THE
INDUSTRIALIZATION
OF
JORDAN

ACHIEVEMENTS & OBSTACLES

Editors: Matthes Buhbe
Sami Zreigat

Proceedings of a conference held in Amman, Jordan, on
July 2-3, 1988, entitled "The Industrialization of Jordan:
Achievements and Obstacles," and co-sponsored by the
Royal Scientific Society and the Friedrich Ebert Stiftung,
under the patronage of His Royal Highness Crown Prince
Al Hassan.

Amman - Jordan 1989
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Acknowledgements

This conference was prepared and held with the assistance and support of many people: our thanks and gratitude are due to them all.

Our utmost gratitude is to His Royal Highness the Crown Prince of Jordan, Al Hassan Ibn Talal, for patronizing this conference.

We thankfully acknowledge the encouragement and support of H.E. Mr. Hamdi Al Tabbaa, Minister of Industry and Trade, during the preparations for this conference.

We also wish to thank H.E. Dr. Taher Kanaan, Minister of Planning, for opening this conference on behalf of His Royal Highness the Crown Prince, and for his valuable contribution to the different activities of the conference.

We would also like to express our thanks to H.E. Dr. Taher Kanaan; Mr. Khaldoun Abu Hassan, Chairman of the Amman Chamber of Industry; Mr. Mohammad Asfour, Chairman of the Amman Chamber of Commerce; and Dr. Jawad Anani, President of the Royal Scientific Society, for chairing the conference sessions. Thanks are also due to Dr. Mohammad Smadi, Director of the Economic Research Department of the Royal Scientific Society, for his valuable contribution and support during the various stages of preparation for the conference.

Our thanks must also go to the members of the conference follow-up committee, whose names are listed in appendix B, for their preparation of the conference’s final report and their valuable contribution to the conference’s activities.

Finally, we are especially grateful to the unknown soldiers whose efforts were vital to the success of the conference. Some of them are: Mr. Henry Mattar, Mrs. Evelyn Abu Ayyash, Miss Samar Rabadi, Mr. Abdalla Edwan, Mr. Nabeel Nabhani, Miss Reem Ise, Miss Rana Khoury, Mr. Ali Ghezawi, Miss Rabab Emash, Miss Salwa Barakat and Mr. Ibrahim Nahass.

Matthes Bubbe
Sami Zreigat

OPENING ADDRESS BY MINISTER OF PLANNING
DR. TAHER H. KANAAN
TO
THE INTERNATIONAL CONFERENCE ON
THE INDUSTRIALIZATION OF JORDAN
ACHIEVEMENTS AND OBSTACLES
Amman, July 2–3, 1988

Excellencies, Friends and Colleagues,

It is indeed a great honour to be given this wonderful opportunity to address this very important conference and to participate in its deliberations. The subject, “Industrialization of Jordan,” is very timely, as it coincides with a delicate period in our country’s economic progress, a period of important changes in the external regional environment, interacting with equally important developments in the indigenous economic and social variables.

It is not simply that so many things in 1988 are different from what they were ten years earlier in 1978, or twenty years earlier in 1968. Rather, it is that the difference is affecting the entire configuration of the relevant economic factors.

To illustrate this changing configuration, it is enough to point out some positive changes and some negative ones. On the credit side, we now have:

1. A large and rapidly increasing stock of educated manpower;
2. A fairly advanced basic infrastructure in transport, telecommunications and related facilities and services;
3. An institutional environment characterized by a high degree of enlightenment, stability and continuity.

On the debit side, we note that the skills of our educated manpower do not match the available or needed jobs. The completion of major public investments in infrastructure and in the resource-based industries of phosphate, potash, and fertilizers has now brought into sharp contrast the inadequacy and meager state of private investment. To complete the symmetry with the credit side, the institutional environment appears now to be heavy with regulations, procedures and practices that most probably are impeding private initiative, and simultaneously is lacking in certain institutions and institutional arrangements that are essential for the healthy functioning of a small, open economy such as ours. Under the circumstances, reassessment such as will be attempted in this conference is topical and timely, and will contribute to the information needed to weigh the available trade-offs and to make the difficult choices among the feasible policy options.

Choosing the right strategy for industrial development is one such difficult option which this conference will surely shed much light on.

Without prejudging the outcome of your deliberations, it appears to me that development experience over the last two decades, together with the technological revolution of the same period, have destroyed many aspects of conventional wisdom or appropriate strategies of industrial development. One such aspect of con-
ventional wisdom is that there are set stages of industrial development that a

country must pass through in its own development, in emulation of the stages that

advanced countries passed through in their histories. In fact, the current high portable

ability of technology and the unconstrained trade in services make the path to indus-
trial development, even for a young and emerging country, something which could be
custom-made to suit the comparative advantages of such a country.

Another aspect of conventional wisdom, which now appears to consist largely of

misplaced emphasis, is the view that industrialization is confined to and measured

by the growth of the manufacturing sector, with the consequent subordination of

growth in agriculture and the services sectors. In fact, industrialization in its broad

sense would include the application of modern technology and efficient manage-

ment to agricultural and service production as much as to manufacturing. What

matters is to design an overall development strategy to make optimal use of the coun-

ty's comparative advantage at a given period of time.

The scarcity of capital, the high growth rate of manpower and the abundance of

educated manpower suggest an industrial strategy which emphasizes labour and

technology-intensive activities. The small domestic market and the scarcity of

foreign exchange also suggest an outward looking export-promoting strategy, espe-
cially as essential import-substituting light manufacturing has already emerged, and

opportunities in such import-substitution are vanishing. In all respects, the role of

private initiative and private investment should be paramount in any such strategy.

Accordingly, it is now felt that heavy protection and quantitative restrictions have

served their purpose in the previous import-substitution phase, and it is now time for

a thorough reappraisal to remove all protective measures that bias the system

against exports.

Other policies which now appear to have served their purpose are those which

rely on discretionary government decisions and intervention, instead of on auto-
matic regulation and market forces. A conspicuous example of these is the cumber-
some system of industrial licencing and the industrial investment approval process.

With regard to the direct encouragement of private initiative and foreign private

investment, there are, to be sure, adequate or more than adequate tax and non-tax

couragements and concessions. Still, it is felt that a smaller package of conces-
sions could be adequate, provided that the procedures and regulations for their

application become simpler and more automatic.

The direct encouragement of private enterprise, specifically when directed

towards export-oriented production, is envisaged to include major institutional

improvements to establish effective mechanisms and institutions for export market-

ing and promotion, export finance, and export credit guarantors. Special attention

is accorded to encouragement of foreign investment in the form of joint ventures

that embody transfer of know-how and technology. His Royal Highness the Crown

Prince has personally graced missions and seminars in England, Japan, Singapore,

India and the U.S.A., with the purpose of introducing Jordanian and Jordanian

businessmen to their counterparts in those countries.

There is, however, an important area of indirect encouragement to the industrial

potential of Jordan which has recently been given government attention and com-
mensurate financial resources. This is the area of professional services which sup-

port industrial performance. The government has identified four private services

subsectors that provide such support:

- accounting and auditing;
- information systems design and management;
- industrial design and management; and
- market research, marketing and advertising.

