

COMPETITIVENESS OF JORDAN'S
MANUFACTURING INDUSTRY

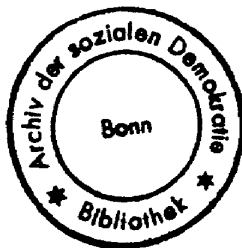
BY

DR. AKRAM J. KARMOUL
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Competitiveness of Jordan's Manufacturing

Industry

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Foreword

I am very pleased to present this study on the competitiveness of Jordan's manufacturing industry to the reader , be it the policy-maker , the industrialist , the private sector organizations or the average investor . It combines in its analysis both the general broad factors and the specific ones affecting Jordanian industries . Its objectives include an assessment of the current and prospected situation of Jordan's economy with particular reference to the competitiveness of Jordan's manufacturing industry highlighting specific cases and a presentation of recommended policies and measures .

This study was carried out by the Arab Consult Center in cooperation with the Friedrich Ebert Stiftung (FES) of the Federal Republic of Germany. Through the efforts of Dr. Matthes Buhbe , FES representative in Jordan , FES funded the study which was carried out during the period September - December 1987 . We express to FES our appreciation for encouraging empirical research in Jordan that may lead to more positive policies . Needless to say that FES is in no way responsible for the ideas contained in the study .

We also thank all industrial firms which provided information and data on their operations and have accordingly enriched the study . We hope that they will find the conclusions of the study useful to their future development .



Dr. Tayseer Abdel Jabher

Chairman, Board of Trustees

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I. Brief Review of Jordan's Economy

A. Recent Developments

Jordan is a small country of about three million people and 91000 sq.km area , with relatively limited natural resources and free-oriented economy .⁽¹⁾

Until the early eighties , Jordan's economy enjoyed a high rate of growth (11.1 % average annual growth rate in GDP during 1973 - 1983) and made a good progress in diversifying its commodity production , increasing investment , and promoting exports . Such economic performance has taken place in the content of increasing exchange and economic linkages with neighbouring countries , mainly in the form of trade , labour migration , and expanding financial inflows in the form of workers remittances , foreign aid , and development loans . As a result , full employment had been attained and a comfortable position in foreign reserves prevailed which in turn strengthened the Jordanian dinar .

The real annual growth rate of GDP (at market price) during the period 1975 - 1980 , amounted to about 13.8 % . Industry and construction were , in particular , the engine of growth during that period , thus off-setting the relatively poor agricultural performance .

(1) All data in this study which refers to the Jordanian economy is confined to the East Bank of Jordan .

However , the actual economic performance fell after 1982 below expectations , see Table 1 , which was due to the slowdown in the world economy and the negative trends in the economies of the Arab Gulf States as a result of the Iraq-Iran war and the sharp decline in their oil revenues . These factors combined have led , directly and indirectly , to the following developments :

- 1- The overall economic performance of the Jordanian economy has slowed down . Thus , the average annual growth rate of GDP declined sharply to 4.2 % during 1980 - 1985 as compared with the planned target of 11 % . Per capita income witnessed very minimal improvement since 1982 due to the economic slowdown and the high population growth rate .
- 2- Unemployment rate increased from a situation of full employment in the early 1980s to more than 10 % at the present time . With the high growth of Jordanian new entrants to the labour market , economic slowdown in Jordan, the sharp decline in demand for Jordanian workers in the GCC countries and the return of some Jordanians working abroad , unemployment went up to about 60,000 workers , including college and university graduates .
- 3- Foreign aid to Jordan (Government and private) was reduced in absolute terms from a peak of JD 432.5 million in 1981 to JD 240.5 million in 1986 while workers remittances have almost stagnated . These developments have compelled Jordan to resort to foreign borrowing which doubled during the period 1981 - 1986 and the external debt service ratio trippled over this period . Transferable foreign exchange reserves of the Central Bank of Jordan declined to meet imports of less than two months .

Table (1)

Major Economic Indicators

(Million JD)

Indicators	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Money and Banking												
1. Currency in circulation	139.0	161.4	188.0	219.5	275.4	351.6	412.3	470.0	516.0	530.5	531.8	583.9
2. Money supply (M1)	224.6	276.9	331.0	375.4	472.7	594.8	701.7	787.5	869.4	878.4	848.2	897.1
3. Money supply (M2)	288.4	378.3	467.6	606.7	773.1	984.8	1,179.9	1,403.3	1,615.2	1,757.7	1,874.8	2,072.4
4. Deposits with Commercial Banks	168.7	250.0	314.8	448.5	593.1	808.5	977.6	1,169.5	1,397.8	1,603.1	1,747.2	1,946.2
a. demand	98.7	140.1	165.8	172.6	213.1	288.1	316.5	354.5	387.8	409.6	374.6	370.6
b. Savings and time deposits	70.0	109.9	149.0	275.9	380.0	520.4	661.1	815.0	1,010.0	1,193.5	1,372.6	1,575.6
5. Outstanding Commercial Banks Credit	126.7	207.1	244.1	332.8	465.1	563.9	721.3	887.2	1,030.9	1,184.8	1,274.4	1,395.4
6. Foreign assets with Central Bank	162.3	185.7	229.2	286.3	370.8	418.1	433.6	372.9	408.5	387.5	379.0	401.4
7. Foreign assets with Commercial Banks	12.5	19.2	36.7	74.6	80.1	205.2	233.3	255.4	304.4	330.5	384.9	403.3
Public Finance												
8. Central Gov. domestic revenues	82.6	107.6	142.2	158.5	187.9	226.1	309.2	362.0	400.0	411.7	424.5*	517.2*
9. Foreign revenues of Central Gov.	116.8	86.1	180.7	172.4	247.9	280.9	282.0	264.9	273.8	228.3	377.4*	304.1*
10. Central Gov. recurring expenditures	125.7	185.9	195.6	212.9	321.3	336.1	391.5	443.0	453.7	488.1	542.0*	579.2*
11. Central Gov. Capital expenditures	79.2	76.6	142.3	148.6	194.3	227.1	255.6	250.6	251.6	232.7	276.8*	423.4*
12. External debt Outstanding	108.0	132.6	194.3	244.4	309.2	385.8	540.9	624.5	815.0	959.7	1,054.7*	1,110.7*
13. Internal debt Outstanding	65.4	89.3	109.8	146.2	150.4	197.8	231.7	278.2	314.1	342.7	374.4*	419.9*
Foreign Trade and Balance of Payments												
14. Imports	234.0	339.5	454.4	458.8	589.5	716.0	1,047.5	1,142.5	1,103.3	1,071.3	1,074.5	850.2
15. Domestic exports	40.1	49.6	60.3	64.1	82.6	120.1	169.0	185.6	160.1	261.1	255.3	225.6
16. Re-exports	8.8	19.1	21.8	26.8	38.4	51.3	73.6	78.9	50.5	29.6	55.5	30.4
17. Trade balance (debit)	185.1	270.8	372.3	367.9	468.5	544.6	804.9	878.0	892.7	780.6	763.7	594.2
18. Foreign aid (private + Gov.)	140.4	127.9	168.8	107.2	320.7	401.0	432.5	375.4	296.8	282.6	317.5	240.5
19. Worker's remittances	53.3	129.6	154.8	159.4	180.4	236.7	340.9	381.9	402.9	475.0	402.9	414.5
20. Monetary position of balance of Payments (-surplus)	-50.5	-14.3	-72.1	-50.3	-63.4	-111.2	-15.3	62.4	-50.3	69.3	-18.5	-18.7
Production												
21. G.N.P. at market price	376.0	562.4	660.1	781.0	921.3	1,190.1	1,482.7	1,673.4	1,769.3	1,854.5*	1,849.2*	1,917.4*
22. G.D.P. at market price	312.1	421.6	514.2	632.2	753.0	984.3	1,164.2	1,321.2	1,422.7	1,499.4*	1,573.3*	1,613.6*
23. Industrial Production Index No. (1979=100)	53.2	66.5	69.0	84.7	100.0	119.5	139.2	143.8	150.9	181.2	185.2	187.8
24. Phosphate (1000 ton)	1,352.5	1,701.8	1,769.4	2,320.2	2,828.1	3,911.3	4,243.7	4,390.5	4,745.5	6,213.1	6,067.1	6,249.2
25. Potash (1000 ton)	-	-	-	-	-	-	-	15.0	282.8	486.0	908.2	1,102.0
26. Fertilisers (1000 ton)	-	-	-	-	-	-	-	116.4	301.6	541.0	510.5	544.2
27. Cement (1000 ton)	298.2	582.4	537.6	553.0	623.2	912.7	964.7	788.4	1,269.0	2,026.3	2,022.9	1,794.7
28. Agricultural Production index number (1975=100)	100.0	131.3	129.9	212.3	146.8	261.4	236.3	240.2	227.4	249.6	270.2	275.1
29. Construction activity area (1000 M ²)	687.2	1,069.4	1,138.5	1,206.5	1,734.1	1,949.4	2,472.7	3,122.5	3,010.4	2,945.1	2,210.4	2,266.6
Prices												
30. Cost of living index (1980 = 100)	57.7	64.3	73.7	78.9	90.0	100.0	107.7	115.7	121.5	126.2	130.0	130.0
31. Share-price index (1985 = 100)	-	-	-	78.7	92.8	117.5	145.2	163.6	132.3	105.3	100.0	94.8
32. Exchange rate U.S. dollar/JD	3.13	3.01	3.04	3.27	3.33	3.36	3.03	2.84	2.75	2.60	2.53	2.86

Source : Central Bank of Jordan , Monthly Statistical Bulletin , Vol. 23 , No. 9 , September 1987 , pp. 4 - 5 .

* Preliminary .

- 4- The decline in external budgetary support had caused serious constraints on Government financing . The Government was unable to cut back its expenditures and had , therefore , to mobilize domestic revenues , particularly fees and charges on its services in addition to foreign and internal borrowing .
- 5- The economic slowdown was also reflected in transactions of real state , foreign trade and stock exchange . It had also a dampening effect on the wage level in the labour market . The average land price went down by 30 - 40 % depending on the location of the plot. Exports witnessed an impressive expansion in 1984 but have stagnated since then . On the other hand , imports went down substantially as a reflection of a decline in the overall domestic demand and the import substitution measures . Accordingly , the trade deficit was narrowed . In spite of marginal improvements in certain shares traded in the Amman Financial Market , the share price index went down considerably since 1982 .
- 6- In spite of the Government efforts to improve investment climate for Jordanian and other private businessmen , the private sector was somewhat reluctant to expand its investments and had in contrast demonstrated a high liquidity preference . Over forty public shareholding companies have been facing administrative and financial difficulties .
- 7- During the plan period , 1981 - 85 , the actual growth rates in the various sectors fell short of projections as shown in the following table .

Actual and Planned Average Annual Growth Rates ,
1981 - 85 (%)

	<u>Actual</u>	<u>Targeted</u>
Agriculture	7	7.5
Industry	4.9	17.8
Water and Electricity	9.6	18.9
Construction	2.1	12.6
Trade	4.3	10
Transport and Communication	5.5	11.1
Public Adm. and defense	2.2	3.5
Other Services	4.0	9.0

The modest performance of the industrial sector may be ascribed mainly to the underutilization of productive capacity of a number of large and medium-scale industries , like potash , cement and fertilizers , as well as to the unfair competition by foreign imports of local industries and to the lack of local expertise in external marketing .

B. Trade Balance

The Government pursues liberal , outward looking policies in trade , labor migration and foreign exchange transactions . Inducive policies were increasingly geared to promoting private enterprise while the Government provided the required support in the form of capital subscriptions and adequate infrastructural facilities .

The total value of Jordanian trade transactions (imports and exports) amounted in 1981 to JD 1290 million . The deficit in the balance of trade was then JD 805 million . In 1986 , total exports amounted to JD 256 million (compared to JD 311 million in 1985 and JD 291 million in 1984) and imports amounted to JD 850 million in 1986 (compared to JD 1074 million in 1985 and JD 1071 in 1984) . Table (2) shows the developments in exports and imports of Jordan during the period 1978 - 1986 . Domestic exports have increased sharply during the period 1978 - 82 , at an average annual rate of 30 % . However , the growth rate afterwards was limited to 7 % only .

Jordan's export pattern is characterized by a high degree of concentration on major commodities and destinations , see Table (3) and (4) . Thus , phosphates , fertilizers and potash exports constitute a major portion of Jordan's domestic exports , which amounted in 1986 to JD 125 million or about 55 % of exports . Agricultural exports , on the other hand , amounted only to about 19 % , with the balance made up of industrial products including pharmaceuticals , wood articles , plastics , paints and others .

As for exports destination , 45 % of the Jordanian exports went in 1986 to Arab countries . This is compared to about 51 % in 1985 , 52 % in 1984 , 55 % in 1983 and 66 % in 1982 . Exports to the Arab World have been declining in the last few years . About 30 % of Jordan's export went to India and other Asian and socialistic countries in 1985 and 1986 . The remaining small portion of exports went to other countries of the world , including the USA and West European countries . The latter constitute Jordan's major source of imports (48 % in 1986) .

Table (2)
Jordan's External Trade

(Million JDs)

Year	Domestic Exports	Re-Exports	Total Exports	Imports	Trade Balance
1978	64.1	26.8	90.9	458.9	-368.0
1979	82.6	38.3	120.9	585.7	-464.8
1980	120.1	51.5	171.6	716.1	-544.5
1981	169.0	73.6	242.6	1047.5	-804.9
1982	185.6	78.9	264.5	1142.5	-878.0
1983	160.1	50.5	210.6	1103.3	-892.7
1984	261.1	29.6	290.7	1071.3	-780.6
1985	255.3	55.5	310.8	1074.4	-763.6
1986	225.6	30.4	256.0	850.2	-594.2

Source : Central Bank of Jordan , Monthly Statistical Bulletin

Table (3)
Domestic Exports by Commodity

(Thousand JDs)

Item	1978	1979	1980	1981	1982	1983	1984	1985	1986
Total	64,129	82,556	120,107	169,026	185,581	160,085	261,055	255,346	225,615
Food of live animals	16,336	21,239	23,495	33,035	39,144	36,277	41,761	43,558	41,932
Beverages and Tobacco	1,630	3,885	5,583	6,582	5,304	3,833	4,265	1,937	1,390
Crude materials	20,691	27,557	49,204	56,688	61,451	52,712	87,101	98,463	97,829
Fuels and related	20	11	299	397	239	55	11	8	145
Animal and Vegetable oils and fats	786	486	877	1,053	657	1,182	1,123	176	1,514
Chemicals	6,278	7,143	10,937	17,922	23,119	36,791	67,629	50,959	54,455
Manufactured goods	11,903	14,129	18,717	34,636	32,467	17,981	33,777	39,718	19,622
Machinery and Transport Equipment	1,067	1,677	2,392	3,934	3,186	1,996	1,972	2,014	1,408
Misc. Manufactured articles	5,417	6,422	8,602	14,697	19,983	9,227	23,416	18,513	7,320
Others	1	7	1	82	31	31	-	-	-

Source : Central Bank of Jordan , Monthly Statistical Bulletin .

Table (4)
Geographical Distribution of External Trade



(Thousand JDs)

Country	1982		1983		1984		1985		1986	
	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.
Total	185,581	1,142,493	160,085	1,103,310	261,055	1,071,340	255,346	1,074,445	225,615	850,190
Arab Countries	123,307	269,782	85,057	250,622	132,562	245,696	131,526	263,573	102,056	172,200
Egypt	39	4,609	15	4,609	310	6,628	3,033	4,315	3,979	9,166
Iraq	66,580	982	26,011	4,779	67,755	6,002	65,850	72,951	42,458	80,274
Syria	8,396	10,404	3,567	13,956	2,912	7,342	3,901	5,893	4,570	10,199
Libanon	1,922	15,078	1,807	10,170	2,332	8,271	1,803	9,229	1,033	8,314
S. Arabia	27,625	233,475	35,212	210,963	38,659	208,774	39,083	159,058	27,817	49,670
Yemen	6,728	1,052	10,454	765	11,636	3,340	7,738	2,892	8,813	2,404
Others	3,337	44	5,226	877	3,888	2,902	3,709	4,415	4,328	7,053
European Countries	3,618	350,064	8,134	346,246	10,428	335,765	11,392	314,551	18,833	299,484
Belgium	1	17,940	1	19,188	10	21,075	21	21,621	135	24,356
France	1,813	42,515	2,107	42,320	2,984	48,370	5,252	33,938	7,070	33,175
Germany	37	104,590	91	87,744	99	67,033	246	65,638	1,485	65,114
Netherlands	19	23,611	35	24,391	233	26,708	137	26,006	555	27,383
Italy	1,665	57,179	4,927	60,233	5,761	62,661	3,655	73,427	7,099	50,220
U.K.	32	52,648	47	65,610	4	72,346	165	63,276	929	68,786
Denmark	-	8,463	-	7,993	2	8,222	-	7,315	9	10,138
Sweden	49	20,784	925	21,494	1,318	9,441	1,916	6,954	1,548	5,270
Spain	1	20,103	-	15,577	17	15,368	-	15,996	3	11,692
Others	7	48,658	1,407	36,569	1,859	71,381	358	88,935	757	31,503
S.A.	9	144,341	7	131,047	15	119,263	87	128,045	305	75,529
Industrial Countries	25,410	94,827	21,216	77,823	32,784	64,804	21,502	74,377	28,372	59,823
India	16,557	2,342	13,745	1,460	34,109	1,250	45,310	1,781	34,126	4,927
Japan	3,777	87,375	3,398	102,889	5,547	79,064	5,815	67,813	5,690	66,642
U.K.	1,499	24,707	1,905	30,614	2,574	34,854	4,047	28,583	3,649	27,467
France	1,897	19,332	5,135	23,750	3,859	20,991	3,415	20,856	2,901	18,040
South Korea	-	10,436	698	12,126	2,609	10,909	4,023	8,170	3,811	10,293
Others	9,500	90,629	17,383	90,164	34,709	87,363	27,871	77,761	25,115	84,283

Source : Central Bank of Jordan , Monthly Statistical Bulletin .

