0.1	0.0	0.3	-	0.4	0.0	7.1	0.5	2.3	0.2
		1.1	0.3	0.9	-	0.0	0.0	4.6	-	0.5	0.0
38	FABRICATED METAL PRODS., MACH & EQUIPMENT										
381	Metal prods. except mach & equipment	24.8	6.4	30.1	7.7	44.8	5.0	98.3	7.2	139.4	9.1
382	Non-electrical machinery	8.8	2.4	9.5	2.4	9.0	1.0	21.4	1.6	32.8	2.2
383	Electrical machinery	3.5	0.9	4.6	1.2	6.0	0.7	18.6	1.4	15.4	1.0
384	Transport equipment	2.5	0.6	1.8	0.4	1.9	0.2	3.5	0.2	5.2	0.3
385	Professional, scientific goods, etc.	9.3	2.4	13.7	3.5	27.0	3.0	54.3	4.0	85.5	5.6
		0.8	0.2	0.8	0.2	1.0	0.1	0.6	-	0.5	0.0
39	OTHER MANUFACTURING INDUSTRIES										
3	MANUFACTURING : TOTAL	5.0	1.3	4.7	1.2	3.1	0.3	5.5	0.4	3.1	0.2
-	Total Exports	389.8	100.0	395.9	100.0	899.6	100.0	1,357.9	100.0	1,529.8	100.0
-	Percentage of manufactured exports to total exports	1	341.0	2	914.0	3	441.0	4	199.0	36.4	
		29.1		13.6		26.1		33.3			

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-1977.

The third noticeable change in the structure of industrial exports in the increase in the share of the fabricated metal products and machinery. The value of exports of their products have increased from SL 25 million in 1973 to SL 139 million in 1977, thus raising their share of industrial exports from 6.4 to 9.1 per cent.

Finally, the share of the petroleum refining industry has increased sharply to 7.1 per cent in 1977, up from 0.1 per cent in 1973. This is primarily due to the sharp increase in the prices of oil products since 1973 and to the increase in the refining capacity which have resulted with a larger surplus for exports in some oil products.

Growth of industrial commodity exports.

Over the period 1973-77 industrial exports have exhibited an impressive increase of 400 per cent. This represents an average annual rate of growth of 40.7 per cent. Average annual rates of growth of exports by industry groups have been computed for the entire period and for the two sub-periods 1973-75 and 1975-77. The results are shown in Table (VI.4). The analysis, however, will be restricted to the growth over the entire period.

The highest rate of growth has been in the exports of the chemicals, petroleum, coal, rubber and plastics products which averaged 105 per cent annually. This increase has been due to the high rates of growth in the exports of the petroleum and plastics products which averaged 310 and 126 per cent per year, respectively.

The second highest rate of growth in exports of 57.7 per cent was obtained by the non-metallic mineral products division. This was primarily the result of increases in exports of the other non-metallic mineral products industry eg. asbestos pipes and sheets, porcelain and bathroom accessories since 1976, which have pushed the average annual rate of growth of the industry's exports to 296 per cent.

Table No. (VI.A) Geometric Mean Annual Rates of Growth of Industrial Exports by ISIC for Selected Periods (Percentages)

ISIC Code	Category	Annual Rates of Change			Geometric Mean Rates of Growth		
		1973-74	1974-75	1975-76	1973-74	1974-75	1975-76
31	FOOD, BEVERAGES AND TOBACCO	-5.83	-9.35	57.24	-12.20	-7.61	17.50
311/2	Food products	-21.22	-6.12	72.39	-14.60	-14.00	40.56
313	Beverages	-20.93	61.76	376.36	-8.78	-45.01	108.46
314	Tobacco	49.93	-16.38	17.38	-96.33	11.97	-79.27
32	TEXTILE, WEARING APPAREL & LEATHER	3.12	249.98	37.06	14.99	89.97	25.54
321	Textiles	1.72	283.04	36.11	15.80	97.39	25.54
322	Wearing apparel, excluding footwear	15.68	31.46	53.79	-4.33	23.32	21.30
323	Leather and products	-23.24	78.88	28.95	38.00	17.18	33.40
324	Footwear	68.31	15.90	104.69	7.58	39.67	48.39
33	WOOD AND WOOD PRODUCTS	-9.77	-9.18	95.08	91.77	-9.48	93.42
331	Wood and cork	-18.88	-29.31	76.83	78.62	-24.27	77.72
332	Furniture and fixtures	4.32	15.03	108.56	100.00	9.54	104.24
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	45.24	20.77	-4.52	-1.90	32.44	-3.22
341	Paper and products	34.74	50.00	-39.58	-1.72	42.17	-22.94
342	Printing and publishing	77.42	-47.27	227.59	-2.11	-3.28	79.07
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	18.09	554.39	101.89	13.66	177.99	51.48
351	Industrial chemicals	23.94	130.68	-17.98	-20.12	69.09	-19.06
352	Other chemical products	8.13	41.23	-17.90	13.16	23.58	-3.61
353	Petroleum refineries	13.16	9 813.95	119.70	15.34	959.18	59.19
354	Misc. petroleum, coal products	-	-	-	-	-	-
355	Rubber products	53.06	10.67	35.54	8.44	30.15	21.24
356	Plastic products n.e.c.	17.24	61.76	1 156.34	9.12	37.71	270.26
36	NON-METALLIC MINERAL PRODUCTS	67.85	-49.38	375.18	53.21	-7.82	169.82
361	Pottery, china, etc.	-	-	-	-	-	-
362	Glass and products	68.80	-62.78	-4.08	-10.99	-20.74	-7.60
369	Other non-metallic mineral products	27.27	707.14	1 361.95	64.16	220.51	389.89
37	BASIC METAL INDUSTRIES	5.26	-65.00	1 973.81	-68.43	-39.30	155.87
371	Iron and steel	300.00	18.75	981.58	-44.28	117.94	145.49
372	Non-ferrous metals	-16.98	-95.45	11 400.00	-90.00	-80.56	239.12
38	FABRICATED METAL PRODUCTS EXCEPT MACH & EQUIP.	22.11	47.59	119.75	41.74	34.25	76.49
381	Metal products, except mach and equipment	7.63	-4.76	137.44	53.67	1.25	91.02
382	Non-electrical machinery	32.08	30.20	212.10	-17.02	31.14	60.93
383	Electrical machinery	-26.61	2.75	86.63	48.42	-13.16	66.43
384	Transport equipment	47.84	96.57	101.26	57.50	70.47	78.04
385	Professional, scientific goods, etc.	-8.43	26.32	-34.38	-25.40	7.55	-30.03
39	OTHER MANUFACTURING INDUSTRIES	-6.99	-32.83	74.76	-43.51	-20.96	-0.64
3	MANUFACTURING : TOTAL	1.55	127.25	50.94	12.65	51.91	30.40

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-1977.

The textile, wearing apparel, and leather products exhibited the third highest growth rate of 54.4 per cent. The exports of all these industries demonstrated growth rates of more than 20 per cent annually. However, those of the textiles and footwear industry were the highest. Their exports grew at an average annual rate of 57.4 and 44 per cent, respectively.

Exports of the fabricated metal products and machinery have grown by an impressive average annual rate of 54 per cent. Finally, of the remaining industries, iron and steel had a very high rate of growth in exports that reached 131 per cent annually.

Industrial exports and industrial production

Syria's industrial exports are beginning to represent a significant proportion of industrial production. In 1973 only 11 per cent of the value of industrial output was exported. However, in 1977, the percentage increased to one fifth. The percentages of industrial exports to their corresponding values of output at current prices for the various industries in selected years are presented in table VI.5.

Three industries have been exporting an increasing proportion of their output. Perhaps the most outstanding of these are textile, wearing apparel and leather. They managed to export over one third (36 per cent) of the value of their output in 1977, up from 13.7 per cent in 1973. This was primarily the result of the textiles industry's ability to export 40.4 per cent of the value of its output in 1977, compared to just 13.8 per cent in 1973.

The fabricated metal products and machinery industries have doubled the export proportion of their output over the period 1973-1977, increasing from 11.6 to 19.5 per cent. Two industries have essentially contributed to the increase in exports; the metal products except machinery and the non-electrical machinery industries.

fiber plants in addition to the wool plant have already begun production in 1978. In the wearing apparel industry three plants have been under construction, two of which for men's and women's ready made clothing started production in 1978. In the leather industry, two large leather tanning complexes have been constructed, and started production in 1978. For the first time, the public sector entered the footwear industry for the first time when five plants have been completed in 1978.

The food products industry is the second largest in the public sector, MVA accounted for 28.7 per cent of the public sector manufacturing output in 1977. Three main branches within this industry produced over two thirds of its output in 1977. These were: grain mill products, vegetable and animal oils and sugar refining.

The public sector has been expanding in the various branches of the food products industry. In canning and preserving branch, five canned food plants are under construction, two of which began operation in 1978. This is in addition to an onion and vegetables drying plant, and a nuts grading and packaging plant which were completed in the early seventies. In the grain mill products industry branch, thirteen new grain mills have been constructed. In the bakery products branch, six automatic bakeries have been constructed and began production in 1977 and 1978, in addition to a spaghetti plant which was completed in 1978. In the sugar refining branch, four sugar plant projects are under construction and are expected to be completed before 1980. Furthermore, a yeast plant at the Hons sugar refinery has also been completed.

In tobacco and beverages industries, two plants for spring water bottling were completed in 1977, and a new beer plant began production in 1978. Two new cigarettes plants have also been constructed.

The third largest industrial division in the public sector is the chemicals, petroleum, coal, rubber and plastic products division. MVA amounted to SL 118.4 million; or 12.9 per cent of total manufacturing in 1977. But by far the largest industry in this division is petroleum refining which produced 79.4 per cent of the

Table(VI.5) Value of Exports to Value of Output According to ISIC in Selected Years (Per cent)

ISIC Code	Category	1973	1975	1977
31	MANUFACTURE OF FOOD, BEVERAGES AND TOBACCO	<u>14.2</u>	<u>9.2</u>	<u>9.6</u>
311/2	Food Products	14.8	8.1	12.5
313	Beverages	2.4	2.2	5.4
314	Tobacco	17.3	14.5	0.4
32	TEXTILE, WEARING APPAREL AND LEATHER	<u>13.7</u>	<u>35.4</u>	<u>36.0</u>
321	Textiles	13.8	39.6	40.4
322	Wearing apparel, excluding footwear	16.1	14.9	13.9
323	Leather products	8.0	7.6	8.8
324	Footwear	5.3	6.3	8.5
33	MANUFACTURE OF WOOD PRODUCTS INCLUDING FURNITURE	<u>3.7</u>	<u>1.3</u>	<u>3.8</u>
331	Wood and wood products excluding furniture	11.3	3.3	8.2
332	Furniture and fixtures	1.7	0.9	2.9
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	<u>3.6</u>	<u>3.9</u>	<u>2.1</u>
341	Paper and products	0.8	11.3	3.5
342	Printing and publishing	1.3	0.7	1.5
35	MANUFACTURE OF CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	<u>1.8</u>	<u>9.7</u>	<u>12.4</u>
351	Industrial Chemicals	15.8	9.0	8.9
352	Other chemical products	5.5	4.5	2.9
353	Petroleum refineries	0.1	13.4	15.5
354	Miscellaneous products of petroleum and coal	-	-	-
355	Rubber products	4.1	4.0	4.6
356	Plastic products n.e.c.	2.0	2.1	19.2
36	NON METALLIC MINERAL PRODUCTS	<u>3.3</u>	<u>1.2</u>	<u>7.6</u>
361	Pottery, China etc.	-	-	-
362	Glass and products	21.3	8.3	5.3
369	Other non-metallic mineral products	0.1	0.6	7.9
37	BASIC METAL INDUSTRIES	<u>0.9</u>	<u>0.2</u>	<u>1.1</u>
371	Iron and steel	0.2	0.4	2.0
372	Non-ferrous metals	1.3	0.0	0.3
38.	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	<u>11.6</u>	<u>10.0</u>	<u>19.5</u>
381	Metal products, excluding machinery and equipment	7.8	4.5	10.2
382	Non-electrical machinery	6.2	4.3	7.4
383	Electrical machinery	5.4	1.7	2.8
384	Transport equipment	-	-	-
385	Professional and scientific control equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	<u>50.1</u>	<u>16.5</u>	<u>12.6</u>
3	MANUFACTURING TOTAL	<u>11.2</u>	<u>17.4</u>	<u>19.9</u>

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-1977

The chemicals, petroleum, coal, rubber and plastics industries have exported 12.4 per cent of the value of their output in 1977, up from 1.8 per cent in 1973. Two industries have contributed to this increase, the petroleum refining and the plastic products industries whose exports accounted for 15.5 and 19.2 per cent of the value of their output respectively in 1977.

Finally, it should be noted that the other non-metallic mineral products industries have increased their exports in relation to output from 3.3 per cent in 1973 to 7.6 per cent in 1977.

Some industries, on the other hand, have been exporting a decreasing proportion of their output. The most noticeable among these industries are the tobacco, wearing apparel, wood, paper products, industrial chemicals, other chemical products, glass and the electrical machinery industries.

The structure of industrial commodity imports.

The imports of Syria consist mainly of industrial commodities of various types. The proportion of industrial commodity to total imports has reached as high as 91 per cent in 1974, but has more recently declined a little to 84 per cent in 1977. The value of imports at current prices by industry groups and their percentages of the total for the period 1973-77 are presented in table VI.6

The bulk of the industrial imports of Syria consist of fabricated metal products and machinery. Such products accounted for about one third (31.4 per cent) of the industrial imports in 1973, and have increased to 48.3 per cent in 1977. The non-electrical machinery alone accounted for 18.4 per cent of industrial imports, while the metal products and electrical and non-electrical machinery accounted for 27.4 per cent in 1977.

The imports of chemical, petroleum and rubber products come second in importance accounting for 19 per cent of total industrial imports. The

Table No. (VI.6) Value of Imports and Percentages According to ISIC for the Period 1973-77 (Values in SL Million at Current Prices).

ISIC Code	C a t e g o r y	1973		1974		1975		1976		1977	
		Value	%	Value	%	Value	%	Value	%	Value	%
31	FOOD, BEVERAGES AND TOBACCO	438.4	21.5	934.7	21.7	916.9	17.6	988.0	15.1	830.3	9.4
311/2	Food products	412.1	20.2	937.3	22.6	899.2	116.2	871.7	13.3	786.1	8.9
313	Beverages	2.5	0.1	5.1	0.1	7.5	0.1	12.7	0.2	9.3	0.1
314	Tobacco	23.8	1.2	42.4	1.0	70.3	1.3	103.7	1.6	34.9	0.4
32	TEXTILE, WEARING APPAREL & LEATHER	105.7	5.2	161.0	3.9	228.0	4.1	287.7	4.4	381.1	4.3
321	Textiles	103.3	5.1	155.2	3.7	218.1	3.9	271.0	4.1	359.2	4.1
322	Wearing apparel, except footwear	1.7	0.1	3.1	-	6.8	0.1	13.1	0.2	15.4	0.2
323	Leather and products	0.7	0.0	1.5	-	2.6	0.1	3.4	-	5.9	0.1
324	Footwear	0.1	-	0.1	-	0.4	0.0	0.2	-	0.6	-
33	WOOD AND WOOD PRODUCTS	69.0	3.4	111.1	3.4	81.6	1.5	109.1	1.7	231.6	2.6
331	Wood and cork	68.2	3.3	137.0	3.3	78.2	1.4	101.3	1.5	216.7	2.4
332	Furniture and fixtures	0.8	0.0	4.2	0.1	3.4	0.1	7.9	0.2	14.8	0.2
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	42.3	2.0	121.4	2.9	141.0	2.5	50.9	0.8	90.4	1.0
341	Paper and products	39.7	1.9	93.3	2.2	134.8	2.4	43.3	0.6	74.2	0.8
342	Printing and publishing	2.6	0.1	28.1	0.7	6.3	0.1	7.6	0.2	16.2	0.2
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	403.1	19.7	735.9	17.7	1 160.6	21.0	827.2	12.7	1 664.6	19.1
351	Industrial chemicals	198.3	9.7	332.8	8.0	507.5	9.1	407.4	6.2	572.0	6.5
352	Other chemical products	122.4	6.0	160.1	4.0	322.2	5.8	252.5	3.8	301.6	3.4
353	Petroleum refineries	43.3	2.1	167.4	4.0	224.5	4.0	33.2	0.5	670.3	7.6
354	Misc. petroleum, coal products	-	-	60.0	1.4	86.7	1.6	120.6	1.8	121.8	1.4
355	Rubber products	8.3	0.4	7.7	0.2	19.8	0.4	13.5	0.2	18.9	0.2
356	Plastic products n.e.c.c.	-	-	-	-	-	-	-	-	-	-
36	NON-METALLIC MINERAL PRODUCTS	611.0	3.0	124.5	3.0	181.7	3.3	246.1	3.7	315.7	3.6
361	Pottery, china, etc.	-	-	-	-	-	-	-	-	-	-
362	Glass and products	12.5	0.6	21.3	0.5	27.8	0.5	36.6	0.5	69.7	0.8
369	Other non-metallic mineral products	48.5	2.4	103.3	2.5	153.9	2.8	209.5	3.2	246.0	2.8
37	BASIC METAL INDUSTRIES	243.3	11.9	743.5	17.9	656.0	12.5	949.8	14.5	895.6	10.2
371	Iron and steel	216.7	10.6	704.4	17.0	622.5	11.2	844.8	12.9	746.1	8.5
372	Non-ferrous metals	26.6	1.3	39.1	0.9	73.5	1.3	115.0	1.6	149.5	1.7
38	FABRICATED METAL PRODUCTS, MACH & EQUIPMENT	641.8	31.4	1 084.6	26.1	2 019.2	36.4	2 983.8	45.7	425.1	48.3
381	Metal products, except mach and equipment	86.0	4.2	138.8	3.3	240.7	4.3	314.2	5.7	49.8	5.5
382	Non-electrical machinery	260.4	12.8	451.6	10.9	605.0	10.9	919.4	14.1	1 522.0	18.4
383	Electrical machinery	129.3	6.3	166.5	4.0	240.9	4.5	537.7	8.2	809.5	9.2
384	Transport equipment	141.4	6.9	285.4	6.8	854.3	15.4	1 054.2	16.1	903.3	10.2
385	Professional, scientific goods, etc.	21.7	1.2	42.3	0.1	70.5	1.3	98.3	1.5	128.7	1.5
39	OTHER MANUFACTURING INDUSTRIES	37.9	1.9	55.6	1.3	66.6	1.2	89.4	1.4	127.9	1.5
3	MANUFACTURING : TOTAL	2 042.6	100.0	4 152.6	100.0	5 551.5	100.0	6 531.9	100.0	8 811.2	100.0
-	Total Imports	2 342.0		4 571.0		6 173.0		7 695.0		10 497.0	
-	Percentage of manufactured imports to total imports	37.2		90.8		90.0		84.9		83.9	

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-1977.

imports of basic metal products are still of importance although their share has declined from 12 per cent in 1973 to 10 per cent in 1977. Similarly, the imports of food products have been declining both in absolute and relative terms as their share dropped to 8.9 per cent in 1977, compared with 20.2 per cent in 1973.

Growth of industrial commodity imports.

Industrial commodity imports have increased by 431 per cent over the 1973-1977 period. This is equivalent to an average annual rate of growth of 44 per cent. Average annual rates of growth of imports in the different industry groups have been computed and are presented in table VI.7. An examination of the growth rates for the period 1973-77 shows that the highest rate of increase was in the imports of fabricated metal and machinery products, an average annual rate of 60.5 per cent. The imports of glass and cement products have also demonstrated a high average annual growth rate of 50.8 per cent. The imports of chemical, petroleum, rubber and plastic products grow at an average annual rate of 43 per cent. Similarly, high growth rates of imports in the basic metal and the wood and furniture products have been recorded over the period 38.5 and 35.3 per cent, respectively. Finally, imports of the food, beverages and tobacco products showed the lowest rate of growth of 17.3 per cent per year.

Industrial imports and industrial output.

In an attempt to define broadly the branches of industry which Syria may promote to substitute for imports, the ratio of the value of import to the value of output in the various industry groups have been computed. The results are presented in table VI.8

Despite the fact that Syria has (or ought to have) some comparative advantage in certain industries, it is still dependent to a significant degree on imports to supplement the local output of these industries. The

Table No. (VI.7) Geometric Mean Annual Rates of Growth of Industrial Imports by ISIC for Selected Periods (Percentages).

ISIC Code	C a t e g o r y	Annual Rates of Change			Geometric Mean Rates of Growth		
		1973-74	1974-75	1975-76	1973-75	1975-77	1973-77
31	FOOD, BEVERAGES AND TOBACCO	124.62	-0.79	1.13	49.28	-7.81	17.31
311/2	Food products	127.44	-4.07	-3.06	47.71	-6.50	17.52
313	Beverages	101.58	46.67	69.12	71.95	11.63	38.54
314	Tobacco	78.14	65.86	47.50	71.89	-29.57	10.03
32	TEXTILE, WEARING APPAREL & LEATHER INDUSTRIES	52.23	41.61	26.20	46.82	29.30	24.04
321	Textiles	51.29	39.64	24.23	45.35	28.33	36.57
322	Wearing apparel, excluding footwear	83.53	118.91	91.80	100.44	50.06	73.43
323	Leather and products	104.05	73.51	29.01	88.16	50.07	68.04
324	Footwear	160.00	184.62	-43.24	172.03	29.45	87.66
33	FOOD AND WOOD PRODUCTS	104.66	-42.24	33.73	8.73	68.46	35.34
331	Wood and cork	100.97	-42.93	29.46	7.10	66.47	33.52
332	Furniture and fixtures	408.76	-20.05	132.15	100.89	109.16	104.98
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	186.68	16.22	-63.92	82.53	-19.96	20.87
341	Paper and products	134.78	44.44	-67.90	84.15	-25.81	16.88
342	Printing and publishing	983.02	-77.65	21.69	55.58	60.69	58.11
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	82.55	57.71	-28.72	69.68	20.48	42.98
351	Industrial chemicals	67.78	52.51	-19.72	59.96	6.17	30.32
352	Other chemical products	37.28	91.73	-21.63	62.24	-3.25	25.29
353	Petroleum refineries	286.79	34.06	-85.19	127.71	77.05	100.79
354	Misc. petroleum, coal products	-	-	-	-	-	-
355	Rubber products	94.71	44.54	39.12	67.76	18.56	41.03
356	Plastic products n.e.c	-7.23	156.75	-31.77	54.33	-2.28	22.81
36	NON-METALLIC MINERAL PRODUCTS	104.28	45.89	35.48	72.63	31.83	50.86
361	Pottery, china, etc.	-	-	-	-	-	-
362	Glass and products	70.76	30.71	31.77	49.40	58.39	53.82
369	Other non-metallic mineral products	112.89	49.02	36.15	78.11	26.44	50.07
37	BASIC METAL INDUSTRIES	205.64	-6.32	36.47	69.15	13.44	38.52
371	Iron and steel	225.08	-11.63	35.71	69.49	19.85	36.21
372	Non-ferrous metals	47.06	88.09	42.90	66.33	42.67	54.05
38	FABRICATED METAL PRODUCTS, MACH & EQUIP.	68.98	86.18	47.77	77.37	45.15	60.46
381	Metal products, except mach & equipment	61.30	73.44	55.47	67.26	31.27	74.13
382	Non-electrical machinery	73.42	33.95	51.99	52.41	53.75	57.98
383	Electrical machinery	28.82	49.45	116.04	38.75	80.34	58.19
384	Transport equipment	101.84	199.32	23.60	175.79	2.83	58.98
385	Professional, scientific goods, etc.	71.08	66.68	39.49	68.87	35.10	51.04
39	OTHER MANUFACTURING INDUSTRIES	47.22	19.33	34.26	32.54	38.56	35.52
3	MANUFACTURING : TOTAL	103.30	33.69	17.66	64.86	25.98	44.12

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-77.

Table No. (VI.8) Value of Imports to Value of Output According to ISIC in Selected Years.
(Percentages)

ISIC Code	Category	1973	1975	1977
31	FOOD BEVERAGES AND TOBACCO	<u>40.4</u>	<u>65.0</u>	<u>42.0</u>
311/2	Food products	48.6	78.1	53.6
313	Beverages	7.0	15.0	10.5
314	Tobacco	11.8	23.3	8.3
32	TEXTILE, WEARING APPAREL & LEATHER	<u>8.0</u>	<u>12.5</u>	<u>13.4</u>
321	Textiles	9.0	14.1	15.0
322	Wearing apparel, excluding footwear	1.6	3.9	5.6
323	Leather and products	1.8	4.4	6.5
324	Footwear	0.2	0.8	0.9
33	WOOD AND WOOD PRODUCTS	<u>53.9</u>	<u>27.8</u>	<u>60.1</u>
331	Wood and cork	341.0	159.6	344.0
332	Furniture and fixtures	0.8	1.4	4.6
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	<u>121.6</u>	<u>247.4</u>	<u>93.2</u>
341	Paper and products	368.0	792.7	224.3
342	Printing and publishing	10.8	15.7	25.3
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	<u>99.8</u>	<u>204.2</u>	<u>165.3</u>
351	Industrial chemicals	2 203.6	1 127.7	1 906.7
352	Other chemical products	165.4	233.5	150.0
353	Petroleum refineries	15.3	70.8	96.4
354	Misc. petroleum, coal products	-	-	-
355	Rubber products	129.4	207.3	227.2
356	Plastic products n.e.c.	58.5	74.3	48.0
36	NON-METALLIC MINERAL PRODUCTS	<u>41.5</u>	<u>85.3</u>	<u>80.7</u>
361	Pottery, china, etc.	-	-	-
362	Glass and products	56.6	78.7	147.7
369	Other non-metallic mineral products	38.9	86.6	71.5
37	BASIC METAL INDUSTRIES	<u>191.5</u>	<u>306.6</u>	<u>358.2</u>
371	Iron and steel	4611.1	576.4	654.4
372	Non-ferrous metals	33.2	61.7	109.9
38	FABRICATED METAL PRODUCTS, MACH & EQUIPMENT	<u>298.9</u>	<u>452.1</u>	<u>594.7</u>
381	Metal products, except machinery and equipment	76.1	120.9	246.4
382	Non-electrical machinery	465.0	438.4	779.8
383	Electrical machinery	282.9	227.1	434.5
384	Transport equipment	-	-	-
385	Professional, scientific goods, etc.	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	<u>379.1</u>	<u>350.5</u>	<u>519.8</u>
3	MANUFACTURING : TOTAL	<u>58.9</u>	<u>107.7</u>	<u>114.5</u>

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-1977.

food products, textiles, glass and cement are good examples of such industries. Thus, while Syria ought to have a large measure of self-sufficiency in these branches of industry, it can be observed from table VI.8 that the country has been importing a significant percentage of the output of these industries in order to meet the local demand. More specifically, Syria has imported 147.7 per cent of the value of output of its glass products industry and 71.5 per cent of that of cement in 1977. Furthermore, in the same year the imports of food and textile products represented 53.6 and 15 per cent respectively, of the value of output of the two industries.

The net export position of manufacturing industry.

The above analysis suggests that Syria is essentially a big importer of manufactured goods. This is revealed by the facts which show that the manufacturing trade deficit has increased from SL 1,653 million in 1973 to SL 7,281 million in 1977, or has increased by 440 per cent. On an industry by industry basis, the trade surpluses (or deficits) have been calculated and are presented in table VI.9

The results show that all branches of industry, except for these in the textile, wearing apparel and leather division, show a trade deficit. Furthermore, these deficits have been increasing over time for most of the industries. The largest trade deficit by far is incurred in the fabricated metal and machinery products division, as it amounted to SL 4,115 million in 1977. The second largest deficit in 1977 was in the chemical, petroleum, rubber and plastic products division which amounted to SL 1,558 million. The food, beverage, and tobacco division deficit was SL 640 million in the same year. Finally, large deficits of SL 286 million and SL 217 million were incurred in 1977 in the non-metallic mineral products and the wood and furniture products industries respectively.

Table No. (VI.C) Trade Surplus (Deficit) According to ISIC for the Period 1973-77.
(Values in SL Million at Current Prices)

ISIC Code	C a t e g o r y	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES & TOBACCO	-277.11	-832.84	-839.23	-771.47	-640.16
311/2	Food products	-286.54	-838.35	-806.30	-711.59	-602.63
313	Beverages	-1.67	-4.42	-6.38	-7.41	-4.54
314	Tobacco	11.10	9.93	-26.55	-52.47	-32.99
32	TEXTILE, WEARING APPAREL & LEATHER	73.91	24.29	420.43	600.99	640.75
321	Textiles	54.62	4.38	397.00	566.25	610.32
322	Wearing Apparel, except footwear	15.39	16.65	19.16	26.87	22.86
323	Leather and products	2.53	1.00	1.87	2.41	2.09
324	Footwear	1.37	2.26	2.40	5.46	5.48
33	WOOD AND WOOD PRODUCTS	-64.32	-137.03	-77.74	-101.59	-217.13
331	Wood and cork	-65.33	-134.72	-76.57	-98.35	-211.56
332	Furniture and fixtures	1.01	-2.31	-1.17	-3.24	-5.57
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	-41.07	-119.52	-138.82	-48.78	-88.29
341	Paper and products	-38.49	-92.02	-132.84	-42.10	-73.03
342	Printing and publishing	-2.28	-27.50	-5.98	-6.68	-15.26
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	-395.98	-727.47	-1,105.46	-715.96	-1,558.14
351	Industrial chemicals	-196.90	-330.99	-503.41	-404.08	-569.35
352	Other chemical products	-118.35	-163.66	-316.00	-247.41	-295.82
353	Petroleum refineries	-42.91	-167.01	-181.84	60.42	-562.28
354	Misc. petroleum, coal products	-	-	-	-	-
355	Rubber products	-29.81	-58.45	-84.99	-118.30	-119.35
356	Plastic products n.e.c.	-8.01	-7.36	-19.22	-6.58	-11.34
36	NON-METALLIC MINERAL PRODUCTS	-56.16	-116.47	-177.58	-226.76	-286.06
361	Pottery, china, etc.	-7.77	-13.36	-24.85	-33.80	-67.20
362	Glass and products	-48.39	-103.11	-152.73	-192.96	-218.86
369	Other non-metallic mineral products	-	-	-	-	-
37	BASIC METAL INDUSTRIES	-242.12	-742.29	-695.55	-941.05	-892.84
371	Iron and steel	-216.63	-704.12	-622.14	-870.69	-743.78
372	Non-ferrous metals	-25.49	-38.17	-73.41	-100.36	-149.06
38	FABRICATED METAL PRODS., MACH AND EQUIPMENT	-617.00	-1,054.26	-1,974.49	-2,885.41	-4,114.75
381	Metal products, except mach and equipment	-77.24	-129.30	-231.65	-352.78	-757.97
382	Non-electrical machinery	-256.96	-447.04	-599.00	-900.87	-1,606.56
383	Electrical machinery	-126.79	-164.71	-247.01	-534.19	-804.27
384	Transport equipment	-132.12	-271.68	-827.30	-999.87	-817.76
385	Professional, scientific goods, etc.	-23.89	-41.53	-69.53	-97.70	-128.19
39	OTHER MANUFACTURING INDUSTRIES	-32.90	-51.15	-63.47	-83.95	-124.78
3	MANUFACTURING: TOTAL	-1,652.75	-3,756.74	-4,651.91	-5,173.97	-7,281.40

Source: Central Bureau of Statistics, Foreign Trade Statistics of Syria, 1973-1977.

CHAPTER VII
THE MANUFACTURING SECTOR IN THE YEAR 2000

Introduction.

The past is often the best guide to the future. It is our understanding of how the economy works in the present and how it worked in the past that allows us to undertake the presumptuous task of forecasting the future. Indeed, forecasting the future is different from simply projecting the historical trends. Our interest in the past and the present performance of economic variables is related to our desire to unearth the set of relationships that define and govern the behavior of the system under study. For if we were to understand the nature and pattern of response of economic agents and institutions to economic policy and parameters, the task of predicting the future values of the variables of the system is reduced to a prediction of policy. In a planning context, what is needed is government intentions, allocations and visions of the future. This does not mean that a consistent picture of the system in the future cannot be generated from a simple projection of exogenous variables. It simply underlines that the process of forecasting is more varied and embodies simple extrapolations as a special case.

Consistent forecasts are derivable mainly, if not solely, within the context of a solvable model. The structure of the model envisaged in this exercise of forecasting Syrian manufacturing activity is a two-level system. There is a generalized macro-econometric model that solves consistently for the aggregate variables. Appended to it is a detailed sectoral model of manufacturing activity that uses macro-variables of the aggregate model as exogenous variables to explain the industry specific variables.

The discussion in this chapter shall be carried under three headings:
(1) Description of the sectoral model (2) Results of the model and (3) Simulation exercise.

The model.

The macro-econometric model is developed and is discussed in a separate ECWA report^{1/}. Only the details of the industry model are discussed here.

The model consists of two behavioral equations and one definitional equation for each of the ten two-digits classification of manufacturing activity. The endogenous variables include:

- D_i the domestic use of the manufacturing i^{th} product or apparent demand D_i
- I_i imports of product i
- GO_i gross output of product i .