These remarks should make it obvious that your conference is not only timely, but

of immediate relevance to government deliberations that are currently underway to

reshape industrial strategy and related policies. I and my colleagues in the govern-

ment look forward to benefiting from the constructive outcome of your own deliber-

ations.

I would like to extend my sincere thanks to the Royal Scientific Society for taking

the initiative to organize such a valuable conference. My thanks equally go to Fried-

rich Ebert Stiftung of the Federal Republic of Germany for its kind support

throughout all the preparatory phases of this event. I would also like to express our

appreciation to the government of the Federal Republic of Germany for its techni-

cal and economic assistance, which represents an exemplary model of international

partnership in development. Similar appreciation and gratitude are also due to all

the regional and international agencies and the private participants for their interest

in our development efforts.

Finally, I am sure I speak for all of you in expressing sincere thanks to His Royal

Highness Crown Prince Al Hassan for gracing this conference with his patronage
Introduction

In presenting the papers and proceedings of an international conference on Jordan's industrial development, we hope this book would achieve two major objectives. First, to serve the general public as a reader on the major issues involved, thus prolonging the impact of the scholarly contributions to the conference. Second, to bundle the individual findings and the collective results of the conference as a document for all those who will shape Jordan's industrialization in the coming years.

In fact, it should be mentioned that the conference already has had some impact on public opinion and on decision-making in the field of industrial development. The reaction of the media was remarkable, both in duration and intensity.

It seems that there was also a favourable response from decision-makers. In August 1988, several reforms were instituted concerning encouragement of commodity exporters, encouragement of investment in local industries, tax exemption of imported capital goods and replacing import-bans or quantity-restrictions with tariffs.

The practice of licensing industries was practically abolished; registration with the Ministry of Industry and Trade will now do in most cases. A specialized unit at the ministry will be established to handle procedures for investment and to clarify existing incentives for investors.

Several protectionist measures were cancelled, and the new incentives for industrialists, especially for exporters, will be integrated in the Investment Encouragement Law. A Higher Council for Exports will be established. The Central Bank of Jordan and the Ministry of Finance will establish facilities to help foreign importers of Jordanian goods and to support Jordanian exporters.

The interested reader may wish to compare these steps with the results of the conference which are summarized in the final conference report (enclosed in the book as Appendix B).

The main body of the book comprises seven chapters, each devoted to one sub-session of the conference.

Chapter one presents viewpoints on the degree of international competitiveness that Jordan has reached in the 1980s, and how to enhance it. Tayseer Abdel Jaber evaluates the cost factors and productivity of Jordan's industry. He also gives several examples of business performance of industrial enterprises. Finally, some policy measures are recommended. Fayez Soheimat's comment stresses the potential role of the Jordan Industrial Estates Corporation in this respect. A comment by Fahed Fanek draws some conclusions from the observation that competitiveness has at least two different dimensions: efficiency and comparative advantage.

Chapter two reports on the experience of another country in its attempt to transform a traditional economy into an industrialized one. As Chungsok Kim shows in his contribution, the driving force behind Korea's rapid change from an agrarian society with low per capita income into an industrialized upper middle-income country was a strategy of export-led growth. This strategy is evaluated by Kim in relation to the buildup of import-substitution industries. Safwan Toqan comments on Korea's experience by stressing the different stages through which the country had to pass in order to reach its present position. Lutz Hoffmann, in his detailed comment, emphasizes the proper role of government in industrialization. Accord-
PROBLEMS OF INTERNATIONAL COMPETITIVENESS

THE COMPETITIVENESS OF JORDAN'S MANUFACTURING INDUSTRY

Tayseer Abdel Jaber

1. Introduction
2. Factors Influencing Competitiveness
3. Empirical Findings
4. Recommendations

1. Introduction

This paper deals with the competitiveness of manufacturing industry in Jordan. It covers general factors that influence competitiveness in different ways and degrees and draws specific conclusions on the competitiveness of selected industries, particularly in the export markets. On the basis of the findings of the empirical study, some recommendations are presented for government action.

This paper is based upon the study of the same title which was prepared and finalized in December 1987 by Dr. Akram J. Karmoul, the industrial consultant at the Arab Consulting Center. It was carried out in cooperation with the Friedrich Ebert Stiftung of the Federal Republic of Germany, with the objective of assessing the current and prospective situation of Jordan's economy and with particular reference to the competitiveness of Jordan's manufacturing industry, of highlighting specific cases and making policy recommendations.

It should be pointed out that this paper is not merely a summary of the study, since certain ideas were developed after its completion. As such, the author stands responsible for all ideas and conclusions contained in this paper.

The underlying assumption of this paper is that industrialization in Jordan is a significant, though not the only means, to enhance the country's economic and social development, and for Jordan's industries to play that role, they have to be competitive. Accordingly, the government and the private sector are called upon to tackle those factors which hinder Jordan's industries from becoming more competitive. Not all those factors are one-dimensional; they represent a trade-off among various options and thus become difficult to remove, in which case they might be compensated for, as will be explained later.

Competitiveness refers to the market price and quality of a given product. If the product quality were the same as that of other industries, price would be the indicator of competitiveness. Similarly, if prices were equal, quality would make the difference. In real business life, there are many variations on these situations. Accordingly, the competitiveness of any industry is influenced by all factors that enter into:

a) the cost structure of the product;
b) product quality and productivity; and c) government policies.

There are also different contexts for judging competitiveness. An industry might be competitive in the local market vis-a-vis other competing local products and/or imports. This does not necessarily prove its effective competitiveness in regional and global markets. It is understood that export markets provide a better test of the viability of local industries. In other words, those industries that can penetrate export markets and maintain a growing turnover must be competitive.

There must be a distinction between manufacturing and extractive industries, i.e. mining and quarrying, though it is difficult to draw a definite line between these two types. Due to the scarcity of natural resources in Jordan, except for phosphate, potash and lime rock, local raw materials are insufficient to meet manufacturing industries’ needs. Raw materials have to be imported, which imposes a constraint on the competitiveness of most manufacturing industries in Jordan. Since extractive industries rely totally on local natural resources, they usually have a competitive edge to penetrate export markets. It is thus easier for extractive industries to compete worldwide than manufacturing ones, due to their comparative advantage inherent in resource endowment.

Our discussion of the competitiveness of Jordan’s manufacturing industry should be taken in the context of the general performance of the industrial sector in the Jordanian economy during the last two decades. The main industrial indicators are presented in Table 1, as compiled from the Monthly Statistical Bulletin of the Central Bank of Jordan and other official sources. Industrial income witnessed substantial real growth, particularly in the period 1975-1984, when it increased from JD 56 million to JD 188.7 million. Similarly, the industrial production index almost quadrupled over the period 1975-87. Due to the expansion in phosphate production and the construction of the potash project, income from mining and quarrying made faster progress than that of manufacturing. Industrial income accounts for about one-quarter of GDP, compared to 18.5% in 1975, which shows that industry grew at a higher rate than the rest of the economy.

The industrial sector accounts for most of Jordan’s exports: 85.1% in 1987, compared to 71.7% in 1975. Industrial exports (including phosphates and potash) rose during this period by over seven-fold, at a rate of growth higher than that of imports of industrial products. If neighbouring markets were more open to Jordan’s products, exports of manufacturing industries would have grown even faster.