As for the composition of commodity imports , crude oil represented over one tenth in 1986 , while equipment and machinery represented about a fifth and food stuffs about 20 % , see Table (5) .

C. Indicators of Industrial Development

Jordan has a predominant private sector role in its industry . The Government takes partial or dominant responsibility only in the case of infrastructural and large projects . It , also provides the legal framework within which the private sector initiative can grow and expand economic activity .

Industry in Jordan has experienced comprehensive and structural economic changes in the last two decades . The second Five Year Development Plan (1981 - 1985) has allocated about one quarter of its total investments for industry . The actual investment incurred amounted to JD 600 million , or 79 % of planned investments . However, this high realization ratio of expenditures has mostly reflected the price increase of projects in addition to investments in new projects or expansion of existing ones .

On the other hand , the actual growth of the sector during the period 1981 - 1985 amounted only to 4.9 % p.a (at constant 1980 prices) and the income from industry and mining increased from JD 167.1 million in 1980 to JD 211.8 million in 1985 , i.e. a total increase of about 26.8 % , (see Table 6) . The sector's contribution to GDP in 1985 was only 19.3 % instead of 29.3 % as anticipated in the 1981 - 85 Development Plan . This has further dropped to 17.6 % in 1986 at current prices . Nearly 60 % of this contribution came from large and natural

Table (5)
Imports by Commodity Groups

Commodity Group	1978	1979	1980	1981	1982	1983	1984	1985	1986
Total	458.8	589.5	716.0	1047.4	1142.4	1103.3	1071.4	1074.5	850.2
Food and live animals	87.6	108.3	118.8	167.9	191.9	180.4	184.3	175.8	165.6
Beverages and Tobacco	4.8	5.0	5.3	5.1	4.6	8.8	7.7	4.0	6.7
Crude materials	12.8	18.0	16.1	29.3	35.1	31.4	29.9	33.1	28.6
Fuels and Crude oil	46.8	74.1	122.2	182.3	240.7	212.7	213.6	223.3	116.5
Animal and Vegetable oils and fats	4.1	2.8	4.7	2.7	5.8	4.1	10.5	10.2	9.4
Chemicals	21.5	30.3	39.2	50.4	54.2	57.8	79.9	67.6	74.9
Manufactured goods	138.6	195.6	206.0	268.5	277.3	290.3	262.3	274.8	220.8
Machinery and Transport Equipment	138.2	153.9	200.0	338.0	319.4	262.0	215.9	207.4	176.6
Other	4.4	1.5	3.7	3.2	13.4	55.8	67.3	78.3	51.1

Source : Central Bank of Jordan , Monthly Statistical Bulletin .

Table (6)

Sector	Sectoral Value Added : Planned and Actual						
	(1980 - 1985)						
	(In JD Million at 1980 Prices)						
	1980	1981	1982	1983	1984	1985	Annual Growth Rate 1981 - 1985 %
<u>Agriculture-Allorestation and Fisheries</u>							
Planned	60.0	65.0	69.0	75.0	80.0	86.0	7.5
Actual	69.4	73.1	76.1	94.8	79.9	97.5	7.0
<u>Industry and Mining</u>							
Planned	154.0	181.0	214.0	252.0	297.0	350.0	17.8
Actual	167.1	190.3	188.3	186.4	214.6	211.8	4.9
<u>Electricity and Water</u>							
Planned	8.0	10.0	11.0	13.0	16.0	19.0	18.9
Actual	17.1	18.9	21.1	22.9	26.2	27.1	9.6
<u>Construction</u>							
Planned	52.0	59.0	66.0	74.0	84.0	94.0	12.6
Actual	97.5	105.5	113.5	114.4	112.0	108.2	2.1
<u>Trade</u>							
Planned	138.0	147.0	162.0	181.0	202.0	222.0	10.0
Actual	166.5	181.2	85.4	191.8	198.2	205.5	4.3
<u>Transport and Communications</u>							
Planned	91.0	100.0	111.0	125.0	140.0	154.0	11.1
Actual	79.7	84.5	94.2	99.5	100.7	103.7	5.0
<u>Public Administration and Defence</u>							
Planned	122.0	126.0	131.0	135.0	140.0	145.0	3.5
Actual	170.2	169.0	189.7	190.8	188.5	189.5	2.2
<u>Other Services</u>							
Planned	80.0	87.0	95.0	104.0	113.0	123.0	9.0
Actual	125.7	125.8	136.0	135.2	144.1	152.8	4.0

Source : Five Year Plan (1986 - 1990) .

resource-based industries ; namely , potash , fertilizers , phosphate and petroleum refinery , leaving the share of 7.2 % of GDP to small and medium-scale industries .

The industrial strategy of the 1981 - 1985 Development Plan concentrated mainly on large capital-intensive and export-oriented industries which accounted for 70 % of the industrial investment , whereas the current 1986 - 1990 Development Plan pays more attention to small and medium-scale industries .

The total number of industrial establishments that exist now in Jordan exceeds 7000 units , of which only 1600 units are medium and large , employing five or more persons . In 1985 , products of small and medium-scale industries accounted for 24 % of the value of domestic exports and 85 % of the workers of manufacturing labour force ⁽¹⁾ .

The total manpower employed in industry amounted in 1986 to 56,000 workers , of which 12,000 were guest-workers .

Of the total industrial establishments , 75 % exist in the Amman-Zarqa area , they produce 65 % of the total added value of industry .

(1) The World Bank , Policies and Prospects for Small and Medium Scale Manufacturing Industries , June 1987 , p. 5 .

During the period 1981 - 1985 , 681 medium and large-scale industries were licensed with a total nominal capital of JD 125 million . Half of these establishments went into implementation . In 1986 , the number of industrial firms which were licensed at the Ministry of Industry and Trade (MIT) was 118 firms with a total nominal capital of JD 19 million and 2530 job opportunities . The number of licences , however , was later increased in 1987 to about 158 licences, with nominal capital of JD 24 million and 3000 job opportunities. Of these , 37 are food industries , 26 are engineering and 19 are chemicals .⁽¹⁾

Some of the industries established during the last Plan period, especially those of the large size , encountered difficulties in their build-up stage , e.g. , wood and glass factories , due to global economic problems , changes in supply and demand patterns , rise in prices of raw materials and/or decrease in prices of produced commodities . Other projects of the Plan suffered from delays in implementation , with consequent delays in revenues , and discrepancy between actual and planned investment values , leading to increased costs and higher debt of projects , e.g. , potash and fertilizers .

Since 1982 , Jordan's manufacturing industries have felt the effects of the economic slowdown in the Arab neighbouring markets as well as in the domestic market . This had led to a declining demand for Jordanian products . So , while the Jordanian exports of manufactured goods amounted to JD 79 million in 1982 , they went down to JD 50 million in 1986⁽²⁾ . Furthermore , market flooding with

(1) According to MIT .

(2) Excluding exports of phosphates , potash and fertilizers .

competitive imports has also contributed to further aggravation and caused the Government to provide protection to some industries . This had helped in lowering the absolute level of the trade deficit. However, the basis used for protection of local industries and their justifications need to be reassessed .

Industrial growth during the period (1981-1985) averaged at 4.9 % and its income increased only slightly after that in 1986 , by 0.4 % . Also , the industrial production index grew in 1986 at a rate of 1.4 % only , which is lower than that of 1985 (2.2 %) .

Of the industries which increased their production in 1986 are potash (21.3 %) , electricity (23 %) , detergents (87 %) and batteries (12 %) whereas other industries like cement , refinery products , cigarettes, metal pipes , carton and paper and spinning, suffered from drops in their production which ranged from 5.9 % in case of cigarettes to 40.6 % in spinning , (see Table 7).

Industrial and mining exports rose from JD 97 million in 1980 to JD 214 million in 1985 (i.e. , a growth rate of 17.2 %) . This value, however, dropped later to JD 184 million in 1986 (Table 3). Of these exports, phosphate contributed JD 47 million in 1980 , JD 66 million in 1985 and about JD 64.8 million in 1986 , The remaining exports being due to transforming industries , the most prominent of which was the chemical industries .

Table (7)

Industrial Production of Principal Industries

Industry	Unit	1978	1979	1980	1981	1982	1983	1984	1985	1986
Wool	1000 ton	2320.2	2828.1	3911.3	4243.0	4390.5	4745.5	6213.1	6067.1	6249.2
Aluminum	1000 ton	-	-	-	-	15.0	282.8	486.0	908.2	1102.0
Iron	1000 ton	51.8	51.7	47.9	55.4	63.6	60.9	61.2	45.9	44.6
Plastic	1000 liter	5654.2	7206.7	6776.1	9005.8	9483.9	7158.2	7202.0	5547.2	5457.2
Cigarettes	Mill. Cig.	2628.0	3414.1	4188.3	4711.4	4513.7	4067.4	4341.9	3538.1	3327.7
Textiles	1000 yards	1140.9	1416.7	1641.2	1308.0	1123.5	1130.6	1314.5	2249.0	2249.2
Engineering	Ton	747.9	762.3	667.6	571.9	1151.8	1831.1	1660.3	787.0	168.8
Leather	1000 Sq.Ft.	2807.9	2448.9	2502.7	2107.4	2268.3	2334.4	2145.7	1937.8	2393.1
Leather Goods	Ton	197.9	190.7	103.0	118.3	38.8	37.2	43.9	29.3	18.1
Shoes	1000 ton	-	-	-	-	116.4	301.6	541.0	510.5	551.1
Chemical Acids	1000 ton	-	-	-	-	-	632.5	1194.6	1007.6	1024.8
Chemicals	1000 ton	7.0	10.6	15.3	18.8	15.2	12.7	25.5	15.0	28.1
Chemicals	1000 ton	553.0	623.2	912.7	964.7	788.4	1269.0	2026.3	2022.9	1794.7
Chemicals	1000 ton	65.3	81.0	86.2	134.9	192.7	209.9	164.9	198.4	209.6
Plastic Pipes	1000 ton	6.2	10.8	11.8	15.8	12.5	12.9	14.7	14.2	12.5
Petroleum Products	1000 ton	1396.6	1612.4	1760.0	2126.0	2463.9	2499.0	2510.9	2423.9	2257.1
Food and Cardboard	1000 ton	4.6	7.1	8.8	15.4	15.0	11.9	18.0	21.1	15.1
Batteries	1000 battery	44.3	62.9	66.3	57.3	40.4	36.5	50.1	49.6	55.7
Electricity	Mill. KWH	649.1	842.1	1051.4	1174.9	1387.2	1699.9	1967.0	2154.4	2646.8

Source : Central Bank of Jordan , Monthly Statistical Bulletin .

D. Institutional and Supportive Facility Inputs

Although most of the industrial establishments are privately owned and operated , yet there is a close interaction with the Government , particularly in the ownership of some of the medium and large-scale firms , like phosphate, spinning and weaving , cigarettes, glass manufacturing and oil refinery . Such firms are usually influenced by the Government in their management particularly through Government representatives in their boards of directors .

As for financing of industrial firms , the commercial banks expanded their credit facilities to industrial and mining sector from JD 73 million at the end of 1980 to JD 189 million at the end of 1985 , The sector's share of the total credit has increased in 1986 by about 1.5 % to become JD 221 million⁽¹⁾ Expansion in the credit provided by the Industrial Development Bank to industries amounted to JD 39 million in 1986 . It also witnessed marginal increases in the last few years .

To help accomodating industry and encouraging its regional dispesal , the first stage of the " Amman Industrial Estate " was implemented by mid 1980s and further stages are now on the way . Other industrial estates are planned for implementation in different parts of the country . On the other hand , the law governing the

(1) Central Bank of Jordan , Monthly Statistical Bulletin , October 1987 , p. 31 .

Industrial Estate Corporation was amended to allow for the possibility of ownership of lots and facilities located within the industrial estate . Meanwhile , tax incentives and preferential rates of energy and credit are usually provided to industries located in regions outside Greater Amman .

Free zones, on the other hand , offer substantial advantages to many companies , particularly those involved in export . Three free zones exist so far in Jordan in addition to the airport free zone . These are Zarqa , Aqaba and Syrian-Jordanian free zones . All imports and exports in these areas are free of duties and complicated formalities .

Other organizational measures taken , include the commencement of establishing an international fair near Amman to serve industry and trade .

The Amman Chamber of Industry has also undertaken measures to expand its representation and services to all industrial regions in the country . Licensing procedures were on the other hand simplified and " Marks of Excellence " of specifications were introduced . Quality control activities are usually exercised on imports as well as domestic production , particularly on those industries enjoying protection against competing imports . The customs tariff has been amended quite often to provide protection for a number of domestic industries , coupled with a partial or total ban on competing imports .

The Encouragement of Investment law of 1982 was replaced in 1984 and later in 1987 by a new law to the benefit of industry . The Customs and Income Tax Laws were both amended in favor of domestic industries as well . Also , a new Companies Law is now under preparation .

The Jordan Institute of Management and the Institute of Public Administration continue to run training programmes in industrial management , cost accounting , and professional up-grading of industrial staff . Jordan universities also contribute to such training efforts through advanced programs for top management in the private sector . Furthermore, the 18 Vocational Training Corporation Centres have expanded their services and plans are further underway to introduce proficiency tests for workers in Jordan . During the period 1981 - 1985 , these centres trained about 17 thousand trainees .

In the field of research and survey , special attention has been given to energy conservation in industry and to providing data and information on industry through comprehensive industrial surveys by competent authorities .

F. Economic Prospects

The third Five-Year Development Plan (1986 - 1990) provides an official scenario of the medium-term economic and social development in Jordan . It also contains , though briefly , a long-term perspective of directions of such development .

Realizing that the economic slowdown in Jordan and the Arab region will last over most if not all the Plan period 1986 - 1990 , the Plan proposes modest growth objectives as compared with previous economic performance in Jordan . Thus , the planned average annual growth in GNP is estimated at 5 % annually and the rate in per capita income at 1.2 % . The coming few years will be a continuation of the adjustment period during which only modest growth can be hoped for .

Since Jordan's economy is deeply linked with the economies of the neighbouring Arab countries , any sizeable economic shift in the region would have a strong impact on Jordan . However , under the present circumstances and for the medium-term , no sizeable positive shift appears in sight . This applies to foreign budgetary support , workers remittances , regional trade , and regional conflicts .

Given this projection , domestic policies of the Government towards the economy in general and the private sector including industry in particular , would make some difference in economic performance . When we deal with an economic slowdown , any improvement in growth records is worth trying .

The long-term economic trends envisaged in the Plan (to the year 2000) are as follows .

- 1- The realization of a GDP growth rate of 5 % annually during the years 1986 - 1990 , increasing thereafter at a rate exceeding population growth .
- 2- An increase in the share of commodity-producing sectors to about 43 % of the total GNP in the year 2000 , i.e. at a growth rate of 6 % p.a.
- 3- A strengthened link between various economic sectors by increasing domestic industrial and agricultural inputs and developing the production of capital goods and raw materials .

- 4- A greater equilibrium in Jordan's balance of payments and trade balance by increasing exports .
- 5- Higher productivity by developing and training of manpower and use of modern technologies .
- 6- Increased domestic savings to finance a larger share of investment .
- 7- Creation of new employment opportunities in all sectors .