Several alternative formulations were tried and we have selected the most appropriate results; choice criteria were both economic theory and statistical significance. The model chosen is recursive, first demand is determined, then imports, together with exports they determine gross output. Value added is derived from gross output data. Thus only ordinary least squares were used in both linear and log-linear forms. The coefficient of multiple correlation corrected for degrees of freedom R^2 , and Durbin-Watson statistics (D-W) are calculated for each equation. The first indicates the goodness of fit and the second is a check on the presence of serial auto-correlation among the error terms that could bias the coefficient estimates. The figures in parentheses below the coefficients are the t-ratios (the coefficient value divided by its standard deviation). The sample period extends from 1963-1977. This period is rather short, however, it is the only period for which sufficient observations on most variables exist.

The limited number of our observations and its general unreliable character impart significant shortcomings to our model and results. Least square estimates rest on an important assumption that takes the structure of the economy estimated as fixed over the estimated period. As the economic and political situation in Syria is anything but constant, it is doubtful that our model can provide highly accurate results. One should note, therefore, that the estimated coefficients are only an approximation of the "true" relationship.

^{1/} This model has been developed by ECWA, Development Planning Division.

division's MVA, and 10.2 per cent of the total public sector's output in manufacturing. The public sector establishments operating in this industrial division produced a wide spectrum of products including nitrogenous fertilizers (operated in 1972), paints and varnishes, drugs, chemical cleansers, matches, oil products, and a variety of plastic and rubber products.

It is expected for this division to become a leading industrial division in the public sector, in view of the major projects which are under construction and planned. These projects include two major fertilizer plants for manufacturing triple-super phosphate and ammonia, urea fertilizers, additional to a second oil refinery at Rania, and a tyres plant.

Fabricated metal products machinery and equipment is the fourth largest industrial division. It produced 12.4 per cent of MVA in the public sector in 1977. The two equally important industrial branches of this division are the electrical and non-electrical machinery, each contributing to MVA about 5 per cent of total public sector manufacturing output in 1977. The range of products manufactured in the non-electrical machinery branch included: tractors and agricultural equipment, refrigerators, pressure cooking pots, gas ovens, cables and water meters. In the electrical machinery branch, the products included: industrial electrical engines, black and white and colored TV sets, telephones sets and exchanges, liquid and dry batteries.

Five major projects have been constructed and started production in 1978 in this industrial division. These are: a cables plant, an aluminium cross sections plant, battery boxes plant, an electrical lamps plant, and a pencils manufacturing plant.

The fifth largest industrial division in the public sector is the non-metallic mineral products industry, contributing 7.0 per cent of MVA in total public sector manufacturing in 1977. This industry consists mainly of glass and its products and cement, the latter being the main industry.

The structure of the model includes first the definitional identity of the manufacturing sector.

$$(1) GO_{it}^* = D_{it}^* + X_{it}^* - M_{it}^*$$

where

- GO_{it}^* = Real gross output of sector i
- D_{it}^* = Local demand for the output of sector i
- X_{it}^* = Real export of sector i
- M_{it}^* = Real import of sector i

$$(2) D_{it}^* = F^i (NDP_t^*, P_{it})$$

Demand for manufacturing output 'i' is a function of real net domestic product (NDP_t) at time t and the selling price of output i, (P_{it}).

It is expected that $\frac{\partial D_{it}}{\partial NDP_t} > 0$ and $\frac{\partial D_{it}}{\partial P_{it}} < 0$; i.e.,

increases in income raise the local demand for the output of sector i and price increases reduce the quantity demanded. The demand for sector i output includes final demand uses as well as intermediate uses.

The sum of sectoral gross outputs is the total manufacturing gross output (GO_m).

$$(3) GO_m = \sum_{i=1}^N GO_i$$

The gross output of each sector can be easily converted into value added by utilizing the relationship below:

$$(4) VA = \alpha + \beta_1 GO_{it} \quad \text{where } \alpha \text{ and } \beta$$

are the parameters representing the intercept and slope respectively.

It is also true that total manufacturing value added is the sum of sectoral value added.

$$(5) VA_{mt} = \sum_{i=1}^N VA_{it}$$

Imports are assumed to be determined by relationship (6)

$$(6) M_{it}^* = L^i (D_{it}^*, P_{it}, P_{mi,t})$$

where

$P_{mi,t}$ = is the unit import price of sector i at time t.

Results of the Model

The findings are discussed in terms of aggregative 2-digit sectors.

Manufacture of food, beverages and tobacco

A. Demand equations

$$(i) \quad D_1^* = 25543 + 5757 \text{ NDP}^* - 1030 P_1$$

(1.3) (.14)

$R^2 = .48$
 $F = 7.1$
 $DW = .58$

$$(ii)^+ \quad L_N D_1^* = 10.2 + .86 L_N \text{ NDP}^* - .18 L_N P_1$$

(1.5) (.26)

$R^2 = .98$
 $DW = 1.5$

B. Import equations

$$(i) \quad M_1^* = -21754 + .303 D_1^* + 166 P_1 - 343 P_{m1}$$

(7.2) (.37) (4.2)

$R^2 = .84$
 $F = 23$
 $DW = 2.1$

$$(ii) \quad L_N M_1^* = -3.67 + 1.23 L_N D_1^* + .16 L_N P_1 - .34 L_N P_{m1}$$

(7.4) (.56) (3.5)

$R^2 = .87$
 $F = 29$
 $DW = 2.5$

+ corrected for auto-correlation

* represent real variables

The local demand for food, beverages and tobacco is income inelastic. Increases in income result in smaller percentage increases in demand. The local demand is also price inelastic. It is interesting to note here that the demand specification has the correct economic signs. The linear specification shows a

low \bar{R}^2 as well as a low DW coefficient, the latter indicates the presence of serial auto-correlation. The correction for serial auto-correlation raises both the coefficient of goodness of fit and the t-ratios of the coefficients, thereby improving the explanatory power of the equation.

The import equation shows a good fit with high \bar{R}^2 and acceptable DW coefficient. Increases in demand result in higher percentage increases in imports. However, imports do not satisfy more than one fifth of the Syrian demand. However, there does not appear to be a clear tendency for import substitution. Nonetheless, significant increases in import prices are sufficient to reduce imports substantially.

Value added in this sector appears to be a falling ratio of gross output. Almost 21 per cent of each unit of gross output is transformed into domestic income (Tables VII.1 and 2). The declining portion of value added of gross output may very well be the result of the subsidized pricing policy of government of food products.

Textile, Wearing Apparel and Leather Industries.

A. Demand equations, Syria, 1963-1977

$$D_2^* = 21,768 + 20,539 \text{ NDP}^* - 10,771 P_2$$

(1.6) (2.1)

$\bar{R}^2 = .73$
F = 18
DW = 1.6

$$\sum (D_2^*, \text{NDP}^*) = 3.9$$

$$\sum (D_2^*, P_2) = -2.6$$

Import equations, Syria, 1963-1977

$$(i) M_2^* + 4,882 + .0299 D_2^* + 563 P_2 - 352 P_{m2}$$

(2.0) (5.7) (2.6)

$\bar{R}^2 = .88$
F = 33
DW = 2.2

$$(ii) L_N M_2^* = 7.8 + .022 L_N D_2^* + 1.2 L_N P_2 - .62 L_N P_{m1}$$

(1.0) (2.8) (1.03)

$\bar{R}^2 = .80$
F = 18
DW = 1.9

* real variables

Local demand for this sector's product is income elastic as well as price elastic. A one per cent increase in real income results in a 3.9 per cent increase in demand. However a one per cent rise in prices of textile products results in 2.6 per cent decline in demand.

The import equation shows a better fit than that of local demand. It has the correct economic signs, all the variables are statistically significant and the \bar{R}^2 is relatively high. Imports satisfy a rather small percentage of local demand (tables VII. 1 and 2) and the possibilities of import substitution are rather high.

3. Wood products, furniture and fixtures.

A. Demand equation, Syria, 1963-1977

$$(i) D_3^* = -54,246 + 2,187 \text{ NDP}^* - 598 P_3$$

(5.4) (4.7)

$$\begin{aligned} \bar{R}^2 &= 73 \\ F &= 18 \\ DW &= 1.6 \end{aligned}$$

$$\sum (D_3^*, \text{NDP}^*) = 2.1$$

$$\sum (D_3^*, P_3) = .74$$

$$(ii) L_N D_3^* = 8.68 + .85 L_N \text{NDP}^* - .211 L_N P_3$$

(1.9) (1.2)

$$\begin{aligned} \bar{R}^2 &= 34 \\ F &= 4.3 \\ DW &= 1.4 \end{aligned}$$

$$(iii) {}^+L_N D_3^* = 6.75 + 1.54 L_N \text{NDP}^* - .51 L_N P_3$$

(3.1) (2.6)

$$\begin{aligned} \bar{R}^2 &= 99 \\ DW &= 1.5 \end{aligned}$$

B. Import equation, Syria, 1963-1977

$$M_3 = -56,046 + .78 D_3^* + 155 P_3 - 238 P_{m3}$$

(5.5) (3.6) (1.6)

$$\begin{aligned} \bar{R}^2 &= 94 \\ F &= 72 \\ DW &= 1.5 \end{aligned}$$

* real variables.

+ corrected for auto-correlation.

Local demand for wood products, furniture and fixtures is income elastic but price inelastic. Rising incomes and rising prices will still lead to higher local demands. The price effect is not sufficient despite its right sign to counteract the demand effect. Imports appear to satisfy a rather large portion of local demand, exceeding 50 per cent.

Increases in domestic prices will result in higher imports. However, higher import prices do not have a strong negative effect on imports. Value added per unit of output in this sector is rather high with a value of 41 per cent (Tables VII 1 and 2). Furthermore the proportion of value added to gross output is rising indicating a higher degree of processing within this sector.

Paper products, printing and publishing.

A. Demand equation, Syria, 1963-1977

$$(i) D_4^* = 13,642 + 150 \text{ NDP}_4^* + 279 P_4$$

(0.95) (1.6)

$$\begin{aligned} \bar{R}^2 &= 82 \\ F &= 30 \\ DW &= 1.7 \end{aligned}$$

$$\xi(D_4^*, \text{NDP}_4^*) = 0.31$$

$$\xi(D_4^*, P_4) = 0.48$$

$$(ii) L_N D_4^* = 7.2 + .13 L_N \text{NDP}_4^* + .64 L_N P_4$$

(0.71) (2.9)

$$\begin{aligned} \bar{R}^2 &= 87 \\ F &= 44 \\ DW &= 1.9 \end{aligned}$$

B. Import equation, Syria, 1963-1977

$$(i) M_4^* = 10,122 + .939 D_4^* - 328 P_4 + .7 P_{m4}$$

(6.3) (7.6) (.02)

$$\begin{aligned} \bar{R}^2 &= 91 \\ F &= 45 \\ DW &= 2.3 \end{aligned}$$

$$(ii)^+ M_4^* = 9,319 + .99 D_4^* - 351 P_4 + 2.49 P_{m4}$$

(8.2) (9.3) (.1)

$$\begin{aligned} \bar{R}^2 &= 96 \\ DW &= 1.8 \end{aligned}$$

* real variables.

+ corrected for auto-correlation.

The demand specification whether in linear or in logarithmic form shows a statistically insignificant relationship between demand for paper products, printing and publishing and income (low t-ratio). Moreover, the price variable has also the wrong sign. Higher prices result in higher demand. This may very well be the outcome of speculation in paper inventories, apparently a usual practice with regard to this product. Furthermore, the real income variable is perhaps the wrong economic variable to admit as a principal explanatory variable of demand. The statistical indices of goodness of fit and serial auto-correlation are otherwise acceptable.

There appears to be an almost one to one correspondence between increases in local demand for paper products, printing and publishing and increases in imports of these products. Yet, imports do not exceed 40 per cent of total demand. The future situation will show greater increases in dependence on imports to satisfy local demand.

The price variables work in the opposite direction to that expected. Higher domestic prices result in higher imports, whereas higher import prices lead to lower imports. This substantiates further our hypothesis of inventory speculation. Higher domestic prices entice local suppliers to unload their stocks, whereas higher import prices may be taken as a portend of yet higher future prices.

Value added in this sector is almost a third of gross output. This may very well be the outcome of high operating surpluses. However, the ratio of value added to gross output is, surprisingly, falling indicating less processing within this sector (Tables VII-1 and 2).

Table VII.1 The Manufacturing Value Added - Gross Output Relationship in Syria 1963-1977

* Industry	<u>Linear Specifications</u>		<u>R²</u>	<u>D.F.</u>
	<u>Intercept</u>	<u>Gross Output</u>		
1. Food, beverages and tobacco	54 945 (3.5)	.2138 (15.2)	95	.57
2. Textile, wearing apparel and leather industries	-84 505 (1.4)	.0431 (10.1)	89	2.1
3. Wood and wood products including furniture	- 6 266 (1.3)	.4117 (15.2)	95	1.2
4. Paper, paper products, printing and publishing	1 492 (1.8)	.3009 (17.2)	96	1.4
5. Chemicals, chemical petroleum, coal, rubber and plastic products *	- 4 041 (.59)	.2824 (12.7)	93	1.3
6. Non-metallic mineral products	* 9 305 (3.3)	.5131 (32.1)	99	2.6
7. Basic metal industries	5 607 (1.5)	.3531 (12.2)	92	.98
8. Fabricated metals, machinery and equipment	792 (.36)	.5012 (73.9)	99	1.00
9. Other manufacturing industries	287 (.26)	.4705 (6.1)	74	.36

* The last two observations were deleted for estimation purposes.

Table VII.2. The Manufacturing Values Added - Gross Output Relationship in Syria 1963-1977. (The logarithmic specifications)

Industry	Interapt	Gross output	R ⁻²	D.W.
1. Food, beverages and tobacco	3.18 (3.3)	.675 (9.5)	87	.47
2. Textile, wearing apparel and leather industries	-1.96 (1.13)	1.06 (8.5)	85	2.1
3. Wood and wood products including furniture	- .6061 (.78)	.964 (14.4)	94	.86
4. Paper, paper products, printing and publishing	-.2613 (.55)	.924 (20.2)	97	1.7
5.*Chemicals, chemical petroleum, coal, rubber and plastic products	-3.357 (1.9)	1.161 (8.3)	86	.83
6. Non-metallic mineral products	-2.208 (4.8)	1.16 (28.7)	98	2.4
7. Basic metal industries	-.48 (.94)	.971 (20.0)	97	1.01
8. Fabricated metals, machinery and equipment	-1.32 (5.6)	1.05 (53.5)	99	1.4
9. Other manufacturing industries	1.03 (.65)	.813 (4.8)	63	.59

Chemicals and chemical, petroleum, coal, rubber and plastic products.

A. Demand Equations, Syria 1963-1977

$$(i) D_5^* = 190740 + \underset{(1.3)}{2621} MDP^* - \underset{(2.4)}{18842} P_{oil}$$

$$\sum (D_5^*, MDP^*) = 0.88$$

$$\sum (D_5^*, P_{oil}) = -4.6$$

$R^2 = 236$
 $F = 4.6$
 $DW = 1.9$

$$(ii)^{++} L_M D_5^* = 22.5 + \underset{(1.6)}{.76} L_M MDP^* - \underset{(1.1)}{2.89} L_M P_{oil}$$

$R^2 = 99$
 $DW = 1.9$

B. Import Equations, Syria 1963-1977

$$(i) M_5^* = -124580 + \underset{(7.6)}{.53} D_5^* + \underset{(6.9)}{12109} P_{oil} + \underset{(3.4)}{1156} P_{m5}$$

$R^2 = 95$
 $F = 87$
 $DW = 2.3$

$$(ii) M_5^* = -72760 + \underset{(4.0)}{.65} M_5^* + \underset{(4.9)}{14295} MDP^* - \underset{(3.3)}{6345} P_{m5}$$

$R^2 = 89$
 $F = 38$
 $DW = 1.96$

$$(iii) L_M M_5^* = -35 + \underset{(9.3)}{1.3} L_M D_5^* + \underset{(5.8)}{6.8} L_M P_{oil}$$

$R^2 = 94$
 $F = 93$
 $DW = 1.5$

* real variables

++corrected for auto-correlation and the last two observations are deleted.

Demand for the products of this sector is income elastic, however, they respond rather strongly to the price of fuels. The estimation of the equation was restricted to the sample period 1963-1974. In 1975 and 1976 price changes in oil resulted in significant changes in the valuation of this input in the production processes. Syrian data on value added in oil refining, for instance, shows a negative value on the grounds that the price of output is subsidized. Syria's chemical industry has witnessed rapid growth in the late sixties onward and public investment was heavily concentrated in this sector. However, imports contribute a significant proportion of this sector's demand. Import demand is price elastic and responds positively to higher import prices.

Value added in this sector contributes over 28 per cent of gross output. However, there are some considerable pricing problems in oil refining that distort the true measurement of value added (Tables VII 1 and 2, see also appendix C).

Non-Metallic mineral products.

A. Demand equations, Syria 1963-1977

$$(i) D_6^* = 16,187 + 1,823 NDP^* - 1,018 P_6$$

$$(2.0) \quad (2.1)$$

$$\sum (D_6^*, NDP^*) = 2.2$$

$$\sum (D_6^*, P_6) = -1.3$$

$$R^{-2} = 16$$

$$F = 2$$

$$DW = .73$$

$$(ii)^+ D_6^* = 10,260 + 782 NDP^* - 765 P_6$$

$$(1.3) \quad (2.8)$$

$$R^{-2} = 44$$

$$DW = .90$$

B. Import equations, Syria 1963-1977

$$(i) M_6^* = -45,431 + .22 D_6^* + 382 P_6 - 8.7 P_{m6}$$

$$(4.8) \quad (6.3) \quad (.16)$$

$$R^{-2} = 97$$

$$F = 125$$

$$DW = -2.0$$

* real variables.

+ Corrected for auto-correlation.

Local demand for non-metallic mineral products is both income and price elastic. The goodness of fit of the demand equation is rather poor. R^{-2} is as low as 44. However, both variables, income and price are statistically significant and have the expected sign.

Imports satisfy a substantial proportion of local demand and respond strongly to changes in it. Higher local prices result in higher imports, whereas higher import prices lead to lower imports.

There are nine establishments operating in the cement industry. In addition to cement, they produce asbestos pipes and sheets, porcelain (39 million tiles per year capacity), and bathroom accessories (5,000 tons per year capacity). The cement industry itself has undergone a rapid expansion in capacity. In 1978, the cement production capacity reached 1,727,000 tons per year, of which 780,000 tons represent new production capacities. In 1983, when all the new cement projects will be completed, production capacity will rise to 5,367,000 tons annually, of which 4,620,000 tons will be produced by the new plants. In that year, cement consumption is expected to reach 3,872,000 tons per year, which leaves Syria with a surplus for exports of 1,495,000 tons, compared with a deficit of 740,000 tons in 1978 ^{1/}.

Similarly, the glass industry has undergone a major expansion. Thus, in addition to the complete modernization and expansion of the glass and the china products plants in Damascus, a new glass plant at Aleppo has just been completed and started production in 1979.

The sixth largest industrial division in the public sector is the basic metal industries. This division contributed 2.7 per cent of MVA in the public sector in 1977. This industry began with the iron rods plant in Hama, which was completed in 1972 but now developed into a basic metal industrial complex including a scrap iron melting plant for manufacturing iron pipes which was constructed and started production in 1978.

The industrial structure of the public sector in 1977 as we have just seen, has changed considerably from what it was in 1966, when the sector has just been established. Then the textile, wearing apparel and leather and the food, beverages and tobacco divisions had a much larger share of output. They accounted for 78.1 per cent of sector's total MVA compared to 67.4 in 1977. The textile, wearing apparel and leather produced 40.1 per cent of the MVA, primarily by the

^{1/} The data and estimates have been obtained from the General Organization of Cement Industries, Damascus.

Value added per unit of output exceeds 51 per cent and is rising with a pronounced upward trend (Tables VII 1 and 2).

Basic metal products.

A. Demand Equations

$$(i) \quad D_7^* = -76876 + 2208 \text{NDP}^* + 100 P_7$$

(3.6) (-.47)

$$(D_7^*, \text{NDP}^*) = 1.2$$

$$(D_7^*, P_7) = 0.083$$

$R^2 = 82$
 $F = 30$
 $DW = 2.94$

$$(ii)^+ \quad D_7^* = -69796 + 2068 \text{NDP}^* + 162 P_7$$

(5.0) (1.2)

$R^2 = 93$
 $DW = 1.9$

B. Import Equations

$$(i) \quad M_7^* = 1511 + .95 D_7^* - 99 P_7 - 47 P_{m7}$$

(31) (2.5) (.97)

$R^2 = 99$
 $F = 744$
 $DW = 2.4$

$$(ii) \quad M_7^* = -83528 + 2524 \text{NDP}^* + 178 P_7 - 551 P_{m7}$$

(4.0) (.78) (1.7)

$R^2 = 78$
 $F = 17$
 $DW = 2.7$

* real variables.
+ corrected for auto-correlation.

Local demand for basic metals is highly correlated with changes in aggregate real income. It is also income elastic, i.e., a one per cent increase in real income raises real demand by 1.2 per cent. The price variable has the wrong sign signifying again possible inventory speculative behaviour.

Imports supply the major part of local demand. Higher domestic prices result in lower imports as local suppliers unload their speculative stocks. Value added per unit of output is 35 per cent but it displays a falling trend and a possible decline in local processing (Tables VII 1 and 2). This may indeed be the result of the increase in availability of foreign exchange in Syria in recent years.

Fabricated metals, machinery and equipment.

A. Demand Equations, Syria 1963-1977

$$(i) \quad D_8^* = -82975 + 5485 \text{NDP}^* + 249 P_8$$

(2.4) (.19)

$R^2 = 90$
 $F = 60$
 $DW = .61$

$$\xi(D_8^*, \text{NDP}^*) = 1.07$$

$$\xi(D_8^*, P_8) = -.05$$

$$(ii)^* \quad L_N D_8^* = 7.9 + 1.18 L_N \text{NDP}^* - .05 L_N P_8$$

(2.3) (.18)

$R^2 = 99$
 $DW = 1.6$

B. Import Equations, Syria 1963-1977

$$(i) \quad M_8^* = -15284 + 1.22 D_8^* + 1022 P_8 - 1636 P_{m1}$$

(15.8) (2.2) (4.5)

$R^2 = 99$
 $F = 443$
 $DW = 1.5$

* real variables.

Fabricated metal industries are highly developed industries and require complicated processes and sophisticated technologies. The nature of this industry in Syria is, however, different. It is principally a collection of repair shops of machinery and equipment with few package and paint assemblies. The demand for these services and even the packaged products is generally income elastic. The estimated Syrian demand substantiates this fact. Given that the products of this sector are limited, the price elasticity of demand is not surprisingly low. Changes in imports even exceed changes in demand reflecting perhaps the assembly nature of this industry and its exclusive dependence on imports. Imports make up almost 90 per cent of total demand. Prices play a significant role in the behaviour of import demand for the products of this sector. Higher local prices raise imports, however, higher import prices result in lower imports.

Value added per unit of output of this sector is rather high compared to the normal pattern of this industry in developed economies. This is the effect of

the heavy concentration of repair services activities within the sector and/or the result of a special pricing system geared to raise revenues for government.

Other manufacturing products.

A. Demand Equations

$$(i) \quad D_9^* = -8056 + 327 \text{ NDP}^* - 3.8 P_9$$

(1.8) (.05)

$$(D_9^*, \text{NDP}^*) = 1.3$$

$$(D_9^*, P_9) = -.02$$

$R^2 = .82$
 $F = 30$
 $DW = .84$

$$(ii)^+ \quad L_M D_9^* = 4.77 + 1.2 L_M \text{NDP}^* - .05 L_M P_9$$

(2.8) (1.3)

$R^2 = .97$
 $DW = 1.3$

B. Import Equations

$$(i) \quad M_9^* = 172 + .79 D_9^* + 66.8 P_9 - 90.4 P_{M9}$$

(4.3) (2.1) (1.5)

$R^2 = .94$
 $F = 65$
 $DW = 1.05$

$$(ii)^+ \quad M_9^* = -5607 + .97 D_9^* + 22.2 P_9 - 24 P_{M9}$$

(6.1) (.85) - (.41)

$R^2 = .81$
 $DW = 1.63$

* real variables

+ corrected for auto-correlation.

This is a residual sector which comprises a number of diverse and dissimilar activities. These characteristics render difficult the task of modelling the behaviour of this sector. However, the statistical properties of the demand and import equations are such that they establish a significant fit and that real income is an acceptable (statistically) explanatory variable of local demand. Prices, however, play an insignificant role in determining behaviour of either demand or imports.

Value added per unit of output is almost 50 per cent. The elasticity of income with respect of output is marginally less than unity.

The quantitative analysis of Syrian manufacturing reveals some interesting features. Economic behaviour is evident in most sectors. Even when signs of variables violate statical expectations, they tend to reveal strategic inventory speculative behaviour in durable goods. Import equations behave statistically better than demand equations but this is to be expected given the nature of data and the heavy dependence of the Syrian economy on imports of industrial products. Import substitution behaviour is noted in few sectors and the economic behaviour of agents in most sectors suggest that an effective role may be played by a coherent policy. Value added, as a proxy for the degree of local processing and income generation capacity is rising in several sectors. A high value added at times, however, is indicative of the primitive nature of the sector and each case should be studied continuously and separately.

The equations presented in this section will now be used as tools of forecasting Syrian manufacturing activity in the future. A number of simulation exercises have been carried out using the model system developed for Syria. Although several alternative forecasts will be presented in this study, however, three variants will be emphasized. The first will assume that the macro-econometric model and the industrial model both capture the Syrian economic structure and the nature of change and therefore simple trend projections are capable of giving a clear picture of the future structure of the manufacturing sector. Indeed, this assumption may be valid for short period forecasts but loses much of its validity as the time period is extended. It will be presented here solely as a background. The second variant takes into consideration the working structure of the Syrian economy in response to conscious policies and strategies. In particular two strategies will be singled out. The first is the development of an integrated sophisticated industrial base by promoting end-processing and non-consumer goods' producing sectors. The second involves heavy dependence on import substitution and exporting within the national natural milieu of the Arab world.

The third variant attempts to relate Syrian manufacturing activity to the pattern of similar economies of the world at different intervals of time. The main advantage of such an approach is related to the global picture it provides for assessing the pattern, nature and scope of Syrian industrial experience in relation to the experience of other economies with similar characteristics.

A simulation exercise.

The historical perspective and its projection into the future provided the basic framework for the aggregate variables used in this exercise. However, even the past is not a clear cut period. Syrian development is different between 1960-1970 and 1970-1976. Indeed the recent changes in the price of oil has had significant consequences on the Syrian economy. First exports of Syria increased rather substantially. Secondly, Syria received large transfers of capital denominated in foreign currencies. Thirdly, the latter period has been characterized by political and economic stability, marking the end of the transition and uncertain period of the sixties.

If we were to take the period 1963-1977 real GDP grew at an annual rate of 7.9 per cent. However, between 1970-1977 the GDP growth rate in real terms exceeded 10.4 per cent. Those two rates were adopted to represent the low and high rates of growth. A composite rate of growth between these two rates was considered as representative of the medium rate of growth.

The value of GDP in 1975 was expressed in terms of 1970 prices and translated into U.S.Dollars at the rate of US\$ 1 = SL 3.70. Then the rates of growth postulated were used to extrapolate the Syrian GDP up to the year 2000.

Three variants of population growth were adopted from the United Nations selected world demographic indicators. The details of the figures are presented in table VII.3.

Table VII.3 Projected GDP and Population for
Syria, 1980 - 2000

	GDP million US Dollars			Population* (000)		
	Low	Medium	High	Low	Medium	High
1980	4268	4521	4780	8492	8536	8536
1985	6242	7005	7850	9919	10081	10138
1990	9130	10852	12874	11498	11823	12046
1995	13353	16813	21113	13221	13750	14217
2000	19530	26047	34626	14938	15824	16591

* Population data are derived from the source below:

Source: U.N. Selected World Demographic Indicators by Countries 1950-2000
ESA/P/W2.

The per capita GDP projections were used as inputs in the UNIDO estimated equation for the designation of per capita manufacturing value added.^{1/} Only three configurations were adopted. These include low GDP but high population growth, medium GDP growth and medium population, and high GDP growth but low population growth (Table VII.4).

The equation used designates Syria as a small economy with modest resources. The parameter estimates are given below:

$$L_N \left(\frac{IIV\Delta}{Pop} \right) = -7.491 + 2.447 L_N \frac{GDP}{pop} - 0.0794 \left(L_N \frac{GDP}{pop} \right)^2$$

The results are presented in Tables VII.5 and 6.

^{1/} This study classified countries into four groups: large countries, small countries with modest resources, small countries with ample resources and industrial orientation, and small countries with ample resources and primary orientation. The data reveal that the share of manufacturing in commodity GDP is the highest for large countries ranging between 20 per cent for low level income and reaching 67 per cent at high level income, and lowest for countries with ample resources and oriented to primary production, ranging respectively between a low 9 per cent and a high 51 per cent. See UNIDO, World Industry Since 1960: Progress and Prospects. United Nations, 1979, pp.45-49.

Table VII.4 Syrian per capita GDP in 1980, 1990, 2000 (US Dollars in 1970 prices)

	<u>1980</u>		
	P_L	P_M	P_H
GDP _L	502	500	500
GDP _M	532	630	530
GDP _H	563	560	560
	<u>1990</u>		
	P_L	P_M	P_H
GDP _L	794	772	758
GDP _M	944	917	901
GDP _H	1119	1089	1068
	<u>2000</u>		
	P_L	P_M	P_H
GDP _L	1307	1234	1177
GDP _M	1744	1646	1570
GDP _H	2318	2188	2087

Source: Our calculations

Table VII.5 Syrian per capita manufacturing value added and total value added
U.S. Dollars 1970 prices

	<u>Per capita MVA</u>			<u>MVA</u>		
	<u>LXH</u>	<u>MXM</u>	<u>HXL</u>	<u>LXH</u>	<u>MXM</u>	<u>HXL</u>
1980	104.5	113.5	124.2	892	969	1054
1985	141.3	167.2	200.9	1432	1685	1993
1990	189.3	246.2	322.0	2280	2911	3702
1995	254.2	361.8	511.5	3614	4975	6762
2000	344.3	532.1	814.4	5712	8420	12165

Source: Our calculations

Table VII.6 MVA as a percentage of total GDP

	<u>%</u>		
	<u>LXH</u>	<u>MXM</u>	<u>HXL</u>
1970 15.9 (actual)			
1976 15.0 (actual)			
1980	20.9	21.4	22.0
1985	22.9	24.1	25.0
1990	25.0	26.8	28.8
1995	27.1	29.6	32.0
2000	29.2	32.3	35.1

Source: Our calculations. For 1970 and 1976 actual data table V-1.

There are several implications to these results as there are a number of pre-conditions that are necessary for their validation. The most interesting implication is that manufacturing under the three alternatives approaches 30 per cent and over of total GDP in the year 2000. As discussed above, this compares to a roughly stable 15 per cent ratio recorded in the 1970's. These ratios are presented in Table VII.6

Fitting Syria's emerging industrial structures with that envisaged by the Lima Declaration, we see that Syria compares favourably with other developing economies.

The detailed structure consistent with the levels of manufacturing value added are displayed in Tables VII.7 to 9.

High levels of per capita GDP are associated with high growth rates of GDP and low growth rates of population in the third EXL alternative. This structure of growth is also consistent with a developed industrial structure as is shown in Table VII.8. Consumer goods industries account for less than 42 per cent whereas heavy industry accounts for more than 38 per cent. Metal fabricating industries alone contribute 31.26 per cent of total MVA. Indeed to affect such a major transformation of the Syrian economy major changes are required in the present structure where consumer industries account for more than two-thirds of MVA. (Table VII.8). Massive investment funds will be needed in the capital goods and heavy engineering industries as well as intermediate industries calling for a significant re-direction of resources and skill formation towards high level technical manpower. These requirements appear too taxing for the Syrian economy viewed within the present context and as such this projection is rather overly optimistic. The low alternative is, however, too pessimistic presenting only minor modification to the current situation of heavy dependence on food, beverages and tobacco and textiles, wearing apparel leather and footwear. The medium alternative calls for a significant re-structuring of the economy but the changes appear feasible and within bounds of available and potential resources and institutions. Consumer goods contribute twice as much as that of capital goods to MVA but fabricated metals ranks second to food and textiles.

Modelling an economy according to the developmental pattern of a large set of diverse economies is perhaps of limited usefulness and applicability. Each economy is a composite of several local and unique characteristics that renders transferrability of developmental experience a rare phenomenon. Each economy should therefore be modelled separately. For even when conditions and constraints are similar, objectives and policies may be different and the latter could account for significant variations in the pattern and structure of development.

The model described in the preceding section is now utilized as a basic tool for forecasting future demand and import requirements by sector of the Syrian economy. The forecasting is conditional on a set of assumptions whose truth is necessary for the validity of the model. Generally what is involved is a generalized vision of the sector and the responsiveness of the system to policy changes. Since so much depends upon the assumptions made, only the procedures used in forecasting are emphasized to point out the possible uses of the model in planning and policy formulation. The case of food, beverages and tobacco is singled out.

First, local demand (final and intermediate) is forecasted using the macro-econometric model to feed in the future values of the explanatory variables (real domestic product and the price index).

Second, import demand is forecasted using the future values of demand derived above and the forecasted values of local and import prices relevant for the sector.

Third, exports are assumed to be exogenous (determined outside the model). A rate of growth is postulated and future values of exports are derived.

Fourth, gross output is derived from equation (1).

Fifth, the parameters of equation 4 are used to generate the values of NVA in this sector.

textile industry which contributed alone 38.8 per cent. The food, beverages and tobacco produced 38.0 per cent of total M.A. The chemicals industry division had a smaller share than which amounted to 8.3 per cent of total M.A., the fabricated metal products produced 5.5 per cent of total M.A.

