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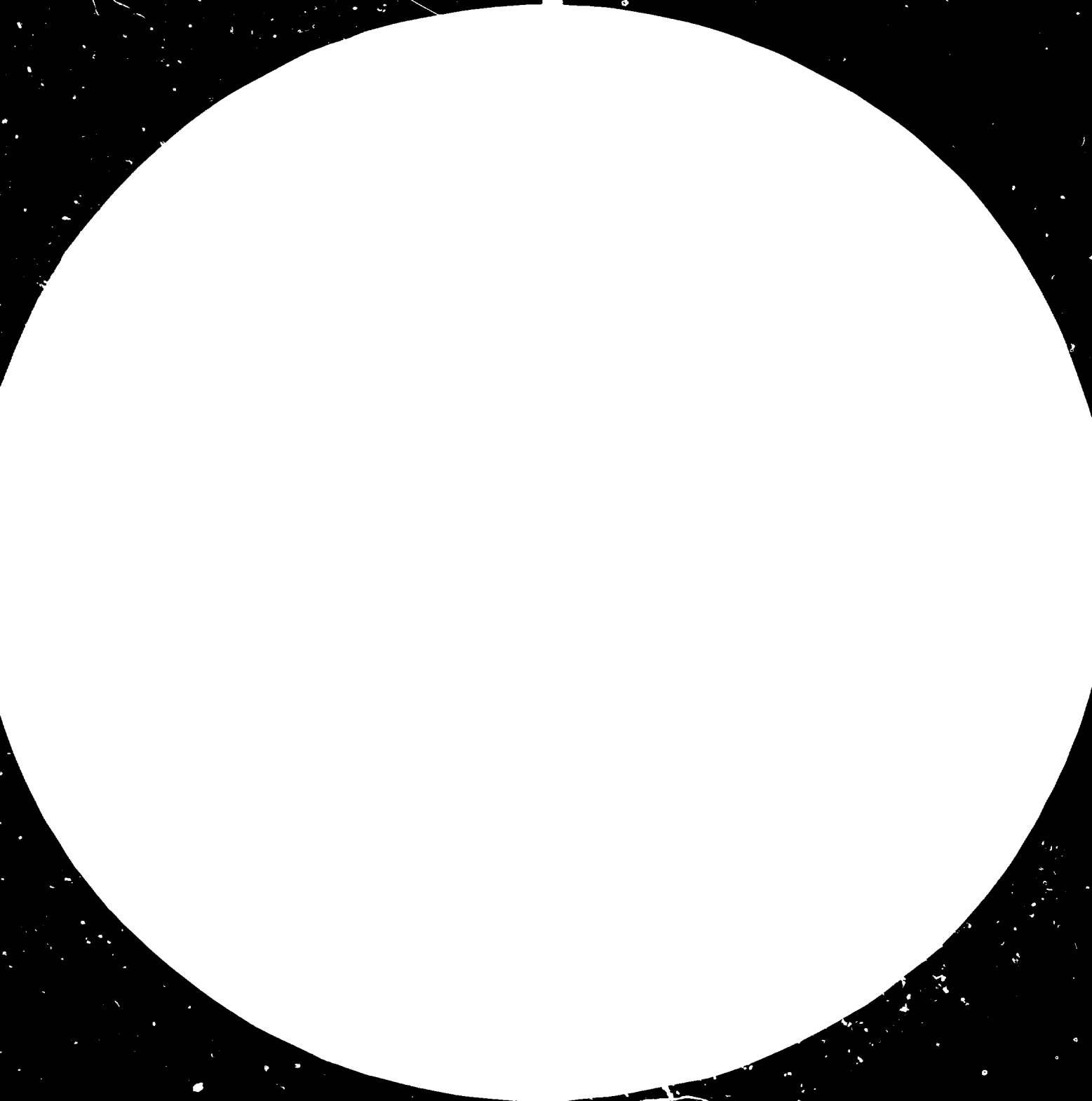
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4



MIROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS-1963-A



10662



United Nations Industrial Development Organization

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ENGLISH

Workshop on Selection of Technology for
Assembly of Electronic and Electrical
Products in Developing Countries

Utrecht, The Netherlands, 4 - 8 May 1981

FINDINGS OF WORKING GROUP II *

901.00

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V.81-28576

I. Background and Introduction

This report was prepared by a Group of Experts as part of the role playing exercise which was carried out at the Workshop. The group examined a "Suppliers Technical Proposal for the Establishment of a TV Plant" which had been prepared for the Workshop. Discussions were then held with representatives of the suppliers and a plant was selected by the group suitable for the country with a small internal market as detailed in Appendix I. The findings of the working group were presented to the Plenary Session of the Workshop and the following text was prepared as working document to support the verbal presentation.