Employment in industry amounts to 52,700 national workers and 12,000 foreign labourers. Its share of total employment has increased steadily to reach about 11% in 1986.

Indicators in Table 1 show that the growth momentum in industry has tapered off in the last few years, particularly after 1984. This is demonstrated in slower rates of growth in industrial income, exports and the industrial production index.

<table>
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<tr>
<th>Year</th>
<th>Industrial Income</th>
<th>% of GDP</th>
<th>Mining &amp; Quarrying</th>
<th>% of Total Exports</th>
<th>Manufacturing</th>
<th>% of Total Exports</th>
<th>Industrial Prod. Index</th>
<th>% of Total Exports</th>
<th>Employment in Industry</th>
<th>% of Total Exports</th>
<th>Share Price Index</th>
<th>% of Total Exports</th>
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Source: Compiled by the Arab Consulting Center from the Monthly Statistical Bulletin, Central Bank of Jordan

(1) At constant 1975 prices.
2. Factors influencing competitiveness

There are many factors that influence the competitiveness of Jordan’s manufacturing industries in local and export markets. The impact of these factors may differ from one industry to another. Some factors tend to have a considerable impact on all industrial products. In the following, we shall attempt to present an exhaustive listing of important factors influencing competitiveness. They are grouped in three main categories:

(1) Cost Structure Factors

These factors relate directly to the costing of product inputs, and accordingly affect its price. They are usually beyond the control of the firm’s management, particularly if many similar firms are operating in Jordan, as in the paints, plastic, clothing and other industries. A cost-conscious management can play with these factors but within narrow margins. Prices of certain inputs are determined by government decisions, and should be taken by industrial firms as exogenous variables.

Cost structure factors include the following:

a) Wages
This includes wage levels and annual increases and other fringe benefits for workers, including social security contributions. These factors depend upon labour market conditions and related government policies. Wage levels and, in general, labour costs in Jordanian industry are relatively lower than in the GCC countries, but higher than in Egypt, Turkey and Syria. While skilled and semi-skilled labour is available in Jordan, technicians, highly skilled specialists and marketing managers are relatively scarce.

b) Raw material cost
Raw materials required by manufacturing industries in Jordan are mostly imported, and their prices are, therefore, subject to world market conditions. This is an important constraint on local industries, particularly exporters.

c) Fuel
Fuel prices are determined by the government to be above cost level. Some reductions in fuel prices were made for export industries. As a non-oil-producing country, Jordan is at a disadvantage compared with neighbouring oil-producing countries.

d) Technology
Production processes are based on imported technology, which is usually expensive, and in many cases irrelevant to resource endowment or market size. Sophisticated technology is usually expensive, particularly for the production size of the small domestic market of Jordan.

e) Credit cost
Credit facilities are available against fixed asset collateral. Due to heavy reliance on loans and high interest rates, credit costs represent an excessive burden on the operation of many industrial firms.

f) Transport cost
Transport facilities (roads, Aqaba port and airports) are convenient for the transport needs of Jordan’s industries. However, sea freight and air cargo charges are relatively high (RJ charges 120 fils/ kg on vegetables to Europe).

g) Water, electricity and other infrastructural services
These services are available, particularly in the Industrial Estates Corporation and Free Zones Corporation. However, electricity and water prices are more expensive in Jordan than in neighbouring countries.

h) Production scale
Most manufacturing industries experience economies of scale with the increase in production size. Those industries which rely entirely on Jordan’s market do not make use of this cost-saving (per unit of product) opportunity.

(2) Production Quality and Productivity

The following factors affect the competitiveness of manufacturing industries through product quality and productivity, and, more than others, are within management control:

a) Technical manpower
Availability and cost of technical and highly skilled manpower are important factors, particularly in sophisticated and precision industries. As mentioned earlier, this category of manpower needs to be specially trained for each industry. The graduates of the Vocational Training Centers do not fill this gap.

b) Interlinkages
Where the product is part of forward and backward, or vertical and horizontal linkages, the absence of other local industries in such links weakens the competitiveness of the product and induces further reliance on imports.

c) Marketing skills
Shortages of marketing skills and after-sales servicing, particularly in export markets, characterize industrial firms in developing countries, with the exception of newly-industrialized ones.

d) R & D
While industrial firms in Jordan, as in most small developing economies, have limited financial and technical capabilities for R & D, they cannot ignore the need for such activity, particularly in dynamic areas such as pharmaceuticals, electronics and similar industries.

e) Product quality, delivery and reliability
While product quality, delivery and reliability are significant factors in the competitiveness of manufacturing industries in general, they may outweigh price margins in certain industries, such as pharmaceuticals.
(3) Government Policies

Competitiveness is also influenced by government policies and measures, their relevance to changing conditions, and their stability. These cover the following areas:

a) Industrial protection policy, whether based on tariff or restrictive measures, and the criteria for extending or withholding protection to industrial firms. In 1986, the government applied temporary bans on imports that were similar to 40 local products. However, this full protection will be replaced by tariff protection.

b) Investment encouragement and tax incentives. Due to administrative red tape and complications in the Encouragement of Investment Law of 1985, very few industries have actually benefitted from the tax incentives (13% in 1985).

c) The government policy of price control, its effectiveness and impact on profit margins. It has been very cumbersome and time-consuming to have the concerned ministry adjust controlled prices to take account of the price increases of inputs.

d) The exchange rate policy, transferability, exchange control and certainty of the relative value of the local currency. Since industry in Jordan relies heavily on imported machinery, technology and raw materials, the foreign exchange policy should maintain its liberal system. Any shift in the exchange rate should be evaluated from both aspects of imports and exports.

e) The inherent bureaucracy in the government machinery in handling matters related to the licensing of industrial firms, export of local products and processing of applications for investment incentives. Transparency and simplification of government procedures are badly needed for the encouragement of industrial production, investment and exports.

f) State trading, the size of the public sector (particularly in industry) and the relative strength and organization of private sector institutions. While most import and export trade is left to the private sector, a large portion of industrial exports to neighbouring Arab countries has to be approved by the Commercial Centers Corporation, which is practically controlled by the Ministry of Industry and Trade.

g) Trade agreements between a country and regional economic blocs, and whether they include preferential trade systems or not.

3. Empirical Findings

To test the relative importance and the nature of the impact of the above factors that influence competitiveness, the following local industrial products were selected and analyzed from the perspective of their competitiveness, particularly in export markets: Pharmaceuticals, electroplating, plastic pipes, gelatine capsules, cables and wires, paints, intermediate petrochemicals, clothes, and electrical accessories.

Phosphate and potash industries are based on local natural resources and geared to export markets. Their production and export earnings have grown rapidly in the last decade due to their competitive edge in Asian and other markets. There are favourable prospects for the development of downstream products from phosphate and potash raw materials.

The following findings are based upon interviews with firms producing the above commodities, with the objective of assessing factors and problems that affect their competitiveness.