The employment structure of public sector manufacturing industry is shown in Table V.15.

Total employment in the public sector industry reached 66,931 workers in 1977. The distribution of the employment among the industrial divisions follows, more or less, the relative importance of these divisions in terms of M.A. Thus, the textile, wearing apparel and leather and the food, beverages and tobacco accounted for 73 per cent of the total public sector manufacturing employment in 1977, down from 83 per cent in 1966. The textile, wearing apparel and leather division alone employed 42.9 per cent in 1977, compared with 46.1 per cent in 1966. The food, beverages and tobacco division employed 30.2 per cent of the total in 1977, equally distributed among the food products and the tobacco industries. The division's share of employment in 1966 was 36.9 per cent, with the tobacco industry providing employment for 22 per cent of the public sector manufacturing employment then.

The non-metallic mineral products division was the third largest employer in the public sector manufacturing industry in 1977, followed closely by the chemicals industrial division. In this year they provided for 9.2 and 9 per cent of the total employment, respectively, compared with 8.6 and 5.2 per cent in 1966. Thus, it can be seen that the share of employment of the chemicals division has increased significantly with the growth of the division. The largest employer in the chemicals division is the petroleum refining industry which accounted for 4.2 per cent of the sector's total in 1977. The largest employer in the non-metallic products division is the cement industry, which accounted for 7 per cent of the total in 1977.

The acceptability of the forecast is surely determined by how successfully it predicts the future values of the dependent variables. However, the validity (truth) of the initial conditions and assumptions is essential for the validity of the model as an explanation kit of industrial activity in the food, beverages and tobacco sector.

Table VII.10 displays the forecasted values of local demand, imports, etc. of food, beverages and tobacco sector.

Table VII.7 Comparative MVA per capita in the year 2000
US Dollars 1970 prices

	Deve- loped	Deve- loping	Africa	South & East Asia	Latin America	West Asia	Syria
Year 2000 (past trends)	2919	196	51	124	548	341	344
Year 2000 (LIMA)	2392	345	101	222	944	591	532
Year 2000 (High Growth)	2392	311	96	168	944	550	814

Source: UNIDO - World Industry Since 1960: Progress and Prospects.
E.79, II.B.3, July 1979, pp. 57-59.

Table VII.8 Syria's Industrial Structure, 1970, 1976, 2000

Scenario	Actual ^{1/}		Year 2000 ^{2/}		
	1970	1977	LXH	MXH	HXL
Sector					
Food, Beverages, Tobacco & Textiles, Wearing Apparel, Leather & Footwear	67.4	62.5	56.72	41.50	26.27
Wood, Furniture & fixtures	4.0	4.2	5.96	5.97	5.98
Paper, printing & publishing	1.3	1.2	3.83	6.98	10.13
Chemicals, & chemical, coal rubber and plastic products	9.6	9.8	15.39	13.80	12.21
Non-metallic minerals	6.5	5.6	4.41	4.90	5.38
Basic metals	1.7	1.4	2.67	5.17	7.67
Fabricated metals	9.1	15.2	9.06	20.16	31.26
Other manufacturing	0.3	0.3	1.95	1.54	1.13
Total	100.0	100.0	100.0	100.0	100.0

Source: (1/) Chapter V, Table V.7.
(2/) World Industry Since 1960: Progress and Prospects. UNIDO

Table VII.9 Syrian Industrial Structure, Year 2000

(million S.L.)

<u>Scenario</u> Sector	LXH	NXM	HXL
Food, beverages, tobacco, leather, etc.	3240	3494	3196
Wood, furniture & fixtures	340	503	727
Paper, printing and publishing	219	588	1232
Chemicals and chemical products, etc.	879	1162	1485
Non-metallic minerals	252	412	654
Basic metals	153	435	933
Fabricated metals	517	1696	3802
Other manufacturing	112	130	136
Total	5712	8420	12165

Source: UNIDO - World Industry Since 1960: Progress and Prospects.

Table VII.10 Forecasting Industrial Activity in the Food, Beverages and Tobacco Sector, in 1970 constant S.L.

	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
Demand	1,649,017	2,397,427	3,491,257	5,097,460	7,446,316
Imports	337,954	502,982	745,575	1,104,316	1,631,828
Exports	215,062	264,182	324,520	398,639	489,687
Gross output	1,526,125	2,158,627	3,070,202	4,391,785	6,304,175
Value added	381,230	516,459	711,354	993,908	1,402,777

APPENDIX 'A'

Accurate Statistical Tables

Table No. (A-1) Gross Domestic Product at Market Prices by Sector, 1960-1977.
(At constant prices of 1963— in Million Syrian Pounds)

Sectors	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Agriculture, forestry and fisheries	612.1	818.9	1 287.9	1 196.0	1 362.4	1 297.1	1 081.1	1 268.9	1 087.1	1 406.4
Mining & manufacturing	554.7	561.4	585.7	631.0	682.4	724.6	720.9	769.9	826.0	998.9
Building & construction	119.0	118.0	111.0	119.0	119.0	115.0	136.0	118.0	159.0	164.0
Transport & Communication	304.0	320.0	376.0	328.0	367.0	393.0	388.0	406.0	506.0	545.0
Wholesale & retail trade	650.0	596.0	739.0	758.0	773.0	770.0	819.0	787.0	829.0	976.0
Finance & insurance	67.5	71.0	76.2	81.3	80.6	108.8	82.5	75.2	91.8	106.6
Ownership of dwelling	244.0	272.0	276.0	287.0	294.0	303.0	310.0	319.0	326.0	335.0
Government	203.0	261.0	321.0	360.0	431.0	438.0	477.0	485.0	574.0	595.0
Services	188.0	201.0	210.0	220.0	240.0	300.0	307.0	322.0	350.0	363.0
TOTAL	2 962.3	3 219.3	3 982.8	3 980.3	4 349.4	4 449.5	4 321.5	4 551.0	4 748.9	5 486.9
Sectors	1970	1971	1972	1973	1974	1975	1976	1977		
Agriculture, forestry and fisheries	1 152.7	1 187.4	1 524.5	1 106.5	1 535.4	1 635.5	1 876.4	1 729.0		
Mining & manufacturing	1 109.1	1 203.7	1 326.1	1 410.9	1 793.0	1 938.4	2 125.8	2 329.3		
Building & construction	158.7	205.0	204.3	200.2	239.4	268.7	407.4	432.8		
Transport & communication	623.4	797.4	650.6	950.0	879.5	1 113.3	818.4	835.4		
Wholesale & retail trade	997.8	1 039.5	1 150.0	1 100.2	1 320.4	1 736.5	1 877.5	1 911.6		
Finance & insurance	120.0	131.2	156.5	160.7	186.4	192.7	238.9	241.1		
Ownership of dwelling	347.2	359.6	370.8	381.3	394.1	415.4	453.3	473.7		
Government	704.3	814.5	917.6	1 107.5	1 520.8	1 458.9	1 575.2	1 576.3		
Services	403.2	447.3	486.4	520.4	586.4	635.6	732.4	830.7		
TOTAL	5 616.4	6 185.6	6 786.8	6 937.7	8 255.4	9 395.0	10 095.3	10 359.9		

Source: Syrian Arab Republic, Statistical Abstract, 1975, 1978.

Table (A-2) Gross Domestic Product at Market Prices, 1963 - 1977
(At Current Prices, in Million Syrian Pounds)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Agriculture	1 196	1 484	1 517	1 282	1 282	1 130	1 392	1 380	1 627	2 352	1 709	3 045	3 490	4 669	5 126
Mining & Manufacturing	631	746	792	861	947	1 082	1 299	1 264	1 450	1 729	1 942	3 758	4 440	4 962	4 877
Building & Construction	119	126	123	149	139	189	203	225	297	331	395	704	1 084	1 638	1 865
Transport & Communication	328	371	400	397	418	541	575	639	812	704	1 045	1 003	1 383	1 216	1 172
Trade	758	815	798	874	960	978	1 132	1 172	1 325	1 642	1 719	3 089	4 310	5 362	6 619
Finance	81	81	109	83	75	92	107	120	131	157	161	186	508	650	685
Ownership of dwelling	287	311	320	327	376	388	415	498	534	556	578	613	691	830	931
Government	360	431	438	477	485	574	595	711	816	919	1 198	1 606	2 510	2 814	3 028
Services	220	231	289	318	370	410	417	424	456	501	666	865	1 120	1 402	1 690
TOTAL	3 980	4 596	4 786	4 768	5 052	5 384	6 135	6 433	7 448	8 891	9 413	14 869	19 536	23 543	25 993

Source: - Syrian Arab Republic, Statistical Abstract, 1978.
مصدر: - سورية، ملخص إحصائي، 1978. (عدد بل الرقم سلسلة الحسابات القومية القديمة للأعوام 1963-1977)

Table (A-3). Gross Fixed Capital Formation by Sector, 1963-77. (At Constant Prices of 1963, in Million Syrian Pounds)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Agriculture, Forestry and fisheries	96	93	67	48	51	52	131	210	220	215	193	159	266	159	185
Mining & Manufacturing	109	117	106	175	187	235	268	152	268	400	327	598	949	737	1 306
Transport & Communication	105	108	95	123	134	153	216	135	121	91	104	103	240	267	392
Dwellings	131	127	104	117	106	150	204	202	211	194	196	229	250	331	358
Other sectors	84	84	85	93	97	125	113	89	104	112	150	160	304	332	410
TOTAL	525	529	457	556	575	715	932	788	932	1 012	970	1 219	2 005	1 826	2 651

Source: Syrian Arab Republic, Statistical Abstract, 1971, 1978.

Table (A-4). Gross Fixed Capital Formation by Sector, 1963-1977.
(At Current Prices, in Million Syrian Pounds)

Sectors	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Agriculture, forestry and fisheries	96	96	71	53	55	56	142	248	295	324	371	397	734	605	683
Mining & manufacturing	109	119	111	174	207	257	288	178	338	606	611	1 456	2 410	3 612	5 065
Transport & communication	105	113	101	126	138	164	233	158	155	137	200	260	625	1 242	1 530
Dwellings	131	136	111	132	122	171	237	298	320	360	406	633	843	1 161	1 464
Other sectors	84	90	90	98	103	137	126	108	137	174	297	420	902	1 209	1 528
TOTAL	525	554	484	583	625	785	1 026	990	1 245	1 601	1 885	3 166	5 514	7 829	10 270

Source: Syrian Arab Republic, Statistical Abstract, 1971, 1978.

Table (A-5). Gross Fixed Capital Formation by Type of Expenditure, 1963-1977.
(At Constant Prices of 1963, in Million Syrian Pounds)

Type of Expenditure	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Dwellings	131	127	104	117	106	150	204	202	211	194	196	229	250	331	358
Industrial & Commercial buildings	60	65	60	64	37	55	55	46	53	55	69	104	123	174	176
Constructions	111	109	119	155	140	185	223	197	300	311	262	361	522	697	788
Transport Equipment	53	55	42	46	62	62	138	105	35	82	114	147	412	190	238
Machinery & other equipment	170	173	132	174	230	263	312	238	333	370	329	408	698	434	1 091
TOTAL	525	529	457	556	575	715	932	788	932	1 012	970	1 249	2 005	1 826	2 651

Source: Syrian Arab Republic, Statistical Abstract, 1971, 1978.

Table (A-6). Gross Fixed Capital Formation by Type of Expenditure, 1963-1977
(At Current Prices, in Million Syrian Pounds)

Type of Expenditure	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Dwellings	131	136	111	132	122	171	237	298	320	360	406	633	843	1 161	1 464
Industrial & commercial buildings	60	70	65	73	43	63	64	69	82	102	144	287	414	612	719
Construction	111	120	127	167	150	200	244	267	419	455	526	959	1 627	2 247	2 777
Transport equipment	53	55	44	44	66	67	147	109	41	124	208	341	977	1 161	951
Machinery & other equipment	170	173	137	167	244	284	334	247	383	560	601	946	1 653	2 648	4 359
TOTAL	525	554	484	583	625	785	1 026	990	1 245	1 601	1 885	3 166	5 514	7 829	10 270

Source: Syrian Arab Republic, Statistical Abstract, 1971, 1978.

Table (A-7). Labour Force in Syria, 1960-1977

Year	Total Labor Force	Total Employed	Total Unemployed	Unemployment Rate
1960	1 141 300	1 021 600	119 700	10.49
1961	1 194 479	1 086 403	108 076	9.05
1962	1 175 348	1 099 522	75 826	6.45
1963	1 244 760	1 112 319	132 441	10.64
1964	1 264 783	1 120 832	143 951	11.38
1965	1 424 267	1 321 473	102 794	7.22
1966	1 448 465	1 378 119	70 346	4.86
1967	1 652 807	1 564 632	88 175	9.33
1968	1 774 251	1 643 238	131 013	7.38
1969	1 970 940	1 885 635	85 305	4.33
1970	1 570 776	1 470 407	100 369	6.39
1971	1 645 721	1 522 334	123 987	7.50
1972	1 715 072	1 634 165	80 907	4.72
1973	1 688 564	1 612 075	76 489	4.53
1974	1 718 553	1 631 361	87 192	5.07
1975	1 838 948	1 750 466	88 482	4.81
1976	1 827 799	1 714 365	113 434	6.21
1977	1 994 759	1 894 430	100 329	5.0

Sources: - Syrian Arab Republic, The Annual Statistical Bulletin of the Ministry of Social Affairs and Labour, 1969, 1970.

- Syrian Arab Republic, Statistical Abstract, 1974, 1976 and 1978.

Table (A-8). Price Level Indices in Syria, 1963-1977.
(1962 = 100)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Wholesale Price Index	99	101	100	110	121	117	115	123	136	129	171	195	209	235	256
Retail Price Index in Damascus	102	108	104	110	115	119	118	123	129	130	156	180	209	240	268
Retail Price Index in Aleppo	104	110	106	114	122	121	119	126	131	137	164	192	208	236	207

Source: Syrian Arab Republic, Statistical Abstract, 1978.

Table (A-9)(a) Imports by Nature and Utilization of Items 1971-77
(Quantity in thousand tons, Value in Million S.P.)

Items	1971		1972		1973		1974		1975		1976		1977	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Raw materials	983	370	1 079	331	1 412	347	2 183	583	2 943	695	3 211	1 246	3 655	1 785
Finished Products	424	578	295	846	429	1 054	1 321	1 976	474	2 902	433	3 719	1 844	5 409
Semi-finished products	2 121	753	1 381	905	1 289	941	1 741	2 012	1 985	2 576	2 608	2 730	2 579	3 323
TOTAL	3 528	1 701	2 755	2 082	3 130	2 342	5 245	4 571	5 402	6 173	6 252	7 695	8 178	10 497

Table (A-9) (b) by Utilization

Categories	1971		1972		1973		1974		1975		1976		1977	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Final consumption	293	362	286	491	367	594	485	1 158	335	1 073	446	1 359	454	1 427
Intermediate consumption	3 179	1 052	2 398	1 127	2 677	1 198	4 656	2 538	4 880	3 310	5 599	3 745	7 481	5 459
Fixed assets (capital)	56	287	71	464	86	550	104	875	187	1 790	207	2 591	243	3 611
TOTAL	3 528	1 701	2 755	2 082	3 130	2 342	5 245	4 571	5 402	6 173	6 252	7 695	8 178	10 497

Source: Syrian Arab Republic, Statistical Abstract, 1978.

The fabricated metal products division ranked fifth regarding employment. It employed 5.8 per cent of the total in 1977, as against 2.1 per cent in 1966. The electrical and non-electrical machinery provided equally the bulk of the employment in this division.

Private sector manufacturing industry

We now turn to examine manufacturing in the private sector, in terms of MVA and employment. These are summarized in tables V.24-V.26 and V.17.

MVA in the private sector manufacturing industry amounted to SL 677.6 million in 1977. The relative contribution of the major two industrial divisions to the total MVA in the sector amounts almost to the same as that of the public sector. The textile, wearing apparel and leather and the food and beverages industrial divisions contributed 56 per cent of the total MVA in 1977. Again, just like in the public sector, the relative importance of these two industrial divisions has contracted their share in the total MVA; from 78.1 per cent in 1966, to 56 per cent in 1977. The share of food product industry, especially has dropped from 41.2 per cent to 21.5 per cent.

Two other industrial divisions are of major importance in the private sector. These are: the fabricated metals (18.7 per cent) and the wood and furniture division (10.1 per cent). They have a higher share than their corresponding divisions in the public sector. The largest industries in those divisions are the metal products and furniture and fixture which contributed 14.9 and 9.0 per cent respectively. Both of these divisions have expanded their share of output from the 1966 level.

The fifth largest industrial division is the chemicals which accounted for 5.6 per cent of total MVA in 1977, an increase from 3.1 per cent in 1966.

APPENDIX "B"

Names and Location of the Public Sector Industrial Companies
Classified According to the General Organization they Belong to.

<u>Company Name</u>	<u>Location</u>	<u>ISIC Code</u>
<u>General Organization of Food Industries</u>		
1. The Syrian Industrial Company of Vegetable Oils	Aleppo	3115
2. The Arab Manufacturing Company of Oil and Soap	Damascus	3115
3. Hama Oils Co.	Hama	3115
4. Lattakia Oils Co.	Lattakia	3115
5. Homs Dairy Products Co.	Homs	3112
6. The Syrian Arab Co. of Dairy Products	Damascus	3112
7. The Syrian Arab Co. of Grapes Processing	Suwaida	313
8. Homs Grapes Processing Co.	Homs	313
9. Al Shafa Food Products Co.	Aleppo	313
10. Damascus Food Products Co.	Damascus	3119
11. The Syrian Arab Co. for Biscuits and Chocolate Manfg.	Damascus	3119
12. Onion and Vegetables Drying Plant	Salamieh	3113
13. The Syrian Arab Co. for Marketing and Mfg. Peanuts	Tartous	3113
14. The Modern Canning and Agricultural Industries Co.	Damascus	3113
15. The Syrian Coast Canning Co.	Jableh	3113
16. Baradah Beer Manufacturing Co.	Damascus	313
17. Yarmouk Spaghetti Co.	Daraa	3117
18. The Syrian Canning Co.	Daraa	3113

<u>Company Name</u>		ISIC
<u>General Organization of Sugar Industries</u>		<u>Location</u> <u>Code</u>
1. Homs Sugar Co.	Homs	3118
2. Adra Sugar Co.	Damascus	3118
3. Al Ghab Sugar Co.	Edleb	3118
4. Tel Selheb Sugar Co.	Hama	3118
5. Al Rakka Sugar Co.	Al Raka	3118
6. Deir-el-Zor Sugar Co.	Deir el Zor	3118
7. Al Thawra Sugar Co.	Maskana	3118

General Organization of Textile Industries

1. The United Trading Industrial Co.	Damascus	321
2. The Modern Industries Co.	Damascus	321
3. The United Arab Industrial Co.	Damascus	321
4. The Syrian Yarn and Textile Co.	Aleppo	321
5. Spinning and Weaving Co.	Damascus	321
6. Al Ahlieh Yarn and Textile Co.	Aleppo	321
7. Al Shabba Spinning and Weaving Co.	Aleppo	321
8. Homs Yarn and Textile Co.	Homs	321
9. Aleppo Silk Textiles Co.	Aleppo	321
10. Hama Cotton Yarn Co.	Hama	321
11. Nylon Fibers and Socks Industrial Co.	Damascus	3213
12. Al Shark Underwear Co.	Damascus	322
13. The Arab Underwear Co.	Aleppo	322
14. The General Co. for Rugs Manufacturing	Damascus	3214
15. The Industrial Co. for Men's Wearing Apparel	Aleppo	322
16. Zancoubia Co. for Women's Wearing Apparel	Aleppo	322
17. Jableh Yarn Co.	Jableh	321

<u>Name of Company</u>	<u>Location</u>	<u>ISIC CODE</u>
18. The General Company for Wool	Hama	321
19. Al Walid Yarn Co.	Homs	321
20. Euphrate Yarn Co.	Deir el Zor	321
21. The Syrian Underwear Co.	Damascus	322
<u>General Organization of Chemical Industries</u>		
1. The Syrian Industrial Co. for Glass and China	Damascus	362
2. The Arab Tanning Co.	Damascus	323
3. The Arab Medical Co. (Tameco)	Damascus	3522
4. The General Co. for Fertilizers	Homs	3512
5. The Arab Co. for Soap and Chemical Cleaners (Sar)	Damascus	3523
6. The Paints and Chemical Industries Co.	Damascus	3521
7. The General Co. for Plastic Products	Aleppo	356
8. Al Ahlieh Co. for Rubber Products	Damascus	355
9. The Arab Co. for Rubber, Plastic and Leather Products	Aleppo	355-356
10. The General Shoes Co.	Damascus	324
11. The General Co. for Glass Industry	Aleppo	362
12. The General Co. for Chemical Cleaners Industry	Adra	3523
13. The Electric Lamps Co.	Aleppo	3839
<u>General Organization of Cement Industries</u>		
1. National Cement and Construction Materials Co.	Damascus	369
2. Syrian Cement Co.	Hamra	369
3. Al Shbaa' Cement and Construction Materials Co.	Aleppo	369
4. Adra Cement Co.	Damascus	369
5. Tartous Cement and Construction Materials Co.	Tartous	369
6. General Cement and Construction Materials Co.	Aleppo	369
7. Al Rastan Cement and Construction Materials Co.	Al Rastan	369
8. Arab Co. for the Manufacture of Porcelain and Sanitary Equipment	Hama	369
9. Aleppo Co. for Manufacture of Asbestos Cement Products	Aleppo	369

APPENDIX C

MANUFACTURING STATISTICS

The data

From the outset, the preparation of this study was faced with non-availability of consistent time series for manufacturing variables at the desired level of disaggregation (3 digit ISIC) and covering the period 1963-1977. For the period 1963-1969 only, CBS have manufacturing time-series for the required variables classified according to the 2-digit old ISIC. These data cover both the private and public sectors. For the purpose of this study comparable manufacturing time series at the 3-digit new ISIC level, were prepared for the public and private sector covering the period 1970-1977. The existing 1963-1969 manufacturing series were reconciled with the latter to obtain a roughly comparable time series covering the period under study. The CBS have cooperated with the consultant (July-October 1978) in making available basic data and extending valuable assistance. The consultant, however, is solely responsible for the derived time series and their results.

The time series constructed were for six variables that include value of gross output, gross value added, net value added, capital investment, employment and payroll. For each of these variables three sets of time series were constructed: one for the public sector, a second for the private sector and the third for overall manufacturing. These series are presented in the tables attached to this appendix. The following describes briefly the methodology followed in deriving the data used in this study.

The first step was to build the time series for the public sector for the period 1970-77. This involved an examination of all the public sector industrial companies statistical files for the purpose of coding them according to the 4 and 3-digit new ISIC. The multi-product line establishments were classified using the "dominance principle". Thus, an establishment would be classified according to the product which has the dominant (largest) share in the value of total output. The data for each company was collected then from the CBS annual industrial survey return sheets for the required variables and aggregated for all companies in each 4 and 3-digit ISIC.

<u>Company Name</u>	<u>Location</u>	<u>ISIC Code</u>
<u>General Organization of Engineering Industries</u>		
1. General Co. for Iron and Steel Products	Hama	371
2. Syrian Arab Co. for Electronic Industries	Damascus	3832
3. Arab Co. for Manufacture of Wood	Lattakia	331
4. General Co. for Manufacture of Electrical Engines	Lattakia	3831
5. Syrian Batteries and Liquefied Gases Co.	Aleppo	3839
6. General Co. for Metal Industries (Barada)	Damascus	3829
7. Metal Structures and Mechanical Industries Co.	Damascus	381
8. Converting Industries Co. (Hi-Tex)	Damascus	341
9. United Arab Co. for Matches, Plywood, and Pencils	Damascus	3529
10. Tractors Engines and Mechanical Products Co.	Aleppo	3829
11. General Co. for Cables Manufacturing	Damascus	

The data collected for the public sector industry for the period 1970-1977 were considerably more extensive than what is presented in this appendix. More specifically, they include production data both in value and in quantity for all the major products in the 4 and 3-digit ISIC. In addition to data on local sales and export sales. To compute gross value added, they included also data on the value of production requirements, namely raw materials, supplementary materials, packaging, electricity and water, fuel and other inputs and depreciation data to compute net value added. Employment data are available for the managerial and production staff. The latter is broken down into workers, technicians, and engineers. Similarly, the capital investment data is broken down into expenditures on acquisition of land, construction, machinery and equipment, and others.

The second step in the data collection was to obtain data for the public and the private sectors for the period 1963-1969. As it turned out the CBS did have data for the required variables classified, however, according to the 2-digit-old ISIC. This classification is very similar to the 3-digit-new ISIC for most of the industry groups. The few industry groups which contained more than one 3-digit-new ISIC class, had to be disaggregated into their relevant components. Using this data, a comparable time-series were constructed for the period 1963-1969.

The third step was to derive comparable time series for the private industry covering the period 1970-1977. The CBS had the data classified according to the 2-digit-new ISIC, which is at an insufficient level of disaggregation for the purpose of this study. Thus, the classification was converted to the 2-digit-old ISIC from which a 3-digit-new ISIC was extracted. By doing that a comparable series for the required variables in the private sector industry were constructed for the period 1970-1977.

It should be pointed out that the data for the private sector sample is based on surveys that are conducted annually by the CBS. In contrast, the public sector data is based on actual reports submitted annually by all industrial establishments to the CBS by virtue of the law.

Negative value added in the public sector have been computed for food products (1971-1977) and petroleum refining (1976-1977)^{1/}. These are known to be

^{1/} Other sectors, beverages, paper products and wood and cork products showed some negative numbers in isolated years. No adjustments were made for these sectors.

heavily subsidized industries. No data have been made available on the amount of subsidies these industries get and consequently it was not possible to adjust the negative value added directly to take into account subsidized prices. A rough adjustment of the negative value added in the two sectors was made using a proxy for actual subsidy. Notwithstanding the pitfalls of this approach arising from the fact that the prices of a number of other commodities or for that matter the price structure in general do not necessarily reflect true real values or general equilibrium prices. This partial approach is considered as the most practicable in order not to lose the real economic interpretation of value added and be able to carry more meaningful economic analysis in this study.

A number of methods have been tried in an attempt to adjust for the negative value added. Historical ratio of input to gross output for the two series was used as the most reasonable among the alternative methods of adjustment. For food products two years average (1967-1968) was found to be reasonably acceptable. These ratios were roughly close to comparable data for food products in Iraq. In oil refining where data for six years (1963-1969) were used, inputs were regressed against gross output to establish statistical relationship and these were used to extrapolate for the rest of the period.

Table (6-1) April, Value of Gross Output in Overall Manufacturing Industry, 1965-1977.
(In Million of Current Dollars)

Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	
21. Manufacturers of Food, Beverages and Tobacco	367	381	474	531	609	605	710	837	897	980	1,086	1,216	1,504	1,915	1,996	
211/2 Food Products	261	281	362	419	460	497	546	663	715	777	848	900	1,152	1,403	1,497	
214 Beverages	13	9	11	13	15	18	22	22	25	34	36	43	50	75	89	
214 Tobacco	93	91	101	103	138	146	158	158	157	169	202	253	302	437	420	
22. Textile, Wearing Apparel and Leather Industries	546	561	365	636	712	725	799	835	1,100	1,122	1,315	2,011	1,809	2,442	2,817	
221 Textiles	503	528	325	559	637	652	726	742	956	965	1,141	1,779	1,552	2,048	2,359	
222 Wearing Apparel, except Footwear	26	18	22	33	47	47	47	64	91	96	106	144	174	248	275	
223 Leather and Products	9	10	11	15	17	15	16	17	30	34	41	52	59	81	91	
224 Footwear	8	5	7	8	8	11	11	10	12	23	25	36	44	65	72	
23. Manufacturers of Wood Products, Paper, Printing and Publishing	65	44	43	46	61	72	89	88	98	119	126	217	293	331	395	
231 Wood and Curb Products, except Furniture	8	6	6	13	12	13	15	17	18	22	20	39	49	54	63	
232 Furniture and Fixtures	57	38	37	34	49	59	74	71	80	97	106	178	244	277	322	
24. Manufacturers of Paper and Paper Products, Printing and Publishing	11	8	9	14	14	15	17	20	22	27	35	38	57	87	97	
241 Paper and Products	4	1	1	3	3	5	5	5	6	7	11	13	17	24	33	
242 Printing, Publishing	7	7	8	11	11	10	12	15	16	20	24	25	40	63	64	
25. Manufacturers of Chemicals and Chemical Products, except Plastics and Rubber and Plastics	116	123	127	147	176	187	162	238	362	318	404	456	568	636	1,019	
251 Industrial Chemicals	-	-	-	-	-	-	-	-	-	14	9	26	45	28	30	
252 Other Chemical Products	25	26	22	38	45	43	42	40	58	67	74	126	138	108	201	
253 Petroleum Industries	79	89	92	96	119	125	104	170	272	201	283	281	317	331	695	
254 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
255 Rubber Products	11	8	13	14	10	16	11	20	28	23	24	48	42	50	54	
256 Plastic Products, n.e.c.	0	1	1	3	3	4	5	8	12	13	14	23	27	37	39	
26. Manufacturers of Non-Metallic Mineral Products, except Plastics of Petroleum and Coal	66	66	62	51	65	84	92	102	121	130	147	193	213	330	391	
261 Pottery, glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
262 Clay and Products	12	13	14	13	15	18	17	18	19	20	22	35	35	40	47	
263 Other Non-Metallic Mineral Products	54	54	48	38	49	66	75	85	102	110	125	159	178	289	344	
27. Basic Metal Industries	4	4	4	9	11	14	14	20	69	122	127	153	227	293	290	
271 Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
272 Non-Ferrous Metals	4	4	4	9	11	14	14	20	69	76	80	90	119	135	136	
28. Manufacturers of Plastic and Metal Products, Machinery and Equipment	40	40	48	56	62	78	117	139	157	181	215	287	447	670	715	
281 Metal Products, except machinery and equipment	32	27	23	19	27	49	66	74	85	103	113	126	199	327	343	
282 Non-Metallic Machinery	4	3	3	23	20	17	33	36	38	51	56	79	138	190	208	
283 Electrical Machinery	5	10	22	15	15	12	18	27	34	27	46	82	110	153	186	
284 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
285 Professional Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
286 Other Manufacturing Industries	12	15	17	10	12	12	5	5	8	9	10	11	19	23	25	
2. MANUFACTURING - TOTAL	1,827	1,841	1,849	1,480	1,721	3,792	2,006	2,285	2,834	3,088	3,464	4,942	5,157	6,687	7,695	

Source: 1984 Revisions.

Table (C-2) Series, Value of Gross Output in the Private Sector Industry, 1963-1977
(\$0 Million at Current Prices)

1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
21	Manufactures of Food, Beverages and Tobacco													
211	274	290	373	214	230	225	138	342	397	444	511	706	865	896
211/2	261	281	362	207	220	213	242	342	376	420	483	676	818	860
214	13	9	11	7	10	12	14	20	21	24	28	30	47	48
214	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Textile, Wearing Apparel and Leather Industries													
221	346	561	365	162	193	187	179	214	407	462	625	762	1,129	1,244
221	303	528	325	122	134	129	123	140	282	318	430	524	779	857
222	26	18	22	24	37	38	35	50	76	89	121	148	217	260
223	2	10	11	8	11	11	11	12	24	26	30	46	68	75
224	8	5	7	8	11	11	10	12	23	25	27	36	65	72
23	Manufactures of Wood Products and Furniture													
231	65	44	43	40	56	66	83	79	89	109	121	139	130	160
231	8	6	6	7	7	7	9	8	9	12	13	23	33	38
232	57	38	37	34	49	59	74	71	80	97	108	176	264	272
24	Manufactures of Paper and Paper Products, Printing and Publishing													
241	11	8	9	12	12	12	14	17	19	23	28	29	46	74
241	4	1	1	1	2	2	2	2	3	3	4	4	6	10
242	7	7	8	11	11	10	12	15	16	20	24	25	40	64
25	Manufactures of Chemicals and Chemical Products													
251	37	34	35	32	35	36	30	32	54	66	103	126	175	178
251	-	-	-	-	-	-	-	-	-	-	-	-	-	-
252	25	26	22	27	31	30	26	24	40	48	75	91	124	125
253	-	-	-	-	-	-	-	-	-	-	-	-	-	-
254	-	-	-	-	-	-	-	-	-	-	-	-	-	-
255	11	8	13	4	3	5	2	4	7	8	9	14	23	24
256	0	1	1	1	1	1	2	4	7	8	9	14	18	29
26	Manufactures of Non-Metallic Mineral Products, Except Petroleum and Coal													
261	66	66	62	16	20	23	28	32	49	53	66	85	116	127
261	-	-	-	-	-	-	-	-	-	-	-	-	-	-
262	12	13	14	3	3	3	4	4	5	5	6	6	7	7
263	54	54	48	13	16	20	24	26	44	48	53	60	79	109
27	Basic Metal Industries													
271	4	4	4	9	11	14	14	20	69	76	80	119	135	136
271	-	-	-	-	-	-	-	-	-	-	-	-	-	-
272	4	4	4	9	11	14	14	20	69	76	80	119	135	136
28	Manufactures of Professional Metal Products, Machinery and Equipment													
281	40	40	48	30	40	60	76	89	103	127	142	157	245	267
281	32	27	23	17	25	46	59	69	80	98	109	121	189	204
282	4	3	3	8	9	9	11	13	15	16	21	23	36	51
283	5	10	22	5	6	5	6	7	8	11	12	13	20	27
284	-	-	-	-	-	-	-	-	-	-	-	-	-	-
285	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Other Manufacturing Industries													
291	12	15	17	10	12	12	5	5	8	9	10	11	19	23
291	1,055	1,061	956	925	607	635	685	827	1,159	1,291	1,411	1,790	2,381	3,407
3	MANUFACTURING TOTAL													
SOURCE: BPSB Statistics.														