Within this macro-economic outlook , the industrial sector is expected to grow at a rate faster than that of GDP . Accordingly , the share of mining and manufacturing industries in GDP will increase from 16.5 % in 1985 to 18.2 % in 1990 . The following industrial sub-sectors are showing more promising growth potential than others .

- 1- The resource-based industries ; namely , phosphate , potash and fertilizers which are also export industries . Expansion in these industries , both vertical and horizontal , should be encouraged with the timing to be tuned to world market conditions .
- 2- Chemical industries including pharmaceuticals which seem to have a comparative advantage in the region and some other markets in the developing countries . Luckily , these industries are also export-oriented and rely on modern knowhow and technology .

- 3- Small and medium-scale industries which did not receive their due attention during the economic boom period . These industries usually offer excellent opportunities for mobilizing family and small savings, creating additional jobs and utilizing domestic raw materials to produce substitutes for imports .

These hopeful developments in industry are not expected to occur simply through the market forces . Proper policies and measures should be taken by the Government to enhance industrial investments by the private sector and help settle problems that arise in the industrial sector . This study will touch on specific areas where Government action is called for to improve the competitiveness of the Jordanian industry .

II. Analysis of Major Characteristics and Factors Affecting Competitiveness of Jordan's Industry

A. Major Characteristics and Factors

The major factors and characteristics influencing the performance of the industrial sector in Jordan include the following :

1. The continued dependence of local industries on imported raw materials and imported technology .
2. The insufficiency of specialized technical manpower needed to cope with the ever-evolving industrial technologies , and the lack of appropriate mechanisms to regulate the supply of skilled and technical manpower according to the needs of industry .
3. The relatively high cost of domestic utility inputs , such as energy, transport and labor in addition to the high cost of imported technology and raw materials .
4. The insufficient industrial utility services and infrastructural facilities in the remote areas far from the main growth poles of the country .
5. The loose interlinkages among the various industries of the sector and between the sector itself and other sectors of the economy , particularly agriculture .
6. The limited potential for exports of manufactured goods due to world excessive protective policies and scarce foreign exchange in the neighbouring Arab countries .

7. The limited domestic market , flooded with competitive imports and production surpluses .
8. The continued dominance of small-scale industries and consumer commodity producing industries on the overall structure of industry in Jordan .
9. The shortage of domestic capabilities and expertise in the areas of marketing , management , and industrial consultancy services .
10. The lack of specialized extension services , information systems and identified opportunities to assist researchers and attract investors .
11. The insufficient incentives in the areas of encouraging exports , R & D and specialized training of employees .
12. The limited Arab and foreign investments and joint ventures in the Jordanian industry in spite of the enactment of Law of Investment Encouragement .

These general factors as well as other specific ones affecting the international competitiveness of Jordanian manufacturing industry are analysed in detail in this chapter .

B. General Factors Influencing Competitiveness

1. Productivity growth and efficiency of utilization

A vital factor affecting the country's trade and industrial performance is the rate of productivity growth . This is usually considered as a measure of the real value added per worker for a given efficiency of performance , and its growth rate at a certain moment , as the ratio of productivity at that moment to its value at the base year . Countries achieving faster productivity growth , usually experience improved performance and faster overall growth . Quite often , slow productivity growth is experienced in developing countries , along with rising factor costs .*

While considering the question of costs and productivity , the level of investment should also be considered, since it has a direct bearing on labour productivity in Jordan . As an indicator of performance of the total economy , productivity in Jordan has

* Both developments have adverse effects on the country's competitiveness due to increasing inefficiency of utilization .

changed (in 1980 prices) from JD 1858/worker in 1982 to JD 1769/worker in 1984 and to JD1811 in 1985⁽¹⁾. The highest productivity during the period 1980 - 1985 was achieved in the services sector (JD 9985) , followed by the electricity and water sector (4820), then industry and mining (JD 3845) , followed by agriculture (JD 1212) and finally social services (JD 806) . The change in productivity of industrial sectors (in 1980 prices) during the years 1980 to 1984 was as follows:⁽²⁾

<u>Subsector</u>	<u>1980</u>	<u>1982</u>	<u>1984</u>
Mining (3)	7846	4489	9317
Foods and tobaces (4)	5212	5936	8231
Textiles and colthes	2930	2098	2000
Wood and furniture	2744	2208	1302
Paper and printing	2630	2664	1409
Chemicals (3)	5209	5920	7695
Non-metal (4)	5993	5575	7351
Basic metal (5)	1116	764	5520
Others	2727	4746	5000

(1) The World Bank , op. cit.

(2) Calculated from the statistics published by RSS (Dr. Issa Ibrahim) and Al-Amal Journal of the Ministry of Labour (1986).

(3) High productivity values in these cases of "Mining and Chemical Industries", are due to advance technology employed at work .

(4) High values are indicative of more efficient use of resources .

(5) This is due to inefficient use of resources and underutilization of capacity .

Of greater importance still , are the differences in the efficiency with which plants are operated . This factor is not usually well considered in the developing world , where considerable emphasis is laid on the volume of investment and insufficient attention is paid to the efficiency with which plant is used and investment is utilized .

The efficiency of resource use is usually a measure of the value of domestic resources (labour and capital) spent in earning one Jordanian Dinar in foreign exchange (in case of exportable commodities) or in saving one "JD" in foreign exchange (in case of an import substitute product) . This measure is commonly known as Domestic Resource Cost (DRC). A production process is, therefore, considered inefficient or efficient depending on whether this resource cost is greater or less than "one" , respectively.

A recent illustrative sample-survey exercised by the World Bank in 1987 on 21 products including cigarettes, beer , cotton-yarn , jeans , corrugated boxes , paper , hydrated lime , bricks , sheet glass , cement , aluminum profiles , pipes , radiators , scaffolding and others , has shown that seventeen out of the 21 products examined are produced inefficiently at present levels of capacity utilization . Of these seventeen products , three are an absolute drain on the country's balance of payments; namely , sheet glass , scaffolding and resistant

cement . The import cost of current input components of these products exceeds the cost of importing their equivalent of final products . In other words , these products have negative value added and negative contribution to the balance of payments at border prices , i.e. , they used up higher value of domestic resources to produce lower worth of value added .

Such factors of productivity and efficiency affect significantly the cost of production and price competitiveness for export purposes .

2. Reliability of product and time-delivery

Competitiveness can also be maintained in features other than price and productivity , such as product design , marketing appeal , reliability , time delivery , servicing and product reputation . These are just as important in raising the value of saleable output per man employed as the increase in physical productivity . Fortunately , such factors are now given good attention by Jordanian exporters , especially in markets where Jordan occupies a fairly privileged position .

3. Policies and measures

In addition to the above factors which affect price and non-price competitiveness , there are also the policies and measures which can be in favour of the country's ability to compete, if properly designed .

Such policies may have become more demanding and urgent in the last years as a result of the economic recession which affected the Arab Region . So, the real value added of mining and manufacturing sector in Jordan grew only by about 8 percent p.a. during 1982-85 compared to about 12 percent p.a. achieved during 1979-82. This slowdown had become even more pronounced after 1985 and grew only by 0.4 % in 1986 .

In 1985 , in nine out of twelve sub-industry groups monitored by the Department of Statistics, the output has fallen in absolute terms. Sub-sector analysis shows that, on average, their capacity utilization is running at barely 60 percent and many industries have difficulties in competing with imports and maintaining market shares in exports .⁽¹⁾

In order to help the industrial sector to withstand difficult conditions , the Government policy was adjusted , as shown below , to offer increased protection and increased selectivity in promoting competitiveness and new investment .

(a) Policies affecting external competition

(1) Protection of local industries

Up to the beginning of 1983 , the trade policy had very few quantitative restrictions . The protection offered to industry was provided mainly through low level tariffs on inputs coupled with a relatively high tariff on competing imports of final products . This trade system was operated within the framework of a stable currency linked to the SDR..Over the past four years , however, there has been intense pressures by the industry for increased protection . This is being attributed to shrinking markets ,and rising costs due to low capacity utilization which eroded competitiveness in exports and import substitution.

(1) The World Bank . op. cit.

Consequently , since the beginning of 1983 , there has been a gradual application of restrictions in different forms of protection offered to industry . Thus , protection offered during the period 1983 - 1987 provided a low level tariff on inputs for about 100 commodities , and a relatively high tariff on competing imports for about 350 commodities .

In addition , import bans and prohibitions were applied until the beginning of 1987 , to about 40 competing commodities to protect their similar locally manufactured products . Also about 54 local commodities were considered " approved " and thus custom duties were imposed on similar imports by the public sector institutions that were formerly exempted .

Examples of import prohibitions are " small washing machines , macaroni , detergents , yeast , aluminum profiles , vegetable ghee , cigarettes , cement , matches , animal feed , sanitary tissues , juices , kerosene heaters , gas-cookers , steel rods , glass sheet , paints , tomato paste , metal nails , purified water , pasteurized milk , olive oil , beer , insulating materials (specific types) , etc. " .

Examples of the " approved " commodities are " batteries , corrugated paper , ceramics , wool textiles , marbles , carpets , cosmetics , plastics , metal pipes , furniture , biscuits , caustic soda , solar panels , ball pens , soaps , shutters , baby brams , aluminum ladders , pharmaceuticals , refrigerators , gas ovens , nylon bags , lifts , cables , etc. " .

Meanwhile , encouragement of exports continued by offering partial income tax exemptions , custom duty drawbacks and temporary entry of raw materials , lower prices of fuel (50 %) and electricity (20 % reduction) and soft financing .

Although such restrictive measures are not very significant from a macroeconomic perspective and their substitute values are not very high , yet they have actually protected a significant portion of manufacturing industry accounting for about 40 % of the value added of small and medium scale industries in 1985 .

On the other hand , many of the countries to which Jordan exports , do impose tariff barriers and import controls which are difficult for exporters to overcome . For this reason , bilateral trade agreements with neighbouring countries and members of the Arab Common Market should play, if well organized and applied , an increasingly important role in Jordan's external trade .

However , it must be mentioned here , that although these protection measures have helped a large number of firms to survive and develop , they could not actually differentiate between efficient and inefficient firms in the process of offering protection . This , in turn , has created in the manufacturing sector a mix of efficient well-managed firms and high cost inefficient firms . Consequently, consumers and downstream industries like construction and far-end products have been hurt by such inefficient

cases , and there has been a net resource loss to the economy due to that . For example , prices of jeans and sheet glass charged by the domestic producers are respectively 14 % and 78 % higher than the prices at which they could be imported . Other commodities go to about double the price of similar imports, like Kerosene-heaters and baby-brams . This increase in cost induced by the existing protection policies on efficient as well as inefficient industries can , therefore , be thought of as an implicit tax paid by consumers and downstream industries . According to the World Bank , this tax burden amounted on the whole , in 1985 to about JD 126 million which was almost equal to about half the total indirect tax revenue of the Government in that year . Of this burden the World Bank estimated that about JD 62 million were imposed on downstream industries and JD 64 million were passed on to the consumers . In other words , the rest of the economy paid implicit subsidy to maintain the existing structure of industries . This burden , of course , increased after 1985 with the increase in protection restrictions and will continue so since these restrictions have usually no limitation in time period for their application .

In addition , according to the World Bank report of 1987(Ref.8),an analysis of a small sample of firms carried out by the mission , it was revealed that many of the protected firms had tended to be poorly managed and impose resource loss to the economy by paying more on their imported inputs than the worth of their value added . So, what has been mentioned above in (B.1) about inefficiencies in resource use , seems to have been intensified by recent protective measures .

On the whole , however , judging purely from the average level of tariff , the level of nominal protection in Jordan is not very high and not much different from many other countries of similar level of development like Morocco and Argentina , (according to the World Bank , 1987) , and is almost 30 % lower than Egypt and Turkey . Nearly 57 % of the Jordanian imports are subject to low or zero tariff rate . On the other hand , many imports are now subjected to tariffs above 50 % .

(2) Level of exchange rate

The level of exchange rate can be an important tool of promoting exports once price and non-price factors have been taken into account . In the case of Jordan , the Central Bank of Jordan aims at , inter alia , securing the stability of the Jordan dinar vis-a-vis other currencies . The dinar is considered a strong currency in the region which can be exchanged via the banking system and/or money changers . Its strength was maintained due to the balance of payments surplus which is largely dependent on workers remittances and official transfers . In the face of declining market exchange rates of currencies of Turkey , Syria , Lebanon , Egypt and Iraq , it has become difficult for Jordanian exporters to compete with others in markets of the region .

On the other hand , imports are correspondingly cheaper which may be helpful in the case of imported inputs required by the manufacturing industry . However , this can also be harmful , since it encourages over-importing of competing commodities and , therefore , reduces competitiveness of local industries in the Jordanian market .

According to a World Bank paper ⁽¹⁾ , an overvalued foreign exchange rate in a developing economy will generally correspond to a faster growth rate in this economy mainly because more imported inputs are usually needed in a developing economy to build up itself and its manufacturing industry . In this case a high rate of exchange is necessary to keep down the cost of imports and to make possible a higher rate of growth of domestic outputs . In this regard the Jordanian monetary policy seems to be in recent years committed to preserving the exchange value of the dinar rather than to take into account purely commercial or export considerations .

In other words , the exchange rate of the dinar is not used yet as a policy tool to activate the Jordanian economy . Consequently , and as far as international competitiveness of Jordanian industry is concerned, the point to remember is that as a result of the remittances , and the surplus in balance of payments , the dinar is likely to remain at a high exchange value so long as its present and future exchange value does not reflect the trading position of the country , unless Jordanian migrants are considered as a traded commodity . This means that the prices of Jordanian imports will keep lower and those of exports higher than would be under a favourable exchange rate policy .

(1) By Mr. D. Keesing's , on trade policy , World Bank .

According to Table (5) , which gives a breakdown of the Jordanian trade by commodity during the period (1978 - 1986) , the total Jordanian imports in 1986 were about JD850.2 million . About 45 % of these imports consisted of development items , including machinery and raw materials for industry . Imports of this kind are essential to the Jordanian economy and are not particularly price-sensitive to higher value of exchange rate .

It follows , therefore , that the high exchange rate which keeps import prices down , could prove beneficial to the economy up to a certain point , particularly when it results in keeping down input prices to manufacturers . However , it should be remembered at the same time that the price of non-essential imports will also be lower in this case and consequently their growing demand will affect adversely the competitiveness of those local industries which are in direct competition with such imported commodities . This situation could either be a stimulating factor to make local products more competitive , or become a negative one in forcing these products out of the market .

It can also be seen that the developmental imports of machinery and raw materials amounted in the years 1981 , 83 and 85 , to about JD503 ,570 and 520 million respectively .

Other imports were also within the same range of about JD545, 533 and 554 million respectively during the same years . Only in 1986 imports of both kinds of commodities , the developmental and others , have dropped noticeably by about 31 % in the case of developmental imports (from JD520 million in 1985 to about JD383 million in 1986) , and by only

about half of that (i.e. , 16 %) in the case of other imports (from JD 554 million in 1985 to JD467 million in 1986) , which should not be the case , since higher drops should be expected to occur in the case of non-essential imports rather than in the developmental one . The latter should actually increase rather than decrease if a development momentum were to be maintained .

Most of manufactured exports , other than phosphates and potash , are highly price-sensitive to exchange rate and therefore the disadvantage imposed on them as a result of higher commodity prices , can be significant . A small decrease in price , therefore , could help such exports considerably , provided that other requirements of quality , reliable delivery , efficiency , etc. are fulfilled. Remembering , while most of the other Arab countries receiving Jordanian exports , especially Gulf States , have also high exchange rates , and therefore , Jordan should not suffer any special competitive disadvantage when compared with these countries production , there may be considerable disadvantages when compared with non oil-producing competitors .

After all , an alternative to devaluation of the exchange rate of the dinar could be to devise a selective system of subsidy to compensate exporters , either in the form of selective indirect subsidization , such as tax rebates , cheaper credit and direct grants or in the form of applying generalized subsidies on power , labour and possibly capital investment .

(3) Specialization in production and destination

In considering general affecting competitiveness , it is important to note that in a small country like Jordan with limited resources, it is preferable to concentrate export on certain key markets and on specialized groups of commodities . To some extent this is now the case applied in Jordan , since it has become now fairly well established in certain markets , like Arab common market and East Asian countries . Also it is well known in the world for specialized products like phosphate , potash and their derivatives . This should not , however , mean that exporters would become complacent in what seems for them to be a secure market and secure product while neglect other opportunities of new markets and developed variation of products . This is simply because situations in these markets might alter radically for some reason or another to the disadvantage of Jordan .