II. Main findings

We had looked into this project in some detail based on the Philips presentation and we would like to present the case at two levels. In the first one we will go into certain analytical review of the project as envisaged there and based on these considerations will be giving some general views and conclusions. Now, let us start with the actual set that Philips have offered here. The supplier group themselves had told us this black and white 16" inch does not quite meet the current technology standards and that very soon they would be moving into the next generation. So there would be certain changes in the analysis if we were to go into a more realistic item which for example would be a 20" receiver (based on what I would say current technology) which would replace most of the discrete components into ICs. But unfortunately we do not have financial data on these, this current discussion about the analytical approach of project viability will depend strictly upon this 16" set. We have looked into this at several levels. First one is purely on commercial grounds from the entrepreneur's point of view. This does not mean that the government will necessarily accept or that it is the right thing to do. But if the project were allowed then an entrepreneur would look at basically how much money he has to invest and what he gets out of it. Before we go into that we would like to point out that we initially tried to base it on the small internal market scenario that was given as a data base. But while the smallness of market was allright, we found that this country's economic pattern was quite unrelated to the sort of areas we were talking about. So most of the comments we would be making would not quite relate to the specific small market country but more likely to the countries that are the working group II in general might be assumed to represent. Going back to the project viability according to

Philips, an investment of about 1.150.000 dollars would be required in total capital (not including the working capital) in land, building and equipment. As things obtain in our countries we believe that 30% of this is the maximum that one needs to invest would be from the entrepreneurs pocket and the 70% could come out of an investment bank. So the total equity capital would be about .35 million dollars against which we can raise a loan capital of .8 million dollars. Going by the costing that this manual provides us we feel, that if a set was sold for 70 dollars, (which by the way is very high priced for a 16" set) the entrepreneur could make a profit on the basis of 25.000 sets of about 50% on his invested capital, (that is on the equity part). So from profit point alone the project is quite viable - it gives a sort of return on investment that people generally expect in our environment. Next we will come to one big factor in all our transactions: that is the foreign exchange cash flow or foreign exchange gain or loss. Based on the 16" set we feel that most of the countries in our group provide about 20% of deletions on the total kit. These items would be cabinets and deflection coil and packing material. The total saving by not including these we come to a figure of about 16 dollars which you take out of the total kit price of 87 dollars (we are talking on c.i.f. basis in all cases). Against that we have to realise that certain raw material items would still have to be imported when we delete these components from the kit. In the case of deflection circuits we will have to import the copper wire and the bobbin or bobbin material; in the case of packing material one will have to import polystyrene granules. The total foreign exchange one will have to spend on the raw material to produce these deleted components would be about 3 dollars. So taking this into account the nett foreign exchange saving per set comes to about 3,5 dollars.

So this does not look too bad but against this we have to consider that when we are importing kits there are additional

- 1 -

charges in foreign exchange that have to be related to each unit. The first one is the cost of inventory or rather the interest that you pay on the inventory because the kit has to be held in stock over a longer period than an imported set. While one can argue about the exact figures, we assume that you pay 2 months extra carrying charge on a kit compared to when importing the finished receiver to that you add depreciation of equipment, cost of training and foreign personnel. The total of the nett outgoing foreign exchange if you were to take on such a venture, would be about 4.50 dollars. So the nett negative foreign exchange per set, if you assemble the set, rather than import strictly based on the prices given would be about 1.00 dollar per set. At this point we would like to mention that if we were to shift our attention from 16" to 20" the kit price would of course change. The components in most cases would remain nearly about the same but the picture tube will go up and so the percentage of local manufacture would go down from 20% let us say to about 15%. And the foreign exchange loss per set (by a very rough guess) from 1.00 might increase to about 3 dollars per set which is 75.000 dollars per year. (This is an extrapolation based on good guess - the exact figures cannot be given). So the first criteria of project viability is on, the second one of foreign exchange is not quite there. The third one would be that if we were to put up a project to the government how they would look at it from the consumers' point of view. The sales price of the completed set based on the figures of 16" comes to 170 dollars, which is not unrealistic in the sense that that is the sort of price that these sets would get in a protected market. Compared to this, even if the sets were imported from high cost areas like E.E.C. one would pay below 80 dollars c.i.f. So there is a very substantial social cost in addition to an additional foreign exchange cost per set. But we still believe that most