Table (C-3) April, Value of Gross Output in the Public Sector Industry, 1963-1977
(in billions at current prices)

SIC Code	Category	Year														
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	Manufactures of Food, Beverage and Tobacco	93	91	101	117	179	360	454	499	535	583	642	705	758	1 050	1 080
	241/8 Food Products	-	-	-	212	248	254	304	343	373	401	428	437	476	585	619
	242 Beverage	-	-	-	4	3	4	4	4	5	13	12	15	20	28	41
	244 Tobacco	93	91	101	101	128	123	146	152	157	169	202	253	308	437	420
32	Tanbark, Tanning Apparel and Leather Industries	-	-	-	454	519	538	620	621	693	695	893	1 386	1 087	1 313	1 593
	281 Tanbark	-	-	-	437	503	523	603	602	674	643	863	1 349	1 080	1 269	1 542
	282 Tanning Apparel, except Footwear	-	-	-	9	10	11	12	14	13	14	17	23	26	31	35
	283 Leather and Products	-	-	-	7	6	4	5	5	4	6	13	14	13	13	16
	289 Footwear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	Manufactures of Wood Products, Int. Products	-	-	-	4	5	4	4	4	9	9	10	7	18	20	25
	261 Wood and Cork Products, except Pulp and Paper	-	-	-	6	5	4	6	6	9	10	7	18	20	21	25
	262 Pulp and Paper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	Manufactures of Paper and Paper Products, Printing and Publishing	-	-	-	2	2	3	3	3	4	4	7	9	11	14	23
	264 Paper and Products	-	-	-	2	2	3	3	3	4	4	7	9	11	14	23
	265 Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	Manufactures of Chemicals and Chemical Products	79	89	96	115	142	158	138	286	308	298	338	353	442	461	611
	281 Industrial Chemicals	-	-	-	-	-	-	-	-	-	14	9	26	45	28	30
	282 Other Chemical Products	-	-	-	11	14	18	16	16	18	23	26	51	47	64	76
	283 Petroleum Refineries	79	89	96	98	119	125	104	170	272	201	283	241	317	331	695
	284 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	285 Inhibitor Products	-	-	-	10	7	11	9	16	13	15	15	26	25	29	30
	286 Plastic Products, n.e.c.	-	-	-	3	2	3	3	4	5	5	9	9	8	9	10
36	Manufactures of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	-	-	-	35	45	61	64	71	72	77	89	120	128	214	264
	291 Primary, white, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	292 Glass and Products	-	-	-	10	12	15	13	14	14	15	17	29	29	34	40
	293 Other Non-Metallic Mineral Products	-	-	-	25	33	46	51	57	58	62	72	92	92	108	128
	297 Basic Metal Industries	-	-	-	-	-	-	-	-	-	46	47	63	108	118	134
	291 Iron and Steel	-	-	-	-	-	-	-	-	-	46	47	63	108	118	134
	292 Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	Manufactures of Miscellaneous Products, Machinery and Equipment	-	-	-	26	22	18	41	50	53	54	73	130	202	350	340
	341 Metal Products, except machinery and equipment	-	-	-	2	2	3	7	5	5	5	4	5	10	6	37
	342 Machinery and Equipment	-	-	-	15	11	6	22	25	23	33	38	54	108	136	156
	343 Electrical Machinery	-	-	-	10	9	7	12	20	26	16	24	59	90	128	127
	344 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	345 Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	Other Manufacturing Industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	MANUFACTURING TOTAL	17	180	193	955	1 113	1 158	1 321	1 459	1 674	1 717	2 056	2 759	2 776	3 518	4 288

Source: BMA Statistics.
Includes value of spring water bottled by the Bunnin (1976-77) and Dracoin (1977) plant for which the production requirements (i.e., material inputs) are not available.
Includes value of porcelain output 1970-77 and value of sanitary equipment output (1977 only) since their plant is being sold to the Hama Cement Company.
Includes metal furniture produced by the Organization of Defense Industries for which the production requirements are not available.
Includes value of tractor assembled by the Defense Tractor Company, a 30-year-old plant which was in operation in 1972 because no systematic and continuous data are available for this plant. The value of tractor output for 1972 was estimated at 275 units and increased to 3,000 tractors in 1973. During the period 1970-76, the plant produced 4,700 tractors annually. In 1979, total plant output of the company amounted to 51,100 tractors. The degree of local manufacturing is estimated at about 35 per cent.

Table No. V.24 Syria, AVERAGE ANNUAL RATES OF GROWTH OF GROSS VALUE ADDED IN THE PRIVATE SECTOR INDUSTRY, SELECTED PERIODS 1963-1977 AT CONSTANT PRICES 1970=100 (PERCENTAGE)

ISIC Code	Category	1963-1966	1966-1970	1970-1975	1975-1977	1963-1970	1970-1977	1963-1977
31	FOOD, BEVERAGES AND TOBACCO							
311/2	Food manufacturing	7.8	-13.0	11.6	3.5	-4.6	9.2	2.1
313	Beverages	10.0	-14.6	12.5	2.3	-4.8	9.5	2.1
314	Tobacco	-19.5	12.3	2.0	18.1	-2.6	6.4	1.8
32	TEXTILE, WEARING APPAREL AND LEATHER							
321	Textiles	-16.8	-4.3	9.6	14.8	-9.9	11.1	0.1
322	Wearing apparel	-19.5	-7.7	6.0	14.8	-13.0	8.5	-2.8
323	Leather products	13.0	9.3	19.3	14.9	10.9	18.0	14.4
324	Footwear	-9.4	16.0	10.9	14.2	4.3	11.9	8.0
		15.7	5.3	16.6	15.4	9.6	16.2	12.9
33	WOOD AND WOOD PRODUCTS							
331	Wood and cork	-20.9	14.4	8.8	22.3	-3.1	12.5	4.4
332	Furniture and fixtures	-2.1	-4.5	9.9	34.2	-3.5	16.3	6.0
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING							
341	Paper and Paper products	-25.1	17.6	8.7	21.0	-3.1	12.1	4.2
342	Printing and publishing	20.1	15.3	5.5	14.0	17.4	8.0	12.6
		0.0	15.8	2.1	9.5	8.8	4.2	6.5
		23.4	15.3	5.8	8.3	18.9	8.4	13.4
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS							
351/2	Chemical products	6.6	-3.9	33.3	-1.8	0.5	22.2	10.8
353	Petroleum refinery	23.8	-8.8	34.0	-3.0	4.0	22.2	12.7
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	-28.5	7.5	26.2	-1.6	-9.7	17.5	3.0
356	Plastic products, n.e.c.	44.2	35.1	41.4	3.5	38.9	29.2	34.0
36	NON-METALLIC MINERAL PRODUCTS							
361	Pottery, china, earthenware	-34.5	8.9	7.3	6.0	-12.4	6.9	-3.2
362	Glass and glass products	-	-	-	-	-	-	-
369	Other non-metallic mineral products	-33.3	-1.1	-4.8	-11.8	-16.5	-6.8	-11.8
		-34.9	11.2	8.9	7.4	-11.6	8.4	-2.0
37	BASIC METAL INDUSTRIES							
371	Iron and steel basic industries	5.7	26.7	7.5	1.8	17.2	5.8	11.4
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-
		5.7	26.7	7.5	1.8	17.2	5.8	11.4
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT							
381	Fabricated metal products except mach. & equipment	-19.7	17.9	15.4	11.9	0.0	14.4	7.0
382	Non-electrical machinery	-30.6	29.6	15.3	11.1	-0.9	14.2	6.4
383	Electrical machinery, appliances	21.1	-5.3	15.3	7.5	5.2	13.0	9.0
384	Transport equipment	14.0	-3.0	14.9	26.2	3.9	18.0	10.7
385	Professional & scientific control equipment	-	-	-	-	-	-	-
		13.3	11.8	13.9	3.1	12.4	10.7	11.6
39	OTHER MANUFACTURING INDUSTRIES							
3	TOTAL MANUFACTURING	-9.8	-2.4	11.8	10.0	-5.6	11.3	2.5

Source: Calculations are based on table C-11 Appendix C.

TABLE (Cont.) - 1947-1967 MANUFACTURING INDUSTRIES (1957=100)

ISIC Code	1963	1964	1965	1966	1967	1968	1970	1971	1972	1973	1974	1975	1977
31. Food, beverage and tobacco	194.5	211.3	229.7	249.3	270.2	292.0	317.0	343.0	370.0	398.0	427.0	457.0	487.0
311/2 Food manufacturing	175.3	193.3	212.7	233.3	255.0	278.0	303.0	329.0	356.0	384.0	413.0	443.0	473.0
313 Beverages	24.7	17.3	17.0	16.0	15.2	14.0	13.0	12.0	11.0	10.0	9.0	8.0	7.0
314 Tobacco	176.5	174.7	163.7	153.3	145.5	135.7	125.0	115.0	105.0	95.0	85.0	75.0	65.0
32. Textile, wearing apparel & leather industries	673.2	692.6	714.3	733.2	752.0	770.8	789.6	808.4	827.2	846.0	864.8	883.6	902.4
321 Textiles	620.2	651.9	683.0	714.1	745.0	775.9	806.8	837.7	868.6	899.5	930.4	961.3	992.2
322 Wearing apparel except footwear	34.0	22.2	43.1	39.4	45.7	49.3	53.0	56.7	60.4	64.1	67.8	71.5	75.2
323 Leather and products	11.1	12.3	21.5	17.9	24.2	30.4	37.0	43.7	50.4	57.1	63.8	70.5	77.2
324 Footwear	9.9	6.2	13.7	7.5	10.7	10.3	12.0	13.7	15.4	17.1	18.8	20.5	22.2
33. Manufacture of wood products (including furniture)	67.6	56.6	51.4	47.4	58.5	59.0	91.3	94.0	96.7	101.0	105.3	114.3	143.0
331 Wood & cork products except furniture	7.7	7.7	7.2	13.1	11.5	17.5	17.0	17.7	17.9	18.1	18.3	18.5	18.7
332 Furniture and fixtures	54.9	48.9	44.3	34.3	47.0	56.5	74.6	78.0	75.9	74.9	73.0	71.0	70.0
34. Manufacture of paper and paper products, printing and publishing	15.9	7.5	10.5	13.8	15.6	15.9	10.3	21.2	34.5	26.6	20.0	31.0	41.0
341 Paper and products	5.8	0.9	1.2	2.9	3.3	5.3	4.8	5.0	6.3	8.3	9.9	10.1	11.4
342 Printing and publishing	10.1	6.6	9.3	10.8	12.3	10.6	11.5	15.8	17.9	18.3	19.1	20.9	29.6
35. Manufacture of chemicals and chemical products, coal, rubber and plastic	99.3	108.7	117.1	125.7	126.5	125.4	172.3	204.6	302.6	335.7	295.3	354.0	433.2
351 Industrial chemicals	-	-	-	-	-	-	-	-	13.3	6.4	10.8	77.3	16.5
352 Other chemical products	21.6	22.8	20.1	32.5	32.1	28.7	47.7	70.0	70.7	52.3	31.0	21.8	12.5
353 Petroleum refineries	68.2	78.0	84.2	78.6	94.9	33.3	110.6	193.2	191.2	90.3	19.1	107.0	106.5
354 Bituminous coal, petroleum products	-	-	-	-	-	-	-	-	-	-	-	-	-
355 Rubber products	9.5	7.0	11.9	12.0	7.1	10.7	11.7	14.6	21.0	17.0	14.5	25.1	31.0
356 Plastic products except	0.0	0.9	0.9	2.6	2.4	3.7	3.3	9.8	12.4	7.7	14.9	10.1	21.7
36. Manufacture of non-metallic mineral products except petroleum and coal	79.3	78.0	74.9	71.0	77.5	77.2	96.9	107.4	107.4	107.0	114.3	120.7	136.5
361 Pottery, china etc.	-	-	-	-	-	-	-	-	-	-	-	-	-
362 Glass and products	34.4	35.1	36.9	32.6	37.9	31.1	37.0	35.2	36.5	35.3	30.7	25.0	20.0
369 Other non-metallic mineral products	64.9	62.9	58.0	54.4	59.4	77.0	79.0	75.0	90.9	97.2	94.0	90.7	91.5
37. Basic metal industries	10.9	14.3	13.9	15.2	16.1	14.3	15.9	20.0	39.8	75.0	33.8	57.0	11.0
371 Iron and steel	-	-	-	-	-	-	-	-	15.0	9.3	13.9	27.1	30.0
372 Non-ferrous metals	10.9	14.3	13.9	15.2	16.1	14.3	15.9	20.0	24.8	15.7	19.9	30.0	31.0
38. Manufacture of fabricated metal products (including machinery and equipment)	89.0	92.5	96.0	101.7	79.7	90.3	131.5	142.0	148.6	190.5	295.0	347.3	420.0
381 Metal products, except machinery & equipment	71.3	62.5	46.0	15.7	39.1	56.7	74.2	79.1	34.6	103.3	170.0	157.0	126.0
382 Non-electrical machinery	8.9	9.9	6.0	32.0	36.9	19.6	37.1	34.0	41.9	51.2	91.4	105.3	111.0
383 Electrical machinery	11.1	23.1	44.0	54.7	21.7	13.9	20.2	31.0	72.0	42.0	84.4	34.2	94.5
384 Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
385 Professional, scientific goods etc.	-	-	-	-	-	-	-	-	-	-	-	-	-
39. Other manufacturing industries	3.8	4.2	4.3	4.5	4.9	4.0	5.1	6.0	5.9	6.2	6.7	7.4	9.1
3. Manufacturing total	173.4	1785.7	1890.6	1971.5	1819.6	1842.9	2161.5	2403.0	2586.7	2771.2	3023.6	3295.7	3521.4

Source: Calculations are based on Table C-1 Appendix C, 1967-1977.

TABLE (C-5) STRIA, VALUE OF GROSS OUTPUT IN THE PRIVATE SECTOR INDUSTRY 1963 - 1977
(\$L Billion at Constant Prices 1970 = 100)

1978 Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31.	Food, beverages and tobacco	520.0	556.6	604.5	624.7	678.8	771.1	890.6	938.0	950.1	985.0	1031.5	1067.9	1065.7	1080.6	1112.2
311/2	Food manufacturing	495.3	519.3	565.7	584.1	636.7	732.3	847.7	902.0	930.8	965.0	1002.2	1042.3	1041.7	1063.6	1094.4
313	Beverages	24.7	17.3	17.8	10.6	12.1	14.8	15.9	18.0	19.3	20.4	21.3	25.6	24.0	27.0	32.7
314	Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32.	Textile, wearing apparel and leather industries	673.3	692.6	714.3	733.3	767.7	814.9	883.8	944.0	977.4	1017.2	1061.4	1105.2	1145.4	1186.3	1234.2
321	Textiles	620.2	651.9	686.0	715.6	750.4	800.7	876.3	940.0	977.1	1017.1	1061.4	1105.2	1145.4	1186.3	1234.2
322	Wearing apparel except footwear	32.1	22.2	43.1	28.6	36.0	33.7	35.9	50.0	62.8	66.1	63.8	61.8	66.5	68.5	70.8
323	Leather and products	11.1	12.3	21.5	9.5	10.7	10.3	11.3	12.0	19.3	21.1	20.1	19.4	26.9	35.3	35.7
324	Footwear	9.9	6.2	13.7	9.5	10.7	10.3	10.3	12.0	18.5	20.3	19.4	18.4	25.7	33.8	34.3
33.	Manufacture of wood products including furniture	142.8	56.5	51.4	40.4	53.7	63.3	87.0	79.0	57.4	88.7	95.7	99.3	106.5	116.3	134.2
331	Wood and cork products except furniture	17.6	7.7	7.2	7.1	6.7	6.7	9.4	8.0	8.8	9.8	10.3	10.5	11.3	12.4	14.2
332	Furniture and fixtures	125.2	48.8	44.3	34.3	47.0	56.6	77.6	71.0	78.6	78.9	85.4	88.8	95.2	103.9	120.0
34.	Manufacture of paper and paper products, printing and publishing	5.3	7.5	10.5	11.8	13.4	12.7	13.4	17.0	18.8	20.6	21.2	22.1	27.4	62.1	37.5
341	Paper and products	1.9	0.9	1.2	1.0	1.1	2.1	1.9	2.0	3.0	2.7	3.0	3.1	3.6	8.5	5.1
342	Printing and publishing	3.4	6.6	9.3	10.8	12.3	10.6	11.5	15.0	15.8	17.9	18.2	19.0	23.8	53.6	32.4
35.	Manufacture of chemicals and chemical, petroleum, coal, rubber and plastic	33.1	30.7	32.1	27.3	25.0	24.0	31.9	32.0	39.5	57.1	46.7	66.8	77.1	102.9	75.6
351	Industrial chemicals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
352	Other chemical products	21.6	22.8	20.1	23.0	22.1	20.0	27.7	24.0	29.2	41.9	33.9	48.6	55.3	72.9	53.1
353	Petroleum refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Non-metallic mineral, petroleum products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber products	9.5	7.0	11.9	3.4	2.1	3.3	2.1	4.0	5.1	7.6	6.4	9.1	10.3	13.5	10.2
356	Plastic products n.e.c.	0.0	0.9	0.9	0.9	0.7	0.7	2.1	4.0	5.1	7.6	6.4	9.1	11.5	16.5	12.3
36.	Manufacture of non-metallic mineral products except petroleum and coal	79.3	78.0	75.0	22.9	22.7	27.0	29.5	32.0	39.3	43.8	41.2	39.1	48.2	115.3	52.1
361	Pottery, china etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and products	14.4	15.1	16.9	4.3	3.6	3.5	4.2	4.0	4.0	4.1	4.2	3.6	3.4	7.0	2.9
369	Other non-metallic mineral products	64.9	62.9	58.1	18.6	19.1	23.5	25.3	28.0	35.3	39.7	37.0	35.5	44.8	108.3	49.2
37.	Basic metal industries	11.0	14.3	13.9	16.2	16.0	15.6	19.9	20.0	20.0	24.8	55.8	19.9	29.9	34.9	35.4
371	Iron and steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metals	11.0	14.3	13.9	16.2	16.0	15.6	19.9	20.0	20.0	24.8	55.8	19.9	29.9	34.9	35.4
38.	Manufacture of fabricated metal products, machinery and equipment	91.3	92.5	96.0	53.3	57.9	69.4	95.4	99.0	94.6	104.3	99.0	161.7	187.8	204.5	235.7
381	Metal products, except machinery and equipment	71.3	62.5	46.0	30.2	36.2	53.2	66.3	69.0	73.5	80.5	76.0	124.6	144.9	157.9	182.4
382	Non-electrical machinery	8.9	6.9	6.0	14.7	13.0	10.4	12.4	13.0	13.8	14.8	14.6	23.7	27.6	30.5	34.7
383	Electrical machinery	11.1	23.1	44.0	8.9	9.7	5.6	6.7	7.0	7.3	9.0	8.3	13.4	15.3	16.1	18.6
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional, scientific goods etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39.(190)	Other manufacturing industries	3.8	4.0	4.3	2.5	4.9	3.9	5.1	5.0	6.0	6.0	5.7	5.7	7.5	9.1	9.5
39	Manufacturing total	1,826.8	1,930.0	2,070.0	2,014	2,060.1	2,263.9	2,466.6	2,577.0	2,684.7	2,804.7	2,928.7	3,052.7	3,170.4	3,301.1	3,434.1

SOURCE: Calculations are based on Tables C-6, Appendix C and D-3.

Table No. (C-1). DETAILED VALUE OF GOODS EXPORTED TO THE PUBLIC SECTOR INDUSTRIES, 1953-1977. (IN MILLIONS OF CURRENT PRICES 1970 = 100)

SIC Code	Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
21	Manufactures of Food, Beverages and Tobacco	176.4	174.7	163.7	481.1	458.9	466.0	515.3	499.0	537.4	566.0	623.9	645.6	639.4	806.1	736.7
	111/2 Food Products	-	-	-	321.7	300.1	312.8	345.1	343.0	346.7	389.3	413.9	400.2	381.4	440.1	422.2
	114 Beverages	176.4	174.7	163.7	153.3	155.2	151.5	165.7	152.0	151.8	164.1	186.3	231.7	242.0	343.8	286.5
22	Tobacco, Wearing Apparel and Leather Industries	-	-	-	540.6	904.8	903.2	636.5	621.0	558.0	555.6	611.9	707.9	623.6	682.5	759.3
	221 Textiles	-	-	-	521.5	489.3	489.2	619.1	602.0	542.7	537.7	590.4	609.0	600.8	692.6	732.0
	222 Wearing Apparel, except footwear	-	-	-	10.7	9.7	10.3	12.3	14.0	10.5	11.4	12.2	11.7	15.2	16.1	
	223 Leather and Products	-	-	-	8.4	5.8	3.7	5.1	5.0	4.8	6.5	9.3	7.2	7.6	6.8	
23	Manufactures of Wood Products and Furniture	-	-	-	6.1	4.8	5.7	6.3	9.0	8.8	8.1	5.5	9.0	12.8	7.9	9.3
24	Textile, Paper and Printing, Publishing, Printing and Publishing	-	-	-	6.1	4.8	5.7	6.3	9.0	8.8	8.1	5.5	9.0	12.8	7.9	9.3
25	Manufactures of Chemicals and Allied Products	68.3	78.0	84.2	99.1	101.3	101.3	140.4	206.0	225.2	245.5	239.0	228.4	268.4	541.7	357.7
	251 Industrial Chemicals	-	-	-	-	-	-	-	-	-	13.3	6.4	16.8	27.3	32.9	12.8
	252 Other Chemical Products	-	-	-	9.4	10.6	8.7	17.0	16.0	13.2	21.9	18.4	33.0	28.5	75.2	32.3
	253 Petroleum Industries	68.3	78.0	84.2	78.6	84.9	81.3	110.6	170.0	198.8	191.2	200.1	196.0	192.5	309.0	295.5
	254 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	259 Rubber Products	-	-	-	8.5	5.0	7.3	9.6	16.0	9.5	14.3	10.6	16.8	15.2	34.1	12.8
	259 Plastic Products & C.	-	-	-	2.6	1.4	2.0	3.2	4.0	3.7	4.8	3.5	5.8	4.9	10.6	4.3
26	Manufactures of Non-Metallic Minerals, Products, except Products of Petroleum and Coal	-	-	-	90.1	53.6	71.6	67.4	71.0	57.7	63.6	62.1	75.8	72.5	87.0	108.4
27	Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Manufactures of Fabricated Metal Products, Machinery and Equipment	-	-	-	48.1	31.8	20.9	46.1	50.0	49.6	44.3	66.7	133.9	154.9	196.2	223.5
	291 Metal Products, except machinery and equipment	-	-	-	3.6	2.9	3.5	7.9	5.0	4.6	4.1	3.7	5.1	7.7	37.7	23.8
	292 Non-Electrical Machinery	-	-	-	26.7	15.9	9.3	24.7	25.0	21.1	27.1	32.0	57.7	78.2	83.1	98.2
	293 Electrical Machinery	-	-	-	17.8	13.0	6.1	13.5	20.0	23.9	13.1	31.0	71.1	69.0	75.4	100.8
	294 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	299 Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	Other Manufacturing Industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	MANUFACTURING - TOTAL	244.7	292.7	287.9	1 227.1	1 157.4	1 173.9	1 397.5	1 459.0	1 420.7	1 501.7	1 623.7	1 821.4	1 805.2	2 378.5	2 236.1

SOURCE: Calculations are based on tables C-1 appendix C and D-3 appendix D

Table (C-7) *Approx. Gross Value Added in Overall Manufacturing Industry, 1965-1977.*
(SI Billions of Constant Prices)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31. Manufacture of Food, Beverages and Tobacco	129.6	176.4	193.9	192.9	209.0	230.8	222.1	215.2	209.1	169.4	180.5	180.5	46.0	170.9	181.3
311/2 Food Products *	57.6	116.8	117.3	107.3	94.6	93.8	100.5	94.2	85.3	63.0	362	12.0	-175.7	-150.7	-123.0
314 Beverages	6.0	4.6	5.1	6.6	6.8	8.8	9.3	10.5	10.3	14.0	15.2	11.5	18.7	32.6	30.3
314 Tobacco	66.0	55.0	71.5	79.0	107.6	100.0	121.0	116.4	119.6	132.1	154.0	167.0	203.0	289.0	274.0
32. Textile, Wearing Apparel and Leather Subindustries	175.5	137.3	231.7	229.5	243.8	253.7	271.1	286.2	332.0	326.5	466.2	1 094.1	681.4	947.0	1 204.4
321 Textiles	163.2	129.0	217.4	208.8	213.6	223.2	238.9	253.2	264.6	274.3	409.0	953.6	563.4	767.4	1 013.4
322 Wearing Apparel, except Footwear	7.0	7.6	8.6	14.0	17.0	20.6	22.4	22.0	34.0	36.1	41.8	67.1	81.8	120.9	133.1
323 Leather and Products	2.8	2.2	2.9	2.7	8.7	4.7	4.5	5.1	4.5	6.5	5.5	15.4	16.4	25.6	24.5
324 Footwear	2.5	2.5	2.8	4.0	4.3	5.2	5.3	5.9	8.9	9.7	9.9	16.0	21.8	33.1	35.4
33. Manufacture of Wood Products, incl. Furniture	38.9	19.2	18.2	18.9	26.0	31.9	31.7	32.6	33.4	37.1	37.4	56.5	122.9	143.0	176.5
331 Wood and Cork Products, except Furniture	3.3	2.9	2.6	4.6	3.4	4.9	5.4	5.1	5.8	6.3	3.1	9.0	15.9	19.7	14.6
332 Furniture and Fixtures	35.6	16.3	15.6	14.3	22.6	27.0	26.3	27.5	27.6	30.8	34.3	47.5	107.0	123.3	163.9
34. Manufacture of Paper and Paper Products, Printing and Publishing	6.2	3.5	3.8	5.4	7.6	7.9	6.5	10.5	11.4	15.1	19.3	18.9	18.8	31.4	37.4
341 Paper and Products	1.0	0.5	0.4	0.6	1.2	1.6	1.1	2.2	2.3	2.5	4.2	3.1	0.3	3.2	5.6
342 Printing, Publishing	5.2	3.0	3.4	4.8	6.4	6.3	5.4	8.3	9.1	12.6	15.1	15.8	18.5	28.2	28.8
35. Manufacture of Chemicals and Chemical Products, excl. Rubber and Plastic	30.4	30.9	34.2	48.8	77.0	75.6	49.6	55.9	92.1	94.5	108.0	146.9	177.9	309.7	395.6
351 Industrial Chemicals	-	-	-	-	-	-	-	-	-	10.2	7.1	21.0	36.6	20.0	18.6
352 Other Chemical Products	5.6	5.3	4.5	13.6	17.8	11.5	14.3	11.3	27.3	30.5	32.9	59.0	56.5	83.4	87.1
353 Petroleum Industries *	20.0	22.6	23.5	26.0	54.0	56.0	27.6	32.7	52.2	36.5	51.5	44.0	57.8	455.0	542.0
354 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355 Rubber Products	4.7	2.8	5.9	6.0	3.9	6.3	5.1	9.1	6.2	10.5	10.1	12.9	14.7	24.5	22.7
356 Plastic Products n.e.c.	0.1	0.2	0.3	1.2	3.3	1.8	2.6	2.8	6.4	6.8	6.4	10.0	12.3	17.4	18.0
36. Manufacture of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	18.5	31.5	30.7	27.6	37.1	43.3	45.9	53.1	58.3	58.9	72.4	100.5	88.9	184.7	218.1
361 Pottery, clays, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
362 Glass and Products	6.7	7.1	6.9	6.7	8.2	8.9	10.3	9.8	10.2	10.1	9.3	20.8	16.4	20.0	18.8
369 Other Non-Metallic Mineral Products	26.8	24.4	23.8	20.9	28.9	34.4	35.6	43.3	48.1	48.7	63.1	79.7	72.5	164.7	199.3
37. Basic Metal Industries	1.6	1.9	1.8	2.9	6.1	8.7	7.1	13.4	45.3	60.3	73.7	63.9	99.4	94.8	84.1
371 Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372 Non-Ferrous Metals	1.6	1.9	1.8	2.9	6.1	8.7	7.1	13.4	45.3	49.1	50.5	56.9	76.6	77.1	76.5
38. Manufacture of Fabricated Metal Products, Machinery and Equipment	22.2	18.0	24.1	25.9	28.6	40.8	64.2	74.0	82.2	98.4	115.8	154.8	243.5	357.9	374.3
381 Metal Products, except machinery and equipment	19.1	10.8	11.8	8.5	12.4	26.9	38.6	42.8	49.1	59.2	62.0	69.5	112.7	122.3	105.5
382 Non-Electrical Machinery	1.8	1.8	1.7	10.0	10.1	8.4	16.9	17.2	17.8	26.4	28.8	37.4	61.9	102.3	92.4
383 Electrical Machinery	1.3	5.4	10.6	7.4	7.1	5.5	6.7	14.0	15.9	12.8	25.0	48.0	66.9	93.2	95.4
384 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
389 Professional Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39. Other Manufacturing Industries	3.6	5.0	5.5	3.5	4.0	6.0	3.7	2.5	4.4	5.7	6.3	6.9	11.5	13.2	13.3
3 MANUFACTURING TOTAL *	441.5	423.7	543.9	555.4	639.3	669.8	708.6	750.3	854.3	905.5	1 088.5	1 793.0	1 490.2	1 633.2	1 495.7

* Adjusted Data, see text, Appendix C
 31.1/2 Food products
 35. Petroleum Industries, Tobacco & Plastics
 39. Other Manufacturing

Table (6-8). Sprins, Gross Value Added in the Private Sector Industry, 1965-1977
(\$1 Billion at Current Prices)

SEC Code	Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		1965	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	Manufactures of Food, Beverages and Tobacco	63.6	121.4	122.4	99.7	57.5	55.0	66.6	86.6	92.7	105.2	117.3	134.0	187.0	221.7	257.1
311/2	Food Products	57.6	116.8	117.3	95.8	53.1	49.8	60.5	77.2	84.2	95.7	106.7	122.7	174.0	200.1	234.0
314	Beverages	6.0	4.6	5.1	3.9	4.4	5.2	6.1	9.4	8.5	9.5	10.6	12.7	13.0	20.2	23.3
314	Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Textile, Wearing Apparel and Leather Industries	175.5	137.3	231.7	104.4	66.1	51.5	70.1	104.5	92.8	106.4	117.7	232.8	283.1	337.9	457.5
321	Textiles	163.2	125.0	217.4	87.8	42.8	36.7	53.0	76.2	50.6	60.1	66.9	133.6	174.7	272.0	352.1
322	Wearing Apparel, except footwear	7.0	7.6	8.6	10.4	13.1	16.4	17.7	17.7	29.9	34.5	36.7	60.0	73.0	110.7	118.4
323	Leather and Products	2.8	2.2	2.9	2.2	5.9	3.2	3.5	4.7	3.4	4.1	4.7	11.2	13.6	21.4	21.6
324	Footwear	2.5	2.5	2.8	4.0	4.3	5.2	5.3	5.0	8.0	9.7	9.5	18.0	21.8	33.1	35.7
33	Manufactures of Wood Products, Int. Furniture	38.9	19.7	18.2	17.3	24.7	30.1	28.5	30.0	30.0	33.3	37.1	50.8	117.2	135.7	183.0
331	Wood and Cork Products, except Furniture	3.1	2.2	2.6	3.0	2.1	3.1	2.2	2.5	2.4	2.3	2.8	3.3	10.2	11.0	19.3
332	Furniture and Fixtures	35.6	16.3	15.6	14.3	22.6	27.0	26.3	27.5	27.6	31.0	34.3	47.5	107.0	124.7	163.9
34	Manufactures of Paper and Paper Products, Printing and Publishing	6.2	3.5	3.8	5.3	6.9	7.0	5.8	9.2	10.1	14.0	16.9	17.7	20.1	30.5	33.1
341	Paper and Products	1.0	0.5	0.4	0.5	0.5	0.7	0.7	0.8	1.0	1.4	1.8	1.9	1.6	2.3	2.3
342	Printing, Publishing	5.2	3.0	3.4	4.8	6.4	6.3	5.1	8.4	9.1	12.6	15.1	15.8	18.5	28.2	29.8
35	Manufactures of Chemicals and Chemical Products, Except Products of Petroleum and Coal	10.4	8.3	10.7	12.7	12.0	7.5	8.7	9.3	27.7	29.4	32.8	51.2	64.5	88.5	89.9
351	Industrial Chemicals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
352	Other Chemical Products	5.6	5.3	4.5	10.6	11.5	5.1	7.7	6.3	19.7	20.9	21.0	36.0	44.8	60.6	60.1
353	Petroleum Refineries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Min. Products, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber Products	4.7	2.8	5.9	1.8	1.0	1.8	0.5	2.0	4.5	4.7	5.4	8.4	10.5	14.5	17.7
356	Plastic Products n.e.c.	0.1	0.2	0.3	0.3	0.3	0.6	0.8	1.0	3.5	3.8	4.4	6.8	9.2	13.7	17.1
36	Manufactures of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	33.5	31.5	30.7	7.9	9.8	10.5	14.3	15.9	22.5	26.6	27.4	30.8	39.9	54.7	51.0
361	Petroleum, oils, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Chem and Products	6.7	7.1	6.9	1.7	1.9	1.9	2.3	2.1	2.7	2.8	2.9	2.8	3.1	3.0	3.3
363	Other Non-Metallic Mineral Products	26.8	24.4	23.8	6.2	7.9	8.6	12.0	13.6	21.8	23.8	24.5	31.0	36.8	51.7	52.6
37	Basic Metal Industries	1.6	1.9	1.8	2.9	6.1	8.7	7.1	13.4	45.3	49.1	50.5	56.9	76.6	77.1	75.5
371	Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372	Non-Ferrous Metals	1.6	1.9	1.8	2.9	6.1	8.7	7.1	13.4	45.3	49.1	50.5	56.9	76.6	77.1	76.5
38	Manufactures of Fabricated Metal Products, Machinery and Equipment	22.2	18.0	24.1	14.4	17.5	31.0	43.4	49.5	57.2	70.0	74.9	81.2	132.0	157.6	177.3
381	Metal Products, except machinery and equipment	19.1	10.8	11.8	8.0	10.5	25.3	35.0	40.0	46.3	56.2	60.1	67.5	106.9	127.0	157.5
382	Machinery and Equipment	3.1	7.2	12.3	6.4	7.0	6.7	8.4	9.5	10.9	13.8	14.8	13.7	25.1	30.6	20.0
383	Non-Electrical Machinery	1.8	1.8	1.7	4.0	4.3	3.4	5.1	5.7	6.6	7.5	8.5	9.4	15.1	22.5	20.9
384	Electrical Machinery	1.3	5.4	10.6	2.4	2.7	2.3	3.3	3.8	4.3	6.3	6.3	4.3	10.0	13.1	13.0
385	Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
386	Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
387	Other Manufacturing Industries	3.6	5.0	5.5	3.5	4.0	6.0	1.8	2.5	4.4	5.7	6.3	6.5	11.5	13.2	13.3
39	MANUFACTURING - TOTAL	355.5	366.1	448.9	248.3	205.4	217.3	246.6	330.9	336.7	439.7	480.9	665.2	911.9	1,210.7	1,345.0

SOURCE: BOMA, Washington.