As a matter of fact , specialization should lead to a more dynamic and future-oriented entrepreneurship in these production activities and derivatives that are already established as assets for Jordan's industry ⁽¹⁾

(b) Policies affecting internal competition

(1) Investment licensing and registration

In spite of the effort exerted by the Government to streamline procedures , the investment licensing and registration process remains cumbersome in the opinion of the investor . Investment licensing in Jordan is carried out by the Department of Industry at the Ministry of Industry and Trade . A prospective investor is

(1) The World Bank . op. cit .

required to fill a 30-page format establishing the feasibility of the venture as a part of his license application . After that , the investor has to apply for registration with the Department of Companies , the municipality , the Chamber of Industry and then to qualify for the incentives of the Encouragement of Investment Law .

During six months from the date of licensing , the investor has to produce documents which provide evidence of implementation of the project in conformity with the license application . At the end of these six months , progress in implementation is to be reviewed by the MIT , and the license then could either be cancelled (which is rare) , extended or made permanent . In addition , the absence of an industrial law and a stable and comprehensive industrial policy increase the complexity and uncertainty of investment in Jordan .

The Government has issued in 1987 an amended Encouragement of Investment Law with the objective of enhancing private Jordanian , Arab and foreign investments and influencing their pattern in favor of manufacturing . The law defines a set of criteria by which a project can be classified as an " economic " or an " approved economic " project based on the extent to which it conforms with the objectives of the law and the national Development Plan . All fixed assets imported for the implementation of an " economic " project are exempted from custom duties . In addition , an " approved economic " project , enjoys the benefits of exemptions from income and other taxes for a stipulated period . Nevertheless , a prospective investor has no way of being absolutely sure whether or not his project would be granted the benefits of an " economic " or approved economic " project in parallel with the licensing stage " .

Investments which benefited from the law amounted in 1985 to about 13% of the total licensed investments in the economy. An analysis of the law by DAR-AL-HANDASAH⁽¹⁾ showed that the tax revenue forgone from both " the income tax exemptions and the custom duty exemptions " was only a small portion of the total budget revenue . In 1985 , the law benefited only sixteen out of 116 projects licensed by the Ministry (usually only about half of the licensed projects are implemented).

(2) Price control

Price control was introduced for consumer goods in Jordan around the mid-seventies in response to the rise in inflation as a result of the rise in oil prices and revenues . The Ministry of Supply was created in 1974 with the main objective of ensuring the supply of basic food items such as wheat , rice , sugar and meat at reasonable prices .

In addition to those items with prices regulated by the Ministry of Supply , there are also prices regulated by the Ministry of Industry and Trade for items protected by high tariffs or imports restrictions .

(1) Dar Al-Handasah , " Industrial Programming Study " , task 1.17 ,
March 1982 .

While price control was originally instituted to protect consumers, especially those of limited and low incomes , from rapid inflation, this justification can be questioned in the light of Government trading and pricing policies that kept certain prices of sugar, meat and wheat above market levels and the fact that Jordan has achieved price stability in the last few years .

Price fixing is in theory , inferior to the market mechanism , and a policy of price fixing or similar procedures are used only in special cases which typically are considered as exceptional cases wherein market mechanism fails .

Price fixation has also become a serious complaint of industrialists for a number of reasons particularly when the imports which are similar to their products are not price-controlled . In many cases, competition exists among local producers as well as importers of given consumer goods . Such competition usually leads to market prices reasonable to the consumer without Government intervention . It is possible that prices of certain commodities may go down if they were left to the market forces .

It has been very cumbersome and time-consuming to adjust controlled prices even if the input costs have increased . In some industries such as in the cases of " juices , beverages , bakery products and school girls dresses", the inputs as well as the outputs of these industries are under price control of the government. This had biased the profitability of such industries .

C. Resource factors influencing competitiveness

1. Labour and human resources

In the second half of the 1970s and early 1980s, Jordan suffered from an overall scarcity of labour which imposed a constraint on project implementation and operation and led to the concentration on products that are relatively capital-intensive and require less but fairly skilled workforce as being the most liable to competitiveness at that time .

Labour market conditions have changed drastically since 1982 with the beginning of the economic slowdown in Jordan and the region. At the same time, labour supply persisted in its quantity and structural characteristics with no consideration to the needed adjustment to meet new demand requirements .

The participation rate of the workforce in the population of Jordan is known to be quite low due to the following reasons :

- (a) The low female participation rate . This has lately improved in the light of the accelerated pace of social change and women education to reach about 13 - 14 % of total manpower (compared with around 40 % in Europe).
- (b) The young age structure of Jordan's population . So, over 50 % of the population are under 15 years old. A relatively high proportion of the population elects to continue full-time education and therefore does not join the labour force at an early age .

As a consequence of (a) and (b) , Jordan is considered to have a high dependency-rate , i.e., more than 5 dependents per worker . Meanwhile, since for most families wages are the major source of income , this dependency-rate is an indicator for a social pressure to keep the supply-price of labour at a high level .

Currently , however, large numbers of young people are entering the labour market looking for employment after graduation or are being unable to pursue their studies. In addition , the returning workers are also available for work in Jordan . This , together with the slowdown in economic activities have, in turn, eased the overall scarcity of labour and reduced Jordan's dependence on foreign workers . Moreover, these and other factors have resulted in an unemployment status estimated at 6.9 % in 1986 and 10 % in 1990 (i.e nearly 60000 persons) according to a recent study (Nov. 1987) conducted by the Royal Scientific Society of Jordan.⁽¹⁾ Of the current unemployment figures of 1986 , the study concluded that unemployment is concentrated in "social services (24%), construction (15%) and manufacturing (9%)" and that returning workers constitute 8% of unemployment.

(1) The Unemployment Problem in Jordan, Characteristics and Prospects , RSS, 1987 .

It is believed, however, that actual unemployment rate exceeds these estimates and may be around 10 % in 1987 .

Meanwhile , a great attention has been paid to vocational training in general . Thus improving quality and increasing quantity of skilled labour needed to help considerably the productivity , competitiveness and employment .

According to the Ministry of Planning , the largest part of the Jordanian labour force is engaged in the social services sector (47%), followed by construction (11%), then agriculture (7.6%) . Industrial sector , on the other hand, employed in 1980 about 8.2% of the labour force , and in 1983 about 9.4 % . It reached about 10 % in 1985 and about 11 % in 1986 .

The problem of high skill scarcity , on the other hand , is quite different and , in many ways , is much more problematic particularly in cases of high technology-based industries . In this respect , vocational training programmes should be expanded to provide tailored and highly specialized skills .

As for labour productivity in Jordan , this is shown to be almost comparable or slightly higher than that of its potential competitors in the region . Accordingly , the effective unit labour cost of production in Jordan is reckoned to be competitive in this regard particularly with the Gulf Arab countries .

However , before concluding that Jordan has a major advantage in terms of productivity and low unit labour cost , one should remember that by comparison with the fast expanding and cheap labour economies of South Korea , Taiwan , Hong Kong and Singapore , Jordan remains a relatively high unit labour-cost country . Consequently its market outlets will probably continue to be restricted in many of the countries with whom South Korea and similar economies have favourable trading relations . Moreover , most of the Arab neighbouring countries themselves , particularly Saudi Arabia and the Gulf States , are now undergoing intensive industrialization programmes by significantly increasing the capital-intensity of their manufacturing industry to improve productivity despite more expensive and less productive workforce .

It should be noted that while the manufacturing and mining sector in Jordan makes a vital contribution to the economic well-being of Jordanians, it is nevertheless not using the labour resources intensively. So, while its contribution to GDP in 1986 was 17.6%, its employment-share was as low as 11%. This implicitly indicates also a high labour-productivity as in the mining industries with high capital-intensity .

The development of management skills is carried out in Jordan mainly through the management institutions , Jordan universities and study abroad . Nevertheless , there is still a shortage in scientifically experienced and middle managers who should be cared for . Comparatively, this is less acute in Jordan than in many other developing countries .

2. Financial resources and institutions

Jordan's industrial development has relied mainly on private sector investment . Public sector injections of capital are also there particularly in large projects , like cement , potash , phosphate and fertilizer industries . Such a role , however , would be most effective if the Government were to limit its investment in new companies to the start-up period only , after which it could recycle its funds for use in other new enterprises .

In addition to the direct role of the Government in investment , equity contribution is also provided by specialized credit and investment institutions such as the Industrial Development Bank (IDB) , the Housing Bank , the Pension Fund , the Social Security Corporation and the Postal Savings Fund . The role of these institutions is either to provide medium and long-term credit and syndicated loans on relatively soft terms , or to participate directly in the share capital of project companies . The loan financing for industry is made either by specialized institutions , financial companies or commercial Banks . The IDB is a specialized credit institution responsible for industrial development through the provision of medium and long term loans . Its main sources of funding are borrowings from the Central Bank of Jordan and international financial institutions . The average cost of resources to IDB in 1985 was 5 % . The growth of IDB lending to industry has registered a considerable slowdown during the last three years . Thus its total credit provided to private sector during the period 1984 - 1986 grew at only 3 % , compared with a rate of growth of 11 % during the period 1982 - 1984 and a rate of 30 % during the period 1980 - 1982 .

Total credit in 1986 was about JD 39.2 million . Interest rates for fixed assets vary from 7 % to 9 % and for working capital from 8 % to 9.25 % , while for export orders at an interest rate of 7.75 % .

The analysis of the loan portfolio of IDB at the end of 1986 indicates that 40 % of the loans are in default (30 % with over 6 months payment arrears) . This is compared with 14 % loans in default in 1983 (8 % with over 6 months payment arrears) .

The financial companies , on the other hand , are privately-owned entities . They extend short and long term guaranteed credits to development projects but are not chartered for overdraft facilities. Most financial corporations have also been active in raising funds for industry in the capital market .

There are 15 commercial banks in Jordan (domestic and foreign), six specialized credit institutions , eleven financial companies and an active stock market .

However , the provision of loans and the participation made by specialized institutions are but a relatively modest contribution to the growth of industry . This could either be attributed to lack of demand for funds from the side of the private sector or due to lack of incentives , opportunities and initiatives from the side of the institutions .

The credit contribution from commercial banks on the other hand , has to some extent compensated,only in part,for the relatively slow growth of the specialized credit institutions . Thus in 1986 , a total amount of JD 220 million was credited to industry by commercial banks .

There are certain factors which limit the extent of the commercial credit to industry and make the banks conservative and risk averse in their lending. This includes the fact that most of the firms requesting credit are small ones and therefore , do not lie within the interest of the commercial banks due to their high risk factor being below the economies of scale of the banks' operations . Moreover , commercial banks prefer to finance short term operations whereas a large proportion of the credit needs of medium and small industries is on a medium to long-term basis .

The cost of borrowing for industrial projects appears to be high given the prevailing interest and commission charges and the absence of inflation in the Jordanian economy . Due to the economic slowdown , industries which relied heavily on borrowing for part of their fixed capital are facing difficulties in generating enough surplus from their operations to meet interest and principal repayments . The value of traded shares of manufacturing and mining sectors attained in the Amman Financial Market during the period 1978 - 1985 amounted to about 25 % of the total value of trade . Price indices of the sector changed during that as follows :

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
General Index	100	117.9	149.2	184.4	207.8	169.0	133.7	127
Manufacturing and Mining	100	100.6	145.6	165.0	165.4	125.6	106.9	100.8

The decline in the share price index , particularly in industrial companies , and the inability of numerous share-holding companies to deal successfully and profitably with their administrative and financial problems have made it very difficult and uncertain to new industrial firms to raise capital via the Amman Financial Market .

3. Infrastructural utility facilities

Among the infrastructural facilities that affect the competitiveness of Jordanian manufacturing industries , this section will deal with transport , power and water .

(a) Transport

There are only few problems of internal transportation facing industry in Jordan . Of these problems are the delays at the port of Aqaba , and the inadequacy of feeder roads and permissible excess loads .

The rapid growth in the importance of Aqaba port during the last decade had inevitably led to the congestion and delays in handling . Nevertheless , the recent improvement in efficiency and increased capacity of handling at the port have changed the situation . Thus , the annual handling capacity of the port increased from 6.6 million tons in 1980 to 14.5 million tons in 1985 and 16.8 million tons in 1986 . Of the latter figure , there are about 9.6 million tons of exports and re-exports and about 7.2 million tons of imports . The number of ships which parked into the port in 1986 was 2677 ships . Most of the handling is done now by containers . A permanent park for containers is now in service , capable of handling the biggest third generation containers .

The problems of feeder-roads and excess loads on the other hand , are now being solved by the up-grading of the general standards of roads and road-surfacing .

Obviously , it is essential for a small country like Jordan with limited resources and little opportunity for developing economies of scale , to depend on its efficient transport and distribution systems and to control the quality of its goods and speed of delivery in order to be internationally competitive .

However , while the speed of delivery of goods is of essence , the comparative costs of land transport and freight charges are also very important (see Table 8 which provides an indication of costs and distances) . Thus , a quick examination of freight costs and distances between Amman and main Arab destinations showsthat these are more tolerable in the case of Amman . In this regard , Aqaba's position , however , is not so favourable geographically . This should constitute , therefore , a positive differential to Jordanian manufacturers in favour of Amman where most of the local industries are situated .

Consequently , this proves the concept that Jordan enjoys a favourable geographical position vis-a-vis the Arab world which should be exploited to the advantage of manufacturers and traders .

Aqaba has also grown tremendously in importance in the recent years and its competitive position is likely to improve more . Iraq has already realized the advantage of Aqaba and is assisting in the further development of port facilities and the hinterland .

As a matter of fact , it must be suggested that in order to capitalise fully the facilities which Jordan owns , the country's services should be developed to become the regional distribution center of services for the Middle East . For that purpose serious attention must be paid to this possibility .

Table (8)

Comparative Approximate Distances Between The Seaports
of Beirut , Latakia , Aqaba and the Countries of
Destination (Km)

From	To -	Baghdad	Kuwait	Eastern Saudi Arabia
Beirut		1000	1800	1700
Latakia		1350	2150	2050
Aqaba		1100	1900	1900

Comparative Rates of Road Transport (JD/Ton)*

From	To -	Baghdad	Kuwait	Riyadh	Jeddah	Dammam	Dubai / Abu Dhabi
Jordan :							
Amman		11.500	14.000	19.000	16.000	19.000	27.000
Aqaba		13.500	16.000	17.000	14.000	17.000	25.000
Lebanon :							
Beirut		19.500	20.250	20.250	20.250	20.250	33.000
Tripoli		17.750	20.800	21.000	21.000	20.000	36.220
Syria :							
Latakia		17.500	21.625	22.750	20.750	20.750	41.100
Tartous		16.500	20.550	21.750	19.750	19.750	40.000

Source : Fees for border crossings are included , but not the fees for Beirut and Latakia seaports (approx. US\$ 17.0 per ton).

Dar Al-Handasah - 1982 .

The sea-freight charges on Jordanian exports are disadvantageous to Jordanian industry as far as competitiveness is concerned . The factors affecting adversely the shipping costs of Jordanian manufactured goods include the following :

- (1) The small size cargo and irregular merchandize of Jordan which increases the cost of export in the time the charges on imports are much lower due to being bulky and more frequent . This in turn widens the gap in competitiveness between local and imported commodities .
- (2) The significantly high tolls (dues) imposed on Jordanian exports at the Suez Canal , when going northbound to Europe and elsewhere in that direction . This factor affects the cost and the economic size of Jordan cargo and puts the ports on the Mediterranean Sea , like Syria , Lebanon , Turkey , Tunis and Egypt at a more competitive position in this regard .
- (3) The additional deviation distance of about 200 miles which the Jordanian goods have to undergo (unlike others) between Aqaba and Tiran "twice" , due to being out of direct route .

At the same time , the two bulk carriers of the national shipping lines handle only part of the Jordanian exports which constitutes mainly the large cargo sizes . Meanwhile , many of the non-Jordanian ships which used to pass by Aqaba (transit or others) to carry small Jordanian cargo have now suspended many of their trips in the area due to the Gulf War .

Therefore , unless charges on exports by sea are subsidized and cargos are gathered and regularized , the sea-freight charges on Jordanian goods will remain incompetitive , except for those which are exported southbound via the Red Sea to East Africa , Yemen and the Far East which could be exported economically by sea . The alternative to northbound exports is by air freight and land trasport if permissible .

As for the new " Queen Alia International Airport " of Amman , this has also been built to allow for a substantial growth in both passenger and freight traffic which will help Jordanian industry not to suffer a competitive disadvantage in that respect .

Moreover , to promote trade and industry , an international fair is now under implementation near Amman , to become as a trade and transit centre for the region . This fair will accomodate the frequent exhibitions held every now and then in Jordan to display industrial activities and local products .