governments if confronted with an assembly project (unless there is an overcapacity) would tend to allow this thing to go through. As a matter of fact such projects are already in operation in at least two of the countries of our group. In one country a 50 cm black and white set sells for 400 dollars so obviously anything can be made to happen. Now if the government were to give permission and if people were to buy the sets at your price you would be able to make a reasonable profit. Is there any other profit?

Now as far as we talk of technology transfer we briefly touched on it on Monday one aspect we would like to make very clear that when talking of "current" and "special" technology the technology is identical, difference is only in the processing of material. Even there, looking at your Pilot Plant we have found that the degree of skill and detail required in what you might call low sophistication approach is still quite considerable and if one could produce the sets that are being produced in this Pilot Plant with the low reject rate it shows a very high degree of skill and organisation. Relevant to our country if we were to use these dispersed components to achieve that level of skill and low rejection, it would be quite an enterprise. If we were to use the current generation of equipment for television receivers which according to us would be designed round integrated circuits (the only major discrete component would be deflection circuit, tuner, and of course the picture tube) the requirement of the local skill in depth in putting the set together would decrease substantially. In five years' time except for a few people in the company we do not think anybody else would be required to know anything much about "technology" anyway. If we were to assemble the TV sets, looking ahead say in 1985, we are quite sure we will import one circuit board with perhaps two or three ICs at the most, put on the few discrete components, fix the picture tube, insert the whole package into a cabinet, and there you are.

And the chance of going wrong would be very little. This would apply not only for black and white (if we look ahead to the technology that is already available) but also to colour receivers. So we do not think there would be any material benefit from the point of view of technology transfer if we assume that we would be assembling sets that are now available and certainly would be provided by any supplier in two to three years time which is what we would require to make a proposal like this going.

Lastly, on the question of cost benefits (overall) to the country it certainly could not help the consumer because he always would pay much more than he would otherwise in any closed market where low volume industrial ventures are taken up, and which do not use local resources and raw material. There are no sets of parameters that we can think of where we would be able to use any local material more than in cabinetry and packing to a significant degree. What will we do? Mr. Zeren earlier said that in Turkey 60 odd percent of the components were made locally which probably might be true now, but as things progress and looking ahead, we think it would be very unlikely you could do that in future. Some of the benefits though could accrue if you were to assemble TV receivers: you would perhaps get in association with a multinational company with multilateral interest whose association you could use later to branch out into all sorts of products. So there is some merit and advantage in having an association with a leading group and even if you lose some money here you might be able later to develop associated products in the electronic industry (probably in industrial electronics, etc.). It probably would not quite happen so easily in the markets that we are talking of but one could make a case for it. So going over all the parameters that we have discussed firstly, the project is viable and probably would be permitted by a government. The extra foreign exchange loss to the country could be sold to the government by convincing them there are long term

benefits of acquisition of technology, benefit of some employment (though it is very little really).

But in the very broad and long term perspective as to whether one should do it at, the consensus of the group is that where there are other possibilities of improving industrial activities using the limited resources of raw material and skills, one should be very careful in investing a fairly substantial amount of money in areas which may have limited viability. Two million dollars or 1.15 million dollars is not really all that much in the context of a country but one could say that similar amount invested elsewhere would produce greater return socially. So the project can be succeeded, it will make money and government will accept it whether it ought to be done - the answer is a qualified "no".