(1) Pharmaceutical Products

There are five major firms in this sub-sector, with a total capital of JD 14 million and employing 1,400 workers. This industry has proved to be very successful in penetrating local and export markets, and has considerable potential for growth. Its exports amounted to JD 15.4 million in 1986.

The main reasons for the success of the pharmaceutical industry in Jordan, and which may ensure its continued competitiveness in the future, include:
- the advanced level of technology involved;
- responsive management;
- well-known brand names;
- considerable promotional and R & D expenditures; and,
- the price competitiveness of the products.

The major problems which face this industry include the high cost of finance (credit), restrictions and protectionist measures in other markets and the high cost of imported raw materials and energy.

(2) Intermediate Petrochemical (IP) Products

These products are produced by one firm in Jordan, and constitute a raw material base for a range of plastic and chemical commodities that are manufactured locally by over a hundred factories. IP products have proved to be competitive in quality and price, in both local and export markets. In 1987, two-thirds of local production were exported. The Jordanian government applies 10% tariff protection, which is minimal but helpful.

The main factors behind the success and competitiveness of the IP firm are the special attention given to R & D in the form of a pilot plant and quality control laboratories, and the employment of technically specialized labour. The company faces some constraints which limit its competitiveness, particularly excess production capacity; world-wide dumped prices of similar products; the relatively high cost of borrowing; and the high cost of imported raw materials, which constitute 70% of the production cost.

(3) Plastic Pipes

Plastic pipes are produced by 22 local firms and are used in water networks, electric conduits, sewerage and irrigation systems and other activities. Only one-third of the total capacity of these firms is currently being utilized due to worsening demand conditions. Of these firms, only a few operate successfully. However, the whole industrial sub-sector suffers from the competition of lower-priced products from the Far East, Kuwait and Saudi Arabia. This prompted the government to introduce a high tariff of 48% on similar imports, for the protection of local production.

Other problems include the high cost of imported raw materials (which constitute about 60% of average production costs), and the lack of established local quality standards.
(4) Paints
There are over 20 paint factories in Jordan, with a total production capacity of 35,000 gallons per day per shift. Underutilization ranges between 32-50% of nominal capacity. Due to the oversupply of local production, the government has stopped licensing new firms in this field since 1983, and has banned similar imports since 1986. Local sales were affected by the decline in construction activity in the country. Paint exports to Saudi Arabia and other countries have declined sharply since the early 1980s, due to tough price competition from other sources such as the U.K., Greece and Italy (JD 0.7 compared with JD 1.0 JD to 1.1 per gallon). Freight charges are too high for Jordan’s products. Weak competitiveness of firms in this sub-sector is also due to the high cost of borrowing, old and simple technologies used in production (easy entry), and the high cost of imported raw materials.

(5) Electroplating (of aluminum profiles)
This industry was established in 1985 to complement the manufacturing of aluminum profiles from ARAL. It proved to be uneconomic, which induced the government to ban similar imports. With full protection, local production expanded and exports worth JD 668,000 were sold to Iraq in 1986. The following problems were expressed by producers: the high cost of borrowing, complicated export procedures, and occasional shortages in local raw materials.

(6) Cables and Wires
There is one factory in this field in Jordan which started production in 1985 with a nominal capacity of 4,000 tons/year. The government protected its production in 1986 by imposing a tariff rate of 40%, and lowering customs on imported raw materials to 5%. This has helped the factory to increase its market share in Jordan, and to export about 15% of its total sales. The competitiveness of the factory is expected to improve with the advantage of higher utilization of productive capacity, in addition to other positive factors such as modern techniques of production and inexpensive skilled labour. Some problems experienced by the plant’s management are the high cost of energy, high interest rates, tariffs on imported raw materials, and the low-quality imports.

(7) Electrical Accessories
There is one factory in Jordan producing a maximum capacity of 3.5 million pieces annually. It was given tariff protection of 40%, though its prices are considerably lower than similar imports. It has managed to increase its share in the local market, and to export most of its production to Iraq. The competitiveness of this factory is attributed to qualified management, the relevant technology used, and its expenditures on promotion and quality control, which amounted to 5.5% of production cost. However, the high cost of borrowing; customs duties on raw materials; complicated export procedures; high energy costs, and social security and air freight charges were stated as problems that limit the performance of the factory.

(8) Clothes and Woven Textiles
There are about 650 firms registered under this industrial category with a total capital of JD 36 million and employing 5,000 persons. Though the government provides net tariff protection of about 23%, clothing and textiles firms have demonstrated low competitiveness, particularly in the last two years. This sector faces intense competition and dumping prices from the Far East. While Jordan’s exports face restrictive measures in the region, clothes and woven fabrics imported from Arab countries (Syria, Lebanon and Egypt) at low currency exchange rates are duty free. In addition, the high cost of imported textiles further worsens the position of this industry and endangers its future development.

One promising trend in this industry is that textiles and semi-finished clothes are brought from the Far East and other parts of the world to be finished in Jordan and then re-exported to the U.S.A. and Europe.

In assessing the competitiveness of the above industries, three of them (intermediate petrochemicals, electrical accessories and pharmaceuticals, including capsules) are considered competitive. Slightly less competitive are plastic pipes, cables and wires, and electroplating, but these are expected to improve in the near future. The remaining two products, paints and clothes, have not achieved real growth in market share in or outside Jordan in the last two years, and hence are regarded as being non-competitive. Thus quick action is needed to help these industries.

4. Recommendations
This paper was meant to discuss the factors that influence the competitiveness of manufacturing industries in Jordan, and to assess their relative significance to and impact on the actual performance of selected industries. Other industries that were not studied here might demonstrate varying degrees of competitiveness and efficiency. The following recommendations, therefore, have broad relevance to industrialization and investment in Jordan, beyond the above-mentioned industries.

(1) To restructure the incentive system for industries, including the rationalization of the tariff structure; the assessment of industrial protection regulations; and tariff exemptions of imported raw materials.
(2) To strengthen the technical capabilities of the Ministry of Industry and Trade in the formulation and implementation of a proper industrial development policy, including the promotion of small- and medium-size enterprises; gathering up-to-date information on the activities of industrial firms; and the dissemination of adequate information on investment opportunities in Jordan.
(3) To issue an industrial law with the objective of fostering industrial development.
(4) To introduce a “one-stop agency” to handle all procedures related to new investments and the establishment of new industries.
(5) To promote exports through more generous tax exemptions.
(6) To establish an Export Promotion Corporation as a substitute for the Commercial Centers Corporation, with higher private participation.
(7) To lower the cost and improve the conditions of credit extended to manufacturing industries.
(8) To abolish the required approval of the Ministry of Industry and Trade for expansion of the production capacity of existing factories.
(9) To lower air-freight charges on national exports.
(10) To reconsider government policies on price fixing, state trading and public sector ownership of directly-productive enterprises, with the objectives of furthering the role of the private sector in Jordan’s economy.
To enhance the capabilities of the Ministry of Industry and Trade in the adoption of standards for as many Jordanian products as possible.

To establish new vocational and skill training centers which focus on highly skilled and technical manpower.

To grant Jordanian certificates of origin to products manufactured in the free zones.

To eliminate financial incentives for customs officers for the discovery of misclassification.