Table (5-9) *By-Products*. Gross Value Added in the Public Sector Industry, 1965-1977
(\$1 Million at Current Prices)

ISC Code	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	66.0	55.0	71.5	93.2	151.5	147.0	164.2	135.5	122.5	101.9	92.1	55.6	-141.0	-50.5	-54.0
31/2 Food Products *	-	-	-	11.5	41.5	44.0	40.0	18.0	1.1	-32.7	-106.5	-110.7	-349.7	-351.8	-337.0
314 Beverages	-	-	-	2.7	2.4	3.0	3.2	1.1	1.8	4.5	4.6	-0.7	5.7	12.3	9.0
314 Tobacco	66.0	55.0	71.5	79.0	107.6	108.0	121.0	116.4	118.6	131.1	154.0	162.0	203.0	288.0	274.0
32	-	-	-	125.1	177.7	192.7	200.7	181.7	219.2	220.1	348.5	821.3	398.3	599.8	746.9
321 Textiles	-	-	-	121.0	171.0	186.5	195.0	177.0	214.0	214.2	342.1	810.0	386.7	495.4	731.3
322 Wearing Apparel, except Footwear	-	-	-	3.6	3.9	4.2	4.7	4.3	4.1	3.6	5.6	7.1	8.8	10.3	12.2
323 Leather and Products	-	-	-	0.5	2.8	1.5	.0	0.4	1.1	2.4	0.8	4.2	2.8	4.2	2.2
324 Footwear	-	-	-	1.6	1.3	1.8	3.2	2.6	3.4	3.8	0.3	5.7	5.7	7.8	4.7
33	-	-	-	1.6	1.3	1.8	3.2	2.6	3.4	3.8	0.3	5.7	5.7	7.8	4.7
331 Wood and Cork Products, except Furniture	-	-	-	1.6	1.3	1.8	3.2	2.6	3.4	3.8	0.3	5.7	5.7	7.8	4.7
332 Furniture and Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	0.1	0.7	0.9	0.7	1.3	1.3	1.1	2.4	1.2	-1.3	0.9	6.3
341 Paper and Products	-	-	-	0.1	0.7	0.9	0.7	1.3	1.3	1.1	2.4	1.2	-1.3	0.9	6.3
342 Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
351 Manufacturing of Chemicals and Chemical Products	70.0	22.6	23.5	36.1	64.2	66.1	40.9	46.6	64.4	65.1	75.2	95.7	113.4	-396.5	-884.5
352 Inorganic Chemicals	-	-	-	-	-	-	-	-	-	10.2	7.1	21.0	36.6	28.0	18.6
353 Organic Chemicals	-	-	-	3.0	6.3	6.4	6.8	5.0	7.6	9.4	9.3	23.0	11.7	22.8	27.0
353 Petroleum Refineries *	70.0	22.6	23.5	28.0	54.0	56.0	27.6	35.7	56.2	56.5	51.5	44.0	57.8	-455.0	-942.0
354 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
359 Rubber Products	-	-	-	4.2	2.9	4.5	4.6	7.1	1.7	5.8	4.7	4.5	4.1	10.0	8.0
359 Plastic Products n.e.c.	-	-	-	0.9	1.0	1.2	1.8	1.8	2.9	3.0	2.0	3.0	3.1	3.7	3.9
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
361 Manufacturing of Non-Metallic Mineral Products, except Products of Plastics and Coal	-	-	-	19.7	27.3	32.8	31.6	37.2	33.8	32.3	45.0	69.7	49.0	130.0	156.7
361 Pottery, Glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
367 Glass and Products	-	-	-	5.0	6.3	7.0	8.0	7.5	7.3	7.3	6.4	18.0	13.3	37.0	15.5
368 Other Non-Metallic Mineral Products	-	-	-	14.7	21.0	25.8	23.6	29.8	26.3	24.9	38.6	51.7	35.7	113.0	140.7
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
371 Basic Metal Industries	-	-	-	-	-	-	-	-	-	11.8	23.2	7.0	32.8	17.7	7.6
371 Iron and Steel	-	-	-	-	-	-	-	-	-	11.2	23.2	7.0	32.8	17.7	7.6
372 Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	11.5	11.1	9.8	20.8	24.5	25.0	28.4	40.9	71.6	111.5	175.3	177.0
381 Manufacturing of Fabricated Metal Products, Machinery and Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
381 Metal Products, except Tools and Appliances	-	-	-	0.5	0.9	1.6	3.6	2.8	2.8	3.0	1.7	2.0	5.8	25.3	28.0
382 Non-Electrical Machinery	-	-	-	6.0	5.8	5.0	11.8	11.5	10.7	18.9	20.3	28.0	48.8	79.6	71.5
383 Electrical Machinery	-	-	-	5.0	4.4	3.2	5.4	10.2	11.6	6.5	18.9	41.7	56.9	70.4	77.5
384 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385 Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
391 Other Manufacturing Industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	86.0	77.6	95.0	271.4	433.8	452.5	462.1	429.4	460.6	465.8	577.6	1,127.2	558.3	992.5	1,901.7

* Adjusted data see next appendix C
 31/2 Manufacturing of Food, Beverages & Tobacco
 321 Textiles
 322 Wearing Apparel, except Footwear
 323 Leather and Products
 324 Footwear
 331 Wood and Cork Products, except Furniture
 332 Furniture and Fixtures
 341 Paper and Products
 342 Printing, Publishing
 351 Manufacturing of Chemicals and Chemical Products
 352 Inorganic Chemicals
 353 Organic Chemicals
 353 Petroleum Refineries
 354 Misc. Petroleum, Coal Products
 359 Rubber Products
 359 Plastic Products n.e.c.
 361 Manufacturing of Non-Metallic Mineral Products, except Products of Plastics and Coal
 361 Pottery, Glass, etc.
 367 Glass and Products
 368 Other Non-Metallic Mineral Products
 371 Basic Metal Industries
 371 Iron and Steel
 372 Non-Ferrous Metals
 381 Manufacturing of Fabricated Metal Products, Machinery and Equipment
 381 Metal Products, except Tools and Appliances
 382 Non-Electrical Machinery
 383 Electrical Machinery
 384 Transport Equipment
 385 Professional, Scientific goods, etc.
 391 Other Manufacturing Industries
 3. MANUFACTURING TOTAL *
 SOURCE: BOMA Estimates

Table No. (C-10). STRIA: GROSS VALUES ADDED IN U.S. DOLLAR MANUFACTURING INDUSTRIES AT CONSTANT PRICES (1970 = 100)

ISIC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	245.9	332.6	314.3	298.7	253.2	248.8	271.5	261.1	267.0	299.2	337.1	342.7	330.3	488.4	423.8
311/2	Food manufacturing	109.3	224.2	190.1	162.8	114.7	115.5	126.6	134.2	141.4	156.6	172.7	179.2	202.7	235.2	216.2
313	Beverages	11.4	2.8	8.3	10.0	3.2	10.1	10.6	10.5	10.0	13.6	14.3	15.2	15.0	25.6	20.7
314	Tobacco	125.2	105.6	115.9	119.9	130.4	123.2	137.3	115.4	115.7	128.3	149.7	152.9	162.6	227.4	186.9
32	TEXTILE, WEARING APPAREL AND LEATHER	216.4	169.5	453.4	273.9	237.2	237.3	278.3	286.2	251.2	264.9	334.4	538.4	398.2	492.4	574.1
321	Textiles	201.2	154.3	425.4	249.2	208.0	203.8	245.3	253.2	213.0	222.4	293.4	487.0	328.1	398.9	483.0
322	Wearing apparel	3.6	9.4	16.8	16.7	16.5	19.3	23.0	22.0	27.4	29.3	30.0	34.3	47.8	62.8	62.5
323	Leather products	3.5	2.7	5.7	3.2	4.4	4.4	4.6	5.1	3.6	5.3	3.9	7.9	9.6	13.1	11.7
324	Footwear	3.1	3.1	5.5	4.7	4.2	4.9	5.4	5.2	7.2	7.9	7.1	9.2	12.7	17.2	16.9
33	WOOD AND WOOD PRODUCTS	37.5	27.6	21.8	19.1	25.0	30.5	33.2	35.6	32.8	30.2	29.6	28.2	48.0	53.6	66.5
331	Wood and cork	3.2	3.7	3.1	4.6	3.3	4.6	5.7	5.1	5.7	5.1	2.5	4.5	6.2	7.4	5.4
332	Furniture and fixtures	34.3	21.0	18.7	14.4	21.7	25.9	27.5	27.5	27.1	25.1	27.1	23.7	41.8	46.2	61.1
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	3.0	3.3	4.4	5.3	9.5	8.4	6.2	10.5	11.3	13.5	14.6	14.4	11.2	14.9	18.9
341	Paper and Paper products	0.5	0.5	0.5	0.6	1.4	1.7	1.1	2.7	2.3	2.2	3.2	2.4	0.2	1.5	4.4
342	Printing and publishing	2.5	2.9	3.9	4.7	7.1	6.7	5.2	8.3	9.0	11.3	11.5	12.1	11.0	13.4	14.5
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	26.3	27.1	31.3	41.7	55.0	51.3	52.8	77.6	92.8	116.0	104.3	116.5	134.2	147.6	156.2
351/2	Chemical products	4.8	4.6	4.1	11.6	12.7	7.4	15.2	11.3	20.0	30.7	28.3	51.3	56.5	66.8	44.9
353	Petroleum refinery	17.3	19.9	21.5	23.9	38.5	37.3	29.4	54.4	63.6	60.2	64.4	49.9	61.3	62.2	94.0
354	Misc. products of petroleum & coal	4.1	2.5	5.4	5.1	2.8	4.2	5.4	9.1	4.5	10.0	7.1	8.4	8.9	14.4	9.7
355	Rubber products, n.e.c.	0.1	0.2	0.3	1.0	0.9	1.2	2.8	2.8	4.7	6.5	4.5	6.5	7.5	10.2	7.6
356	Plastic products, n.e.c.	40.3	36.7	37.1	39.5	44.2	50.8	43.4	53.1	46.7	48.7	50.5	59.5	50.4	75.1	89.5
36	NON-METALLIC MINERAL PRODUCTS	8.1	8.3	8.3	9.6	9.8	10.4	10.9	9.8	8.7	3.3	6.5	12.1	9.3	8.1	7.7
361	Pottery, china, earthenware	39.2	23.4	23.8	29.9	34.4	40.4	37.5	43.3	38.5	40.2	44.0	47.2	41.1	67.0	51.8
362	Glass and glass products	4.4	6.8	6.5	5.2	8.9	9.7	10.1	13.4	13.1	28.0	14.5	14.1	25.0	24.5	21.2
369	Other non-metallic mineral products	4.4	6.8	6.5	5.2	8.9	9.7	10.1	13.4	13.1	28.0	14.5	14.1	25.0	24.5	21.2
37	BASIC METAL INDUSTRIES	4.4	6.8	6.5	5.2	8.9	9.7	10.1	13.4	13.1	28.0	14.5	14.1	25.0	24.5	21.2
371	Iron and steel basic industries	4.4	6.8	6.5	5.2	8.9	9.7	10.1	13.4	13.1	28.0	14.5	14.1	25.0	24.5	21.2
372	Non-ferrous metal basic industries	49.4	41.7	43.2	46.1	41.4	47.2	72.1	74.0	75.5	80.8	105.9	150.4	186.9	214.1	240.4
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	42.5	25.0	23.6	15.1	16.5	31.1	43.4	42.3	45.1	49.6	56.7	71.5	86.4	103.1	119.1
381	Fabricated metal products except mach. & equipment	4.0	4.2	3.4	17.3	14.6	9.7	19.0	17.2	15.8	21.7	26.3	38.5	49.0	61.1	59.3
382	Non-electrical machinery, appliances	2.9	12.5	21.2	13.2	10.3	6.4	9.8	14.0	14.6	10.5	22.9	49.4	51.1	40.9	61.9
383	Electrical machinery, appliances	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	624.2	649.7	918.4	725.0	675.1	686.4	777.4	311.0	793.7	977.3	294.2	1 277.4	1 234.2	1 515.0	1 596.6
3	TOTAL MANUFACTURING															

Source: Calculations are based on tables C-7 appendix C and D-3 appendix D.

Table No. (C-11) STRIA: GROSS VALUE ADDED IN THE PRIVATE SECTOR INDUSTRY 1963-1977
(\$1 HILLION AT CONSTANT PRICES 1970 = 100)

ISIC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	120.6	233.0	198.4	151.3	69.7	67.7	75.6	86.6	89.6	102.1	114.0	123.5	149.8	174.2	160.5
311/2	Food manufacturing	109.3	224.2	190.1	145.4	64.4	61.3	68.7	77.2	81.4	92.9	103.7	112.4	139.4	158.2	145.0
313	Beverages	11.3	8.8	8.3	5.9	5.3	6.4	6.9	9.4	8.2	9.2	10.3	11.1	10.4	16.0	14.5
314	Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	216.4	169.5	453.4	124.6	144.4	57.5	72.3	104.5	74.7	86.3	84.4	118.9	165.5	227.2	218.1
321	Textiles	201.2	154.3	425.4	104.8	93.5	34.3	45.1	76.2	40.7	48.7	48.0	73.3	102.1	141.4	134.5
322	Wearing apparel	2.6	9.4	16.8	12.4	28.6	15.3	18.2	17.7	24.1	26.4	26.0	30.6	47.7	57.5	56.4
323	Leather products	3.5	2.7	5.7	2.6	12.9	3.0	3.6	4.7	2.7	3.3	3.4	5.1	7.9	11.1	1.5
324	Footwear	3.1	3.1	5.5	4.8	9.4	4.9	5.4	5.9	7.2	7.9	7.1	9.2	12.7	17.2	16.9
33	WOOD AND WOOD PRODUCTS	37.5	24.7	21.8	17.5	23.7	28.9	29.9	30.0	29.5	27.1	29.3	15.3	45.7	50.7	68.3
331	Wood and cork	3.2	3.7	3.1	3.0	2.0	3.0	2.3	2.5	2.4	2.0	2.2	1.6	4.0	4.5	7.2
332	Furniture and fixtures	34.3	21.0	18.7	14.4	21.7	25.9	27.6	27.5	27.1	25.1	27.1	13.7	41.7	46.2	61.1
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	3.0	3.3	4.4	5.2	7.7	7.4	5.6	9.2	10.0	12.5	12.8	13.5	12.0	14.5	15.8
341	Paper and paper products	0.5	0.5	0.5	0.5	5.6	0.7	0.4	0.9	1.0	1.3	1.4	1.5	1.0	1.1	1.2
342	Printing and publishing	2.5	2.8	4.0	4.7	7.1	6.7	5.2	8.3	9.0	11.3	11.5	12.1	11.0	13.4	14.6
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS	9.0	7.3	9.8	10.9	9.1	5.0	9.3	9.3	20.2	28.0	23.2	33.2	39.2	52.2	37.8
351/2	Chemical products	4.8	4.6	4.1	9.1	8.2	3.4	7.9	6.3	14.4	19.9	16.3	23.3	27.2	35.6	25.6
353	Petroleum refinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
354	Misc. products of petroleum & coal	4.1	2.5	5.4	1.5	0.7	1.2	5.3	2.0	3.3	4.5	3.8	5.4	6.4	8.5	6.2
355	Rubber products, n.e.c.	0.1	0.2	0.3	0.3	0.2	0.4	0.9	1.0	2.6	3.6	3.1	4.4	5.6	8.0	6.0
356	Plastic products, n.e.c.	40.3	36.7	37.1	11.3	11.7	12.3	15.1	15.9	19.8	22.0	19.1	18.2	22.6	22.2	25.4
36	NON-METALLIC MINERAL PRODUCTS	8.1	8.3	8.3	2.4	2.3	2.2	2.4	2.3	2.2	2.3	2.0	1.7	1.8	1.2	1.1
361	Pottery, china, earthenware	32.2	28.4	28.8	8.9	9.4	10.1	12.6	13.6	17.5	19.7	17.1	16.6	20.8	21.0	24.0
362	Glass and glass products	4.4	6.8	4.5	5.2	8.9	9.7	10.0	13.4	13.1	16.0	9.9	12.5	19.2	19.9	19.9
369	Other non-metallic mineral products	4.4	6.8	4.5	5.2	8.9	9.7	10.0	13.4	13.1	16.0	9.9	12.5	19.2	19.9	19.9
37	BASIC METAL INDUSTRIES	4.4	6.8	4.5	5.2	8.9	9.7	10.0	13.4	13.1	16.0	9.9	12.5	19.2	19.9	19.9
371	Iron and steel basic industries	4.4	6.8	4.5	5.2	8.9	9.7	10.0	13.4	13.1	16.0	9.9	12.5	19.2	19.9	19.9
372	Non-ferrous metal basic industries	4.4	6.8	4.5	5.2	8.9	9.7	10.0	13.4	13.1	16.0	9.9	12.5	19.2	19.9	19.9
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	49.4	41.7	48.2	25.6	25.3	35.9	48.8	49.5	52.5	57.5	68.5	85.7	101.2	109.2	126.7
381	Fabricated metal products except mech. & equipment	42.5	25.0	23.6	14.2	15.5	29.3	39.3	40.0	46.3	46.1	55.1	69.5	82.0	87.9	101.2
382	Non-electrical machinery	4.6	4.2	3.4	7.1	6.2	3.9	5.4	5.7	6.1	6.2	7.8	9.7	11.6	9.0	13.4
383	Electrical machinery, appliances	2.9	12.5	21.2	4.3	3.9	2.7	3.7	3.8	3.9	5.2	5.6	6.5	7.6	7.8	12.1
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	TOTAL MANUFACTURING	481.7	524.4	779.0	353.2	293.0	226.8	268.4	320.9	312.5	355.3	365.1	435.0	560.0	674.7	677.6

Source: Calculations are based on tables C-8 appendix C and D-3 appendix D.

Table No. (G-12) Syria, GROSS VALUE ADDED IN THE PUBLIC SECTOR INDUSTRIES, 1963-1977
 \$1 MILLION AT CONSTANT PRICES (1970=100)

ISC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	125.2	105.6	115.9	141.4	183.6	181.0	198.9	174.5	177.4	197.7	223.1	213.3	230.5	314.2	263.1
311/2	Food manufacturing	-	-	-	17.4	50.3	54.2	57.9	57.0	60.0	65.0	69.0	66.8	63.3	71.1	70.3
313	Beverages	-	-	-	4.1	2.9	3.7	3.6	1.1	1.7	4.4	4.5	6.4	4.6	9.7	6.1
314	Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	125.2	105.6	115.9	119.9	130.4	123.0	137.3	116.4	115.7	128.3	149.7	152.9	162.6	227.4	186.9
321	Textiles	-	-	-	149.3	172.8	179.8	206.0	181.7	176.5	178.5	250.0	419.5	232.8	265.0	356.0
322	Wearing apparel	-	-	-	144.4	166.3	174.5	200.2	177.0	172.3	173.7	243.7	413.7	226.0	257.5	348.6
323	Leather products	-	-	-	4.3	3.8	3.9	4.8	4.3	3.3	2.9	4.0	3.6	5.1	5.3	6.0
324	Footwear	-	-	-	0.6	2.7	1.4	1.0	0.4	0.9	1.2	0.6	2.1	1.6	2.2	1.4
33	WOOD AND WOOD PRODUCTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
331	Wood and cork	-	-	-	1.6	1.2	1.7	3.4	2.6	3.3	3.1	0.2	2.8	0.2	-1.8	-1.7
332	Furniture and fixtures	-	-	-	1.6	1.2	1.7	3.4	2.6	3.3	3.1	0.2	2.8	0.2	-1.8	-1.7
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
341	Paper and Paper products	-	-	-	0.1	0.8	1.0	0.7	1.3	1.3	1.0	1.8	1.0	-0.1	3.0	3.2
342	Printing and publishing	-	-	-	0.1	0.8	1.0	0.7	1.3	1.3	1.0	1.8	1.0	-0.1	3.0	3.2
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS	17.3	19.8	21.5	30.9	45.8	45.4	43.5	68.3	72.5	79.0	81.1	83.4	95.1	191.0	118.4
351/2	Chemical products	-	-	-	2.6	4.5	4.3	7.3	5.0	5.6	9.7	12.0	38.5	29.3	50.3	19.4
353	Petroleum refinery	-	-	-	23.9	38.5	37.3	29.4	54.4	63.6	60.9	64.4	49.9	51.3	124.6	94.0
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	-	-	-	3.6	2.1	3.0	4.9	7.1	1.2	5.5	3.3	2.9	2.5	11.8	3.4
356	Plastic products, n.e.c.	-	-	-	0.8	0.7	0.8	1.9	1.8	2.1	2.9	1.4	2.1	1.9	4.3	1.6
36	NON-METALLIC MINERAL PRODUCTS	-	-	-	28.2	32.5	38.5	33.3	37.3	27.0	26.6	31.4	41.3	27.8	52.9	64.1
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	-	-	-	7.2	7.5	8.2	8.4	7.5	6.0	6.0	4.5	10.7	7.5	6.9	6.4
369	Other non-metallic mineral products	-	-	-	21.0	25.0	30.3	24.9	29.8	21.0	20.6	26.9	30.6	20.2	46.0	57.7
37	BASIC METAL INDUSTRIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	-	-	-	20.5	16.1	11.3	23.4	24.5	23.0	23.3	37.5	73.7	85.8	104.8	113.7
381	Fabricated metal products except mach. & equipment	-	-	-	1.0	1.3	1.9	4.0	2.8	2.6	2.5	1.6	2.1	4.4	15.1	18.0
382	Non-electrical machinery	-	-	-	10.7	8.4	5.8	13.3	11.5	9.8	15.5	18.6	28.8	37.4	47.6	45.9
383	Electrical machinery, appliances	-	-	-	8.8	6.4	3.7	6.1	10.2	10.7	5.3	17.3	42.9	43.3	42.1	49.8
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	142.5	125.4	137.4	372.0	452.8	458.7	509.2	490.2	481.0	509.2	625.1	836.5	677.8	933.7	919.0

Source: Calculations are based on tables C-9 appendix C and D-3 appendix D.

Table No. (6-13) STEEL, THE VALUE ADDED IN OVERALL MANUFACTURING INDUSTRY, 1963-1977
(in billion current dollars)

1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
311/2 Food Products *	122.8	171.8	165.3	176.1	195.6	184.9	216.5	212.2	204.5	196.0	169.1	18.8	132.1	124.0
314 Beverages	51.7	112.8	110.0	98.7	82.8	78.9	87.7	86.5	75.9	52.2	-14.2	-195.6	-176.6	-187.2
314 Tobacco	5.0	4.1	4.5	4.2	6.1	6.4	8.8	10.1	9.8	13.1	14.2	10.5	28.7	26.2
314 Textiles	66.1	54.9	70.8	75.1	68.7	99.6	120.0	115.6	118.8	130.7	152.0	164.6	280.8	265.0
32 Textile, Wearing Apparel and Leather	194.2	195.3	214.8	210.4	228.0	232.8	250.7	264.9	291.0	299.4	440.0	1,120.5	888.7	1,136.6
321 Textiles	145.1	133.3	201.0	190.5	191.2	203.5	220.1	234.1	245.7	250.1	395.3	1,084.3	719.3	794.4
322 Wearing Apparel, except Footwear	6.0	7.5	8.3	13.5	16.2	19.8	21.2	20.7	32.7	34.4	40.2	64.6	78.9	126.4
323 Leather and Products	2.7	2.1	2.8	2.5	8.4	4.5	4.3	4.5	4.0	5.8	5.0	14.3	15.2	21.8
324 Footwear	2.4	2.4	2.7	3.9	4.2	5.0	5.1	5.6	8.6	9.1	9.5	17.3	21.0	34.0
33 Manufactures of Wood Products, Imp.	36.9	18.5	17.4	17.8	24.4	29.6	30.6	30.9	31.6	35.0	35.7	52.9	118.1	166.9
331 Wood and Cork Products, except Pulpwood	3.2	2.7	2.3	3.8	2.6	4.3	5.0	4.4	5.0	5.8	2.7	7.1	15.1	11.1
332 Pulp and Paper	33.7	15.8	15.1	13.9	21.8	25.3	25.6	26.5	26.6	30.0	33.0	45.8	103.0	155.8
34 Printing and Publishing	5.5	2.9	3.2	4.6	5.4	6.7	5.7	9.4	10.1	13.7	17.9	17.3	17.1	28.8
341 Paper and Products	0.9	0.4	0.3	0.5	0.9	1.5	0.9	2.1	2.1	2.1	4.0	2.7	0.1	2.3
342 Printing, Publishing	4.6	2.5	2.9	4.1	4.5	5.2	4.8	7.3	8.0	11.6	13.9	14.6	17.2	26.5
35 Manufactures of Chemicals and Chemical Products, Coal, Rubber and Plastics	23.0	17.5	25.9	36.1	65.0	63.6	45.2	52.9	88.6	89.7	100.1	130.9	159.7	-139.4
351 Industrial Chemicals	4.8	4.4	4.0	11.6	16.5	10.2	12.9	10.2	26.2	29.2	29.0	56.5	51.5	73.9
352 Other Chemical Products	14.0	10.7	16.1	18.2	44.0	46.3	25.5	33.9	51.0	49.4	42.0	55.5	429.5	-951.0
353 Plastics, Synthetic Rubber, and Miscellaneous Products, Coal Products	4.1	2.2	5.3	5.3	3.2	5.5	4.5	8.4	5.5	9.8	9.3	11.2	12.9	22.0
354 Rubber Products	0.1	0.2	0.3	1.0	1.3	1.6	2.3	2.4	5.9	6.4	5.9	9.2	11.4	15.7
355 Plastics, Synthetic Rubber, and Miscellaneous Products, Non-Metallic Mineral Products, Except Products of Plastics and Coal	28.3	25.1	27.2	21.5	21.8	32.8	37.5	45.9	92.0	53.8	65.1	95.9	143.6	194.9
356 Plastics, Synthetic Rubber, and Miscellaneous Products, Coal	6.1	6.7	6.5	5.8	7.4	8.0	10.0	8.9	9.2	9.3	8.4	19.8	17.8	16.7
357 Other Non-Metallic Mineral Products	22.2	18.4	20.6	15.7	14.4	24.8	27.5	37.0	42.8	44.5	56.7	76.1	145.8	176.2
37 Iron and Steel	1.5	1.8	1.6	2.5	5.4	8.6	7.0	13.3	44.4	57.0	69.8	94.7	87.6	76.2
372 Non-Ferrous Metals	1.5	1.8	1.6	2.5	5.4	8.6	7.0	13.3	44.4	57.0	69.8	94.7	87.6	76.2
373 Non-Ferrous Metals	1.5	1.8	1.6	2.5	5.4	8.6	7.0	13.3	44.4	57.0	69.8	94.7	87.6	76.2
38 Manufactures of Fabricated Metal Products, Machinery and Equipment	21.6	16.5	22.6	23.2	30.5	38.5	61.7	70.4	78.7	94.8	112.2	149.9	136.2	149.3
381 Metal Products, except machinery and equipment	18.8	9.7	11.0	7.1	13.3	25.4	37.5	41.1	47.3	57.2	59.9	67.0	109.2	146.1
382 Non-Mechanical Machinery	1.7	1.7	1.5	9.0	10.0	7.7	16.0	16.4	25.6	27.8	36.1	62.2	39.2	80.2
383 Electrical Machinery	1.1	5.1	10.1	7.1	7.2	5.4	8.2	13.0	15.0	24.6	46.8	65.2	80.0	91.0
384 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385 Professional Scientific Goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
386 Other Manufacturing Industries	3.4	4.8	5.3	3.3	4.0	5.5	4.0	2.5	4.4	5.6	6.3	7.0	11.4	12.3
3. MANUFACTURING - TOTAL *	399.2	384.2	393.2	497.4	574.1	603.0	658.9	702.4	805.2	844.9	998.1	1,384.5	1,442.0	1,264.5

Source: BLSA Statistics.

* Adjusted data see Note 1, Appendix C
 311/2 Food products
 314 Beverages, Textiles, Wearing Apparel, Footwear
 32 Textile, Wearing Apparel, Footwear
 33 Manufactures of Wood Products, Imp.
 34 Printing and Publishing
 35 Manufactures of Chemicals and Chemical Products, Coal, Rubber and Plastics
 351 Industrial Chemicals
 352 Other Chemical Products
 353 Plastics, Synthetic Rubber, and Miscellaneous Products, Coal Products
 354 Rubber Products
 355 Plastics, Synthetic Rubber, and Miscellaneous Products, Non-Metallic Mineral Products, Except Products of Plastics and Coal
 356 Plastics, Synthetic Rubber, and Miscellaneous Products, Coal
 37 Iron and Steel
 372 Non-Ferrous Metals
 373 Non-Ferrous Metals
 38 Manufactures of Fabricated Metal Products, Machinery and Equipment
 381 Metal Products, except machinery and equipment
 382 Non-Mechanical Machinery
 383 Electrical Machinery
 384 Transport Equipment
 385 Professional Scientific Goods, etc.
 386 Other Manufacturing Industries
 3. MANUFACTURING - TOTAL *

31 297.5 232.2 269.4 292.7 293.5 328.8 447.5 394.9 364.0
 311/2 94.7 126.5 151.9 177.7 229.1 279.2 279.2 279.2 279.2
 314 45.2 74.6 125.4 117.2 136.6 165.9 202.9 201.6 201.6
 32 25.5 25.5 25.5 25.5 25.5 25.5 25.5 25.5 25.5
 33 689.9 784.1 901.0 972.1 1,216.1 2,019.8 1,896.4 2,092.8 2,092.8

Table (V-25) Syria, Contribution to Manufacturing Value Added Growth by Industrial Branches in the Private Sector Industry, Selected Periods 1963-1977 at current prices (percentage)

ISIC Code	Category	63-77	63-70	70-77
31	FOOD, BEVERAGES AND TOBACCO	17.3	-66.5	14.5
311/2	Food manufacturing	15.8	-56.6	13.4
313	Beverages	1.5	- 9.8	1.1
314	Tobacco	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	28.5	205.2	34.5
321	Textiles	12.0	251.4	20.1
322	Wearing apparel	11.3	-30.9	9.8
323	Leather products	1.9	- 5.5	1.7
324	Footwear	3.3	- 9.8	2.9
33	WOOD AND WOOD PRODUCTS	14.6	25.7	15.0
331	Wood and cork	1.6	2.3	1.6
332	Furniture and fixtures	13.0	23.4	13.4
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	2.5	- 8.7	2.1
341	Paper and Paper products	0.1	0.3	0.1
342	Printing and publishing	2.4	- 8.9	2.0
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	7.9	3.2	7.8
351/2	Chemical products	5.5	- 2.0	5.2
353	Petroleum refinery	-	-	-
354	Misc. products of petroleum & coal	-	-	-
355	Rubber products, n.e.c.	1.0	7.8	1.2
356	Plastic products, n.e.c.	1.4	- 2.6	1.2
36	NON-METALLIC MINERAL PRODUCTS	2.9	50.9	4.5
361	Pottery, china, earthenware	-	-	-
362	Glass and glass products	-0.3	12.7	0.0
369	Other non-metallic mineral products	3.2	38.2	4.5
37	BASIC METAL INDUSTRIES	7.6	-34.1	6.2
371	Iron and steel basic industries	-	-	-
372	Non-ferrous metal basic industries	7.6	-34.1	6.2
38	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	17.7	-78.9	14.4
381	Fabricated metal products except machinery and equipment	14.0	-60.4	11.5
382	Non-electrical machinery	1.9	-11.3	1.5
383	Electrical machinery, appliances	1.8	- 7.2	1.5
384	Transport equipment	-	-	-
385	Professional & scientific control equipment	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	1.0	3.2	1.1
3	TOTAL MANUFACTURING	100.0	100.0	100.0

Source: Calculations are based on Table C-8, Appendix C.