WORKING GROUP 2 - REPORT

7 May 1981

Foreign Exchange Position

This is based on 25,000 sets/year; figures in dollars

| | | <u>Per set produced</u> | | |
|-----|---|-------------------------|---------------|------------|
| | | <u>Expenditure</u> | <u>Saving</u> | <u>Net</u> |
| | | (-) | (+) | |
| 1. | Deleted Items | | | + 12.78 |
| 1.1 | Cabinet | | 10.66 | |
| | Deflection Circuitry | | 1.44 | |
| | Packing Material | | <u>4.00</u> | |
| | | | 16.10 | |
| | | | ----- | |
| 1.2 | Cost of Raw Material when above items produced locally (1.00 for Deflection Circuit, 2.00 for Packing material) | 3.00 | | |
| 1.3 | Royalty to be paid to supplier for non-import of deleted material, say at 3% of job cost of 10.70 | <u>0.32</u> | | |
| | | 3.32 | | |
| | | ----- | | |
| 2. | Other costs chargeable | | | - 4.26 |
| 2.1 | Interest on inventory for 2 months on CIF of kits (see 3.3) at 15% | 1.86 | | |
| 2.2 | Depreciation of equipment and tools +8,000/25,000 | 1.92 | | |
| 2.3 | Training (10,000) and foreign export (50,000) over 5 years 60,000/125,000 | <u>0.48</u> | | |
| | | 4.26 | | |
| | | ----- | | |
| 3. | Kit Cost | | | - 87.36 |
| 3.1 | Price of Kit (100%) | 87.36 | | |
| 3.2 | Less CIF cost of deleted items | 16.10 | | |
| 3.3 | Net price of kit (including 1.3) | 74.26 | | |
| 4. | Total foreign exchange cost (Assembly) | 78.84 | | |
| 5. | Cost of finished receivers of investor | 77.87 | | |
| 6. | Net foreign exchange +/- (each set) | | | - .97 |

WORKING GROUP 2

7 May 1981

Project Viability - Commercial Considerations only

Assumptions:

Of total investment capital (excluding working capital) of 1.15 million dollars, the entrepreneur invests 30% and obtains rest from Investment Bank

1. Investment

| | | | |
|-----|----------------|----------------|------------------|
| 1.1 | Equity Capital | 350,000 | |
| 1.2 | Loan Capital | <u>800,000</u> | <u>1,150,000</u> |

2. Return on Capital

2.1 Transfer price (per set)

| | | | |
|----|---------------------|-------------|--|
| a) | Ex-Factory price | 146.80 | |
| b) | Contingency, say 5% | 7.34 | |
| c) | Mark-up, say 5% | 7.34 | |
| d) | Taxes, say | <u>8.10</u> | |

169.58.

| | | | |
|-----|---|--|----------------|
| 2.2 | Total gross return for 25,000 sets 7.34 x 25,000 | | <u>183,500</u> |
|-----|---|--|----------------|

3. Return on Investment

| | | |
|-----|-------------------|--------|
| 3.1 | On Total Capital | 15.96% |
| 3.2 | On Equity Capital | 52.43% |

Note: It is hoped that Working Capital (mostly for Inventory) can be raised from bank at 15% charge.



U N I D O

INDUSTRIAL INVESTMENT PROFILE

GENERAL COUNTRY DATA

| | | |
|--------------|--------------------------------|---|
| Surface area | : 97,740 | sq km |
| Population | : number (year) | : 2,980,000 (1978) |
| | density | : 30 per sq km |
| | growth rate/year | : 3.2 % (1970-1978) |
| Climate | : mediterranean ; dry inland | |
| Language(s) | : | |
| Religion(s) | : Muslim 90 % ; Christian 10 % | |
| Capital city | : | Inhabitants : 636,000 (1976) |
| Currency | : Dinar (JD) | Exchange rate : US \$ 1 = JD 0.302 (06. 1979) |

GENERAL ECONOMIC PROFILE

| <u>DISTRIBUTION OF GDP (mln JD)</u> | | | |
|---------------------------------------|-----------------------|---------|---------|
| | 1975 | 1976 | 1977 |
| Consumption | 373.0 | 401.4 | 539.4 |
| Investment | 88.8 | 150.3 | 206.8 |
| Exports | 118.9 | 193.0 | 242.0 |
| - Imports | - 301.1 | - 405.7 | - 546.3 |
| TOTAL GDP at current prices | 278.6 | 387.9 | 472.0 |
| PER CAPITA GDP at current prices | JD 103.2 | 139.5 | 163.3 |
| Average real growth rate | : 1.9 % (1970-1978) | | |

SECTORAL ORIGIN OF GDP (%)

| | 1975 | 1976 | 1977 |
|---------------|------|------|------|
| Agriculture | 14 | 12 | .. |
| Mining | 5 | 6 | 4 |
| Manufacturing | 22 | .. | 11 |
| Others | 59 | .. | .. |