COMPETITIVENESS IN TERMS OF CAPITAL COST, TECHNOLOGY, PRODUCTIVITY AND PRODUCT QUALITY

Comment by Fayez Soheimat

Our thanks go to the Royal Scientific Society and to Friedrich Ebert Stiftung of the Federal Republic of Germany for their appreciated invitation to participate in this conference, and for giving me the chance to comment on the paper submitted by Dr. Tayseer Abdel Jaber on "The Competitiveness of Jordan's Manufacturing Industry."

With great appreciation for the comprehensive contents of the paper, I would like to indicate the following:

(1) Competitiveness:
The paper did not clarify the importance of quality for the different elements which affect the competitiveness of Jordan's manufacturing industries.

(2) Cost Structure:
When discussing the cost structure of the product as a basic element, the paper did not refer to the capital cost of the industrial projects, especially land and provision of services costs. Nevertheless, when this was mentioned, it was indicated within the industrial estates and the free zones. The author neglected the cost factors and the rising prices in regard to industrial investors.

On the other hand, the industrial estates and the free zones are not the only locations for industrial investments in Jordan, particularly as they do not cover all the regions of the Kingdom.

(3) Productivity:
The paper did not discuss productivity and its relation to two important factors:
(i) Productivity of Jordan's labour force compared with other countries.
(ii) The number of working shifts in Jordanian industry usually does not exceed one shift, thus indicating a high cost of production with minimum profitability, if any.

(4) Technology:
Production processes are based on imported technologies, most of which are not the optimum ones, due to poor, and superficial feasibility studies. Choosing appropriate technology will help in modifying machines to be utilized for various purposes of production.

(5) Government Policies:
The paper did not cover the following important factors:
(i) The excess official involvement in industrial activities in Jordan.
(ii) The contradiction and obscurity of some laws, such as the Encouragement of Investment Law and the Income Tax Law.

Recommendations

(1) Encouraging industries which depend mainly on the utilization of local raw
materials, whether agricultural or otherwise, by offering generous incentives and needed facilities to achieve competitiveness.

(2) Encouraging coordination among similar manufacturing industries to organize imports of raw materials, subject to the following:
(a) Choosing the appropriate sources of raw materials;
(b) Benefiting from discounts offered, consultancy services, and free training;
(c) Completing import procedures and receiving regular supplies at the proper time, thus avoiding delays;
(d) Ensuring the availability of stocked raw materials; and,
(e) Choosing appropriate technology.

(3) Encouraging industrial establishments by offering incentives for the continuous training of their manpower, to improve and to diversify their skills, so as to upgrade their productivity and to benefit from them in more than one field.

(4) Concentrating on management development and offering appropriate incentives to the labour force.

(5) Encouraging mergers among similar small industries, to improve performance and increase productivity and competitiveness.

(6) Designing a promotional campaign to illustrate investment opportunities in the industrial sector, including incentives, exemptions and guarantees provided to local and foreign investors.

(7) Providing a specialized data bank for potential investors.

(8) Having proper communication channels with investors to avoid bureaucratic routines that cause frustration and hamper investment activities.

(9) Having proper and effective coordination between official and semi-official institutions involved in industrial activities, and avoiding duplication and overkill of authorities and responsibilities. The unification of information sources on the industrial sector is also recommended.

(10) Giving full support to the Jordan Industrial Estates Corporation to help it act effectively to achieve its goals in the field of industrial development.

EFFICIENCY, COMPARATIVE ADVANTAGE AND COMPETITIVENESS

Comment by
Fahed Fanek

There is no doubt in my mind that the paper of Dr. Tayseer Abdel Jaber is an excellent one, especially as it briefly covers the whole subject by some headlines, which of course could be elaborated upon for the benefit of the decision-makers, if and when they want to do something about improving the competitiveness of Jordan's manufacturing industry.

But first, I wish that the author had differentiated among competitiveness, efficiency and comparative advantage as three distinct concepts, despite the overlapping and the common areas among them.

It is obvious that an industry may be uncompetitive because it is inefficient or because the country has no comparative advantage in certain fields. But we can easily imagine an efficient industry which is not competitive, because of market distortions such as quotas, subsidies, protection, preferential treatment and dumping, which the paper touched upon under government policies.

The question, therefore, is more complex: Do we have comparative advantage in manufacturing? Is our manufacturing industry efficient? And, if so, is it also competitive? The distinction is important for policy applications, as very little could be done to change comparative advantage. Efficiency is almost the sole responsibility of management, while competitiveness may also need the vigorous intervention of the government, especially in exports.

It is, of course, difficult to pass a generalized judgement, as we do have efficient and inefficient industries side-by-side. But on the whole, management still has a long way to go to achieve a higher level of efficiency before government policies may be effective in improving competitiveness in export markets for products which enjoy a comparative advantage in production.

The study draws comfort from the fact that income from industry increased from JD 56 million in 1975 to JD 188.7 million in 1984 (in 1975 prices). It is, of course, referring to the value added in this sector, which is not a perfect indicator of the real growth of industry. During this period, protection rose sharply, which allowed industry to make profits instead of losses, but at the expense of the consumer and other sectors of the economy. The value added, or a major part of it, could thus be thought of as a transfer of income in favour of industrialists, rather than real income created by growth.

For some reason, the paper states that industrial income accounts for one-quarter of GDP, compared to 18.5% in 1975. Even if we do not adjust industrial value added in light of the higher protection, we end up with an industrial share of GDP not higher than 19.9% in 1987. It could be true that industry grew at a slightly higher rate than the rest of the economy. But the question is: At what cost? We know for sure that industry received the lion's share of our new investments in every five-year economic development plan; but it always failed to generate the expected returns called for by the amount of capital invested.
Perhaps the most practical part of the study is the exploration of areas that influence competitiveness, and the recommendations given in this respect.

It would have been more useful to highlight and dwell a little longer on the crucial factors, such as the realistic rate of exchange, unutilized capacity, and the questionable efficiency and integrity of certain promoters and managers of companies. Major factors should not be weakened by marginal factors, such as the rates of air cargo imposed by Royal Jordanian, which is only one fifth of the regular rate; or after-sales service, which is hardly applicable to Jordanian products; or R & D in industries dependent wholly on imported know-how and brand names; or cost of borrowing, which was negative last year for an exporting industry earning foreign exchange; or the cost of social security, which should be taken for granted, to mention only a few such marginal factors.

Finally, I have to disagree with part of the recommendations which, in my view, may be counter-productive and tend to increase bureaucracy, such as: strengthening the technical capabilities of the Ministry of Industry and Trade; the issuance of a detailed industrial law; the introduction of yet another agency to handle new investments; the expansion of income tax exemptions on exports; and the subsidy on interest rates to lower the cost of credit below market rates.

All in all, the paper was comprehensive and pointed out all the areas where something can be done to improve the competitiveness of our industry. It is a check list which decision-makers should use in their endeavour to improve industry's competitiveness.