Table (C-14) - Exports, by Year, Added in the Private Sector Industry, 1965-1977
(In Million of Current Price)

SEC Code	Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
01	Manufactures of Food, Beverages and Tobacco	56.7	116.9	114.5	93.3	51.4	46.9	63.9	82.5	88.3	100.3	111.8	128.6	178.6	205.8	219.1
	Food Products	51.7	112.8	110.0	91.3	47.4	42.9	58.0	71.3	80.0	91.0	101.5	116.6	165.9	187.8	200.6
	Beverages	5.0	4.1	4.5	2.0	4.0	4.0	5.9	9.2	8.3	9.3	10.3	12.0	12.7	18.0	18.5
	Tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Textile, Wearing Apparel and Leather Subproducts	156.2	125.3	214.8	101.8	66.0	56.4	67.3	99.2	67.3	100.2	111.0	219.3	265.9	404.1	428.2
	Textiles	145.1	113.3	201.0	95.5	37.4	32.3	41.8	72.6	46.7	56.4	62.3	133.8	162.1	245.8	275.0
	Wearing Apparel, except Footwear	6.0	7.5	8.3	10.3	12.7	16.0	17.1	16.7	20.0	31.1	34.9	27.2	10.3	26.6	31.4
	Leather and Products	2.7	2.1	2.8	2.1	5.7	3.1	3.3	4.3	3.0	3.6	4.3	30.3	12.5	19.9	19.2
	Footwear	2.4	2.4	2.7	3.9	4.2	5.0	5.1	5.6	8.6	9.1	9.5	17.3	21.0	31.8	34.0
22	Manufactures of Wood Products, Incl. Furniture	36.9	38.5	17.4	16.7	23.6	28.3	27.8	28.9	28.8	32.0	35.6	48.9	112.7	129.2	172.3
	Wood and Cork Products, except Pulpwood	3.2	2.7	2.3	2.8	1.8	3.0	2.2	2.4	2.2	2.0	2.6	3.1	9.7	9.4	16.5
	Furniture and Fixtures	33.7	35.8	15.1	13.9	21.8	25.3	25.6	26.5	26.6	30.0	33.0	45.8	103.0	119.8	155.8
23	Manufactures of Paper and Paper Products, Printing and Publishing	5.5	2.9	3.2	4.5	4.9	5.9	5.1	6.1	8.8	12.7	15.5	16.2	18.5	20.0	28.3
	Paper and Products	0.9	0.4	0.3	0.4	0.4	0.7	0.3	0.8	0.8	1.1	1.6	1.6	1.3	1.5	1.4
	Printing, Publishing	4.6	2.5	2.9	4.1	4.5	5.2	4.8	5.3	8.0	11.6	13.9	14.6	17.2	18.5	26.9
24	Manufactures of Chemicals and Chemical Products, Incl. Rubber and Plastic Products	8.0	6.8	9.6	11.6	11.8	6.5	7.6	8.3	26.6	28.4	31.4	49.1	61.9	81.5	80.9
	Industrial Chemicals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other Chemical Products	4.8	4.4	4.0	9.6	10.5	4.2	6.5	8.6	19.0	20.2	22.0	34.5	42.9	55.2	54.1
	Plastic Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other Non-Metallic Mineral Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Rubber Products	4.1	2.2	5.3	1.7	1.0	1.7	0.4	1.8	4.3	4.5	5.2	8.2	10.2	13.9	14.1
	Plastic Products n.e.c.	0.1	0.2	0.3	0.3	0.3	0.6	0.7	0.9	3.3	3.7	4.2	6.4	8.8	12.4	12.7
25	Manufactures of Non-Metallic Mineral Products, Except Products of Potassium and Coal	28.3	25.1	27.1	7.4	9.2	9.9	14.0	15.3	23.5	25.6	28.2	29.6	30.2	49.1	57.5
	Primary, glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chem and Products	6.1	6.7	6.5	1.6	1.8	1.8	2.2	2.1	2.4	2.6	2.6	2.6	2.9	2.6	3.0
	Other Non-Metallic Mineral Products	22.2	18.4	20.6	5.8	7.4	8.1	11.8	13.2	21.1	23.0	25.6	27.0	29.3	46.5	54.5
27	Basic Metal Industries	1.5	1.8	1.6	2.5	5.4	8.6	7.0	13.3	44.4	48.1	48.9	55.1	74.1	72.0	70.6
	Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Non-Ferrous Metals	1.5	1.8	1.6	2.5	5.4	8.6	7.0	13.3	44.4	48.1	48.9	55.1	74.1	72.0	70.6
28	Manufactures of Fabricated Metal Products, Machinery and Equipment	21.6	16.5	22.6	12.5	20.2	29.3	42.3	47.5	55.1	67.8	72.3	80.3	127.5	149.2	182.3
	Metal Products, except machinery and equipment	18.8	9.7	11.0	6.7	12.6	23.9	34.1	38.5	44.7	54.7	53.3	65.4	103.6	140.0	150.1
	Machinery and Equipment	1.7	1.7	1.5	3.5	4.6	3.1	5.0	5.4	6.2	7.1	6.1	9.9	14.3	18.2	15.2
	Electrical Machinery	3.1	5.1	10.1	2.3	3.0	2.3	3.2	3.0	4.2	6.1	5.9	6.0	9.6	11.0	17.0
	Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other Manufacturing Industries	3.4	4.5	5.3	3.3	4.0	5.5	5.0	2.5	4.7	6.3	7.2	11.4	12.3	12.4	12.4
29	MANUFACTURING - TOTAL	319.1	318.6	416.1	251.6	190.5	197.3	239.0	305.6	367.2	474.1	459.0	634.1	888.8	1,147.7	1,265.6

SOURCE: BMA Reclamation

Table (C-16) Speda. Capital Investment in Overall Manufacturing Industry, 1966-1977
(\$1 Billion at Current Prices)

Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	
21. Manufacturing of Food, Beverages and Tobacco													
21.1/2 Food Products	21.2	17.8	13.6	11.1	6.9	9.7	16.9	16.9	118.5	112.5	138.3	396.8	
21.3 Beverages	20.6	17.8	11.8	8.7	4.9	6.8	10.3	8.3	63.0	79.6	305.3	376.7	
21.4 Tobacco	0.6	-	0.6	0.8	1.1	0.8	1.6	4.6	11.8	5.4	8.2	15.7	
21.5 Textiles, Wearing Apparel and Leather	0.6	-	1.2	1.6	0.9	2.1	5.0	4.0	43.7	27.5	24.8	4.4	
22. Manufacturing of Wood Products, Textiles, Wearing Apparel and Leather	14.3	4.5	10.4	22.3	23.4	19.0	17.2	37.1	134.1	121.5	430.9	442.1	
22.1 Textiles	14.3	4.5	10.0	21.5	20.9	19.7	19.1	31.1	118.7	272.5	398.3	336.2	
22.2 Wearing Apparel, except shoes	-	-	0.2	0.5	1.6	2.1	1.4	3.8	7.0	29.9	53.5	43.7	
22.3 Leather and Products	-	-	0.1	0.1	0.4	0.5	0.4	1.2	7.8	17.5	18.4	61.1	
22.4 Footwear	-	-	0.1	0.2	0.5	0.6	0.3	1.0	0.6	1.6	0.7	1.1	
23. Manufacturing of Wood Products, Textiles, Wearing Apparel and Leather	0.1	0.4	-	-	0.1	0.4	0.2	0.0	1.2	5.9	0.6	-	
23.1 Wood and Cork Products, except Furniture	0.1	0.4	-	-	0.1	0.1	0.2	0.0	1.2	5.9	0.6	-	
23.2 Furniture and Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	
24. Manufacturing of Paper and Paper Products, Printing and Publishing	-	-	-	-	0.0	0.0	0.0	0.0	0.1	137.0	14.3	0.2	
24.1 Paper and Products	-	-	-	-	0.0	0.0	0.0	0.0	0.1	137.0	14.3	0.2	
24.2 Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-	
25. Manufacturing of Chemicals and Chemical Products, Coal, Rubber and Plastics	22.5	77.3	44.8	27.1	17.2	28.7	16.1	12.1	219.7	705.7	596.0	1 013.4	
25.1 Industrial Chemicals	21.7	22.3	18.7	15.6	9.5	21.4	7.0	0.5	4.9	321.7	297.6	419.0	
25.2 Other Chemical Products	-	-	0.5	1.7	1.7	1.9	3.2	4.3	12.0	51.0	52.5	44.9	
25.3 Petroleum Refineries	0.8	55.0	25.3	9.5	4.6	3.8	1.5	2.4	199.7	292.5	296.4	511.0	
25.4 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	
25.5 Rubber Products	-	-	0.2	0.1	0.8	0.4	1.6	1.9	1.6	75.1	27.3	17.0	
25.6 Plastics Products n.e.c.	-	-	0.1	0.2	0.8	1.2	2.8	3.1	1.4	5.3	2.2	1.5	
26. Manufacturing of Non-Metallic Mineral Products, Except Products of Petroleum and Coal	4.8	2.6	3.5	4.8	-	1.8	24.4	59.4	98.8	180.1	354.3	734.0	
26.1 Pottery, glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-	
26.2 Glass and Products	1.2	0.6	0.4	0.3	-	-	0.3	1.7	0.5	32.7	122.7	443.0	
26.3 Other Non-Metallic Mineral Products	3.6	2.0	3.1	4.5	-	1.8	24.1	57.7	90.3	147.4	231.6	291.0	
27. Basic Metal Industries	0.0	1.3	1.6	1.9	4.0	8.4	3.5	2.7	0.3	12.7	109.0	80.0	
27.1 Iron and Steel	0.0	1.3	1.6	1.9	4.0	8.4	3.5	2.7	0.3	12.7	109.0	80.0	
27.2 Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	
28. Manufacturing of Fabricated Metal Products, Machinery and Equipment	3.5	1.4	3.9	6.7	8.1	5.2	5.9	14.6	31.4	102.4	165.5	81.4	
28.1 Metal Products, except machinery and equipment	0.2	0.1	1.5	2.8	5.2	3.3	4.1	8.6	18.4	39.6	58.6	36.7	
28.2 Non-Metallic Machinery	1.8	0.7	1.5	2.6	0.7	0.5	0.9	3.3	10.3	48.6	86.8	26.8	
28.3 Machine Industry	1.5	0.6	0.9	1.3	2.3	1.4	0.9	2.6	2.8	14.3	20.2	17.9	
28.4 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	
28.5 Professional scientific goods etc.	-	-	-	-	-	-	-	-	-	-	-	-	
28.6 Other Manufacturing Industries	-	-	-	-	-	-	-	-	-	-	-	-	
2. MANUFACTURING - TOTAL	66.4	109.3	77.8	73.9	59.7	72.9	84.2	142.8	604.0	1 577.7	2 088.9	2 147.8	

Source: BLS, Washington.

Table No. C-17) SYRIA, CAPITAL INVESTMENT IN THE PRIVATE SECTOR INDUSTRY, 1968-1977,
(\$1 MILLION AT CURRENT PRICES)

ISIC Code	C a t e g o r y	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	1.3	2.6	1.9	1.9	2.3	3.8	19.1	10.8	6.1	3.2
311/2	Food manufacturing	1.2	2.4	1.7	1.7	2.1	3.5	17.4	10.0	5.5	2.9
313	Beverages	0.1	0.2	0.2	0.2	0.2	0.3	1.7	0.8	0.6	0.3
314	Tobacco	-	-	-	-	-	-	-	-	-	-
32	TEXTILE, WEARING APPAREL AND LEATHER	0.9	2.1	2.1	6.5	3.1	11.9	7.7	20.9	8.6	13.7
321	Textiles	0.5	1.3	6.6	3.6	1.8	6.7	4.7	12.9	5.3	8.5
322	Wearing apparel	0.2	0.5	1.6	2.1	0.9	3.7	2.0	5.4	2.2	3.5
323	Leather products	0.1	0.1	0.4	0.2	0.1	0.5	0.4	1.0	0.4	0.6
324	Footwear	0.1	0.2	0.5	0.6	0.3	1.0	0.6	1.6	0.7	1.1
33	WOOD AND WOOD PRODUCTS	-	-	-	-	-	-	-	-	-	-
331	Wood and cork	-	-	-	-	-	-	-	-	-	-
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	-	-	-	-	-	-	-	-	-	-
341	Paper and Paper products	-	-	-	-	-	-	-	-	-	-
342	Printing and publishing	-	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	0.8	2.0	1.3	2.5	4.5	3.8	9.8	9.4	14.5	9.1
351/2	Chemical products	0.5	1.7	0.9	1.8	3.2	2.7	6.9	6.5	9.9	6.2
353	Petroleum refinery	-	-	-	-	-	-	-	-	-	-
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	0.2	0.1	0.3	0.4	0.7	0.6	1.6	1.5	2.4	1.5
356	Plastic products, n.e.c.	0.1	0.2	0.1	0.3	0.6	0.5	1.3	1.4	2.2	1.4
36	NON-METALLIC MINERAL PRODUCTS	-	-	-	-	-	-	-	-	-	-
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	-	-	-	-	-	-	-	-	-	-
369	Other non-metallic mineral products	-	-	-	-	-	-	-	-	-	-
37	BASIC METAL INDUSTRIES	-	-	-	-	-	-	-	-	-	-
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	1.5	2.6	5.3	4.0	4.2	9.9	10.4	19.1	30.4	26.5
381	Fabricated metal products except mach. & equipment	1.2	2.1	4.3	3.2	3.4	8.0	8.4	15.5	24.5	21.2
382	Non-electrical machinery	0.2	0.3	0.6	0.5	0.4	1.1	1.2	2.2	3.7	2.8
383	Electrical machinery, appliances	0.1	0.2	0.4	0.3	0.4	0.8	0.8	1.4	2.2	2.5
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	4.5	9.3	17.6	14.9	14.1	29.4	47.0	60.2	59.6	52.5

Source: ECVA estimates.

Capital investment data in the private sector was available only for the 2 digit ISIC. The data for the 3 digits presented in the table are estimates derived by distributing each 2-digit figure to its corresponding 3 digit classes in the same proportions of GVA values for each year.

Table (C-18) *Sigra*, Capital Investment in the Public Sector Industry, 1966-1977
(In Millions of Current Prices)

ISC Code	Category	Year											
		1966/	1967/	1968/	1969/	1970	1971	1972	1973	1974	1975	1976	1977
31	Manufacturers of Food, Beverages and Tobacco	21.2	17.8	12.3	8.5	5.0	7.8	14.6	13.1	99.4	101.7	132.2	193.6
	311/2 Food Products	20.6	17.8	10.6	6.3	3.2	5.1	8.2	4.8	45.6	69.6	299.8	373.8
	314 Beverages	-	-	0.5	0.6	0.9	0.6	1.4	4.3	10.1	4.6	7.6	15.4
	314 Tobacco	0.6	-	1.2	1.6	0.9	2.1	5.0	4.0	43.7	27.5	24.8	4.1
32	Textile, Wearing Apparel and Leather Industries	14.3	4.5	9.5	20.2	14.3	12.5	25.1	25.2	126.4	300.6	422.3	428.4
	321 Textiles	14.3	4.5	9.5	20.2	14.3	12.1	13.3	24.4	114.0	299.6	353.0	377.7
	322 Wearing Apparel, except footwear	-	-	-	-	-	-	0.5	0.1	5.0	24.5	51.3	40.2
	323 Leather and Products	-	-	-	-	-	0.3	0.3	0.7	7.4	16.5	18.0	60.5
	324 Footwear	-	-	-	-	-	-	-	-	-	-	-	-
33	Manufacturers of Wood Products and Furniture	0.1	0.4	-	-	0.1	0.1	0.2	0.0	1.2	5.9	0.6	-
	331 Wood and Cork Products, except Furniture	0.1	0.4	-	-	0.1	0.1	0.2	0.0	1.2	5.9	0.6	-
	332 Furniture and Fixtures	-	-	-	-	-	-	-	-	-	-	-	-
34	Manufacturers of Paper and Paper Products, Printing and Publishing	-	-	-	-	0.0	0.0	0.0	0.0	0.1	137.0	14.3	0.2
	341 Paper and Products	-	-	-	-	0.0	0.0	0.0	0.0	0.1	137.0	14.3	0.2
	342 Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-
35	Manufacturers of Chemicals and Chemical Products, Coal, Rubber and Plastics	22.5	77.3	44.0	25.1	15.9	26.2	11.6	8.3	209.9	696.3	983.5	1 084.3
	351 Industrial Chemicals	21.7	22.3	18.7	15.6	9.5	21.4	7.0	2.5	4.9	321.7	227.6	419.0
	352 Other Chemical Products	-	-	-	-	0.8	0.1	0.0	1.6	5.1	44.5	42.6	38.7
	353 Petroleum Refineries	0.8	55.0	25.3	9.5	4.6	3.8	1.5	2.4	199.7	292.5	256.4	311.0
	354 Alkali, Pesticides, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-
	355 Rubber Products	-	-	-	-	-	-	-	-	-	-	-	-
	356 Plastics Products n. e. c.	-	-	-	-	0.5	-	0.9	1.3	-	73.6	24.9	15.5
	357 Public Products n. e. c.	-	-	-	-	0.7	0.9	2.2	2.6	0.1	3.9	-	0.1
36	Manufacturers of Non-Metallic Mineral Products, except Pottery, Glass and Ceramics	4.8	2.6	3.5	4.8	-	1.8	24.4	59.4	98.8	180.1	394.3	734.0
	361 Pottery, glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-
	362 Glass and Products	1.2	0.6	0.4	0.3	-	-	0.3	1.7	8.5	32.7	122.7	443.0
	363 Other Non-Metallic Mineral Products	3.6	2.0	3.1	4.5	-	1.8	24.1	57.7	90.3	147.4	211.6	291.0
	364 Basic Metal Substitutes	0.0	1.3	1.6	1.9	4.0	8.4	3.5	2.7	0.3	12.7	309.0	80.0
	365 Iron and Steel	0.0	1.3	1.6	1.9	4.0	8.4	3.5	2.7	0.3	12.7	309.0	80.0
	366 Non-Iron Metals	-	-	-	-	-	-	-	-	-	-	-	-
	367 Manufactures of Precious Metal Products, Machinery and Equipment	3.5	1.4	8.4	4.1	2.8	1.2	1.7	4.7	28.0	83.3	135.1	54.9
	368 Metal Products, except machinery and equipment	0.2	0.1	0.3	0.7	0.9	0.1	0.7	0.6	26.0	24.1	34.0	15.5
	369 Non-Metallic Machinery	1.8	0.7	1.3	2.3	0.1	-	0.5	2.2	9.1	46.4	83.1	24.0
	369 Electrical Machinery	1.5	0.6	0.8	1.1	1.9	1.1	0.5	1.8	2.0	12.9	18.0	15.4
	369 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-
	369 Professional Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-
	369 Other Manufacturing Substitutes	-	-	-	-	-	-	-	-	-	-	-	-
3	MANUFACTURING TOTAL	64.4	109.3	73.3	64.6	42.1	58.0	70.1	113.4	527.0	1 517.5	2 949.3	2 695.3

ISC Industries. Weight items with one exception obtained by allocating the 2-digit figures to their corresponding 3-digit classes in the same proportion as GFA. Data for this year have been estimated by applying to the 1967 values the constant average annual rate of growth between 1971 and 1969.

Table C-19 Syria, Capital Investment in Overall Manufacturing Industry, 1966-1977,
(SL Million at Constant Prices 1970 = 100)

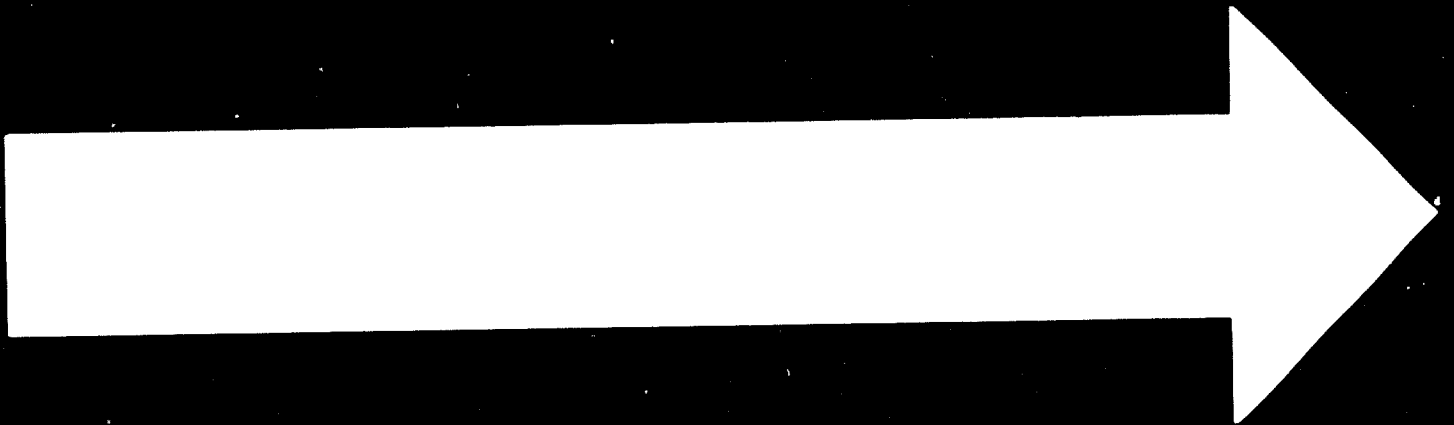
ISIC Code	C a t e g o r y	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	32.2	21.6	16.7	12.6	6.9	9.4	16.3	16.4	108.5	90.1	266.2	270.7
311/2	Food manufacturing	31.2	21.6	14.5	9.9	4.9	6.6	9.9	8.1	57.8	63.8	240.2	257.0
313	Beverages	-	-	0.7	0.9	1.1	0.8	1.5	4.5	10.8	4.3	6.5	10.7
314	Tobacco	1.0	-	1.5	1.8	0.9	2.0	4.8	3.9	40.0	22.0	19.5	3.0
32	TEXTILE, WEARING APPAREL AND LEATHER	17.1	4.4	9.7	22.9	23.4	15.3	13.9	26.6	68.6	187.9	224.0	210.7
321	Textiles	17.1	4.4	9.3	22.1	20.9	12.6	12.2	22.3	60.7	159.3	186.2	160.2
322	Wearing apparel	-	-	0.2	0.5	1.6	1.7	1.1	2.7	3.6	17.5	27.8	20.8
323	Leather products	-	-	0.1	0.1	0.4	0.4	0.3	0.9	4.0	10.2	9.6	29.1
324	Footwear	-	-	0.1	0.2	0.5	0.5	0.2	0.7	0.3	0.9	0.4	0.5
33	WOOD AND WOOD PRODUCTS	0.1	0.4	-	-	0.1	0.1	1.6	0.6	0.6	2.3	0.2	-
331	Wood and cork	0.1	0.4	-	-	0.1	0.1	1.6	0.6	0.6	2.3	0.2	-
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	-	-	-	-	0.0	0.0	0.0	0.0	0.1	81.5	6.8	0.1
341	Paper and Paper products	-	-	-	-	0.0	0.0	0.0	0.0	0.1	81.5	6.8	0.1
342	Printing and publishing	-	-	-	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	19.2	55.2	29.9	28.8	17.2	21.0	15.3	8.6	142.3	428.5	350.2	430.9
351/2	Chemical products	18.5	15.9	12.8	18.4	11.2	17.0	9.7	3.4	10.9	226.3	182.2	197.2
353	Petroleum refinery	0.7	39.3	16.9	10.1	4.6	2.8	1.4	1.7	129.3	153.3	150.6	225.8
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.o.	-	-	0.1	0.1	0.8	0.3	1.5	1.3	1.0	45.6	16.0	7.2
356	Plastic products, n.e.c.	-	-	0.1	0.2	0.8	0.9	2.7	2.2	0.9	3.2	1.3	0.6

Table C-19 (Cont'd.) Syria, Capital Investment in Overall manufacturing industry, 1966-1970,
(SI Million at Constant Prices 1970 = 100)

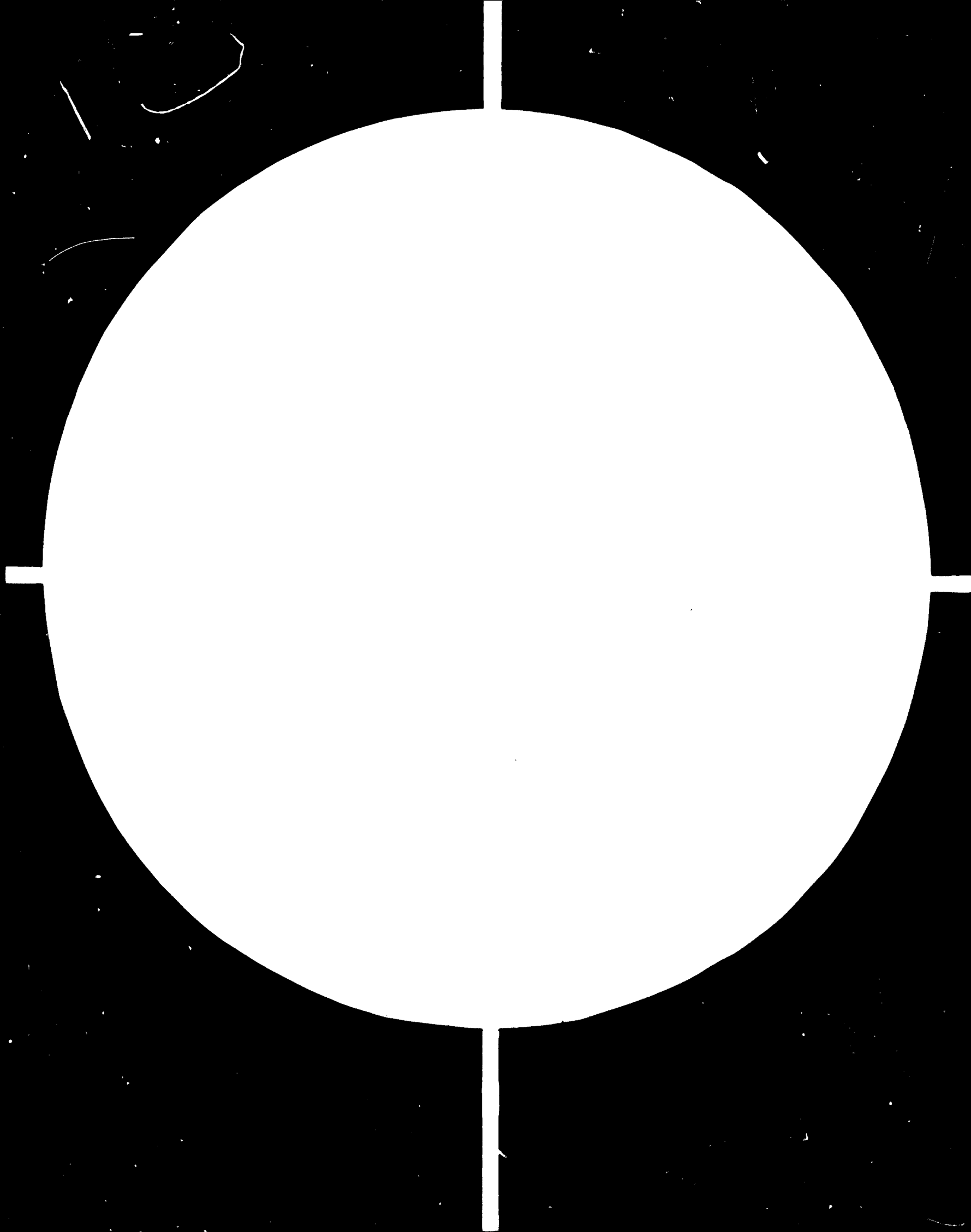
ISIC Code	Category	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
36	NON-METALLIC MINERAL PRODUCTS	6.8	3.1	4.1	5.1	-	1.4	20.2	41.4	58.5	102.1	144.1	301.3
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	1.7	0.7	0.5	0.3	-	-	0.2	1.2	5.0	18.5	49.9	181.9
369	Other non-metallic mineral products	5.1	2.4	3.6	4.7	-	1.4	20.0	40.2	53.5	83.6	94.2	119.5
37	BASIC METAL INDUSTRIES	0.0	1.9	1.8	2.7	4.0	2.4	1.1	0.5	0.1	3.2	28.2	20.8
371	Iron and steel basic industries	0.0	1.9	1.8	2.7	4.0	2.4	1.1	0.5	0.1	3.2	28.2	20.8
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACH. AND EQUIPMENT	6.2	2.0	4.5	7.5	8.1	4.8	4.8	13.3	32.3	78.5	99.0	52.3
381	Fabricated metal products except machinery and equipment	0.4	0.1	1.7	3.1	5.2	3.0	3.4	7.9	18.9	30.7	35.0	23.6
382	Non-electrical machinery	3.2	1.0	1.7	3.0	0.7	0.5	0.7	3.0	10.6	37.3	51.9	17.2
383	Electrical machinery, appliances	2.6	0.9	1.0	1.5	2.3	1.3	0.7	2.4	2.9	11.0	12.1	12.1
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	81.6	88.5	66.7	79.6	59.7	54.4	73.2	106.8	411.0	974.1	1118.7	1285.0

Source: Calculations are based on tables C-15 appendix C and table D-3 Appendix D

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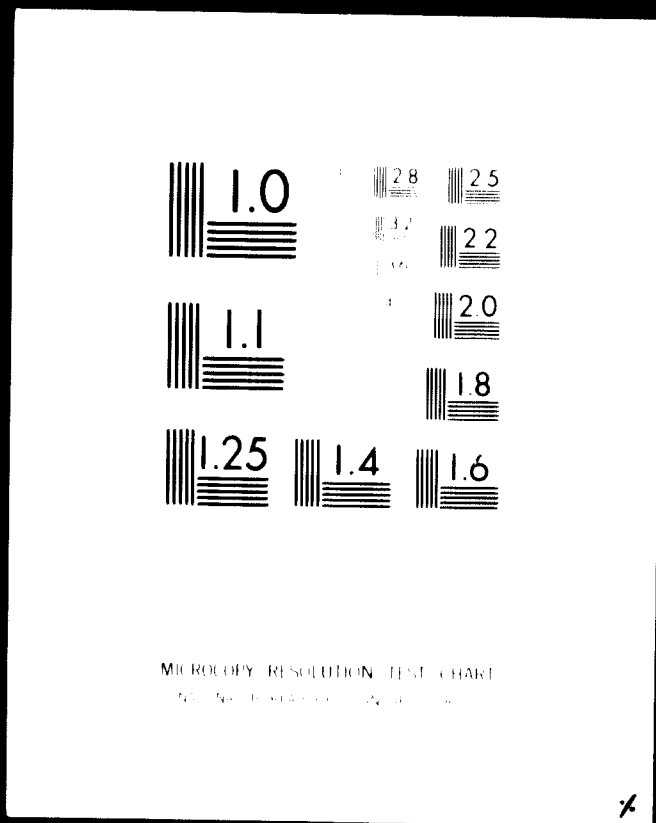


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Table C-20 Syria, Capital Investment in the Private Sector Industry, 1968-1977,
(SL million at constant prices 1970=100)

ISIC Code	Category	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	1.60	2.95	1.9	1.84	1.77	3.69	17.49	8.65	4.80	2.18
311/2	Food manufacturing	1.48	2.72	1.7	1.64	1.62	3.40	15.93	8.01	4.33	1.98
313	Beverages	0.12	0.23	0.2	0.19	0.15	0.29	1.56	0.64	0.47	0.20
314	Tobacco	-	-	-	-	-	-	-	-	-	-
32	TEXTILE, WEAVING APPAREL AND LEATHER	0.84	2.20	9.1	5.23	2.51	8.54	3.93	12.21	4.47	6.53
321	Textiles	0.47	1.36	6.6	2.90	1.46	4.91	2.40	7.54	2.75	4.05
322	Wearing apparel	0.19	0.52	1.6	1.69	0.73	2.65	1.02	3.16	1.14	1.67
323	Leather products	0.09	0.10	0.4	0.16	0.08	0.36	0.20	0.58	0.21	0.29
324	Footwear	0.09	0.21	0.5	0.48	0.24	0.72	0.30	0.94	0.36	0.52
33	WOOD AND WOOD PRODUCTS	-	-	-	-	-	-	-	-	-	-
331	Wood and cork	-	-	-	-	-	-	-	-	-	-
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	-	-	-	-	-	-	-	-	-	-
341	Paper and Paper products	-	-	-	-	-	-	-	-	-	-
342	Printing and Publishing	-	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	0.53	2.13	1.3	1.83	4.28	2.69	6.35	5.71	8.52	3.87
351/2	Chemical products	0.33	1.81	0.9	1.32	3.04	1.91	4.47	3.95	5.82	2.64
353	Petroleum refinery	-	-	-	-	-	-	-	-	-	-
354	Misc. products of petroleum and coal	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	0.13	0.11	0.3	0.29	0.67	0.42	1.04	0.91	1.41	0.63
356	Plastic products, n.e.c.	0.07	0.21	0.1	0.22	0.57	0.35	0.84	0.85	1.29	0.60

Table C-20 (Cont'd.) Syria, Capital Investment in the Private Sector Industry, 1968-1977,
(SL Million at Constant Prices 1970=100)

ISIC Code	Category	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
36	NON-FERROUS METAL PRODUCTS	-	-	-	-	-	-	-	-	-	-
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	-	-	-	-	-	-	-	-	-	-
369	Other non-metallic mineral products	-	-	-	-	-	-	-	-	-	-
37	BASIC METAL INDUSTRIES	-	-	-	-	-	-	-	-	-	-
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	1.74	2.92	5.3	3.67	3.45	9.05	10.71	14.65	18.18	17.02
381	Fabricated metal products except machinery and equipment	1.39	2.36	4.3	2.94	2.79	7.7		11.89	14.65	13.62
382	Non-electrical machinery	0.23	0.33	0.6	0.46	0.33	1.0	0.23	1.69	2.21	1.80
383	Electrical machinery, appliances	0.12	0.22	0.4	0.28	0.33	0.73	0.82	1.07	1.32	1.60
384	Transport equipment	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	4.71	10.2	17.6	12.58	12.01	23.97	38.48	41.22	35.97	29.60

Source: calculations are based on tables C-17 appendix C and D-3 Appendix D.