BALANCE OF PAYMENTS (mln JD)

| | 1975 | 1976 | 1977 |
|---------------------------------------|---------|---------|---------|
| Inflows | 376.1 | 499.0 | 621.1 |
| - Outflows | - 318.5 | - 458.0 | - 559.9 |
| Net change in international reserves: | 57.6 | 11.0 | 61.2 |

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APPENDIX I

SMALL INTERNAL MARKET

COMPARATIVE MANUFACTURING ADVANTAGES

| | | |
|-----------------------------|--|--|
| Resources | - natural | : phosphates, copper, potash, wheat, fruits and vegetables, livestock. |
| | - labour | : 17 % active population (1978) |
| | - financial | : ; numerous commercial banks. |
| Infrastructure | - transport | : airport : ; seaport : |
| | - energy | : 601 min kWh (1977) ; 1.2 min m.t. oil refined (1978) |
| | - development institutions | : Industrial Development Bank ; The Financial Market ; Free Zone. |
| Inflation rate (year) | : 14 % (1979) | |
| Main manufacturing branches | : food and beverages, chemicals, textiles. | |

(Summary of chapter III)

FOREIGN INVESTMENT POLICY

Open to foreign investment (branches ; preferences) : in industry, mining, tourism, poultry and egg farming, sea transport.

Allowed proportion of foreign capital : 49 % for commercial enterprises ; up to 100 % for others if approved.

Investment Incentives

| | | |
|----------|-----------------------------|---|
| Legal | - investment code/law | : 1978 Encouragement of Investm. law n° 53. |
| | - profit repatriation | : guaranteed. |
| | - capital repatriation | : after 2 yrs in 3 equal instal./yr ; in special cases without limitation ; |
| | - others | : no discrimination between Arab and non-A. |
| Fiscal | - corporate income tax | : 30.5 and 40.0% respectively |
| | - other corporate taxes | : urban land and Divy tax; social services tax; excise and customs duties |
| | - tax holiday/reduction | : 6 years ; under certain conditions 9 yrs |
| | - carry forward of losses | : 6 years |
| | - tariff reduction | : exemption for approved econ. enterprises |
| | - double taxation avoidance | : no agreements |
| - others | | { 5-7 year exemption from real est. taxes ; straight-line depreciation |

Financial - borrowing incentives : S-T, H-T, L-T credit available for tourism and industrial projects.

- others : financial market

Membership in international and regional economic organizations/institutions : United Nations, ECWA, The World Bank, IMF, Islamic Development Bank, Arab Economic Council, CAEU, Arab Common Market Organization of the Islamic Conference, ACSID.

(Summary of chapters I and II)

I - GOVERNMENT ECONOMIC POLICY

Politico-economic system : *market economy country*

Membership in international and regional economic organizations/institutions : *United Nations, ECWA, The World Bank, IMF, Islamic Development Bank, Arab Economic Council, CAEU, Arab Common Market, Organisation of the Islamic Conference, ICSID.*

Monetary policy (convertibility and controls ; membership in currency unions) : *the JD is pegged to the SDR with the US \$ as the intervention currency. Control is administered by the Foreign Exchange Control Department of the Central Bank.*

Currency : Exchange rate : US \$ 1.00 = JD :

Foreign trade : Total imports (SITC 0-9) :

Thereof manufactured goods (SITC 5-8) :

mainly : machinery and transport material

Total exports (SITC 0-9) :

Thereof manufactured goods (SITC 5-8) :

mainly : food products and livestock

Foreign investment : Inflow of direct foreign investment :

Thereof manufacturing sector :

National budget : Total expenditures (-) :

Total receipts (+) :

Balance (+ or -) :

Public debt DOM :

FOR :

| | 1975 | 1976 | 1977 |
|--|---------|---------|---------|
| | 0.3194 | 0.3321 | 0.3292 |
| | 730.8 | 1,022.1 | 1,381.1 |
| | 462.7 | 613.5 | 959.6 |
| | 232.1 | 305.4 | 476.7 |
| | 153.2 | 209.1 | 289.3 |
| | 49.1 | 72.3 | 102.6 |
| | 35.4 | 64.2 | 80.9 |
| | 0.23 | - 0.09 | 0.41 |
| | | .. | |
| | - 642.9 | - 674.4 | - 929.3 |
| | 502.0 | 465.5 | 828.2 |
| | - 140.9 | - 208.9 | - 103.1 |
| | 561.5 | 707.8 | 1,236.5 |

(mln US \$)

Economic development : Economic activity centered on : *agriculture, phosphates, potash*

Development strategy oriented towards : *raising of domestic revenue, phosphates processing, industry*

Current nat. dev. plan : duration : 5 years, from 1976 to 1980

Total plan budget JD 765 mln DOM : .. FOR : ..