Chapter Two

COMPARISON WITH THE KOREAN EXPERIENCE

THE INDUSTRIALIZATION OF KOREA:
EXPORT PROMOTION VERSUS
IMPORT SUBSTITUTION

Chungsoo Kim*

1. Introduction
2. “Easy” Import Substitution
3. Export Promotion
4. Resurrection of Import Substitution of a Different Kind
5. Growth and Structural Transformation of Korean Trade
6. Import Liberalization
7. Summary

1. Introduction

The Korean case of economic development is to be envied by any developing country. Rising from the ruins of the Korean War, Korea made such economic growth possible mainly through rapid growth in the non-primary sectors. Especially, the growth of the manufacturing sector has contributed decisively to the making of the Korean economy of today, which underlies the fundamental restructuring of the rural, agrarian economy into a newly industrializing economy. Among individual industries, the significant share of light manufacturing industries, the leading sector through the 1960s and the early 1970s, has been replaced by the rising share of heavy manufacturing industries. In the process, the Korean economy, which once had textile, sugar refining and milling as the only major industries, now has a variety of industries, extending to such technology-related industries as electronics.

Even eight years after the war, 1961 saw only 82 dollar as the per capita income, but the subsequent 23 years realized a per capita income of 2826 dollar by 1967, maintaining an average annual growth rate of 15%. In terms of output (Table 1), the share of the primary sector (agriculture, fishery, and mining sectors), which commanded 40% in 1962, experienced a continuous decline to 12% by 1987, while that of the manufacturing sector expanded from just 12.7% to 35% during the same period.

*The author acknowledges extensive adoptions of Dr. Kyoung - Hwie Mihn's “Industrial Policy for Industrialization of Korea”
Table 1. Structural Transformation of the Korean Economy: 1954-1987

<table>
<thead>
<tr>
<th>Sector</th>
<th>Composition of GDP</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry &amp; Fishery</td>
<td>42.4</td>
<td>39.8</td>
</tr>
<tr>
<td>Mining &amp; Manufacturing (Manufacturing)</td>
<td>11.2</td>
<td>14.9</td>
</tr>
<tr>
<td>Social Overhead Capital &amp; Other Services</td>
<td>46.4</td>
<td>45.3</td>
</tr>
</tbody>
</table>

Economic Planning Board, Major Economic Indicators, 1984.  

In various studies, there exists a consensus that the continuous and rapid expansion of exports has been the driving force behind the rapid growth and drastic transformation of the Korean economy, and that the strategy of export-led industrialization has provided the necessary conditions for it. Serious and persistent efforts having been involved, one may assume the decision on such an industrialization strategy that had triggered the growth process of the Korean economy was deliberate. But one has to recognize that the economic condition at the time had not left much of a choice but to follow the export-led industrialization strategy.

2. "Easy" Import Substitution

In terms of policy orientation, the period from the war to the early 1960s can be characterized as one of reconstructing the infrastructure (electricity, transportation, etc.), and of establishing a few import-substitution industries that are closely connected with daily life. In a word, the development strategy of this period had to be inward-looking. Even though there existed a few incentives for export activities, the general emphasis of policies was on correcting the adversities emanating from the economic environment of the time, and one that hampered the natural growth of exports. Thus, to counter the negative effects on exports of high inflation and the ensuing overvaluation of the Korean currency, some subsidies were provided for limited export items, though they were too meagre to leave any mark on manufactured exports. While the export-import link system worked as an indirect incentive, a direct preference was provided through an export credit system which offered loans at lower-than-market interest rates. The last two incentive systems provided effective incentives in view of the absolute shortage of foreign currency at the time.

Most imports from the war to the early 1960s had been financed by foreign aid. The foreign aid, which supported Korea's effort in reconstructing the infrastructure and other industrial bases, also provided the vital means for the imports of non-durable consumer goods. But Korea, burdened with an absolute shortage of foreign exchange, was muddling through with a currency that was excessively overvalued by deliberate government policy; foreign aid was provided through a matching fund scheme that was related to what the Korean government could gather. Thus, to boost import substitution in a limited number of (mostly consumer-product) industries, Korea had to resort to measures of quantitative restrictions on imports. As a result, a complex system of export-import linkages and import licenses was in strict operation, and since 1958 was even reinforced by semi-annual import programs. In addition, to prevent the overvalued currency from generating imports of harming import-competing domestic industries, prohibitively high tariffs (regular tariffs plus special tariffs) were administered, in addition to the direct quantitative regulation of imports.

It was the near completion of the import-substitution effort that compelled a drastic re-orientation of the Korean trade regime towards export promotion. In this context, it is important to recognize the facts: first, Korea had pursued the policy of import substitution to the extent allowed by the size of the domestic market, the absorptive capacity of technology, and financial means; and second, when the domestic market did not allow the optimal operation of already installed facilities of import-substitution industries, Korea was quick to turn to the world market as an outlet for growing production. Thus, only a few resources were wasted in a too-ambitious pursuit of import substitution, as often happens in developing countries; and some import-substitution industries would emerge as important export industries in later days. This latter development is exemplified by textile industries, whose basis was more or less built up during the period from the war to the early 1960s.

3. Export Promotion

Korea of the early 1960s was burdened with an influx of new labor from the fast growing population. This brought about increasingly serious problems of unemployment, so Korea had to "grow just to stay afloat." Korea had a small domestic market, but it had no significant natural resources, and insufficient domestic financial resources. Korea was heavily assisted by foreign aid, which came mostly from the U.S., but which was scheduled to decline. There were chronic balance of payments deficits (i.e. imports being four times as large as exports during the 1950s). Thus, Korea had to choose exports as the engine of growth.

While major policy reforms were introduced in the early 1960s (for example, to tap domestic savings, the tax system was reformed and interest rates were set closer to market rates during this period), the effort for the transition to the export-oriented policy regime was put into full gear by the major devaluation of 1964, and by the introduction of a unified floating system of exchange rates since 1965.

The most talked-about set of export policies of the time was the intricate and comprehensive system of direct incentives provided for export activities. The export incentives introduced during the early 1960s were: tariff exemption on imported raw materials for export production; income-tax reduction on export income; domestic
indirect tax exemption on intermediate goods for export production; preferential export credit; export-import link system; and wastage-allowance subsidies. In addition, the government signalled its determination on export promotion by using the export-target system, which was often specified to firm levels, and by the creation of the Korean Trade Promotion Corporation (KOTRA).

Of these various export incentives, perhaps the most symbolic was the "export-financing loans" system (i.e. export credit). Under this system, exporting companies, manufacturers of exports, and importers of raw materials for export production were automatically given domestic currency loans equivalent to a certain proportion (i.e. loanable proportion) of the value of their export or import letter of credit (Figure 1). The average of the loanable proportion during the period 1962-1971 was 79.4%, with negligible annual variations.

**Figure 1** Export Financing Loans: Loanable Proportion and Interest Rate Proportion 1962-86

Apart from the automatic-loan element, the export-financing loans system contained another more important incentive. For example, in 1962, when the system was first introduced, the interest rate on export loans was only 13.4% lower than that on ordinary loans. The differential was steadily widened throughout the above period, culminating in 1969 in a share of 76.2% of the cost of ordinary borrowing. This substantial concession on interest charges, coupled with automatic credit availability (both of which were offered under the export-financing loans system) are believed to have been the most powerful of all the incentives that contributed to the rapid growth of Korea’s exports during the 1960s.