Table C-21 Syria, Capital Investment in the Public Sector Industry 1966-1977,
(SL million at Constant Prices 1970=100)

ISIC Code	Category	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	32.17	21.58	15.15	9.65	5.0	7.54	14.17	12.73	91.03	81.49	261.37	268.49
311/2	Food manufacturing	31.26	21.58	13.05	7.15	3.2	4.93	7.96	4.66	41.76	55.77	235.88	255.00
313	Beverages	-	-	0.61	0.68	0.9	0.58	1.36	4.18	9.25	3.69	5.98	10.50
314	Tobacco	0.91	-	1.48	1.82	0.9	2.03	4.85	3.89	40.02	22.04	19.51	3.00
32	TEXTILE, WEARING APPAREL AND LEATHER	17.06	4.38	8.88	20.73	14.3	10.06	11.44	18.08	64.56	175.69	219.49	204.19
321	Textiles	17.06	4.38	8.88	20.73	14.3	9.74	10.79	17.50	58.22	151.72	183.47	156.20
322	Wearing Apparel	-	-	-	-	-	-	0.41	0.07	2.55	14.52	26.67	19.16
323	Leather products	-	-	-	-	-	0.24	0.24	0.05	3.78	9.64	9.36	28.84
324	Footwear	-	-	-	-	-	-	-	-	-	-	-	-
33	WOOD AND WOOD PRODUCTS	0.1	0.38	-	-	0.1	0.1	0.16	0.0	0.59	2.30	0.22	-
331	Wood and cork	0.1	0.38	-	-	0.1	0.1	0.16	0.0	0.59	2.30	0.22	-
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING	-	-	-	-	0.0	0.0	0.0	0.0	0.07	81.50	6.80	0.10
341	Paper and Paper products	-	-	-	-	0.0	0.0	0.0	0.0	0.07	81.50	6.80	0.10
342	Printing and publishing	-	-	-	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER AND PLASTIC PRODUCTS	19.23	55.17	29.33	26.70	15.9	19.15	11.04	5.87	135.95	433.77	341.7	427.00
351/2	Chemical products	18.55	15.92	12.47	16.60	10.3	15.7	6.66	1.49	6.48	222.34	176.4	194.60
353	Petroleum refinery	0.68	39.25	16.87	10.11	4.6	2.78	1.43	1.70	129.34	153.31	150.6	2225.8
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	-	-	-	-	0.5	-	0.86	0.92	-	44.69	14.63	6.60
356	Plastic products, n.e.c.	-	-	-	-	0.7	0.6	2.09	1.84	0.06	2.37	-	10.04

Table C-21 (Cont'd.) Syria Capital Investment in the Public Sector Industry 1966-1977,
(SL million at Constant Prices 1970=100)

ISIC Code	Category	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
36	NON-METALLIC MINERAL PRODUCTS	6.87	3.09	4.11	5.06	-	1.4	20.17	41.42	58.53	102.10	144.08	301.31
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	1.72	0.72	0.47	0.32	-	-	0.25	1.19	5.04	18.54	49.90	181.9
369	Other non-metallic mineral products	5.15	2.38	3.63	4.74	-	-	19.92	40.23	53.50	83.56	94.18	119.5
37	BASIC METAL INDUSTRIES	0.0	1.90	1.78	2.70	4.0	2.43	1.14	0.53	0.07	3.19	28.17	20.80
371	Iron and steel basic industries	0.0	1.90	1.78	2.70	4.0	2.43	1.14	0.53	0.07	3.19	28.17	20.80
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACHINERY AND EQUIPMENT	6.23	2.03	2.78	4.61	2.8	1.10	1.40	4.30	21.63	63.88	80.80	35.26
381	Fabricated metal products except mach. and equipment	0.36	0.14	0.34	0.79	0.9	0.09	0.57	0.55	10.30	18.48	20.33	9.96
382	Non-electrical machinery	3.20	1.01	1.50	2.58	0.1	-	0.41	2.01	9.37	35.58	49.70	15.41
383	Electrical machinery, appliances	2.67	0.87	0.93	1.24	1.9	1.01	0.41	1.65	2.06	9.89	10.77	9.89
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional and scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-	-	-
3	TOTAL MANUFACTURING	81.66	88.53	62.03	69.45	42.1	42.88	59.52	82.93	372.43	932.92	1,082.63	1,257.2

Source: Calculations are based on tables C-18 Appendix C and D-3 Appendix D.

Table (C-20) Spots, Tons, Tons and Salaries in Small Manufacturing Industries, 1965-1977
(in Million of Current Prices)

Code	Category	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
21	Manufacturers of Food, Beverages and Tobacco	41.4	46.5	49.5	56.6	64.9	74.0	83.0	95.1	108.5	144.8	176.7	214.5	239.3
21.1	Food Products	21.3	21.8	23.7	33.3	35.4	43.0	50.5	54.1	68.4	71.7	88.9	111.0	136.7
21.2	Beverages	1.1	1.7	1.8	1.3	1.4	1.6	2.0	1.8	2.3	4.0	5.5	7.6	11.2
21.3	Tobacco	19.0	23.0	24.0	22.0	28.2	28.4	30.5	31.2	35.1	41.5	58.0	73.9	76.0
22	Textile, Wearing Apparel and Leather Industries	51.8	57.2	61.6	66.3	75.0	79.9	101.4	108.4	162.6	198.4	207.1	342.1	353.0
22.1	Textiles	47.1	51.8	55.6	67.8	72.0	81.4	93.4	93.4	144.8	171.3	205.7	294.9	313.1
22.2	Wearing Apparel, except Footwear	2.4	3.0	5.0	4.5	4.7	5.1	6.8	7.1	10.9	13.4	16.9	21.8	26.5
22.3	Leather and Products	1.2	1.0	1.2	1.2	1.5	1.7	1.8	2.4	3.8	4.8	4.6	5.9	7.5
22.4	Footwear	1.1	1.4	1.6	1.0	1.0	1.1	1.4	1.4	2.5	2.9	3.4	4.5	5.5
23	Manufacturers of Wood Products, Ink, Printing, Publishing	9.7	5.2	5.0	9.7	8.9	9.3	12.5	16.0	16.7	17.9	20.0	28.0	38.6
23.1	Wood and Cork Products, except Pulp	1.7	0.7	1.0	1.8	1.7	1.2	1.9	2.5	2.8	3.0	4.3	6.0	8.7
23.2	Printing, Publishing	5.5	4.5	5.0	7.5	7.2	8.1	10.6	13.5	13.9	14.9	15.7	21.7	29.9
24	Manufacturers of Paper and Paper Products	1.5	1.8	2.1	2.3	2.7	2.8	1.9	1.9	2.0	2.2	2.8	3.7	4.3
24.1	Paper and Products	0.5	0.3	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.6	0.9	1.1	1.4
24.2	Printing, Publishing	1.2	1.5	1.7	2.0	2.3	2.3	1.5	1.5	1.6	1.6	2.2	2.6	2.9
25	Manufacturers of Chemicals and Chemical Products, Coal, Rubber and Plastics	9.3	6.9	7.4	9.3	9.7	12.2	15.8	18.7	25.8	31.6	43.1	68.0	80.1
25.1	Inorganic Chemicals	-	-	-	-	-	-	-	-	-	-	-	-	-
25.2	Organic Chemicals	1.1	2.4	2.6	3.5	3.3	4.6	4.4	5.8	8.1	9.4	9.7	13.1	21.0
25.3	Plastics	3.0	2.7	2.8	3.5	3.1	5.0	4.7	6.7	12.5	12.5	13.5	22.5	26.6
25.4	Rubber Products	1.7	1.7	1.8	1.6	1.9	2.1	2.4	3.0	3.6	3.9	4.0	6.1	8.2
25.5	Coal	0.1	0.1	0.2	0.4	0.4	0.5	0.3	1.2	1.8	2.3	3.6	3.7	4.3
26	Manufacturers of Non-Metallic Mineral Products, except Petroleum and Coal	11.1	10.2	11.5	11.5	10.7	13.6	18.0	17.4	20.9	23.9	25.8	42.4	51.2
26.1	Other Non-Metallic Mineral Products	2.5	2.2	2.4	2.9	3.0	3.3	3.8	3.8	4.5	5.3	5.5	10.2	13.9
26.2	Other Non-Metallic Mineral Products	8.6	8.0	9.1	8.6	7.7	10.3	14.2	13.6	16.4	20.6	24.4	38.0	52.8
27	Iron and Steel	0.3	1.0	1.2	1.0	1.0	1.4	0.8	1.1	1.6	2.1	2.6	4.5	6.0
27.1	Iron and Steel	-	-	-	-	-	-	-	-	-	-	-	-	-
27.2	Non-Ferrous Metals	0.3	1.0	1.2	1.0	1.0	1.4	0.8	1.1	1.6	2.1	2.6	4.5	6.0
28	Manufacturers of Fabricated Metal Products, Machinery and Transport	5.7	3.7	4.2	6.5	7.4	9.3	10.8	10.5	12.6	15.2	17.8	30.4	48.0
28.1	Metal Products, except machinery and transport	3.8	2.3	2.6	3.1	3.6	5.3	5.8	5.9	6.2	8.1	9.1	11.3	18.1
28.2	Machinery and Transport	1.4	1.0	1.1	1.6	2.7	2.4	3.3	2.8	3.5	4.5	4.9	6.4	10.7
28.3	Machinery and Transport	0.5	0.4	0.5	1.8	1.6	1.7	1.7	1.9	2.7	2.6	3.8	5.7	10.5
28.4	Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
28.5	Professional, Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Other Manufacturing Industries	0.9	0.7	0.9	0.2	0.5	0.6	0.8	0.8	0.8	1.1	1.1	1.9	2.0
29.1	Other Manufacturing Industries	131.6	133.2	146.4	153.7	180.8	202.0	244.9	279.9	316.2	367.0	420.1	515.7	686.5

SOURCE: BMA Industries.

Table (C-23) Quota, Wages and Salaries in the Private Sector Industry, 1965-1977
(In Millions of Current Prices)

Category	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
21. Manufacturing of Food, Beverages and Tobacco													
21/1 Food Products	22.4	23.5	25.5	27.3	31.4	33.6	36.0	39.1	41.6	54.2	60.7	75.9	84.8
21/2 Beverages	21.3	21.8	23.7	24.6	26.0	28.1	30.4	32.4	34.7	41.7	65.7	76.0	77.2
21/3 Tobacco	1.1	1.7	1.8	1.1	1.3	1.4	1.5	1.6	1.7	2.4	3.0	3.9	7.6
22. Textiles, Clothing, Apparel and Leather													
22/1 Textiles	51.8	57.2	61.6	64.6	68.7	71.5	75.3	80.5	85.5	93.0	122.0	148.5	149.6
22/2 Clothing, Apparel, except Leather	47.1	51.8	53.8	56.1	59.4	64.6	66.6	69.5	73.3	75.3	78.8	132.8	138.2
22/3 Leather and Products	2.4	3.0	3.0	3.2	4.8	8.1	8.4	9.6	11.5	15.0	18.0	17.3	18.4
22/4 Footwear	1.2	1.0	1.2	0.6	0.7	1.1	0.9	1.3	2.8	2.8	3.7	4.2	5.5
22/5 Textiles, Clothing, Apparel and Leather	1.1	1.4	1.6	1.0	1.1	1.4	1.4	2.5	2.9	3.4	4.5	5.2	5.2
23. Manufacturing of Wood Products, Metal Products													
23/1 Wood and Cork Products, except Furniture	5.7	5.2	6.0	5.6	7.9	11.4	14.5	16.0	17.9	25.4	35.0	37.8	40.2
23/2 Furniture and Fixtures	1.2	0.7	1.0	0.7	0.6	0.8	1.0	1.1	2.2	1.7	2.4	2.9	3.0
23/3 Metal Products, except Machinery	5.5	4.5	5.0	7.9	7.2	8.1	10.6	13.5	15.7	23.7	32.6	35.9	37.2
23/4 Machinery and Equipment	1.5	1.8	2.1	2.2	2.6	1.7	1.8	2.0	2.5	3.2	3.6	3.9	5.1
23/5 Metal Products, except Machinery	0.3	0.3	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.6
23/6 Textiles, Clothing, Apparel and Leather	1.2	1.5	1.7	2.0	2.3	1.5	1.8	1.8	2.2	2.8	3.2	3.4	5.5
24. Manufacturing of Chemicals and Chemical Products													
24/1 Inorganic Chemicals	6.3	6.2	4.6	2.7	2.8	3.0	4.2	7.0	8.5	9.6	6.6	13.7	15.3
24/2 Organic Chemicals	6.3	2.4	2.6	2.4	2.5	3.0	3.1	5.1	5.6	5.6	7.0	2.6	10.2
24/3 Plastics, Synthetic Rubber and Other Synthetic Materials	-	-	-	-	-	-	-	-	-	-	-	-	-
24/4 Other Chemicals	1.9	1.7	1.8	0.3	0.3	0.4	0.6	1.0	1.0	1.8	1.3	0.5	1.8
24/5 Chemicals, except Inorganic, Organic, Plastics, Synthetic Rubber and Other Synthetic Materials	0.1	0.1	0.2	0.0	0.1	0.2	0.5	0.9	1.0	1.3	1.5	2.2	2.6
25. Manufacturing of Non-Metallic Mineral Products, except Fuels and Coal													
25/1 Fuels, except Petroleum	11.1	10.2	11.5	3.6	3.7	5.0	5.5	8.5	9.3	10.4	11.7	17.5	19.6
25/2 Other Non-Metallic Mineral Products	2.5	2.2	2.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.9	1.0
25/3 Fuels, except Petroleum	8.6	8.0	9.1	3.1	3.2	4.2	4.9	7.9	9.7	11.0	14.3	16.6	18.6
25/4 Other Non-Metallic Mineral Products	0.3	1.0	1.2	1.0	1.0	1.4	1.1	1.6	1.1	1.7	0.4	10.0	12.0
26. Manufacturing of Non-Metallic Mineral Products, except Fuels and Coal													
26/1 Fuels, except Petroleum	0.3	1.0	1.2	1.0	1.0	1.4	1.1	1.6	1.1	1.7	0.4	10.0	12.0
26/2 Other Non-Metallic Mineral Products	5.7	3.7	4.2	6.5	6.8	6.4	6.8	8.1	9.9	11.1	14.3	19.1	23.3
27. Manufacturing of Textiles, Apparel and Leather													
27/1 Textiles	3.8	2.3	2.6	3.1	6.6	5.0	6.0	7.3	8.3	10.4	14.0	17.0	15.0
27/2 Clothing, Apparel, except Leather	1.4	1.0	1.1	0.9	1.0	1.1	1.4	1.6	1.5	2.4	3.1	4.3	6.4
27/3 Leather and Products	0.5	0.4	0.5	0.6	0.7	0.7	0.7	1.0	1.3	1.5	2.0	2.0	3.0
27/4 Textiles, Clothing, Apparel and Leather	-	-	-	-	-	-	-	-	-	-	-	-	-
27/5 Textiles, Clothing, Apparel and Leather	0.9	0.7	0.9	0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.9	2.0	2.2
28. Manufacturing of Other Non-Metallic Mineral Products													
28/1 Fuels, except Petroleum	109.6	107.5	117.6	69.9	71.5	81.6	105.8	138.6	160.4	183.2	280.9	329.6	354.0

Source: 1978 Estimates.

Table (C-26) **Exports, Total** - **Age and Calendar in the Public Sector Exports, 1963-1977**,
(\$1 million at current prices)

SEC Code	Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	Manufactures of Food, Beverages and Tobacco	19.0	23.0	26.0	34.4	42.4	45.7	51.6	55.5	53.9	55.4	70.8	90.6	138.0	134.6	154.5
	311/2 Food Products	-	-	12.0	14.0	17.0	20.5	26.0	28.0	25.0	29.0	40.0	37.0	47.0	57.0	75.0
	313 Beverages	-	-	0.4	0.3	0.3	0.6	0.3	0.3	1.2	1.2	1.4	1.6	1.7	3.7	3.6
	314 Tobacco	19.0	23.0	28.0	28.0	25.0	25.4	30.5	31.2	33.7	25.1	29.5	50.0	78.5	73.9	76.0
32	Textile, Wearing Apparel and Leather Industries	-	-	41.7	49.3	51.9	64.7	66.9	75.2	91.1	111.9	137.6	165.1	201.6	203.4	203.4
	321 Textiles	-	-	39.5	46.7	49.0	62.0	63.0	75.0	89.1	106.1	130.4	156.1	191.2	192.9	192.9
	322 Wearing Apparel, except footwear	-	-	1.6	1.7	1.9	2.0	2.3	2.2	2.0	3.0	3.8	5.4	6.2	6.2	6.1
	323 Leather and Products	-	-	0.6	0.9	1.0	0.7	1.5	1.6	1.7	1.0	1.8	2.2	2.3	2.2	2.4
	324 Footwear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	Manufactures of Wood Products, Incl. Furniture	-	-	1.1	1.0	0.6	1.1	1.5	1.5	1.7	1.5	2.1	2.6	3.6	4.3	5.7
	331 Wood and Cork Products, except Furniture	-	-	1.2	1.0	0.6	1.1	1.5	1.5	1.7	1.8	2.1	2.5	3.6	4.3	5.7
	332 Furniture and Fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	Manufactures of Paper and Paper Products, Printing and Publishing	-	-	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.7	0.8	0.8
	341 Paper and Products	-	-	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.7	0.8
	342 Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	Manufactures of Chemicals and Chemical Products, Except Petroleum and Coal	3.0	2.7	2.8	6.6	6.9	8.6	12.8	14.5	17.7	24.0	29.8	31.0	37.1	54.3	64.8
	351 Inorganic Chemicals	-	-	-	-	-	-	-	-	-	3.0	1.0	2.1	2.3	2.2	2.5
	352 Other Chemical Products	-	-	-	1.4	0.8	1.6	2.0	2.7	3.0	3.8	3.8	6.1	5.6	9.4	10.1
	353 Petroleum Refinates	3.0	2.7	2.8	3.5	4.1	5.0	8.2	8.7	11.5	13.5	13.7	13.8	22.5	26.6	36.9
	354 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	355 Rubber Products	-	-	-	1.3	1.6	1.5	2.0	2.4	2.6	2.9	3.2	5.6	5.6	7.0	6.2
	356 Plastic Products, n.e.c.	-	-	-	0.4	0.4	0.5	0.7	0.7	0.7	0.8	1.2	1.3	1.7	1.1	2.2
36	Manufactures of Non-Metallic Mineral Products, Except Petroleum and Coal	-	-	-	7.9	8.0	8.6	12.1	11.9	12.4	14.6	15.6	21.2	27.1	33.7	46.5
	361 Pottery, glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	362 Other Mineral Products	-	-	-	7.4	7.5	7.8	12.1	11.9	12.4	14.6	15.6	21.2	27.1	33.7	46.5
	363 Other Non-Metallic Mineral Products	-	-	-	5.5	4.5	5.8	8.8	8.7	9.0	10.6	10.9	13.7	17.7	21.3	33.6
	364 Metal Industries	-	-	-	-	-	-	-	-	1.4	1.9	2.4	2.5	3.0	7.7	7.7
	365 Iron and Steel	-	-	-	-	-	-	-	-	1.4	1.9	2.4	2.5	3.0	7.7	7.7
	366 Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	Manufactures of Fabricated Metal Products, Machinery and Transport	-	-	-	7.0	2.6	2.9	7.0	6.0	4.0	5.3	6.7	9.1	19.1	22.7	26.2
	371 Metal Products, except work and equipment	-	-	-	0.3	0.5	0.7	0.7	0.9	0.9	0.8	0.8	0.9	0.9	2.4	3.1
	372 Non-Electrical Machinery	-	-	-	0.2	1.7	1.3	2.7	1.6	2.1	2.0	3.4	3.0	10.4	11.9	14.3
	373 Electrical Machinery	-	-	-	1.5	0.9	0.9	1.3	1.5	1.5	1.6	2.5	2.2	4.0	8.5	8.5
	374 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	375 Professional Scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	376 Other Manufacturing Industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	MANUFACTURES TOTAL	77.0	85.7	92.3	107.3	118.4	146.5	159.1	176.6	206.0	236.9	298.8	371.2	450.9	509.7	599.7

Source: U.S. Department of Commerce

Table (6-48) State Subtotals in Overall Manufacturing Industry, 1963-1977
(In Number)

Code	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
1. Manufactures of Food, Beverages and Tobacco	34,793	34,432	35,997	33,860	35,302	37,003	31,968	36,688	40,684	42,332	44,995	48,260	49,396	50,923	51,650
111/A Food Products	27,194	27,194	28,350	25,201	26,766	28,400	23,473	27,556	31,712	32,463	34,422	37,075	38,001	39,086	40,692
111/B Beverages	570	570	913	981	996	1,032	971	1,079	1,359	1,397	1,533	1,635	1,758	2,307	2,837
111/C Tobacco	5,709	5,363	6,334	7,659	7,580	7,571	7,524	8,053	8,920	8,470	9,000	9,550	9,637	9,490	9,714
2. Textile, Wearing Apparel and Leather Industries	71,594	21,694	22,800	36,792	38,843	32,509	27,424	48,534	64,231	66,410	69,359	73,410	77,466	79,351	81,008
21 Textiles	11,937	11,837	12,190	28,024	29,469	30,137	33,203	37,088	50,655	47,205	50,843	53,424	56,094	57,264	59,707
22 Wearing Apparel, except Footwear	6,380	6,296	6,715	5,970	6,318	6,540	7,657	9,216	11,345	12,278	13,350	14,258	14,693	15,126	15,726
23 Leather and Products	2,390	2,390	4,417	1,336	1,655	1,427	1,490	1,827	2,408	2,699	2,901	2,675	2,923	3,419	3,610
24 Footwear	1,127	1,211	1,312	1,504	1,601	1,615	1,576	2,002	1,654	3,078	3,337	3,561	3,823	3,973	4,129
3. Manufactures of Wood Products, Ink, Printing and Publishing	15,744	15,746	13,205	10,102	11,188	11,332	11,339	10,698	10,968	11,498	11,954	13,789	14,611	15,163	15,779
31 Wood and Cork Products, except Pulp	3,642	3,642	3,745	1,278	1,726	1,771	1,795	1,678	1,779	1,871	1,925	2,223	2,351	2,404	2,530
32 Pulp and Paper	12,102	12,104	9,460	8,824	9,462	9,561	9,544	9,020	9,189	9,527	9,929	11,566	12,260	12,759	13,249
33 Printing and Publishing	1,645	1,645	1,559	1,219	1,283	1,296	1,242	1,250	1,355	1,456	1,428	1,572	1,690	1,806	1,753
34 Paper and Products	170	179	197	202	212	212	200	212	358	242	256	400	500	597	569
35 Printing, Publishing	1,466	1,466	1,372	1,017	1,071	1,084	1,042	982	1,040	1,214	1,272	1,172	1,170	1,459	1,514
4. Manufactures of Chemicals and Chemical Products, except Plastics and Rubber and Plastics	6,069	5,975	5,922	3,313	3,500	4,034	4,058	5,038	6,820	9,312	11,115	9,442	9,287	10,239	10,508
41 Industrial Chemicals	2,487	2,487	2,913	1,294	1,351	1,570	1,418	2,091	2,734	2,923	2,984	3,317	3,513	3,823	3,682
42 Other Chemical Products	7,080	1,995	1,950	788	910	984	1,561	2,540	2,386	2,395	2,286	2,013	2,564	2,943	2,544
43 Misc. Products, Coal Products	1,314	1,314	1,390	1,044	1,140	1,197	674	1,171	1,400	1,528	1,357	1,903	1,949	1,696	1,774
44 Rubber Products	7	9	12	197	20	203	405	476	560	733	671	709	776	880	1,239
5. Manufactures of Non-Metallic Minerals and Clay	7,174	7,374	7,505	6,114	6,125	6,577	6,990	7,923	7,775	8,102	8,480	8,940	9,709	10,133	11,058
51 Pottery, Glass, etc.	1,940	1,970	1,770	1,724	1,351	1,366	1,659	1,526	1,584	1,376	1,640	1,708	1,707	1,755	1,737
52 Clay and Products	2,386	5,684	5,715	4,970	5,127	5,211	5,132	5,977	6,249	6,536	6,900	7,132	7,902	8,370	10,221
53 Other Non-Metallic Mineral Products	621	521	786	1,396	1,771	1,963	1,115	1,295	1,829	3,343	3,180	2,965	3,221	3,706	3,590
54 Stone and Sand	621	621	786	1,396	1,771	1,963	1,115	1,295	1,829	2,330	3,094	3,111	3,212	3,299	3,493
6. Manufactures of Fabricated Metal Products, Machinery and Equipment	6,972	6,699	7,522	8,789	9,139	9,677	9,966	9,181	9,981	10,314	10,877	11,474	13,137	14,445	15,317
61 Metal Products, except Iron and Steel	5,952	5,252	6,105	6,228	6,241	6,725	5,503	6,235	7,023	7,023	7,311	7,530	9,064	9,097	7,802
62 Non-Ferrous Metals	636	488	790	1,261	1,373	1,419	1,411	1,528	1,670	1,743	1,886	1,928	2,063	2,164	2,164
63 Ferrous Metals	120	509	637	1,302	1,425	1,483	1,050	1,360	1,498	1,550	1,737	1,983	2,430	2,369	3,351
64 Transportation Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65 Professional, Scientific, Instr. etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66 Other Manufacturing Industries	286	2,885	2,974	1,930	1,974	1,825	1,968	1,886	1,246	1,288	1,321	1,340	1,342	1,410	1,468
7. MANUFACTURES TOTAL	56,492	56,791	59,143	103,613	109,393	113,074	108,890	123,127	144,826	150,997	160,018	170,697	179,929	187,376	190,259

Source: BUREAU OF ECONOMIC ANALYSIS

Table No. (C-36) Series, Employment in the Private Sector Industry, 1963-1977
(In Number)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
21. Chemicals															
Manufactures of Paint, Inks, Pigments and Polymers	20 064	20 064	20 263	21 007	22 740	22 663	23 328	21 460	25 075	26 101	27 329	28 884	30 620	31 531	32 430
21/1 Food Products	27 134	27 134	28 350	29 117	21 836	21 643	16 600	20 559	24 022	25 005	26 181	27 613	29 334	29 807	30 048
21/2 Beverages	870	970	913	1090	904	960	726	901	1 053	1 096	1 148	1 211	1 286	1 724	2 342
21/3 Tobacco															
22. Textile, Wearing Apparel and Leather Manufactures															
22/1 Textiles	21 694	21 694	22 800	20 750	22 257	22 178	21 040	26 376	40 766	40 965	43 965	46 900	50 347	52 346	55 280
22/2 Wearing Apparel, except Footwear	11 837	11 837	12 350	13 017	13 973	13 628	12 834	16 090	28 439	24 744	26 818	28 621	30 712	31 931	33 720
22/3 Leather and Products	6 300	6 296	6 715	5 161	5 524	5 727	5 345	6 702	8 503	10 304	11 172	11 983	12 793	13 301	14 047
22/4 Footwear	2 350	2 350	2 417	1 068	1 159	1 208	1 282	1 582	2 150	2 439	2 638	2 815	3 021	3 141	3 318
22/5 Miscellaneous of Wood Products, Int. Products	1 127	1 211	1 318	1 504	1 601	1 615	1 596	2 002	1 654	3 078	3 337	3 541	3 821	3 973	4 195
23. Wood and Cellulose Products, except Pulp and Paper															
23/1 Wood and Cellulose Products, except Pulp and Paper	15 744	15 746	13 995	9 947	10 825	10 950	10 972	10 273	10 465	10 919	11 387	13 169	13 944	14 534	15 090
23/2 Pulp and Paper	3 640	3 642	3 745	1 237	1 365	1 332	1 253	1 277	1 277	1 332	1 390	1 607	1 704	1 773	1 841
23/3 Printing and Publishing	12 104	12 104	10 360	8 730	9 460	9 617	9 634	9 000	9 189	9 597	9 997	11 562	12 240	12 759	13 249
24. Printing and Publishing															
24/1 Printing and Publishing	1 445	1 445	1 599	1 178	1 235	1 240	1 087	1 194	1 290	1 357	1 421	1 492	1 573	1 687	1 853
25. Paper and Printing															
25/1 Paper and Printing	179	179	187	161	164	160	140	154	296	175	183	313	203	218	239
25/2 Printing, Publishing	1 266	1 266	1 372	1 017	1 071	1 080	942	1 040	994	1 182	1 238	1 179	1 370	1 469	1 614
26. Manufactures of Chemicals and Chemical Products, Cellulose and Paper Products															
26/1 Inorganic Chemicals	4 059	4 090	4 345	1 527	1 627	1 987	1 276	2 151	2 294	3 155	3 329	3 294	3 844	4 233	4 685
26/2 Other Chemical Products	2 687	2 687	2 813	913	977	1 056	826	1 479	1 049	2 109	2 289	2 388	2 381	2 718	2 940
26/3 Plastics, Synthetic															
26/4 Synthetic Rubber, Cellulose and Paper Products	1 314	1 314	1 390	531	547	596	268	451	628	662	705	755	807	902	960
26/5 Plastics Products, n.e.c.	68	68	142	83	103	115	182	221	317	304	425	446	516	613	671
27. Manufactures of Non-Metallic Mineral Products, except Pulp and Paper Products															
27/1 Iron and Steel	7 174	7 374	7 505	3 118	3 273	3 321	3 227	3 716	4 021	4 264	4 516	4 777	5 077	5 463	5 790
27/2 Non-Ferrous Metals	1 943	1 690	1 770	796	235	231	240	296	261	260	265	276	275	280	289
27/3 Other Non-Metallic Mineral Products	5 325	5 684	5 735	2 890	3 038	3 090	3 187	3 460	3 760	4 004	4 291	4 501	4 782	5 185	5 501
27/4 Brick, Glass, Ceramics	621	621	706	1 396	1 471	1 563	1 115	1 925	1 809	2 930	3 034	3 111	3 212	3 299	3 493
27/5 Iron and Steel	621	621	706	1 396	1 471	1 563	1 115	1 925	1 809	2 930	3 034	3 111	3 212	3 299	3 493
28. Manufactures of Fabricated Metal Products, except Machinery and Transport Equipment															
28/1 Metal Products, except machinery and transport equipment	6 572	6 699	7 522	8 074	8 491	8 637	6 958	8 044	8 732	9 077	9 539	9 927	10 344	10 898	11 433
28/2 Machinery and Transport Equipment	5 550	5 550	6 105	6 140	6 390	6 527	5 214	6 033	6 549	6 807	7 154	7 445	7 758	8 424	9 106
28/3 Non-Ferrous Machinery	630	638	780	915	942	961	898	1 078	1 170	1 216	1 243	1 330	1 386	1 602	2 713
28/4 Electrical Machinery	389	500	637	1 019	1 169	1 169	933	1 013	1 056	1 347	1 332	1 332	1 200	972	1 614
28/5 Transport Equipment															
28/6 Professional Scientific goods, etc.															
28/7 Other Manufacturing Industries	2 036	2 365	2 974	1 832	1 974	1 875	1 298	1 896	1 516	1 288	1 321	1 340	1 382	1 410	1 468
29. MANUFACTURING TOTAL	88 269	90 598	90 559	68 947	73 799	74 104	65 116	76 625	96 419	99 656	105 971	113 154	120 343	125 999	131 308

SOURCE: BLSA, Washington

Table (5-47) *Appals.* Employment in the Public Sector Industry, 1965-1977
(In thousands)