II - REGULATIONS ON PRIVATE AND PUBLIC FOREIGN INVESTMENT

| <u>Object</u> | <u>Instruments</u> | <u>Content</u> |
|-----------------------------|---|---|
| <u>Eligibility</u> | 1972 Law for the Encouragement of Investment n°53, as amended by 1973 Law n°60 and 1977 Law n°16. | <u>Fundamental policy</u> : foreign investment welcome and encouraged (both Arab and non-Arab capital) provided it constitutes an approved economic enterprise. <u>Eligibility criteria</u> : enterprise must be in the sectors of industry, mining, tourism, poultry and egg farming, sea transport. Minimum assets are mandatory in each sector. |
| <u>Corporate status</u> | 1973 Law n°60 and 1977 Law n°16, 1978 Law n°16, 1964 Company Law n°12 and amendments. | <u>Foreign loans</u> : subject to Central Bank approval. <u>Type of corporation</u> : unlimited ; limited partnership ; public shareholding limited company ; private shareholding limited company. <u>Minimum capital</u> : JD 5,000 minimum fixed assets for industrial projects ; JD 15,000 for tourism projects ; JD 60,000 for public companies ; JD 10,000 for private comp. <u>Allowed foreign participation</u> : 49 % for all commercial enterprises ; exceptions can be made for other approved enterprises. <u>Minimum participation of local partners</u> : usually 51 % (see above). |
| <u>Registration</u> | 1975 Registration of Foreign Companies Law n°46. | <u>Application</u> : must be submitted to the " Encouragement of Investment Committee " for approval by the Council of Ministers. <u>Time span of decision</u> : 30 days. |
| <u>Financial transfers</u> | | <u>Profit</u> : remittance guaranteed. <u>Capital</u> : may be withdrawn after 2 years, in 3 equal instalments ; in special cases, without limitations. <u>Loans</u> (principal and interest) : remittance allowed. <u>Technology</u> (fees and royalties on licenses, consultancy, management) : remittance from 70 % to 100 % allowed. <u>Convertibility</u> : the JD is pegged to the SDR ; the US \$ is the intervention currency. <u>Control</u> : exchange control administered by the Foreign Exchange Control Department of the Central Bank. |
| <u>Technology transfers</u> | 1963 Patents and Designs Law n°22. | <u>Protection of industrial property</u> : signatory of the International Convention for the Protection of Industrial Property. Priority given to Members of the Paris Union. <u>Licensing agreements</u> : see above. <u>Patents</u> : if approved, valid for 16 yrs. Renewable fees payable in the 4th, 8th and 12th yrs <u>Trademarks</u> : if approved, registration protects the trademark for 7 yrs ; this protection may be extended indefinitely for periods of 14 years. |
| <u>Labour</u> | 1961 Labour Law n°2 and 1965-1972 Amending Law n°2 and n°25. | <u>Wages</u> : subject to bargaining. About JD 40/month(1976). Overtime at least 25 % more. <u>Working hours</u> : 42/week. <u>Social benefits</u> : holidays and leave, health requirements, insur., social fringe benefits. <u>Labour disputes</u> : strikes and lockout, though legal, have never occurred. 30 Unions affiliated with a General Federation. Disputes settled through collective bargaining. <u>Foreign labour</u> : residence and work permits must be obtained. |

II - REGULATIONS ON PRIVATE AND

| Object | Instruments | Content |
|--------------------|--|---|
| <u>Taxation</u> | 1964 Income Tax Law n°25. 1979 Income Tax Amendment. | <u>Corporate taxes :</u> <u>Personal taxes :</u> <u>Other taxes :</u> |
| <u>Incentives</u> | | <u>Legal :</u> <u>Fiscal :</u> |
| <u>Environment</u> | | <u>Financial :</u> <u>Others :</u> no provision. |

PUBLIC FOREIGN INVESTMENT (continued)

- 14 -

Income tax : rates of 45 % (financial institutions) ; 38.5 % (industrial public shareholding limited companies) ; 40 % (public and private shareholding companies).