(b) Power

Among the major problems affecting industrial firms are the high cost of power and to a lesser extent its availability . The problem of availability as a matter of fact is now solved to a large extent since a considerable amount of new capacity is brought on stream and nearly all the country is linked to the national grid . The installed capacity of power in Jordan is now 980 Megawatt , which meets the maximum load demand up to 1995 .

In parallel with the above achievements , the HV transmission system is being extended and completed to cover the whole Kingdom with a common national grid , thus exchanging the flexibility and reliability of supply system . Jordan Electricity Authority (JEA) has also extended the rural electrification scheme to cover nearly all the Kingdom (about 95 % of which is now being already electrified) .

In 1986 , there was a drop in the demand for total energy of about 1.8 % (compared with 2.1 % in 1985). This is ascribed to higher efficiency of generation and efficient conservation schemes .

The per capita consumption of energy in Jordan has increased from 932 KWH in 1985 to 990 KWH in 1986 and to 1050 KWH in 1987 . It is expected to reach 1451 KWH in the year 2005 . About 29 % of the electrical power generated in 1986 has been consumed by industry. This is estimated at about 676 GWH⁽¹⁾ , out of the total power of 2323 GWH.

Therefore, it is obvious that with this successful completion of plans , firms will have practically no cause for complaint on the grounds of availability of electrical power .

However, the price factor will undoubtedly remain a major concern (see diagram in chart "I", which shows changes in prices of electricity and diesel as compared with prices of fuel and cost of living).

As known, Jordan is not alone in experiencing successive increases in price of power due to escalation of oil prices at the time of the oil crisis . Nevertheless, as a non-oil producing country in the region , Jordan is certainly at a disadvantage compared with many neighbouring countries, although it is difficult to assess the extent of this disadvantage in view of the widely differing methods applied by different countries in the region in charging for electricity . Thus the price system in Syria for instance is quite simple, compared with that applied in Jordan, since it is based on monthly energy consumption and on the mode of supply whether at medium or low-voltage levels.

(1) One Gegawatt = 1000 Megawatt

GWH = GW x (Number of working hours per year) .

In Lebanon, on the other hand, the price system is also relatively simple, but instead of consumption, it discriminates between peak-hours and off-peak hours, together with the mode of supply. Another mode of tariff is based on a lump-sum price for each installed capacity. In Jordan, the pricing policy reflects the country's economic and social priorities. It aims at removing Government subsidies to energy which in turn adds to the cost of energy. Meanwhile, the policy aims at eliminating the non-economic usage of energy and encourages exports by subsidising the prices of fuel sold to exporting industries. This is now priced at JD 50/ton of fuel oil.

The electrical energy consumption tariff applied now to industry in Jordan is as follows :

Light Industry		Heavy Industry		
1-2500 KWH/month	> 2500 KWH/month	Day	Night	Peak
32	22.5	19	13	(JD 3.05/
Fils / KWH	Fils / KWH	F/KWH	F/KWH	KW/month)

This is compared to tariffs charged to other consumers in Jordan as follows :

Normal consumers	31 - 52 Fils/KWH
TV and Broadcasting	38 Fils/KWH
Commercial consumers	46 Fils/KWH

A comparison of power prices in Jordan with other prices in the world is presented in Table (9).

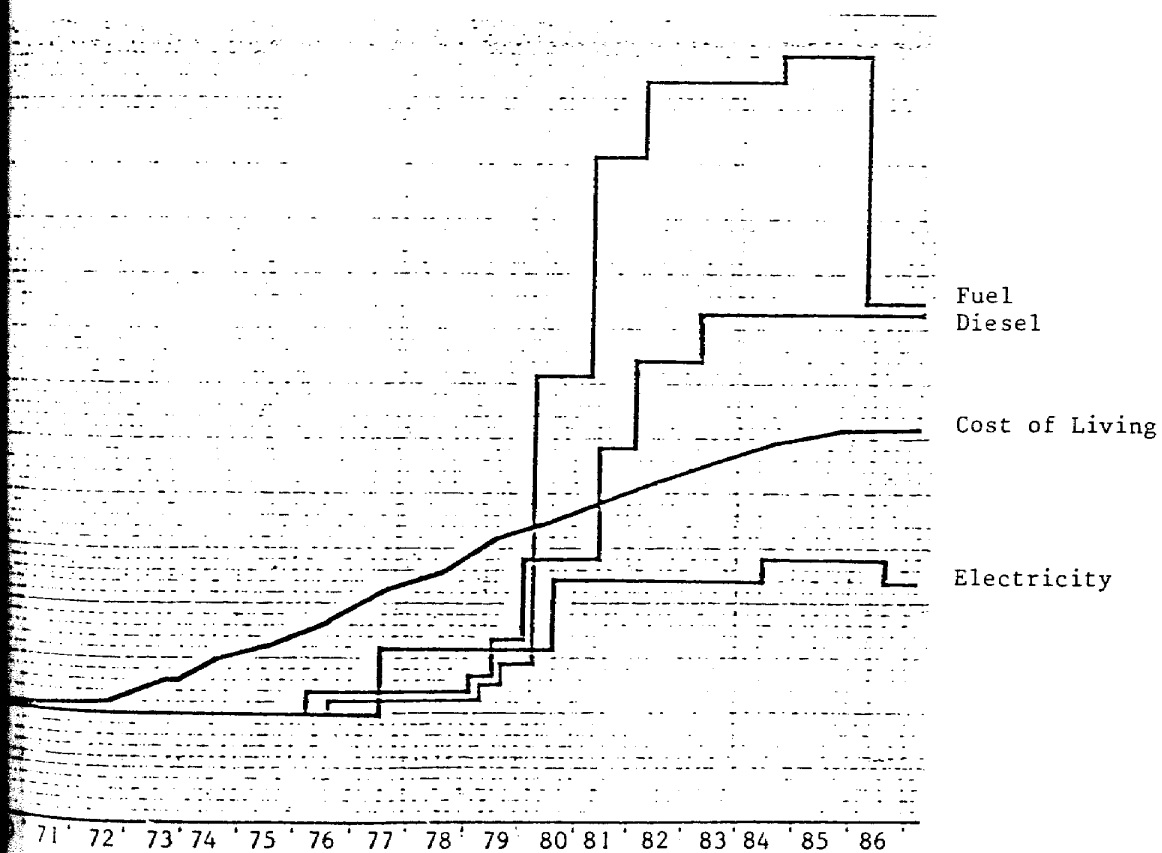
Also Table (10) below , shows that electricity in Jordan is more expensive than in Syria and Lebanon , Syria being the cheapest of the three , since the major source of power in Syria is hydroelectric which is inexpensive , compared with diesel fuel plants of Jordan.

Jordan electricity prices are also much more expensive than those of the oil-producing states .

Such price differentials in energy charges give the countries with cheaper electricity a big advantage on Jordan in competitiveness, particularly in the cases of intensive industries . Nevertheless , where fuel oil is used directly by industry this cost disadvantage is likely to be less acute than where firms are completely dependent on electricity . In an attempt to cut the cost of energy , manufacturers usually use self-generators during the peak hours of work .

In formulating a strategy for the development of manufacturing industry in Jordan , the subject of electricity charges to industry should be of considerable importance . Whenever it is decided to develop an energy intensive industry , there should be a possibility of subsidizing its requirement of energy so that this industry would not suffer from a competitive disadvantage which might affect its feasibility . An alternative to this selective compensatory subsidy to industry would be a wholesale review of the pricing system of power to industry in order to assist its competitiveness .

Chart (1)
Comparison of Index Number of Prices



Source : Dept. of Statistics .

Table (9)

Comparison of Electricity Tariff in
Different Parts of the World (1986)*

(Fils / KWH)

<u>City</u>	<u>> 15 Mill. KWH/Y</u>	<u>0.5 - 15 Mill. KWH/Y</u>	<u>< 0.5 Mill. KWH/Y</u>
London	21.32	21.39	32.96
Birmingham	20.15	20.28	30.23
Paris	16.32	16.51	21.26
Humborge	24.25	25.68	45.63
Milano	21.45	25.16	29.45
Eindhoven	20.74	20.93	21.71
Brussels	22.95	25.88	43.42
Torento	8.78	8.78	18.01
New-York	42.58	42.58	69.36
Chicago	17.10	18.98	31.07
Los-Angelos	21.84	22.17	31.27
Amman	22.5	22.5	(whole sale) 30.8
			(Retail) 35

* Ministry of Energy

Table (10)

Tables of Electric Energy Consumption Tariff Applied
To Industrial Sectors in Jordan, Syria and Lebanon

Table A Jordan

Light Industry (< 200KW)		Heavy Industry (> 200KW)	
(Fils / KWH)		(Fils / KWH)	
1-2500 KWH per month	2500 KWH (and)+ per month	Day (7 ⁰⁰ - 23 ⁰⁰)	Night (23 ⁰⁰ - 7 ⁰⁰)
32	22.5	19	13 + JD 3.05/month/KW (For Peak Load)

Table B Lenanon *

Mode of Supply		
	Large Industries Fils / KWH	Light Industries Fils / KWH
Peak Hours	17.6	21.6
Day off-peak Hours	10.8	13.7
Night off-peak Hours	7.8	13.7

Table C Syria *

Energy Consumption	Large Industries Fils / KWH	Small Industries Fils / KWH
1 - 1000	12.5 (a)	13.3 (c)
1001 - 4000	10.9	11.7
4001 - 10000	9.3 (b)	10.1 (d)
10001 - 10000	7.8	8.6
100001 - 500000	7.0	7.8
Above 500000	6.2	7.0

* Dar Al-Handasah / 1982 .

(c) Water

Water supply is a major concern in Jordan for industry and other uses . Any shortage in this resource affects adversely the industrial development .

The problem of water availability is shared by most Middle Eastern countries . Yet , only few countries in the region , like Jordan , have experienced a critical situation in this respect due to rapid population growth together with economic expansion simultaneously . Thus , the strain on Jordan's limited supplies of water has significantly increased during the last years , and measures to correct the water balance had been taken by efficient planning and management of resources .

However , inspite of the current apparent balance of water supply with demand in Jordan , yet according to Jordan Valley Authority (JVA) report on " Review of water sector , 1987 " , it is anticipated that in 1995 there will be a deficit in water supply of 11 % , and in the year 2000 a deficit of 45 % . It is also reported that the water demand of the existing as well as the likely future industries will be about 18 million M³ in 1990. It will increase to 22.5 million M³ in 1995 and to 26.4 million M³ in the year 2000 .

During periods of acute scarcity of water and in remote areas , small firms had to pay premium prices for their water . Large firms, on the other hand , have their own sources of water , mainly from deep wells .

The Government have lately instituted a policy of abstraction control on the drilling of private wells in certain areas , in a trial to better manage and rationalize the utilization of resources .

One problem which is closely related to water supply is pollution. This is sometimes due to inadequately managed or uncontrolled refuse and sewerage disposal of industrial effluent in certain areas . For that reason , an effective pollution control programme has been devised to take care of the whole water cycle . Quality standards for the effluents prior to discharge have also been laid down . Many industries had , therefore , to spend a lot to meet their pollution control obligations . However , similar rules of " pollution pays " are being applied in neighbouring countries , which should not place Jordan at a serious competitive disadvantage .

In view of the above , one can assume that , for the time being , only little problem exists with availability of water . The cost of water , on the other hand , becomes an important cost item , especially in cases where the consumption of water constitutes a large part of the total production cost of the industry . Some comparison between water charges in Jordan and other countries may be useful in this regard .

Thus , water charges in Amman for industry and population is about JD 0.4/M³ . It is somewhat less for smaller quantities of consumption and for consumers outside of Amman .

In Beirut , by way of comparison , water charges are levied on the basis of a fixed amount per M³/ tenant/year . This was in 1982 equivalent to about 60 fils/M³ , which is considerably less than the lowest tariff in Jordan . In Damascus , the charge for industrial and commercial water is almost the same as in Beirut .

The implication of scarcity and high prices of water for industry is that water-intensive industries are, in general, discouraged, such as some chemical and paper industries , in addition to the adverse effect on competitiveness of other existing industries in the country .

4. Natural resources

Jordan's natural resources can be divided into two broad groups , namely ; mineral and agricultural resources .

(a) Mineral resources

Mineral resources , do not include metallic minerals in the sense of current international criteria of evaluation . Attention , therefore, will be concentrated mainly on industrial minerals , which play an important role in the economy of Jordan .

At the timebeing , phosphate is the most important mineral resource of Jordan , with exports amounting to about JD 69.6 million in 1984 JD 66.1 in 1985 and JD 64.8 million in 1986 . These exports are directed to over 25 countries in the world (constituting about 11 % of the world traded phosphate). Jordan's phosphate rock is competitive in an international sense . Whether this competitiveness in price and quality can be maintained depends very much on such factors as the entry of new producers into the market , the growth in importance of phosphate derivatives and fertilizers , the price policies , etc.

The total production of phosphate in 1986 amounted to 6.3 million tons and increased slightly in 1987 . On the other hand , it is difficult at this stage to comment firmly on the competitiveness of potash in Jordan , inspite of its readily sold products on the basis of current prices and costs of production . The quantity produced and sold in 1986 was 1.1 million tons , valued at about JD 31.5 million . This quantity increased in 1987 to 1.2 million tons . Fertilizer sales , on the other hand , dropped from JD 44 million in 1984 to JD 30.6 million and JD 29 million in the years 1985 and 1986 respectively .

For the future , the most important in this field is to continue the development of downstream products from these basic raw materials , so that Jordan can benefit from the value added rather than export unprocessed raw materials . For that purpose , Jordan will have to concentrate on producing groups of chemicals based on phosphate rock and Dead Sea brine with other imported materials .

The chemical industry is a very complex and technical one , requiring highly qualified and experienced factory management and staff . In this sense, Jordan may have a comparative advantage over neighbouring and North African countries since it has an eminently trainable work-force despite its lack of highly specialized expertise in chemical. Only few problems like shortage of water and relatively high cost of fuel and power to be managed properly in the development of chemical processes .

Another industry which does benefit also from indigenous raw material resources is the cement industry . Its basic raw materials are quarried at the site and the reserves of these are assessed to be sufficient for a great number of years . Three cement factories are now operating on local materials in Jordan , one of which is producing white cement near Zarqa .

The cement industry , however , has suffered from an excess capacity after 1985 as a result of building a new factory with relatively high capacity near Rashadiya . Although international price comparisons in cement products are difficult due to government interference in many developing countries with prices of cement , yet Jordan should enjoy some cost advantage vis-a-vis neighbouring countries because of its favourable geographical position and favourable land transport and raw material costs. However, since cement transportation per ton is high relative to its price then it is considered as a non-exportable commodity except in certain cases where specialization in production is required .

(b) Agricultural resources

Other resources of importance to the economy of Jordan include agricultural resources . The overall contribution of agriculture to GDP and employment stands to be far less than expected . Thus ,

agriculture accounted for 14 % of employment and 8.5 % of GDP in 1986 . In view of this , Jordan runs a trade deficit in most food commodity groups , the major exception being fresh vegetables and citrus fruits which can attain a rather competitive position if promoted in certain seasons .

Food imports of Jordan during the first nine months of 1987 amounted to about JD 91 million , which is equivalent to about 14.4 % of the total imports for that period . To maximise its natural advantages , a useful strategy for Jordan's agriculture could be to explore available markets for early fresh vegetables , quality fruits and certain high value products . This should imply specialized facilities for packaging and partial processing of agricultural commodities in order to maximise local value added .

In conclusion , it can be said that Jordan has few but valuable natural resources . Nevertheless , Jordan is disadvantaged in terms of costs of energy and water , particularly for large industries . To compensate for these disadvantages , Jordan must maximise the benefits gained from the comparative advantages it possesses, like its favourable geographical position, stable economic policy and supply of skilled labour . Also in such a small open economy , with few natural advantages , businessmen in Jordan should have the full awareness of the need for diversification of industry in view of the increasingly protectionist policies being followed in the world and the ability to respond to changing markets and needs of customers , i.e., with easy self-adaptable mechanisms .

In this respect , a suitable model for Jordan can be Cyprus or Singapore which are even less endowed with natural resources and have experienced rapid growth of labour and population like Jordan, but are much more firmly committed to the principle of private sector . They also have high percentage of young people and relatively small population like Jordan and are well-educated and fairly skilled . The three cases are enjoying relative stability in areas of considerable political turbulence . Nevertheless, Cyprus and Singapore have advanced much further than Jordan along the path of industrialization . This outstanding performance has been mainly helped by the ability to switch speedily and successfully into new specialized products and techniques for which demand is growing . This has helped opening new geographical markets and shifting to active policy and conscious strategy of industrial development . Industrial promotion is carried out in Singapore through a partnership between government and industry embodied by a development council with branch offices in different parts of the world to provide information on thousands of business entities and trading possibilities .