Various incentives may appear to have contributed significantly to boosting exports. However, general judgements and academic findings point to the fact that the merits of the industrial policies instituted during the 1960s were less in providing direct preferences to export activities, and more in setting a stable, simplified and outward-looking policy environment. The fact that the various export incentives helped exports to a substantial degree must be weighed against the fact that, throughout the period in question, the Korean currency was overvalued against the U.S. dollar. A recent estimate of the purchasing power parity (PPP) of the Korean won against the U.S. dollar shows an average 18.4% overvaluation of the won during 1963-1971 (see Figure 2). However, there was remarkably little yearly variation.

**Figure 2** Exchange Rates and Overvaluation (Korean won per U.S. dollar)
advantage. This is an important point dictated by many past and current policy failures in industrialization in countries which do not have any comparative advantage, be it static or dynamic. Thus, Korea is judged to be successful in its resource allocation policy, which was deliberately pursued in line with efficiency.

Most of the export incentives established during the early 1960s remained in operation until the early 1970s, though, some adjustments were made as environmental changes dictated. Exporters using newly cultivated markets were entitled to monopoly market access for limited periods, selective exports were endowed with some preferences in the allocation of quota-restricted imports; and income tax reduction from export activities was abolished during this period. Clearly, the industrialization policy orientation was aimed to look outward throughout the period.

The need for restrictions on imports was gradually reduced as the balance of payments improved gradually from the early 1960s, owing to the rapid growth of exports and the moderate completion of import substitution. Thus, in 1967 the previous positive-list system of import approval was replaced by a negative-list system of import restriction which was kept within the general context to continuously raise the ratio of import liberalization. During this period, the system of tariffs was also reformed in tune with the general policy redirection, so that special tariffs were abolished in the early 1970s; The system of tariff exemption for imported intermediate goods used in export production was changed to the tariff-rebate system.

Import regulations became more selective and directed to particular industries and products. Thus, protection policy on imports could better serve the government's purpose of assisting the development of government-chosen “strategic industries.” However, the distorting effect on domestic resource-creation must not be overstated. Three factors contributed to the reduction of the harmful effect of import restrictions. First, as mentioned earlier, numerous exceptions were granted to direct and indirect exporters. Second, import restrictions were focused on final consumption goods rather than on intermediate and capital goods, thus exercising less harmful effects on the productive efficiency than might otherwise have been.

Third, although nominal tariff rates were high, effective tariff rates were modest by international standards.

The First and the Second Five-year Economic Development Plans show that the traditional objective for Korea’s self-reliant industrial structure had not changed much during this period of export promotion.

Thus, the economy often observed a tilt toward import substitution of non-durable consumer goods, industrial raw materials, and efforts for the construction of basic industries and the provision of social overhead capital.

Import substitution of many of the final consumer goods was completed in Korea by the early 1960s, as mentioned before; but their production relied heavily on imported raw materials and intermediate inputs, thus accounting for a large portion of the huge balance-of-payments deficits. The next logical step for the government was, therefore, to create substitutes for imported industrial raw materials and intermediate products.

As a result, the emphasis in the government’s allocation of investment resources was directed to building up basic industries such as cement, chemical fertilizers, oil refining and industrial chemicals. Investment in these industries accounted for 32%
of the government’s total investment in the manufacturing sector.

The underlying aspiration for import substitution, particularly for basic industries, was carried on into the late 1960s. However, this time the industries selected for assistance were iron and steel, machinery, electronics and automobiles, in addition to petrochemicals. In some of these industries, government intervention to foster their rapid development was direct: the government identified specific projects and promoted them to ensure their implementation. Sometimes, the government itself initiated projects through the agency of state enterprises, as exemplified by the construction of the Pohang Integrated Steel Company (POSCO) and the petrochemical complexes at Ulsan.

The most important means of implementing the government’s industry-specific objectives was “policy loans.” The credit allocation of the banking system in Korea was under tight government control, ensuring that a significant portion of financial resources was allocated in government-desired directions. In a country with the supply of domestic savings falling perennially short of the demand for investment funds, access to bank lending was in itself a privilege. Coupled with concessionary interest rates, the availability of policy loans thus represented a significant subsidy to the industries and firms concerned. Consequently, the absolute magnitude of policy loans to the favoured (mainly import-substituting) industries was secondary to the “signalling effect” that the government’s designation of particular priority industries had on private sector entrepreneurs, because this usually gave them greater access to ordinary bank credit than would otherwise have been possible.

4. Resurrection of Import Substitution of a Different Kind

The mid- and late 1970s, depending on the individual industries, saw extensive shifts in trade and industrial policies. Unexpected but immense ramifications, in retrospect, resulted from a reshuffling of policy orientation towards heavy emphasis on heavy and chemical industries. This change in policy course was dictated by both internal and external developments. “The Nixon Shock” signalled to Korea the gradual pullout of the U.S. military forces from the country, thus, propelling Korea’s indigenous development of defence industries (i.e. heavy industries). The loss of international competitiveness due to rising wage rates, and new competition from developing countries badly hit Korean exports that consisted mostly of labor-intensive, low-grade goods. This called for efforts to rapidly upgrade the commodity structure of Korean exports. The revived protective mood in industrialized countries also seriously hampered the growth of Korean exports, requiring diversification not only of trading partners, but also of export commodities.

The policy response to the above developments was reflected in the change of industrialization strategy from one of export expansion to import substitution, and consequently, in the massive investments, and the direct and selective preferences for the six “strategic” heavy and chemical industries: steel, non-ferrous metals, shipbuilding, machinery, electronics and chemicals.

Special promotional laws for each of the strategic industries had, in fact, already been legislated by the end of the 1960s, but their implementation was only pursued

in earnest by the mid-1970s, with the launching of the industrial-deepening drive. Some of the common promotional measures were: policy loans at preferential interest rates from commercial banks and quasi-governmental, special-purpose financial institutions; credits from individual funds set up with financial contributions from the government; business tax reductions or complete exemptions during “grace” periods; tariff exemptions, reductions or rebates, on imports of capital goods, intermediate inputs or raw materials that were not locally produced; investment tax credits; and accelerated depreciation.

In addition to such financial and fiscal preferences, there were also wide-ranging regulatory (mostly competition-restricting) interventions. First, imports of goods competing with those produced at home were tightly restricted and were relaxed only towards the end of the 1970s. Second, and more important, potential domestic competition was severely limited through a variety of administrative regulations, such as:

(i) all businesses operating in, or intending to enter, the heavy and chemical industries had to register with the Ministry of Commerce and Industry (MCI) (now the Ministry of Trade and Industry: MTTI);

(ii) new entrants had to satisfy government requirements regarding the size of the intended operation and the contents of production facilities to be used; and,

(iii) expansion or change of production facilities had to obtain government approval.

Policy loans were again the most effective tool at the government’s disposal to steer national resources to the government-designated manufacturing industries for industrial deepening. From 1971, when commercial banks’ basic lending interest rate was sharply lowered to 15.5% per annum from the previous 22.0%, real bank interest rates, through most of the 1970s, were very low or even negative. As the rates chargeable on policy loans were lower than basic lending rates, and even more so than the kerb market rates, the interest-rate differential meant a substantial subsidy for industries eligible for policy lending.