SEC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
81	Manufactures of Food, Beverages and Tobacco	6 229	6 348	6 634	12 813	12 543	14 400	14 640	15 228	15 609	16 231	17 666	19 436	18 776	19 398	20 280
	11/2 Food Products	-	-	-	5 084	4 890	6 737	6 873	6 297	7 130	7 458	8 261	9 462	8 667	9 279	10 031
	14 Beverages	-	-	-	91	92	72	143	178	299	301	305	424	472	663	475
	24 Tobacco	6 229	6 348	6 634	7 638	7 580	7 571	7 664	8 031	8 180	8 472	9 080	9 550	9 637	9 450	9 714
82	Textile, Wearing Apparel and Leather Subproducts	-	-	-	16 044	16 506	17 631	21 444	22 156	23 445	23 845	25 394	26 490	27 119	27 005	28 728
	21 Textiles	-	-	-	15 017	15 436	16 529	20 359	20 388	22 106	22 341	24 005	24 883	25 388	25 335	26 977
	22 Wearing Apparel, except footwear	-	-	-	729	734	813	847	900	1 013	1 044	1 106	1 427	1 445	1 392	1 443
	23 Leather and Products	-	-	-	288	296	289	228	240	296	260	263	260	272	270	296
83	Manufactures of Wood Products, Imp. Furniture	-	-	-	341	361	368	367	425	502	539	565	616	647	631	689
	24 Wood and Cork Products, except Furniture Products and Products	-	-	-	341	361	368	367	425	502	539	565	616	647	631	689
84	Manufactures of Paper and Paper Products, Printing and Publishing	-	-	-	41	48	58	60	58	62	69	73	87	97	119	130
	24 Paper and Products	-	-	-	41	48	58	60	58	62	69	73	87	97	119	130
	25 Printing, Publishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	Manufactures of Chemicals and Chemical Products	2 000	1 895	1 950	1 796	1 573	2 267	2 768	3 087	3 886	5 159	4 756	4 890	5 423	6 006	6 015
	26 Inorganic Chemicals	-	-	-	-	-	-	-	-	-	825	837	849	849	897	974
	28 Other Chemical Products	-	-	-	371	377	314	298	612	605	814	735	581	592	1 105	1 122
	29 Petroleum Subproducts	2 000	1 895	1 950	750	910	944	1 961	2 100	2 186	2 299	2 286	2 013	2 564	2 963	2 844
	30 Misc. Petroleum, Coal Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	31 Rubber Products	-	-	-	513	602	601	606	722	772	866	649	748	758	794	814
	32 Plastics Products, n.e.c.	-	-	-	114	187	188	223	253	243	349	249	298	260	267	261
86	Manufactures of Non-Metallic Mineral Products, Except Products of Pottery and Glass	-	-	-	2 996	3 222	3 296	3 463	3 097	3 754	3 838	3 964	4 063	4 152	4 670	6 168
	33 Pottery, Glass, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	34 Other Non-Metallic Mineral Products	-	-	-	1 016	1 116	1 135	1 218	1 270	1 265	1 316	1 395	1 432	1 438	1 475	1 448
	35 Other Non-Metallic Mineral Products	-	-	-	1 980	2 106	2 121	2 245	2 537	2 489	2 522	2 569	2 631	2 720	3 195	4 720
87	Basic Metal Industries	-	-	-	-	-	-	-	-	-	413	456	494	609	607	1 087
	37 Iron and Steel	-	-	-	-	-	-	-	-	-	413	456	494	609	607	1 087
	38 Non-Ferrous Metals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	Manufactures of Fabricated Metal Products, Machinery and Equipment	-	-	-	715	848	970	1 008	1 139	1 109	1 237	1 333	1 547	2 793	3 547	3 804
	39 Metal Products, except machinery and equipment	-	-	-	86	141	156	205	202	204	216	317	394	266	673	696
	399 Non-Metallic Machinery	-	-	-	346	301	458	472	472	500	525	561	622	1 277	1 377	1 453
	40 Electrical Machinery	-	-	-	283	346	314	344	465	405	456	598	731	1 230	1 497	1 737
	409 Transport Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	410 Professional scientific goods, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	Other Manufacturing Industries	6 229	6 253	6 564	14 766	15 600	16 970	43 764	46 502	48 407	51 331	54 207	57 543	59 636	61 977	66 931
3	MANUFACTURING - TOTAL	6 229	6 253	6 564	14 766	15 600	16 970	43 764	46 502	48 407	51 331	54 207	57 543	59 636	61 977	66 931

Source: BLS, Washington

Table No. (C-28) SYRIA. MANUFACTURING GROSS VALUE ADDED PER WORKER IN OVERALL MANUFACTURING INDUSTRY, 1963-1977.
(\$1 THOUSAND AT CONSTANT PRICES 1970-100)

ISIC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	7.17	9.8	9.8	8.6	7.2	6.8	8.7	7.1	6.6	7.1	7.5	7.1	7.7	9.6	8.1
311/2	Food manufacturing	4.02	8.3	6.6	6.5	4.2	4.1	5.4	4.9	4.5	4.9	5.1	4.9	5.3	6.1	5.4
313	Beverages	13.1	10.2	9.1	10.2	8.2	9.7	9.8	9.7	7.4	9.7	9.6	6.4	8.5	10.8	7.3
314	Tobacco	20.1	16.5	17.5	15.6	17.2	16.3	17.0	14.5	14.2	15.1	16.6	16.0	16.9	24.0	19.2
32	TEXTILE, WEARING APPAREL AND LEATHER	9.98	7.8	20.0	7.4	6.1	6.0	5.7	5.9	3.9	4.1	4.8	7.4	5.1	6.2	6.8
321	Textiles	17.0	13.1	34.0	8.9	7.1	6.9	6.7	6.8	4.2	4.7	5.7	9.1	5.9	7.0	8.0
322	Wearing apparel	1.35	1.5	2.5	2.8	2.6	2.9	3.1	2.9	2.9	2.6	2.4	2.6	3.4	4.3	4.0
323	Leather products	1.49	1.1	2.3	2.4	5.8	2.9	2.6	2.8	1.5	1.9	1.4	2.6	2.9	3.2	4.0
324	Footwear	2.75	2.6	4.1	3.1	2.6	3.0	2.7	3.0	4.3	2.6	2.2	2.6	3.3	4.3	4.0
33	WOOD AND WOOD PRODUCTS	2.38	1.5	1.6	1.9	2.2	2.7	5.5	3.1	2.9	2.6	2.5	2.0	3.4	3.5	4.2
331	Wood and cork	0.9	1.0	0.8	2.9	2.5	2.7	5.5	3.0	3.2	2.8	1.3	1.9	2.6	3.1	2.1
332	Furniture and fixtures	2.83	1.7	1.8	1.7	2.3	2.7	5.5	3.1	2.9	2.6	2.7	2.0	3.4	3.6	4.6
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	2.08	2.3	2.8	4.3	6.6	6.4	5.0	8.4	8.3	9.5	8.8	9.2	6.7	8.3	9.5
341	Paper and paper products	2.79	2.6	2.4	3.0	6.4	7.7	5.0	10.4	6.3	9.6	12.4	6.0	0.7	4.5	11.9
342	Printing and publishing	1.98	2.3	2.9	4.6	6.7	6.1	5.0	8.0	9.1	10.2	9.3	10.2	8.0	9.1	9.0
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS	4.33	4.6	4.9	12.6	15.3	12.5	13.0	13.3	13.6	14.0	12.9	13.8	14.5	14.4	14.9
351/2	Chemical products	1.79	1.8	1.5	9.0	9.4	4.9	7.2	5.4	7.3	21.6	13.9	27.3	13.0	30.4	2.6
353	Petroleum refinery	8.70	10.5	11.1	30.3	47.6	38.7	18.8	25.9	29.9	26.5	28.1	24.8	23.9	21.2	33.1
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	3.12	1.8	3.8	4.9	2.4	3.5	4.6	7.8	3.2	6.6	5.3	5.6	5.7	8.5	5.5
356	Plastic products, n.e.c.	1.47	1.9	1.9	5.1	3.2	3.9	5.9	5.9	8.3	8.8	6.7	9.2	9.7	11.6	6.2
36	NON-METALLIC MINERAL PRODUCTS	5.62	5.0	5.0	6.5	6.8	7.7	6.4	7.1	6.0	6.0	5.9	6.8	5.5	7.4	7.5
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	4.38	4.9	4.7	7.7	7.3	7.6	7.1	6.4	5.4	5.3	3.9	7.2	5.5	4.6	4.4
369	Other non-metallic mineral products	6.05	5.0	5.0	6.1	6.7	7.7	6.2	7.2	6.2	6.2	6.5	6.6	5.5	8.0	8.0
37	BASIC METAL INDUSTRIES	7.09	11.1	8.0	3.7	6.0	6.2	6.7	8.8	7.2	5.9	4.2	4.0	6.5	6.3	4.8
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metal basic industries	7.09	11.1	8.0	3.7	6.0	6.2	6.7	8.8	7.2	5.9	4.2	4.0	6.5	6.3	4.8
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	7.57	6.25	6.4	5.3	4.5	4.9	7.9	8.1	7.6	7.8	9.8	13.9	14.2	14.8	15.7
381	Fabricated metal products except mach. & equipment	7.66	4.4	3.8	2.4	2.5	4.6	7.0	6.9	6.7	6.9	7.8	9.4	10.7	11.3	15.3
382	Non-electrical machinery	6.27	6.0	4.4	14.1	11.0	6.8	12.2	11.1	9.6	12.5	14.6	19.8	18.4	20.5	14.2
383	Electrical machinery, appliances	7.59	24.5	33.2	10.1	6.8	4.3	7.0	10.1	9.7	6.8	13.2	26.3	21.1	21.1	18.5
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	0.38	0.5	0.5	0.8	0.9	1.3	1.0	1.3	2.6	2.9	3.0	3.1	3.3	3.3	3.5
3	TOTAL MANUFACTURING	6.47	6.1	8.6	7.0	6.1	6.0	5.9	6.6	5.6	5.9	6.3	7.5	6.9	8.1	8.1

Source: Calculations are based on tables C-10 and C-25 appendix C.

Table No. C-29 Syt14, MANUFACTURING GROSS VALUE ADDED PER WORKER IN THE PRIVATE SECTOR INDUSTRY, 1963-1977,
(\$1 THOUSAND AT CONSTANT PRICES 1970=100)

ISIC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO															
311/2	Food manufacturing	4.4	8.3	6.8	7.1	3.0	3.0	4.3	4.0	3.6	3.9	4.2	4.6	4.9	5.5	5.0
313	Beverages	4.0	8.3	6.6	7.3	2.9	2.8	4.1	3.8	3.4	3.7	4.0	4.3	4.7	5.3	4.8
314	Tobacco	13.0	10.2	9.1	6.7	5.9	6.7	9.5	10.4	7.8	8.4	8.9	9.8	8.1	5.9	6.1
32	TEXTILE, WEARING APPAREL AND LEATHER															
321	Textiles	10.0	7.8	20.0	6.0	2.9	2.6	3.4	4.0	1.9	2.1	1.9	2.6	3.3	4.4	4.0
322	Wearing apparel	17.0	13.1	34.4	8.0	3.0	2.5	3.5	4.7	1.4	1.9	1.8	2.6	3.3	4.4	4.0
323	Leather products	1.4	1.5	2.5	2.4	2.3	2.7	3.4	2.6	2.8	2.6	2.3	2.6	3.3	4.3	4.0
324	Footwear	1.5	1.1	2.3	2.5	5.0	2.4	2.9	3.0	1.3	1.4	1.3	2.0	2.6	3.5	3.1
33	WOOD AND WOOD PRODUCTS															
331	Wood and cork	2.4	6.8	1.6	2.0	2.2	2.6	2.7	2.9	2.8	2.4	2.6	1.9	5.0	3.5	4.5
332	Furniture and fixtures	0.9	1.0	0.8	2.9	1.4	2.2	1.7	2.0	1.9	1.5	1.6	1.0	3.1	2.5	3.6
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING															
341	Paper and Paper products	2.1	2.3	2.8	4.5	6.3	5.9	5.2	7.7	7.7	9.2	9.0	2.0	5.3	3.6	6.6
342	Printing and publishing	2.7	2.6	2.4	3.1	3.3	4.7	2.8	5.8	3.4	7.2	7.4	4.7	4.7	5.0	4.9
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.															
351/2	Chemical products	2.0	2.3	2.9	4.8	6.7	6.1	5.5	7.9	9.1	9.6	9.3	10.2	8.0	9.1	9.0
353	Petroleum refinery	2.2	1.8	2.3	7.1	5.6	2.8	7.2	4.3	6.8	8.8	6.9	9.2	10.2	12.3	8.4
354	Misc. products of petroleum & coal	1.8	1.8	1.4	9.9	8.4	3.2	9.6	4.3	7.0	9.4	7.3	9.7	10.6	13.1	10.0
355	Rubber products, n.e.c.															
356	Plastic products, n.e.c.	3.1	1.8	3.8	2.9	1.3	2.0	1.9	4.4	5.3	6.8	5.4	7.2	7.9	9.5	6.5
36	NON-METALLIC MINERAL PRODUCTS															
361	Pottery, china, earthenware	1.3	1.9	1.9	3.1	2.1	3.5	4.6	4.5	8.0	9.5	7.4	9.8	10.8	13.1	6.2
362	Glass and glass products	5.6	5.0	5.0	3.6	3.6	3.8	4.4	4.3	4.9	5.1	4.3	3.8	4.5	4.1	4.4
369	Other non-metallic mineral products	4.3	4.9	4.7	10.7	9.7	9.6	10.1	9.0	8.3	8.9	7.6	8.0	6.4	4.4	4.7
37	BASIC METAL INDUSTRIES															
371	Iron and steel basic industries	6.0	5.0	5.0	3.0	3.1	3.3	4.0	3.9	4.6	4.9	4.0	3.7	4.4	4.1	4.4
372	Non-ferrous metal basic industries	7.1	11.1	8.0	3.6	6.0	6.2	9.1	8.8	7.2	5.5	3.3	4.0	6.0	6.0	5.7
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT															
381	Fabricated metal products except mach. & equipment	7.1	11.1	8.0	3.8	6.0	6.2	9.1	8.8	7.2	5.5	3.3	4.0	6.0	6.0	5.7
382	Non-electrical machinery	7.6	6.3	6.4	3.2	3.0	4.2	7.0	6.2	6.1	6.3	7.2	8.7	9.8	10.9	11.1
383	Electrical machinery, appliances	7.6	4.4	3.8	2.3	2.3	4.5	7.5	6.6	6.5	6.8	7.7	9.1	10.6	10.5	14.3
384	Transport equipment	6.2	6.5	4.4	7.8	6.7	4.1	6.2	5.3	5.1	5.1	6.2	7.3	8.4	9.4	4.9
385	Professional & scientific control equipment	7.6	24.5	33.2	4.3	3.3	2.3	4.6	4.1	3.9	4.9	4.8	5.7	6.4	9.0	7.5
39	OTHER MANUFACTURING INDUSTRIES															
3	TOTAL MANUFACTURING	0.38	0.5	0.5	0.8	0.9	1.3	1.0	1.3	2.6	2.9	3.0	3.1	3.2	3.3	3.5
		5.4	5.4	7.8	4.9	2.9	3.0	4.1	4.2	3.4	3.8	3.6	3.9	4.9	1.1	5.3

Source: Calculations are based on tables C-11 and C-26.

Table No. C-30 Syria, MANUFACTURING GROSS VALUE ADDED PER ORDER IN THE PUBLIC SECTOR INDUSTRY, 1963-1977
(SL. THOUSAND AT CONSTANT PRICES 1970=100)

ISC Code	Category	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	20.1	16.5	17.5	11.1	14.7	12.4	13.6	11.5	11.3	12.1	12.6	11.3	12.3	15.8	13.0
311/2	Food manufacturing	-	-	-	3.5	10.3	7.9	8.4	8.1	8.3	8.7	8.4	7.1	7.3	8.5	7.0
313	Beverages	-	-	-	45.1	31.5	50.5	25.4	6.2	5.8	14.6	11.6	-15.6	9.7	14.6	12.9
314	Tobacco	10.6	16.5	17.5	15.6	17.2	16.0	18.0	14.5	14.2	15.1	16.6	16.0	6.0	24.1	19.2
32	TEXTILE, WEARING APPAREL AND LEATHER	-	-	-	9.3	10.4	10.2	9.7	8.2	7.5	7.5	9.8	15.8	8.6	9.8	12.4
321	Textiles	-	-	-	9.7	10.7	10.6	9.9	8.5	7.7	7.7	10.2	16.7	8.9	10.2	12.9
322	Wearing apparel	-	-	-	5.6	4.8	4.9	5.6	4.4	3.2	2.8	3.7	2.6	3.5	5.8	4.2
323	Leather products	-	-	-	2.3	9.2	4.9	4.5	1.7	3.5	7.5	2.2	8.3	6.0	7.8	4.7
324	Footwear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	WOOD AND WOOD PRODUCTS	-	-	-	4.7	3.5	4.4	9.1	6.1	6.7	5.8	0.4	4.6	3.4	4.6	2.5
331	Wood and cork	-	-	-	4.7	3.5	4.4	9.1	6.1	6.7	5.8	0.4	4.6	3.4	4.6	2.5
332	Furniture and fixtures	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	-	-	-	2.4	16.3	16.4	11.2	22.4	20.8	11.3	25.0	10.5	-8.0	3.6	24.6
341	Paper and Paper products	-	-	-	2.4	16.3	16.4	11.2	22.4	20.8	11.3	25.0	10.5	-8.0	3.6	24.6
342	Printing and publishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODS.	8.6	10.5	11.1	17.2	23.2	20.0	15.6	18.5	18.9	17.0	17.0	10.2	11.3	10.3	15.6
351/2	Chemical products	-	-	-	6.8	12.0	8.3	12.4	8.2	8.1	23.0	15.6	31.2	33.3	25.2	18.3
353	Petroleum refinery	8.6	10.5	11.1	30.3	47.6	38.7	19.8	25.9	29.9	26.5	26.1	24.8	23.9	21.2	33.0
354	Misc. products of petroleum & coal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	-	-	-	7.0	3.4	5.0	12.0	9.8	1.6	6.4	5.1	3.9	3.5	7.4	4.2
356	Plastic products, n.e.c.	-	-	-	6.8	3.8	4.3	8.6	7.1	8.7	8.2	5.7	8.0	7.2	8.2	6.3
36	NON-METALLIC MINERAL PRODUCTS	-	-	-	9.4	10.1	11.7	9.6	9.8	7.2	6.9	7.9	10.2	6.7	11.3	10.4
361	Pottery, china, earthenware	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
362	Glass and glass products	-	-	-	7.0	6.7	7.3	7.0	5.9	4.7	4.5	3.2	7.5	5.3	4.7	4.4
369	Other non-metallic mineral products	-	-	-	10.6	11.9	14.3	11.1	11.7	8.5	8.2	10.5	11.7	7.4	14.4	12.2
37	BASIC METAL INDUSTRIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
371	Iron and steel basic industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
372	Non-ferrous metal basic industries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	-	-	-	28.6	19.0	11.7	23.1	21.5	17.2	18.9	28.1	47.7	30.6	29.5	29.3
381	Fabricated metal products except mach. & equipment	-	-	-	10.0	9.3	9.4	14.2	13.9	11.2	11.4	8.8	10.6	15.5	16.5	25.8
382	Non-electrical machinery	-	-	-	30.8	22.0	12.6	27.6	24.4	17.6	29.6	33.1	46.3	29.7	34.6	31.7
383	Electrical machinery, appliances	-	-	-	31.5	19.5	11.8	24.8	21.9	19.6	10.8	29.1	58.7	35.5	28.1	28.6
384	Transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	TOTAL MANUFACTURING	14.2	13.1	17.4	10.5	12.7	11.9	11.6	10.5	9.6	10.1	10.1	15.3	11.0	13.0	13.6

Source: Calculations are based on tables C-12 and C-27 Appendix C.

APPENDIX "D"
CONSTRUCTION OF AN IMPLICIT PRICE INDEX OF
INDUSTRIAL OUTPUT

This Appendix explains the method used in constructing the implicit price index of industrial output. This was done by preparing an index for the value of output, an index for industrial production, which were used in deriving the implicit price index.

The first step was to construct an index for the value of industrial output at current prices. Using the value of output data prepared for the study and presented in Appendix "C", an index for the value of output by 2-digit ISIC for the period 1963-1977 with 1970 as a base year was constructed. This index is presented in Table (D-1) below.

The second step was to construct an index for industrial production which has the same base year and which covers the same time period. Such an index is prepared by the Central Bureau of Statistics and is published in the Statistical Abstract of Syria according to the 2-digit-ISIC. In fact the CBS has published two such indices with different base years. The first index covers the period 1965-1973 with 1965 being the base year. The second index covers the period 1970-1977 with 1970 being the base year. These indices were applied to convert the 1965 base year index into a 1970 base index and derive a 1970 base index of industrial production for the period 1963-77. The index is presented in Table D-2 below.

Having prepared the index of value of industrial output at current prices and the index of industrial production, it was just a matter of dividing the value index by the quantity index and multiplying the result by 100 to get the implicit price index (base 1970) of industrial output at 2-digit-ISIC for the period 1963-1977. This index is presented in Table D-3 below.

TABLE (D-1) Index of Value of Industrial Output at Current Prices 1963-77 (1970 = 100)

ISIC Code	C a t e g o r y	1963	1964	1965	1966	1967	1968	1969	1970
20	FOOD, BEVERAGES AND TOBACCO	43.8	45.5	56.6	63.5	72.7	72.3	84.8	100.0
211/2	Food manufacturing	39.4	42.4	54.6	63.2	70.6	70.4	82.4	100.0
213	Beverages	59.1	40.9	50.0	50.9	56.8	48.2	81.8	100.0
214	Tobacco	61.0	59.9	66.4	66.4	83.2	80.9	96.1	100.0
22	TEXTILES, WEAVING APPAREL AND LEATHER	65.4	67.2	43.7	73.7	85.2	86.8	95.7	100.0
221	Textiles	67.8	71.2	43.8	75.3	85.8	87.9	97.8	100.0
222	Weaving apparel	40.6	28.1	34.4	52.2	73.4	71.4	73.4	100.0
223	Leather products	53.5	55.9	64.7	90.0	97.6	88.2	94.1	100.0
224	Footwear	65.0	45.0	54.2	65.8	91.7	91.7	83.3	100.0
23	WOOD AND WOOD PRODUCTS	73.4	50.0	48.9	52.7	68.9	81.8	100.9	100.0
231	Wood and cork	44.7	35.3	35.3	75.9	68.2	76.5	87.1	100.0
232	Furniture and fixtures	80.3	53.5	52.1	47.2	69.0	83.1	104.2	100.0
24	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	54.2	38.4	42.9	70.2	69.0	71.4	85.2	100.0
241	Paper and paper products	67.9	24.5	20.8	54.0	62.3	84.9	100.0	100.0
242	Printing and publishing	49.3	43.3	50.7	76.0	71.3	66.7	80.0	100.0
25	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	48.6	51.8	53.5	61.9	74.1	78.7	68.2	100.0
251	Industrial chemicals	-	-	-	-	-	-	-	-
252	Chemical products	62.5	65.0	55.0	96.0	111.3	107.5	105.0	100.0
253	Petroleum refinery	46.5	52.4	54.1	54.1	70.0	73.5	61.2	100.0
254	Misc. products of petroleum and coal	-	-	-	-	-	-	-	-
255	Rubber products, n.e.c.	56.2	37.9	61.6	67.0	47.3	76.8	55.7	100.0
256	Plastic products, n.e.c.	3.9	6.5	10.4	43.6	41.6	49.4	64.9	100.0
26	NON METALLIC MINERAL PRODUCTS	64.6	64.7	60.4	49.5	63.1	82.1	90.1	100.0
261	Pottery, china, earthenware	-	-	-	-	-	-	-	-
262	Glass and glass products	68.4	70.6	78.0	72.9	85.9	103.4	96.0	100.0
269	Other non-metallic mineral products	63.8	63.5	56.7	44.6	58.4	71.7	88.9	100.0
27	BASIC METAL INDUSTRIES	22.0	18.5	21.0	44.5	55.0	72.0	70.0	100.0
271	Iron and steel basic industries	-	-	-	-	-	-	-	-
272	Non-ferrous metal basic industries	22.0	18.5	21.0	44.5	55.0	72.0	70.0	100.0
28	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	28.7	28.7	34.5	40.3	44.8	56.0	84.1	100.0
281	Fabricated metal products except mach. & equip.	42.6	35.8	31.1	25.0	36.5	66.2	89.2	100.0
282	Non-electrical machinery	9.2	8.9	7.9	60.5	53.4	44.7	86.8	100.0
283	Electrical machinery appliances	18.4	34.8	80.9	53.7	55.1	44.1	66.2	100.0
284	Transport equipment	-	-	-	-	-	-	-	-
285	Professional & scientific control equipment	-	-	-	-	-	-	-	-
29	OTHER MANUFACTURING INDUSTRIES	227.8	272.2	314.8	185.2	214.8	224.1	94.4	100.0
3	TOTAL MANUFACTURING INDUSTRIES	53.7	54.3	50.3	64.8	75.3	78.4	87.8	100.0

/ Continued...

TABLE (D-1) CONTINUED.....

ISIC Code	C a t e g o r y	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	107.2	117.1	129.7	145.3	179.7	228.8	236.1
311/2	Food manufacturing	107.8	117.2	127.9	138.8	173.8	211.6	221.3
313	Beverages	113.6	154.5	163.6	195.5	227.3	340.9	404.5
314	Tobacco	103.3	111.2	132.9	166.4	198.7	287.5	276.3
32	TEXTILES, WEAVING APPAREL AND LEATHER	131.7	134.4	157.5	240.8	219.0	292.5	339.8
321	Textiles	128.8	130.1	153.8	239.8	209.2	276.0	323.3
322	Weaving apparel	142.2	153.1	165.6	225.0	271.9	387.5	429.7
323	Leather products	176.5	200.0	241.2	305.9	347.1	476.5	535.3
324	Footwear	191.7	208.3	225.0	300.0	366.7	541.7	600.0
33	WOOD AND WOOD PRODUCTS	111.4	135.2	145.5	246.6	333.0	376.1	437.5
331	Wood and cork	105.9	129.4	117.6	229.4	288.2	317.6	370.6
332	Furniture and fixtures	112.7	136.6	152.1	250.7	343.7	390.1	453.5
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	108.4	133.0	171.4	188.7	280.8	427.1	477.8
341	Paper and paper products	113.2	132.1	203.8	250.9	320.8	447.2	622.6
342	Printing and publishing	106.7	133.3	160.0	166.7	266.7	420.0	426.7
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	152.3	33.5	69.7	191.5	238.8	267.2	428.1
351	Industrial chemicals	-	100.0	64.3	185.7	321.4	200.0	214.3
352	Chemical products	145.0	167.5	185.0	215.0	345.0	470.0	502.5
353	Petroleum refinery	160.0	118.2	166.5	141.8	186.5	194.7	408.8
354	Misc. products of petroleum and coal	-	-	-	-	-	-	-
355	Rubber products, n.e.c.	100.0	112.3	117.2	195.6	205.9	256.2	264.0
356	Plastic products, n.e.c.	157.1	168.8	184.4	298.7	345.5	480.5	510.4
36	NON METALLIC MINERAL PRODUCTS	118.4	127.1	143.4	189.0	208.1	322.1	382.4
361	Pottery, china, earthenware	-	-	-	-	-	-	-
362	Glass and glass products	107.9	113.0	124.3	196.0	199.4	227.1	266.7
369	Other non-metallic mineral products	120.6	130.0	147.4	187.5	209.9	342.0	406.6
37	BASIC METAL INDUSTRIES	345.0	610.0	635.0	765.0	1 135.0	1 265.0	1 250.0
371	Iron and steel basic industries	-	100.0	102.2	157.0	234.8	256.5	247.8
372	Non-ferrous metal basic industries	345.0	380.0	400.0	450.0	595.0	675.0	680.0
38	FABRICATED METAL PRODUCTS, MACHINERY & EQUIPMENT	112.6	130.3	154.2	205.9	320.8	481.6	513.2
381	Fabricated metal products except mach. equip.	114.5	139.2	152.7	170.3	268.9	441.9	433.8
382	Non-electrical machinery	99.2	134.2	147.4	207.9	363.2	500.0	547.4
383	Electrical machinery appliances	126.1	101.7	168.0	300.0	402.9	564.0	685.3
384	Transport equipment	-	-	-	-	-	-	-
385	Professional & scientific control equipment	-	-	-	-	-	-	-
39	OTHER MANUFACTURING INDUSTRIES	138.9	166.7	185.2	203.7	351.9	429.6	455.6
3	TOTAL MANUFACTURING	124.0	131.6	151.7	200.5	225.7	292.6	336.7

Source: Table C-1, Appendix C.

TABLE D-2 INDUSTRIAL PRODUCTION INDEX 1963-1977^{1/} (1970 = 100)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
A. Mining and quarrying	15.4	9.1	5.4	3.2	5.1	29.1	56.7	100.0	113.1	155.0	186.0	294.0	413.0	345.0	302.0
B. Manufacturing	72.7	75.6	78.7	81.9	78.7	80.3	94.5	100.0	104.7	114.0	120.0	132.0	143.0	168.0	175.0
1. Food, beverages and tobacco	83.1	87.3	91.7	96.3	88.1	89.0	96.3	100.0	103.7	113.0	126.0	133.0	144.0	180.0	161.0
2. Textiles, ginning and hides	80.6	83.0	85.5	88.0	82.9	81.2	98.3	100.0	106.6	109.0	113.0	123.0	128.0	152.0	162.0
3. Wood and furniture	70.7	64.3	58.5	53.2	66.1	78.4	105.8	100.0	109.4	110.0	115.0	123.0	130.0	141.0	163.0
4. Paper, printing & publishing	26.3	36.2	50.0	69.0	77.0	75.5	81.5	100.0	107.5	119.0	130.0	144.0	167.0	203.0	242.0
5. Chemicals	42.0	45.4	49.0	52.9	52.9	52.5	72.6	100.0	111.3	127.0	120.0	124.0	145.0	157.0	182.0
6. Non-metallic mineral products (excluding petroleum and coal)	77.6	75.3	73.0	70.8	75.2	96.4	94.9	100.0	94.9	105.0	100.0	112.0	118.0	131.0	157.0
7. Basic metal products	60.3	66.4	73.0	80.3	80.3	80.3	99.3	100.0	100.0	199.0	125.0	169.0	285.0	327.0	325.0
8. Fabricated metals	63.9	66.4	69.0	71.7	64.8	64.8	94.5	100.0	103.4	107.0	141.0	212.0	246.0	288.0	330.0
9. Other industries ^{2/}	72.2	75.6	79.2	83.0	87.0	91.1	95.4	100.0	104.8	109.8	115.0	125.0	137.0	151.0	174.0
C. Electricity and water	60.5	64.8	69.4	74.3	76.4	84.7	97.9	100.0	109.0	126.0	121.0	138.0	169.0	181.0	215.0
D. General index number	63.9	66.4	69.0	71.7	69.7	74.5	89.7	100.0	106.2	119.0	127.0	149.0	173.0	188.0	191.0

Source: Statistical abstract of Syria, 1978.

1/ This table represents a conversion of the 1965 base index 1970 base for the years 1965 - 1969.

2/ Estimated by using the annual compound rate of growth between 1970 and 1973 as data is available.

3/ Figures for 1963 and 1964 have been estimated by applying the annual rates of growth of 1965 -1966 backward.

Table No. (B-3). IMPLICIT PRICE INDEX OF INDUSTRIAL OUTPUT 1965-1977 (1970 = 100)

IC Code	Category	1965	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
31	FOOD, BEVERAGES AND TOBACCO	52.7	52.1	61.7	65.9	82.5	81.2	88.1	100.0	103.4	103.6	102.9	109.2	124.8	127.1	146.6
	311/2 Food manufacturing															
	313 Beverages															
	314 Tobacco															
32	TEXTILE, WEARING APPAREL AND LEATHER	81.1	81.0	51.1	83.8	102.8	106.9	97.4	100.0	124.2	123.3	139.4	195.8	171.1	192.4	209.8
	321 Textiles															
	322 Wearing apparel															
	323 Leather products															
	324 Footwear															
33	WOOD AND WOOD PRODUCTS	103.8	77.8	83.6	99.1	104.2	104.3	95.4	100.0	101.8	122.9	126.5	200.5	256.2	266.7	268.4
	331 Wood and cork															
	332 Furniture and fixtures															
34	PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING	206.1	106.1	85.8	101.7	89.6	94.6	104.5	100.0	100.8	111.8	131.8	131.0	168.1	210.4	197.4
	341 Paper and paper products															
	342 Printing and publishing															
35	CHEMICAL, PETROLEUM, RUBBER & PLASTIC PRODUCTS	115.7	114.1	109.2	117.0	140.1	150.0	94.0	100.0	136.8	105.1	141.4	154.4	164.7	170.2	235.2
	351/2 Chemical products															
	353 Petroleum refinery															
	354 Misc. products of petroleum & coal															
	355 Rubber products, n.e.c.															
	356 Plastic products, n.e.c.															
36	NON-METALLIC MINERAL PRODUCTS	83.2	85.9	82.7	69.9	83.9	85.2	94.9	100.0	124.8	121.0	143.4	168.8	176.4	241.9	243.6
	361 Pottery, china, earthenware															
	362 Glass and glass products															
	369 Other non-metallic mineral products															
37	BASIC METAL INDUSTRIES	36.5	27.9	28.8	55.4	68.5	89.7	70.5	100.0	345.0	306.5	508.0	452.7	398.2	386.2	384.6
	371 Iron and steel basic industries															
	372 Non-ferrous metal basic industries															
38	FABRICATED METAL PRODUCTS, MACH. & EQUIPMENT	44.9	43.2	50.0	56.2	69.1	86.4	89.0	100.0	108.9	121.8	109.4	97.1	130.4	167.2	155.7
	381 Fabricated metal products except mach. & equipment															
	383 Non-electrical machinery															
	385 Electrical machinery, appliances															
	384 Transport equipment															
	389 Professional & scientific control equipment															
39	OTHER MANUFACTURING INDUSTRIES	315.5	360.1	397.5	223.1	246.9	246.0	99.0	100.0	132.5	151.8	161.0	163.0	256.9	284.1	261.8
	391 Professional & scientific control equipment															
3	TOTAL MANUFACTURING	73.9	71.8	63.9	79.1	95.7	97.6	92.9	100.0	118.4	115.4	128.4	151.9	157.8	174.2	192.4

Source: Calculations are based on tables B-1 and B-2 Appendix D.

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

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