The government in Singapore, has traditionally accepted a "hands off" approach to industry . So, most dynamic sections of people in such an industrialized country would deliberately choose private industry as a career rather than government .

D. Abstract of Major Sub-sectoral Problems Affecting Competitiveness

This section highlights concisely specific problems of certain sub-sectors in Jordan's industry that reflect themselves on the characteristics of their industries .

1. Food processing

Food processing industries depend mostly on domestic markets , and least reliant on exports .

The main problem faced by enterprises of this sub-sector is the price control of their raw materials and final products, since imports of many items are monopolized by the Ministry of Supply .

Another crucial problem is the uncertainty and sometimes insufficiency of agricultural production which feeds these industrial firms with their raw materials .

2. Chemical , pharmaceutical and rubber sub-sectors

These sub-sectors depend largely on export , particularly in the case of pharmaceutical and fertilizer industries . They are skill-intensive with high value added , in which Jordan could specialize competitively .

One main problem facing chemical industries in Jordan is the potential loss of some of its regional markets in a number of products such as paints , chlorine , caustic soda , detergents , cosmetics , etc. , since most of the neighbouring countries , like Saudi Arabia , Syria , Egypt and others , are setting up their own similar plants for such products . Most of these countries subsidize , in one way or another , and protect their products from competing imports .

This industry therefore , needs substantial assistance in marketing operations and quality control . Its relatively high cost of energy and water consumption are also constraints on their competitiveness and need to be tackled adequately .

3. The engineering and building materials sub-sector

The growth of this sub-sector is based on the development of the construction market . Enterprises producing major items of this kind , like glass , bricks , lime , cement , ceramics , etc. are still operating in most of the cases much below their rated capacities . Some of them , however , are now doing well , such as crushed limestones , steel rods , steel pipes , etc.

The main problems confronting this sub-sector are the lack of flexibility in production and the highly restricted export markets . Reasons for the latter in cases of cement and glass for instance , are mainly due to the extremely low prices of product and high cost of transport prevailing in the region , thus curtailing export possibilities .

4. The non-food consumer and intermediate goods sub-sector

The major problems facing this sub-sector in general are those of the high cost of raw materials , poor design and small domestic market to stand the overheads for export purposes . Thus garments from Taiwan , for instance , are more than 30 % cheaper than those of Jordan . The tannery , on the other hand , has the problem of quality and shortage of hides and skins .

On the other hand , the slow development of the modern retailing sector has also been a problem to industry in general . Moreover , the duty free access to certain imports from competing countries , e.g. , Syria , form a serious handicap to local production in Jordan .

III Empirical Findings on the Competitiveness of Selected Local Industrial Products

We have covered in the previous section consideration of major factors that influence in general the competitiveness of Jordanian industry. In this section , a selected number of local industrial products are examined and analysed from the view of their competitiveness mainly for export , since an increase in export , far from local protection can be a direct indicator of competitiveness in view of the relatively free competition in world trade under given assumptions and common restrictions .

The " export/import " ratio , on the other hand , and the market share analysis for a commodity group should also be of particular importance for the purpose of this analysis .

In terms of good performance in export market , Table (11) shows that some of the commodity sub-sectors of industry stand out in this respect , with a relatively balanced (and sometimes high) " export/import " ratio for the years 1985 and 1986 . These commodities are arranged in a descending order of importance as follows : " crude materials (phosphate and potash) , chemical industries (pharmaceuticals , detergents and fertilizers except for the price of the latter which should be investigated) , cigarettes and cement (except for price here also) . Fruits and vegetables have also shown a relatively high ratio of " export/import " but as agricultural products .

Table (11)
Exports and Imports of Major Commodities in 1986 and 1985
(JD. million)

Commodity	Export	Import	"E/I" Ratio	Highest " E/I "
Fruits, Veget. and nuts	21,8 (23,1 in 1985)	25,4 (25,4 in 1985)	0.86 (0.91)	1.2 (1981)
Tobacco - Cigarettes	1,3 (1,7 in 1985)	1,6 (1,5 in 1985)	0.81 (1.13)	6.7-3.3 (1981-1984)
Phosphates	64,8 (66,1 in 1985)	-	High	High
Potash	31,4 (30,1 in 1985)	-	High	High
Chemicals (Total)	54,5 (51 in 1985)	74,9 (67,7 in 1985)	0.73 (0.75)	0.84 (1984)
- Pharmaceuticals	15,4 (14,3 in 1985)	18,0 (16,4 in 1985)	0.86 (0.87)	0.87 (1985)
- Detergents and Soaps	4,1 (1,6 in 1985)	3,7 (4,3 in 1985)	1.11 (0.4)	1.4 (1984)
- Fertilizers	29,1 (30,6 in 1985)	4,6 (3,1 in 1985)	6.3 (9.9)	High
- Plastic Products	3,9 (4,7 in 1985)	14,3 (14,9 in 1985)	0.28 (0.32)	0.5 (1982)
Paper and cardboard	3,2 (3,8 in 1985)	12,8 (14 in 1985)	0.25 (0.27)	0.3 (1981)
Articles of wood (Furniture)	.,6 (8,5 in 1985)	10,8 (13,3 in 1985)	0.1 (0.64)	Low
Textile yarns, fabrics, and made-up articles	3,3 (10,0 in 1985)	26,1 (29,1 in 1985)	0.13 (0.34)	0.34 (1985)
Cement	4,0 (7,1 in 1985)	.,11 (1,4 in 1985)	High (5.0)	5 (1985)
Clothing	.,7 (10,8 in 1985)	14 * (17 in 1985)	0.1 (0.64)	Low

Source : Central Bank , 1987 , Extracted from tables " 3 & 5 " above

* Estimated from (clothes and Footwear)

Table (11) shows also the volume of exports and imports of these outstanding sub-sectors and the calculated " export/import " ratio for each item for the years 1985 and 1986 as a preliminary indication of competitiveness . The table shows values for the highest " export/import " ratios attained for these sub-sectors since 1978 .

However , one cannot always assume that a high ratio of " export/import " signifies competitiveness , or vice versa . But , in the absence of other data , this can be used as a crude indicator of competitiveness .

At a more detailed level still , an investigation can be made of productivity (as discussed before) . It might be also possible to unpackage commodity groups of sub-sectors into their individual product components to further compare prices and qualities of these components with those imported from abroad to make sure of competitiveness .

Commodities with low ratio of " export/import " include woven fabrics , furniture and paper works . Their high level of imports compared to exports might indicate the reason for their lack of competitiveness among Jordanian producers .

The following commodities are selected for further analysis at the individual level , in an attempt to represent a reasonable cross-section of Jordanian manufacturing industry . These commodities are :

- Pharmaceuticals
- Electroplating
- Plastic Pipes
- Gelatine Capsules
- Cables and Wires
- Paints
- Intermediate Petrochemicals
- Clothes
- Electrical Accessories

Large industries like phosphate , potash and derivatives , were already tackled in regard of their competitiveness elsewhere in this study.

The producers of the above selected commodities were interviewed for the purpose of this study to discuss the questionnaire given in "Form (1)". The data obtained were then compiled (as in Form (2) and analysed individually , according to the computation sheet in Form (3) . Then the general conclusions were drawn on the basis of this analysis to indicate , from the real life conditions , how competitive these commodities are at the sub-sectoral level , and what factors and problems are affecting their competitiveness .

The parameters of importance in this empirical investigation are discussed in each case and compared in Table (12) to show the difference and to indicate the general picture. Such parameters include percentage of exports in sales, ratio of export/import, capital investment per worker , average wage per worker , gross sales value per worker , productivity , efficiency of performance , value added and domestic resource cost (DRC) of foreign exchange . The latter indicates the resource cost of earning one JD in foreign currency .

A. Pharmaceutical Products

The inclusion of this sub-sector in the selected survey was originally due to the value of its relatively high exports and the reputable status it has attained abroad and in the home market . It is a quality product with minimal reject and reasonably high contribution to the national economy . Indeed , the whole of the chemical sector to which pharmaceuticals belong , is one with considerable potential for growth in Jordan .

Pharmaceutical sub-sector in Jordan tend to be rather complementary except for its loose backward link,towards the production of the basic raw materials required for this industry and for increasing its value added,and export potential .

The total capital invested by pharmaceutical industry in Jordan amounted in 1987 to about JD 14 million . It employs about 1400 persons distributed over five firms . The number of dosage forms of medicines produced by these firms are about 300 . Exports of the sub-sector amounted in 1986 to about JD 15.4 million , according to the Department of Statistics and to about JD 10.6 million during the first eight months of 1987 . This is compared to about JD 14.3 million in 1985 and JD 11.5 million in 1984 . This in itself is an indicator of growing exports during the last few years . Imports of the sub-sector products , on the other hand , reached JD 18 million in 1986 and JD 12.7 million during the first eight months of 1987 , which are almost comparable to exports .

The largest manufacturing firm of pharmaceuticals in Jordan is the " Arab Pharmaceutic Manufacturing Co. " of Salt which was established in 1964 . This company employs about 750 people and has a paid-up capital of JD 5 million . It produces quite a wide range of pharmaceutical products in the form of tablets, capsules and liquid , including anti-biotics , analgesics , antihistamines and chemotherapeutics . More than three quarters of the Company's production (of JD 10.2 million in 1985) was exported to many countries in the Arab world and Africa . Production for export came from the old as well as the new expansion lines of the firm . The expenditures incurred by the sub-sector on R & D exceeded 6 % of its total production cost .

Information was collected from other two pharmaceutical firms, namely :

- The Jordan Pharmaceutical and Medical Manufacturing Co. (JPM) , and
- The Arab Centre for Medical and Chemical Manufacturing .

Their experience tended to confirm that of the larger firm regarding export potential and diversity of products .

Thus , the " export/import " ratio for the sub-sector was about 0.8 whereas that of the Arab Centre (which produces only gelatine capsules so far but will be producing medicated and other products in the near future) amounted to about 1.5 . This also indicates the rather competitive nature of these products .

Other data related to the two selected firms are given in Table (12) which shows that in the case of the Arab Centre, a relatively high investment cost per worker is experienced (JD 34000) and a high efficiency rate (of 90 %) is attained. This can be attributed to the high level of technology employed. On the other hand, the sales turnover and productivity of labour are at the low side (JD 4672 and 2403 respectively) and the value of domestic resource cost (DRC) of foreign exchange is high (at JD 1.5) although lower than that of the "JPM" (JD 2.2). Such factors, although non-price, can adversely affect the competitiveness of the product.

Data on "JPM", on the other hand, in Table (12) show a relatively high average wage of labour, and a moderate value of sales turnover per worker, in addition to a high cost of foreign exchange (DRC) due to low percentage of exported sales.

The main distinguishing features which explain the success of the pharmaceutical industry in Jordan and ensures its continued competitiveness in the future include "the level of technology involved, the responsive management, the well-known brand names, the considerable promotional and "R & D" expenditures and the price competitiveness of the products. This industry, therefore, is likely to continue playing an increasingly important role in the Jordanian economy although it is afforded practically no real protection in the local market.

Of the major problems, however, which are facing this industry are the high cost of finance, the difficulties and protectionist measures in opening new markets and the high cost of imported raw materials and cost of energy.

Table (12)

Empirical Findings on Competitiveness of Jordanian Industry

(JD)

	Commodity Group / Sub-sector				
	Pharmaceuticals				
	Jordan Pharmaceutical Manuf. Co. JPM (1983)	Arab Centre (capsules)	Intermediate Petro chemicals	Plastic Pipes	Paints
Investment/worker	24000	34000	33000	18518	7500
Wage/worker/year	2240	1770	1322	1670	2000
Sales/Worker/year	12700	4672	45000	12960	25000
Added	318200	271516	962000	59430	61000
Productivity	6300	2403	7950	2200	5000
Index of Performance (nominal)	70 %	90 %	55 %	70 %	66 %
Resource Cost	2.2	1.5	0.15 (C.F 0.85 in 1985)	2.4	Very High
Foreign Exchange/(JD)					
Cost of factory (sales)	27 %	74 %	68 % (C.F 40 % in 1985)	10 %	No Export from the factory
Import Ratio - Factor	0.84	1.5	1.1	0.7	Nominal export sub-sector to Saudi Arabia

	Cables and Wires	Electrical Accessories	Electroplating	Clothes
Invest./Worker	37383	14700	31034	6500
Worker/Year	1121	1440	1380	833
Sales/Worker/Year	18700	7470	32207	500
Added	403800	420000	337576	70000 (sub-sector JD 4.3 million)
Productivity	3774	5700	5820	2330 (812 - sub-sector)
Index of Performance (nominal)	50 %	60 %	30 %	70 % (50 % sub- sector)
Resource Cost	1.7	0.44	1.2-sub- sector	No export
Foreign exchange/JD			3.8-Fact- ory	
Export(% of sales)	15 %	90 %	3.7 % (JD 670000 for sub-sector)	-
Import Ratio of	0.64	1.1	No import (Protected)	-

B. Intermediate Petrochemical (IP) Products

These products constitute a raw material base for a range of plastic and chemical products manufactured locally by over a hundred factories in Jordan . They are produced mainly by " IP " Company .

The " IP " company produces over fourty forms of seven major products , including :

- * P.V.C. with a designed capacity of 3000 tons/year/one shift
- * Plasticizers with a designed capacity of 2750tons/year/one shift
- * Polyester with a designed capacity of 1000 tons/year/one shift
- * Peroxide with a designed capacity of 100 tons/year/one shift
- * Fiber Glass R.P sheets (the only one in the region) with a designed capacity of 500000 tons/year/shift
- * U.F. Resins (now closed due to the closing down of the wood factory of Aqaba).
- * Solvents of different kinds at 1250 tons/year/shift .

This group of products has proved to be competitive in quality and price , locally and in the export market when compared with the European and other competing products . Thus , the exports of the "IP" increased from 39 % of sales in 1986 to about 68 % of sales in 1987 , and its " export/import " ratio became 1:1 in 1987 . A tariff protection of about 10 % was applied to this sub-sector , which helped to increase its market share of local consumption and acted as a price margin over the comparable " C & F " price of similar imported products .

A special attention to R & D is given by the company in the form of pilot plant and quality control laboratories . A budget of over JD 50000/year is allocated for that purpose . Meanwhile , about 30 persons of the workers of the company are technically specialized to operate and maintain the technologies involved at work .

Table (12) shows that the investment cost of labour in this company is JD 33000 , which is relatively high while the average wage per year of JD 1322 is acceptable with a high turnover per worker of about JD 45000 and high productivity of about JD 8000/worker resulting from the use of advanced technology in production . In the meantime, there is still a chance before the company to further improve its competitiveness by increasing its efficiency in the future to a higher rate than the current one of 55 % of nominal capacity when and if market conditions allow .

The domestic resource cost of foreign exchange (DRC) of this sub-sector (at JD 0.15) is outstanding , especially when compared to those of the other selected products . The next in this respect is the electrical accessories of about JD 0.44 . These two industries should be encouraged and promoted as a good source of foreign exchange and high export potential . The " export/import " ratio of this product is also more than "1" which confirms the products' competitiveness .

Of the factors which affect this industry and limit its competitiveness are the problems arising from the traditional use of substitute products to the " IP " products and those caused by the world-wide dumped prices of similar products . Other problems are due to the relatively high cost of borrowing and the cost of imported raw materials which constitute 70 % of the production cost .

C. Plastic Pipes

This product is used in many activities including water networks , electric conduits , sewerage and irrigation systems , etc. Plastic pipes are produced in Jordan by 22 factories , seven of which are specialized in water drainage pipes . The maximum possible capacity of this product in Jordan is about 13500 tons/year . Only about 30 - 40 % of this capacity is utilized due to the over-supply of the product compared with its demand .

Some of the local producers , however , are doing well like " Al-Arabi , Al-Aam , Marrar and Al-Masnoât " , while others are suffering increasingly from foreign competition and lower priced products . There are also signs that the Saudi and Kuwaiti firms are able to undercut local firms in certain products . Moreover , product lines with over-capacity are forcing prices down . To protect this product in the local market , a relatively high tariff of 48 % (+ 18 %) was applied on similar imports , except those exempted due to bilateral agreements .

According to the Department of Statistics , the value of imports of this commodity in 1986 (with tariff numbers " 39/2/c/2 and 39/1/c/2 ") amounted to JD 350000 , whereas its exports amounted to JD 230000 . The " export/import " ratio is 0.66 , which is still less than unity . Some of the imports , however , are due to the incomplete range of products available locally .

The factory under study , produces mainly water pipes used for cooling and central heating networks . Its production started in 1985 and the standards are British and German . Table (12) shows that the cost of capital and the annual average wage of employing

labour are reasonable for this factory . Productivity of labour , however, is shown to be low at JD 2200 and the " DRC " of foreign exchange of JD 2.4 is significantly high due to the low level of exports (amounting to only about 10 % of sales) .