Property tax : urban land and building tax : 10 %/year on the capital value of land ; 17 %/year on the net rental value of buildings.

Loans and technology : 10-20 % withholding tax.

Customs duties : variable base, either specific or ad valorem ; rates ranging from 0 to 30 % ; more on luxury items.

Salaries : schedular system ; 11 tax brackets ranging from 5 to 50 %

Dividends : exempted.

Education tax 3 %/year of net rental value of buildings ; sewage tax 4 %/year of net rental value of buildings ; social services tax on merchandise imports and chargeable income. Excise duties on domestic production of alcoholic beverages, tobacco products, et.al.

General treatment : guarantee of equal treatment of Arab and non-Arab, foreign and domestic capital.

Corporate taxes : 6 year income and social services tax holiday (9 yrs for public shareholding limited companies or enterprises outside Amman area) ; 5 year exemption from building and land taxes (7 yrs for public shareholding limited companies or enterprises outside area) ; exemption from customs duties on capital goods for utilization in an approved economic enterprise ; exemption from import fees, customs duties and other charges for a period of 3 yrs.

Personal taxes : exemption from income tax and social services tax on salaries paid by foreign companies to non-employees ; several other facilities regarding their moving

Double taxation : no agreements.

Remittances abroad allowed. Straight-line depreciation. 6 year carry-forward of losses. Bank credit available, S-T, M-T, and L-T to tourism and industrial projects. Financial market

State land available to approved enterprises. Free zone

III - COMPARATIVE ADVANTAGES OF THE MANUFACTURING SECTOR

Natural resources endowment : phosphates, copper, potash, wheat, fruit and vegetables, livestock.

Labour resources : Active population : 17 % (manufacturing .. %; agriculture 27 %). Un/underemployment .. % (1978)
 Available skills : .. (% of active population - ISCO classification)
 O&I technical: %; 2 admin.: %; 3 clerical: %; 4 commerc.: %; 7&9 manual: %
 Working hours/week: 42/week Annual holidays: 21 days
 Average worker earn. by hour (H), day (D), week (W) or month (M) in manufacturing : about 40 JD/M
Financial resources : Central Bank of ; 4 national commercial banks ; extensions of foreign banks and (1978)
 specialised institutions.

Market orientation/potential : excellent potential ; primary link between oil producers and Mediterranean

Infrastructure : Transport : railways : .. km normal gauge - Seaports : one
 roads : 3,695 km hard surface - Airports : one
 Telecommunications : .. tel. lines - 360 telex lines (1975)
 Energy : electr. : capacity .. 1,000 kW - production 601 (1977) mln kWh
 oil : reserves .. mln m.t. - production .. 1,000 m.t.
 refining capacity 1,200 (1976) 1,000 m.t.
 nat. gas : reserves .. mln c.m. - production .. mln c.m.
 Development Institutions : Industrial Development Bank, The Financial Market, Free Zone.

Cost of living :

Consumer price index : (base 1975 = 100) :
 Wholesale price ind. : (base = 100) :
 Inflation rate :

| | 1976 | 1977 | 1978 |
|----------------------|--------|--------|-------|
| Consumer price index | 115.3 | 127.8 | 136.6 |
| Wholesale price ind. | 15.3 % | 10.8 % | 6.9 % |

Structure of manufacturing sector : (1976)

| Branch - ISIC class. | number of establishments | gross investm. 1,000 JD | employment | salaries 1,000 JD | output value mln JD | value added mln JD |
|----------------------|--------------------------|-------------------------|------------|-------------------|---------------------|--------------------|
| 31 food and beverage | 1,177 | .. | 1,259 | 1,879 | 31.4 | 9.5 |
| 32 textile | 934 | .. | 3,925 | 1,382 | 14.5 | 8.9 |
| 33 wood | 890 | .. | 819 | 656 | 3.1 | 2.6 |
| 34 paper | 58 | .. | 854 | 495 | 3.5 | 1.7 |
| 35 chemicals | 68 | .. | 2,884 | 2,598 | 19.1 | 6.7 |
| 36 mineral products | 308 | .. | 2,420 | 1,232 | 11.9 | 7.2 |
| 37 basic metals | 462 | .. | 1,138 | 1,562 | 12.8 | 5.6 |
| 38 machinery | 801 | .. | 2,655 | 694 | 3.5 | 4.4 |
| 39 others | 144 | .. | 499 | 209 | 1.3 | 1.0 |