Of the problems facing this sub-sector and affecting its competitiveness are the following matters :

- * The custom duties applied to the imported raw materials of the sub-sector and the high cost of these raw materials , which constitute about 60 % in average of the production costs .
- * The duty free imports of similar products from Arab countries having bilateral agreements with Jordan .
- * The biased customers' appeal towards the foreign products .
- * The lack of established local standards which can help in controlling the quality of imports of this particular product .

D. Paints

There are over 20 factories of paints in Jordan , capable of producing nearly all kinds of paints , at a capacity of more than 35000 gallons per day per shift . The average efficiency of performance of these factories ranges between 50 - 68 % of their nominal capacities . Due to the over-supply of local production in Jordan , the Ministry of Industry and Trade has stopped licensing of new firms in this field since 1983 . Moreover, the Ministry banned imports of paints from abroad with the intention of protecting this local product from severe competition . Accordingly , the sub-sector expanded vertically to produce many of its basic raw materials ,

like alkydes , P.V.A. resines , cans , fillers and white spirits . These raw materials constitute about 75 % of the needs of the sub-sector .

According to the Department of Statistics , the exports of the Jordanian paints dropped (in value and quantity) from about JD 2.6m in 1983 to JD 2.1m in 1984 and to JD 1.5m in 1985 and reached JD 0.3m in 1986 . In 1987 , however , exports during the first two thirds of the year amounted to about JD 0.4m , compared to JD 0.25m during the same period in 1986 . Following the prohibition of import of paints in 1986, a new duty was imposed on production at a rate of about 10 % of sales, to compensate the Government budget for its losses of customs on prohibited imports .

The local sales of the commodity group were also affected by the decline in construction activities in the country . Consequently , its cost of production increased and its competitiveness was further weakened in general . The Jordanian product is sold at about " JD 1.0 - 1,1 " per gallon in Saudi Arabia , whereas similar products from Britain , Greece and Italy are sold there at about JD 0.7 per gallon . This has hindered drastically our exports to Saudi Arabia and other countries of the region.

A comparison of production cost of the selected firm with the European similar products shows that freight charges from both Amman and Europe to Saudi Arabia are the same (100 fils per gallon) despite the difference in distances , and that the fixed cost to be incurred by the local firm at any rate is about 300 fils/gallon in addition to a little less than that for the empty packaging material and about 1 % of sales for royalties . These basic costs alone , without the raw materials , make in total about 650 fils which is about the selling price of the competitor products in Saudi Arabia .

According to Table (12) , the capital investment and wages of employment are about JD 7500 and JD 2000 respectively , which are reasonable when compared to others. Also , other parameters of productivity (at JD 5000), sales/worker (at JD 25000) and capacity performance of 66 % are acceptable . However , all these factors did not help the product's competitiveness in the export markets due to the high cost of production .

Other problems facing this sub-sector and affecting its competitiveness include , according to the survey , the high cost of interest on loans borrowed to cover the additional production fees (imposed by the Government to compensate for the banned imports)and the old technologies used in production , in addition to the high cost of imported raw materials and paid-up royalties on foreign trade marks . Since the technology of production in this industry is relatively simple , most developing and neighbouring countries have also developed their own facilities , thus affecting the competitiveness and causing under-utilization of machinery .

E. Electroplating (of aluminum profiles)

This industry is complementary to the manufacturing of aluminum profiles from " ARAL " factory at " Ain Al-Basha " near Amman . In electroplating : anodizing , zinc plating and powder coating are carried out at a total possible capacity of about 5500 tons/year . Only one third of this capacity is actually utilized so far due to the newness of production (in1985) and tight export markets . This has affected the competitiveness of the product for the time being .

Similar product from " ARAL " was firstly protected in 1985 , by applying high tariff on its similar imports , then this protection which included the selected factory as well was later increased to ban all imports of the product in order to help this industry to stand on its own . Consequently , the actual total production of the sub-sector increased to more than triple its size , in order to satisfy local demand . However , the selling price of the local product has also increased by about 20 % more than the price of the imported commodity inspite of the increased production due partly to the originally high cost of production and partly to the high fees applied on production in compensation of the import customs .

Exports of aluminum profiles (from the two factories) amounted in 1986 to 668 tons (worth of about JD 668000) , i.e. about 10 % of the total production . These exports were directed mainly to Iraq and are expected to increase in the future . The value of exports from the selected factory was about JD 68000 in 1987 .

According to Table (12) the selected factory of electroplating showed a relatively high capital cost per working opportunity (of JD 31034) and a reasonably high productivity per worker (of JD 5820) due to the use of automated technology . Also , the gross sales value per worker (of JD 32207) is acceptable inspite of the low efficiency of performance of 30 % . The domestic resource cost of foreign exchange (DRC) however , is more than JD 1.0 for both the factory and the commodity in general (at JD 3.8 and JD 1.2 respectively) which is not favourable . As for the " export/import " ratio , this couldn't be easily calculated due to the direct control on imports of the commodity .

Other problems facing this industry , according to the inter-view , include the high cost of borrowing , the complicated measures of exporting and the occasional shortage in local raw materials .

F. Cables and Wires

The factory studied in this field is the only one producing and insulating cables and wires (starting from thick copper rods) . The maximum possible capacity of production of this factory is 4000 tons/year , while its actual capacity is about half of that due to the newness of production (in 1985) . The local market demand , if secured, can absorb more than the maximum possible production of the factory .

In 1986 , the local wires and cables were protected by a relatively high tariff rate of 40 % and the customs rate on raw materials was lowered down to 5 % in average . This has helped the industry to increase its share of local market by about 55 % . On the other hand , the commodity has shown some competitiveness abroad inspite of the increasingly protected export market . The factory sales in the region (with similar production facilities) have increased from zero in 1985 to about JD 100,000 in 1986 and to JD 300,000 in 1987 , which is equivalent to about 15 % of total sales . The " export/import " ratio , however, was less than "1" and "DRC" was more than "1" , both of which should be improved . On the other hand , the company has shown in 1987 , and for the first time , some profits in operation .

Promotional expenditures and quality control budget constituted about 3.5 % of the total cost of production in 1987 . Also , similar to the pharmaceutical industry , a high proportion of the workers are classified as skilled workers (about 50 %) . Yet , the average wage per labour is somewhat below normal (at JD 1121/year) , thus combining skills , modern techniques of production and relatively inexpensive labour . This should help promoting competitiveness of the factory .

According to Table (12) , the capital cost of a working opportunity is shown to be relatively high (at JD 37383) . Also , the gross sales and productivity (which are interrelated) although relatively acceptable , are not as high as they should be in such an industry with modern technology and cheap labour . A greater utilization of capital and machinery should be attained to reduce unit costs and increase productivity , and consequently to make Jordanian product more competitive in the export markets . The major competitors , to this industry are Saudi Arabia , East Europe , Turkey and the Far East . Another problem arises from the low-quality imports . This requires strict control on specifications.

Other problems facing this industry and affecting its competitiveness according to the interview , include the high cost of energy and high interest rates . The industry requires also exemptions of raw materials .

G. Electrical Accessories

This product appears to be competitive both in respect of its increasing market share and in the high ratio of exports to imports . The commodity is produced only by the selected firm , named " The Arab Electrical Industries " , which produces a range of products at a maximum possible capacity of 3.5 million pieces a year .

The market share of this commodity increased in total from JD 380000 in 1985 to JD 560000 in 1987 , and the ratio of exports to imports also increased from "0.9" in 1986 to "1.1" in 1987 . The total exports of the firm in 1987 amounted to about JD 500000 , i.e. equivalent to about 90 % of the total sales.No real increase , on the other hand , occurred in the home sales despite the high tariff protection of 40 % and the comparatively lower prices of sales which are at 60 % of the British "MK" quality competitors , and at 40 % of the Italian "TICINO" quality competitors) .

Exports are mostly sent to Iraq and will be shortly sent to Malta, Cyprus and Kenya . In view of this success , the company is now planning for an expansion of production to start in 1988 both in the existing products and in new ones .

Of the other distinguishing features which help the competitiveness of this industry are the qualified management , the decent technology used and the reasonable amount of expenditure incurred on promotion and quality control (at about 5.5 % of cost of production per year) .

As in the case of paints , this industry relies heavily on construction activity which is in turn liable to fluctuations .

According to the empirical findings of this study (Table 12) , the capital cost of employment in this industry amounts to about JD 14700 which appears reasonable if compared with other selected industries except those of paints and clothes (which are JD 7500 and 6500 respectively) . The average wage per worker (of JD 1440) , on the other hand , lies in the middle of the wages calculated for other selected industries , whereas the gross sales per worker (of JD 7470) is comparatively below others level .

The productivity (of JD 5700) is at an acceptable level especially when compared with other electrical industries . The " DRC " value of foreign exchange , is very reasonable and it ranks next to the " Intermediate Petrochemicals Industry " between the selected industries .

Of the problems that face this product and affect its competitiveness are the high cost of borrowing (at "9 % + 2.5%",(recently , there was a decrease of 1 % in interest) , the customs on raw materials , the difficult measures of export and the high costs of energy , social security and air freight . The latter is even higher in the case of Royal Jordanian (at 1.6/Killo) than those charged by " KLM " for instance (at \$ 1.33/K).

H. Clothes and Woven Textiles

The total registered capital of this sub-sector amounted in 1986 to JD 30 million . It includes some 650 registered firms and employs more than 5000 persons(according to information from the Chamber of

Industry) . The total exports from this sub-sector amounted in 1986 to about JD 0.74 million and are expected to double in 1987 , compared to about JD 10.5 million in 1985 (according to the Central Bank Bulletin , based on information from the Department of Statistics). Its imports on the other hand , reached JD 14 million in 1986 and about JD 18 million in 1985 (according to the same source) . Of these sub-sectoral imports, the imports of clothes alone exceeded JD 8 - 10 million annually since 1977 .

According to the empirical findings , the companies in this field are finding life increasingly difficult, especially during the last two years . The protection provided to this sub-sector (effected by the difference in tariffs of 23 %) has only helped in decreasing the proportion of imports into the domestic market .

The reasons for the low competitiveness of this sub-sector , according to the sample survey , include the intense competition and the dumping prices of commodities coming from the Far Eastern countries. This is compared to the high prices and the high cost of production of Jordanian products due mainly to the high cost of imported textiles. The Iraq-Iran war and the protectionist measures applied to similar commodities in the region , have affected the Jordanian exports to Iraq and to the Gulf States . Moreover, the duty-free clothes and woven fabrics and made-up articles imported from duty-exempted Arab countries , like Syria , Lebanon and Egypt , wherein the exchange rate is low , competed severely with local products in price (at home and in the export markets) inspite of the comparable quality they have in general . Such exemptions arise from bilateral agreements signed with these countries .

Such problems of competition facing this sub-sector , however , are not peculiar to Jordan but affect also similar products in other countries of the world . So, the combination of advance technology , cheap labour and inexpensive raw materials employed by countries like China and Taiwan leaves Jordan and many other countries of the world uncompetitive by comparison. In particular , as most companies of this sub-sector in Jordan are labour intensive and importing their raw materials and textiles from the Far East .

In consequence to the above problems of competitiveness , the demand on this commodity has been dropping and the output falling , thus causing an increase in costs of production and killing any incentive to replace the old machinery and technology by new ones . This leaves many machines lying idle . If this situation continues , the wages and profits of this sub-sector will also fall relative to the more profitable and dynamic sectors and this industry will then tend to loose its personnel and become in serious danger .

In view of all that , there would seem to be little opportunity for expansion of this sub-sector . Even if the Government introduced higher tariff protection there will be no guarantee that local consumers would switch their major consumption to domestic products, especially in the presence of exempted imports from other countries . A quick action should therefore , be taken at once to help this sub-sector to persist and to stop its deterioration in the face of dumping prices and costly raw materials .

According to the empirical survey , the capital cost of employment in this sub-sector is about JD 6500 and the average wage per worker is about JD 833 which is relatively low as compared to other selected products . The sales per worker and productivity are rather low , on the other hand , being at JD 500 and JD 2330 respectively . Since exports from this sub-sector have been very low in 1986 in comparison with the very high imports , its domestic resource cost (DRC) of foreign exchange was shown to be too high and incompetitive .

One promising trend , however , is appearing on the horizon , whereby textiles and semi-finished clothes are coming from the Far East and other parts of the world to be finished and prepared in the Jordanian factories , in their way for re-export to the U.S.A and Europe . Such a trend is meant to make use of the favourable costs and privileged factors of Jordan and should , therefore , be well-utilized and promoted to help this sub-sector to stand on its own .

I. Empirical Conclusions

Based on the empirical findings of the selected industrial firms , the following brief points can be made .

- 1- The noticeable increase in the volume of Jordanian exports of some of the manufacturing industries provides a crude indication of a gain in competitiveness . Of the selected industries which are exporting more than 50 % of their sales , are :

* Electrical Accessories (switches , sockets , etc.)	90 %
* Arab Pharmaceutical Manuf. of Salt (not interviewed)	75 %
* Arab Centre (Pharm. Capsules)	74 %
* Intermediate Petrochemicals	68 %

2- The commodities with high ratio of "export/import ≥ 1 " are those of :

* Arab Centre (capsules)	1.5
* Electrical Accessories	1.1
* Intermediate Petrochemicals	1.1

3- The commodities with a relatively high ratio of "export/import = 0.6 - 1.0 " are those of :

* Pharmaceuticals	0.84
* Plastic Pipes	0.7
* Cables and Wires	0.64

4- The commodities with high productivity of labour (above JD 5000) are those of :

* Intermediate Petrochemicals	JD 7950
* Pharmaceuticals	JD 6300
* Electroplating	JD 5820
* Electrical Accessories	JD 5700
* Paints	JD 5000

- 5- The commodities with high sales turnover per labour (above JD15000) are :
- | | | |
|---|-----------------------------|----------|
| * | Intermediate Petrochemicals | JD 45000 |
| * | Electroplating | JD 32207 |
| * | Paints | JD 25000 |
| * | Cables and Wires | JD 18700 |
- 6- The capital cost of employing labour ranged between JD 31000-37000, in the case of large industries , including Cables , Capsules , Intermediate Petrochemicals and Electroplating . And between JD15000-24000 in the case of medium industries including " Pharmaceuticals , Plastic Pipes and Electrical Accessories , and JD 6500-7500 in the case of relatively small industries , like Clothes and Paints .
- 7- The average annual wage per worker ranged between JD 1000 - 2000 in nearly all the cases .
- 8- The efficiency of performance exceeded 50 % of the nominal capacity in all cases except that of Electroplating where the efficiency was 30 % due to the newness of the two major lines of production .
- 9- The domestic resource cost (DRC) of foreign exchange was less than JD 1.0 only in two cases , namely :
- | | | |
|---|---------------------------------------|---------|
| * | The Intermediate Petrochemicals , and | JD 0.15 |
| * | The Electrical Accessories | JD 0.44 |
- Whereas it was JD 1.5 and JD 1.7 in the cases of Capsules and Cables respectively and was higher in the remaining cases .

In the light of the above analysis , two of the selected commodities , namely Intermediate Petrochemicals & Electrical Accessories , export more than 50 % of their production profitably , have a high export to import ratio and lead a high productivity with high efficiency and high sales-turnover. They can, therefore, be described as being relatively competitive . Other commodities of the selected list can be re-arranged in the order of their performance as a crude indicator of competitiveness (considering price and non-price factors simultaneously) as follows :

Pharmaceuticals and Capsules (provided that they sell at profit)

Plastic Pipes

Cables and Wires

Electroplating

The last three commodities are expected to improve more in the near future , since they are rather recent in their production so far .

The remaining two commodities of Paints and Clothes have not achieved real growth in market share in and out of Jordan during the last two years , nor have they attained any good ratio of " export/ import " and can thus be regarded as being non-competitive inspite of the non-price factors that might help their sales . They are actually facing difficulties in competing with foreign products because of their high production cost and non-competitive prices (except for certain specific cases). A quick action should therefore be taken to help these industries in the face of dumping prices from the Far East and duty-exempted countries like Egypt , Syria and Lebanon where exchange rates are low . Pharmaceutical exporting , on the other hand, is improving .

In the case of plastic products , performance is variable , with some products doing well and others suffering from foreign brands and lower-priced products . The Kuwaiti and Saudi firms are able to undercut local firms in certain plastic products . Also , the over production in a number of product lines has forced prices down .

In the case of engineering products like Cables, Electrical Accessories and Electroplating , one important problem facing this industry in Jordan is related to the relatively small size of factories in this field by international standards . They are seldom able to achieve the economies of scale which accrue to larger overseas competitors . Another problem , which is specifically related to the selected engineering industries, is due to the newness of these industries in the market .

As for chemical industries such as " the Intermediate Petrochemicals " it appears to perform fairly well not only in exports but also in domestic market (slightly protected). Thus, the "export/import ratio" is more than 1.0 and the value-added is more than double the highest " V.A " attained for other commodities in the list . Indeed , nearly all the chemical sector in Jordan is one with considerable potential for growth . It is efficiently run and is utilizing automated processes in most of the cases .

IV. General Conclusions and Recommendations

A. Conclusions

A.1 General

On the basis of this study and the empirical findings a number of conclusions can be drawn .

Being a non-oil-producing country, Jordan relies heavily for its foreign exchange and export markets on the neighbouring Arab countries . Consequently, the economic slowdown which affected the Gulf States, as of 1983 upon the decline in oil prices and revenues, has significantly affected Jordan's economy as well. Thus, average real growth rate in GDP did not exceed 3% p.a. after 1982 compared to about 10% p.a. during the period 1977-1983. Workers remittances, which usually finance over one-third of the imports, have almost stagnated since 1983, and foreign aid had declined by 30% .⁽¹⁾ Given the high population growth rate, per capita income has been falling since 1983 .

These adverse developments resulted in a drop in public investment and an increase in tax effort, in addition to a rise in unemployment .

The future outlook of Jordan's economy will be confined to the overall view of developmental objectives and aspirations and to the challenges that confront them . The policies and procedures required to realize these objectives will largely depend on the production generating mechanisms in Jordan's economy , and on Jordan's interrelation with the Arab economies.

The existing glut in the world oil markets and the negative repercussions resulting from that on the economies of the Arab oil-producing countries will continue to offset these countries' imports, employment and expenditures, and thus reflect similarly on the economic activity in Jordan .

A.2 Regional Comparative Advantage

This situation calls for placing emphasis on domestic production of import substitutes , export produce and cautious management of foreign reserves, particularly in the light of Jordan's limited external resources .

(1) Central Bank Bulletin .

The decline in the cost of crude oil imports should also be accompanied by a decline in the cost of domestic production, which should add, if it happens to the comparative advantage of Jordanian products and improve their competitiveness. Often, the advantages which Jordan has over competitors are quite marginal, and considerable efforts will have to be made if these advantages are to be retained .

The comparative advantages that Jordan has in terms of its location, the skilled manpower, the advanced communication and electrification networks, the free enterprise system with predominant private sector role, the demonstrated stability, the effective relations with other countries and the integrated infrastructure should all help strengthen Jordan's economic structure and ensure a degree of technological and institutional development enabling Jordan to play a bigger role, not only at the domestic level, but also at the Arab level . Jordan can then serve as a centre to provide skills, commodities and technological expertise and bridge the transfer of technology between the world and the countries of the region.

So far, it has only been possible to demonstrate competitiveness in a relatively small number of Arab markets (in addition to those markets of phosphate, potash and derivatives), in which Jordan, quite often enjoys a privileged status. It is however, quite possible that in the future, Jordanian products will be exposed so long as the present relatively open policy towards foreign trade and imports continues .

A.3 Availability and Costs of Inputs to industry

The extent to which Jordan can implement further upstream and downstream developments in many of its industrial activities will in practice be limited due mainly to the low availability of local raw materials, the high cost of energy , the limited availability of water and the limited market potential. Moreover, although Jordan is a country of relatively lower wage between the comparatively rich countries of the region, yet it is not, by international standards a low wage economy.

The question of comparative costs of inputs to manufacturing firms has been reviewed, and a range of industrialists were interviewed to gain better understanding of the situation. Not surprisingly, many companies suffered from higher costs of electricity like petrochemicals and cables. Others, like plastics, clothes and paints, suffered from imported goods coming from countries with combination of lower energy costs, inexpensive raw materials, cheap labour and duty-free imports which all made Jordanian products uncompetitive. For the most part, however, Jordan faces competition in its exports, not only from Arab countries but also from other countries especially those of the Far East.

Many of the companies competing with Jordan in the Arab markets usually benefit from the various kinds of export subsidies offered by their own governments. In the local market, however, the protection offered to local commodities compensates in many cases for the export incentives received by importers.

Labour costs in labour-intensive industries are often the main clue to cost of production and are dependent on productivity as well as efficiency of operation and wages. Since Jordan is unlikely to compete with Asian countries in terms of wage-costs, it becomes essential to find ways of stimulating productivity and efficiency of resource utilization. Therefore, companies which are unable to organize multi-shift operations are likely to lose competitiveness. Actually, from empirical evidence and productivity comparisons, it can be noticed that labour force in Jordan has been relatively efficiently organized in most of the cases to minimize labour unit costs.

For the most part, manufacturing firms in Jordan have to import their raw materials and this again puts them at a disadvantage compared with countries well-endowed with raw materials.

B- Recommendations

B.1 Exchange Rate

A very high proportion of Jordan's total imports consists of oil, food stuffs, raw materials and capital goods. The current exchange rate, therefore, keeps down the prices of such commodities to the benefit of domestic users and the industry's cost structure. Nevertheless, the overall effect of the exchange rate depends on relative price elasticities of all imports and exports and the values involved. An alternative to devaluation of exchange rate, would be to devise a system of indirect subsidies to exporters like tax rebates, cheap credits and export grants.

B.2 Non-Price Factors, like; Quality, Time Delivery and Customers Appeal

The importance of non-price factors in the success of Jordanian products was also apparent from the interviews with firms like pharmaceuticals (where quality was important), capsules, cables and electroplating (where quality and delivery were significant). In many cases, also, there was still a strong local preference of consumers towards imported foreign goods although with higher prices, such as in the cases of plastic pipes and electrical accessories.

In such cases in general, it should be possible to further upgrade and diversify the quality of local products and employ more sophisticated technical and marketing techniques to improve the situation.

B.3 Marketing

Marketing strategies, research and salesmanship have all been somewhat neglected so far, as manufacturing industry in Jordan places more emphasis mainly on improving techniques and volumes of production. In a highly competitive world, however, emphasis should also be placed on management and training personnel to assist marketing and salesmanship.

While Jordan depends heavily on trade agreements with neighbouring countries to provide the framework within which trade can develop, it is still necessary to keep revising these agreements in order to have an effective use of them . Also an effective marketing strategy is needed if full advantage is to be taken of the offered opportunities. In this respect , most of the Jordanian firms are too small and some are too young to have developed own marketing techniques and strategies although managers are aware of the need for aggressive salesmanship. Government could play in this case, an active role . Industry can benefit considerably from a more common market research and export promotion policy , especially as many of the firms involved are small to do this work on their own .

B.4 Technology and R&D

The pattern of technology applied in the Jordanian industry is mostly of the conventional type involving " standard practices " and using automatic and semi-automatic systems (like electrical accessories and plastic pipes). Basic technologies, on the other hand, are also applied but are dominated by a mixture of semi-automatic and non-automatic techniques (like paints and clothes). The recent inward transfer of technology, however, has taken the form of modern and fairly capital-intensive plants (like cables, intermediate petrochemicals, electroplating and pharmaceuticals).

The lack of independent " R&D " capacity is important, particularly in view of the problem of capacity underutilization . The " R&D " activities are so far mainly devoted to quality control and process modification.

Very often, Jordanian technology is acquired through some sort of fast arrangement with an overseas firm without careful consideration . Ideally, many factors should be studied prior to purchasing technology

and a good selection of world technologies should be examined and compared. Knowing that Jordan will have to depend on foreign support for technological knowledge for the foreseeable future, one positive approach to appropriate technology can be attained through the attraction of overseas investment which helps in the transfer of technology . This will also help to stimulate export-oriented growth. In order that Jordan's manufacturing develops and moves into a more advanced technological phase, more effort will have to be devoted to providing adequate technical and research support work for development and maintenance. The role of Government, and particularly the research centres, universities and technical colleges , is of critical importance in this respect .

B.5 Small and Medium Firms

With regard to size and efficiency of Jordanian products, some of the large firms are undoubtedly more efficient than others, yet there are successful exporting companies with a small size. There is no apriori reason why large firms should be more competitive except in those cases where considerable economies of scale can be gained by large-scale production. Sometimes, small firms face difficulties in obtaining credit at reasonable terms for export. It was noted that few of the companies studied have benefited from public funds, and those which have are larger ones .

In the domestic market, there is plenty of evidence of small firms competing successfully, especially in those sectors where there appears to be considerable market potential. They are actually the seedling for future development of medium and large scale industry. It is therefore, quite feasible to devise some policy of overcoming difficulties facing small, likewise large, industries in export markets, since size alone is not a determinant to competitiveness .

The importance of entrepreneurship and management in a small open economy such as Jordan is fundamental . While certain steps should be taken to train managers, an important way to encourage a spirit of enterprise is to create a favourable economic climate in which businessmen are willing to invest their capital and skill . It will be helpful in this regard to ensure that bureaucratic controls are kept to minimum . The confidence of local entrepreneurs will also depend to a large extent on the state of domestic and international markets and on their ability to identify the prospects of growth sectors and the risk of investing in those sectors .

In general, it can be said that only when it becomes evident to foreign investors that local firms are prepared to invest heavily in their own country , and to enjoy the advantage of operating in a free economy with minimal tax and free bureaucratic controls, only then that it will be possible to attract overseas investors to industry and commerce in that country (see page 24 - item 12) .

The successful economies, whether developing or developed, are invariably those which are prepared to abandon those industries that are in decline or where there is over-capacity and move into newer industries where market opportunities are promising . Government's role can be least interventionist in industry and more effective in supporting industrial development by helping to identify market opportunities, and providing back-up facilities such as tax exemptions, research, training facilities and export promotion .

Also , to make the Government role supportive rather than interventionist , an appropriate policy would be to sell off shares in semi-public industrial firms once established or upon the end of their risky infant stage in order to re-cycle the capital invested into new firms .

B.7 Special Recommended Measures

Further to the foregoing conclusions , one can point to a number of factors which contribute substantially towards reducing costs of inputs and re-shaping policies to help the competitiveness of Jordan's industry :

Labour force

- 1- The need for highly qualified and experienced management and skillful labour force with high learning ability to meet the ever-evolving technologies.
- 2- The need for specialized training facilities to develop process workers for Jordan and the region .

Sectoral Interlinkage

- 3- Enhancing the capacity of competing in world markets of specialized basic chemicals especially those of phosphate derivatives and Dead-Sea brine extracts. Jordan has in this respect a good prospect of developing basic primary inputs to chemical products such as Sodium tripoly phosphate and Sodium Carbonate for detergents and paints etc. This would give local manufacturers of end products a competitive edge, and a higher added value over other regional producers .
- 4- The next phase of developing Jordanian pharmaceuticals should be to produce their basic raw materials . This can be best achieved under license arrangements with major international manufacturers or process patentees , and in cooperation with Arab countries to ensure market preference and better coordination .

Policies

- 5- The restructuring of incentive systems complemented by a reform of investment systems in order to allow an easy flow of resources to more efficient firms at the expense of less efficient ones , thereby increasing the competitiveness and reducing the resource losses .

The restructuring of incentives should involve measures of regulating protection and tariff exemptions and rationalizing tariff structure to create a uniform non-discriminatory set of incentives across different sub-sectors . It should also afford custom exemption to all imported raw materials for industry . Bilateral agreements should be reviewed to allow some protection to certain local products which are unfairly facing competing duty-exempted imports

Reforms and solutions to economic competitiveness are to be objective and directional, not astray . So , it should be ensured that solving one problem will not be on the account of another. Thus, actions are to be studied well, analytically and systematically, before being implemented to make sure of all possible reactions .

- 6- The issuance of an industrial law that would regulate industrial development and enforce necessary rules and measures to avoid excessive duplication .
- 7- The introduction of a " one stop agency " to handle all measures and requirements related to the establishment of new industries .
- 8- Export prices can be affected by a whole range of imposed factors , such as export subsidies, preferential credit schemes, tax exemptions, etc. Many of the foreign firms which are competing with the Jordanian products in the Arab markets are undoubtedly benefiting from such a variety of export subsidies offered by their own governments (e.g. Turkey and Greece). The Jordanian Government, on the other hand, offers in compensation to that, a degree of protection to indigenous goods in the form of either high tariffs or import restrictions, as in the cases of paints, aluminum profiles, plastics, etc. However, more open and direct incentives are needed for Jordanian exports to enhance their relative competitiveness .
- 9- The improvement of the institutional support provided for export promotion, for facilitating import substitution, for improving quality and standards and for improving the availability of credit to different sub-sectors and different sizes of industry .

- 10- There are two ways to promote the role of commercial banks in financing industry. One, is to extend the time-period for repayment. Another is to cooperate with the Government or its specialized institutions in trying to overcome the problem of high-risk financing to small industries (at least during their start-up stages) by providing, for instance, guarantees to the banks which are actively involved in lending small firms.

Export Production

- 11- The introduction of indirect subsidies to local industries, especially to those with export potential, by cutting the costs of power, advertisement, port dues and other inputs, in addition to compensating them for the strong foreign exchange rate of the Jordan dinar and the relatively high air and sea-freight charges .

Investment Support

- 12- The diversification and better presentation and packaging of local products to be more acceptable in the international markets .
- 13- The strengthening of the role of consultancy and information services in the country, particularly in the fields of investment and marketing strategies and research .

Such a package of measures should result in higher levels of capacity utilization and the emergence of new firms in new fields .

In summary, it seems clear that despite Jordan's scarce natural resources, and the generally high costs of factors of production, it has managed to establish a competitive edge over many rivals in a small but growing number of exported products. The growth prospects are high in the chemical, pharmaceutical and non-food consumer goods and engineering sectors, while prospects for food processing and building materials will remain weak unless agriculture and construction sectors are stimulated .

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APPENDICES

- Form (1) , Questionnaire
- Form (2) , Abstracted data
- Form (3) , Computation Sheet (Analysis)

Questionnaire on Competitiveness of
Local Industrial Products in
Jordan

Name and address of Company :

Tel.

Type of Co.

Product(s)

Capital employed (Fixed + initial working capital)

Year of Production

	<u>Machines</u>	<u>Trade Mark Brand(s)</u>	<u>Process</u>	<u>Licence Agreement</u>
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Sources of Technology -

(Foreign or local)

Specifications and Stds.

adopted

(Foreign or local)

Major Raw Materials	<u>Name</u>	<u>Source</u>	<u>Value (% of total cost)</u>
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(Names and sources)

Capacity of Production

Nominal (Designed)	Actual		
	1985	1986	1987

If the production is less than 70 % of the desinged capacity please list reasons.

Gross Sales Value/Year

1985		1986		1987	
Local	Export	Local	Export	Local	Export

Export/Import Ratio of the same product

Subsidies (Value & Source)

Protection (Kind & rate)

Major Competitors (Name & Source)

(Price & Quality comparison with competitors, etc.)

Annual Expenditure on Advertisement	<u>1985</u>	<u>1986</u>	<u>1987</u>
(How and by what means)			

Profits (or losses)

	<u>Total</u>	<u>Technical skills</u>	<u>Foreign Experts</u>
Labour employed (Full time)			
Wage per year			
Directors of the company			
(owners or appointed)			

	<u>Type of facility</u>	<u>Budget/Y (JD)</u>	<u>% of total cost/unit</u>
Facilities and budget for			
quality control & "R & D"			

Kind of problems faced				
	<u>in Technology transfer</u>	<u>in production</u>	<u>in marketing</u>	
<u>Customer appeal</u>	<u>Cost of production (Specify costly elements)</u>	<u>Administrative problems</u>	<u>Liquidity and shortage of Finance</u>	<u>Government control and Routine problems (Specify)</u>

Future prospects (expandable/stable/deteriorating)

Recommendations foreseen to improve competitiveness of product(s) :

Abstracted Data from Questionnaire

Kinds of product(s) :

Capital employed :

Labour employed :

Salaries and wages/y :

Profits :

Gross sales/y :

Technology and specs :

Raw Material :	Source	% of total cost
(imported)	<u> </u>	<u> </u>

Protection (if any) :

Major Competitors (with comparisons)

Perspectives :

Expenditure on : Advertisement

 : R and D and
 Quality control

Problems faced : -

-
-
-
-

Analysis of Data - Computation Sheet

Capital employed / Worker -	JD	
Average Wage / Worker -	JD	/Y
Gross Sales / Worker -	JD	/Y
Efficiency of Performance -	% of nominal	
Exports -	% of sales	
Domestic Resource Cost (DRC) of foreign exchange -	JD	
Value Added (JD) -	JD	
Productivity -	JD	