The share of policy loans to the industrial sector to total bank lending rose steadily throughout the 1970s, peaking at nearly 50% in 1980 (see Figure 3). The heavy and chemical industries consistently claimed a greater share of the nation’s financial resources than was accountable by the sub-sector’s contribution to manufacturing value-added.

An important development in connection with policy loans was the setting up of the National Investment Fund in 1974. The purpose of the Fund was to supply long-term credits at preferential interest rates to key industries, including the heavy and chemical industries and Korea Eximbank loans. Throughout the period 1974-1981, more than half of the Fund’s portfolio went to heavy and chemical industry projects. At the peak of the industrial-deepening drive in 1979, heavy and chemical industries’ share of Fund lending registered a high of 65% (see Figure 4). Although lending from the Fund constituted only a minimal proportion of total domestic credit during the period in question, it was the most visible and direct financial support for government-picked industries; therefore, it had an unmistakable signalling effect on private banks’ lending patterns.

Alongside channeling massive investments into heavy and chemical industries, the government introduced two parallel changes in its trade policy: First, greater protection for import-substituting industries from import competition and second,
reduction of wide-ranging incentives hitherto accorded to exports.

Various policy adjustments to reduce the scope of incentives to exports were made as of 1973, such as:
(i) A 50% reduction in direct taxes on profits from export was abolished in 1973; (ii) wastage allowances were repeatedly reduced; (iii) an advance deposit system was introduced for imported intermediate goods; (iv) the tariff exemption system replaced in 1975 by a tariff drawback system imposed a new financial burden on exporters; and (v) discounted utility rates ceased to be available in 1976.

One of the reasons for these reductions in export incentives was that the incentives concerning the imports of capital goods and intermediate inputs, which were used for export production, resulted in the retardation of the development of indigenous capital-goods industries and technology. The resultant "incentive rates" for exports, having risen steadily throughout the 1960s until the early 1970s, began to fall after 1973 and continued this downward trend through the late 1970s. In particular, the interest-rate differential between export and ordinary loans reversed its widening trend in 1972, and continued to narrow sharply.

The import policy was also accommodating to the new, general orientation of the industrial-deepening drive. In addition to the already mentioned reduction of incentives relating to the imports of capital and intermediate goods for export production, the following measures were taken with respect to the targeted industries:

imports of certain plant facilities were prohibited; large plant facilities and those to be built with foreign capital or foreign-currency loans had to meet minimum domestic-content requirements; an import recommendations system was introduced under which certain imports for export production were permitted only if the price differences between imported items and local goods exceeded a certain level.

Such measures meant fundamental departures from the traditional export-led industrialization strategies. While the previous trade policies had been non-discriminatory for industry, promoting a competitive business environment, the new one of a regulatory nature was discriminatory; and while the previous efforts for industrial deepening were not excessive, those of the late 1970s were clearly over Korea's means.

The overall level of nominal tariff rates during the industrial deepening drive was much lower than during the preceding industrialization phase. Effective tariff rates, on the contrary, showed a slightly rising trend, largely due to the extensive reduction in the scope of tariff concessions previously granted to export-related imports.

While the industrial-deepening drive was in earnest, its results were disappointing by all standards. Some excuses can be found in that the initial prospects were not matched by subsequent events, especially external economic developments such as the Second Oil Shock and the ensuing deep recession of the world economy, which Korea eyed for markets for its rising heavy and chemical industries.

What cannot be easily dispelled is that in pursuing a drastic transformation of the
industrial structure, the Korean government did not hesitate to implement extensive interventions, to the extent that the working of the market mechanism itself was seriously jeopardized. Thus, the import-substitution-oriented policy of the late 1970s has often been blamed for all the structural imbalances, particularly for the over-investment in heavy and chemical industries, the resulting under-investment in light industries (the backbone of Korea's traditional exports), the extensive prices distortions and the subsequent failure of the market mechanism.

5. Growth and Structural Transformation of Korean Trade

Exports
Korean exports have been growing since the early 1960s at an annual rate of around 15%. The contribution of exports to GNP has continuously increased, and has emerged as the leading macro-economic sector of the economy. Thus, the share of exports in GNP (Table 2), which was minimal (2.4%) in 1962, increased to 11% in 1970. In spite of an absolute decline in the late 1970s and the early 1980s, it rose further to 41% by 1986. Per capita exports concurrently increased from the 1970s dollar level of 1962 to 26 dollar in 1970 and 835 dollar by 1986. The speed of Korean export growth has surpassed that of world exports and Korean exports as a share of world exports rose from 0.04% in 1962, to 0.29% in 1970, and to 1.74% in 1986.

Coupled with the rapid growth of export volume, this introduced a fundamental long-term transformation in the commodity structure of Korean exports.

In the early 1960s, Korean exports consisted mostly of primary products. The share of primary products, such as fishery and mining products, was 73% of total exports in 1960; this decreased to a mere 4% in 1987 (Table 3). The share of manufactured exports was 27% in 1960, and increased to 96% in 1987. In other words, the growth of Korean exports for the last two and a half decades was mainly due to manufactured exports. At the same time, the share of light manufactured exports in total exports was 72% in 1971. It has maintained a declining trend ever since, while heavy and chemical exports have been continuously increasing since the 1960s, and noticeably from the early 1970s onwards. The latter's export share surpassed that of the former in 1982, reaching 51.7% of total exports by 1987.

The following results can be observed from the Korean experience in exports. First, Korea has successfully utilized the beneficial cycle between growth and exports, to which the export-led industrialization strategy throughout the period and the favourable external conditions of the relatively liberal international trading system have all contributed. Second, the growth of heavy and chemical exports has been the most pronounced, particularly in recent years; this has contributed significantly to the enhancement of Korea's industrial structure, though at some heavy costs. This could not have happened without the import-substitution policy orientation of the 1970s, which supports the assertion that when not so overly-ambitious, the import-substitution process could be utilized to nurture future export industries. Third, in pursuing export growth, Korea has utilized its comparative advantage, moving from labour-intensive, to capital-intensive, and eventually to technology.

### Table 2. Growth of Korean Exports and Imports

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports (million dollars)</th>
<th>Korean Exports (% of World Exports)</th>
<th>Exports (% of GNP)</th>
<th>Per Capita Exports (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>55</td>
<td>0.04</td>
<td>2.4</td>
<td>2.1</td>
</tr>
<tr>
<td>1965</td>
<td>175</td>
<td>0.10</td>
<td>5.8</td>
<td>6.2</td>
</tr>
<tr>
<td>1970</td>
<td>835</td>
<td>0.29</td>
<td>10.7</td>
<td>25.9</td>
</tr>
<tr>
<td>1975</td>
<td>5,081</td>
<td>0.64</td>
<td>25.1</td>
<td>143.9</td>
</tr>
<tr>
<td>1980</td>
<td>17,505</td>
<td>0.93</td>
<td>28.6</td>
<td>459.2</td>
</tr>
<tr>
<td>1986</td>
<td>34,715</td>
<td>1.74</td>
<td>41.4</td>
<td>835.1</td>
</tr>
</tbody>
</table>

### Table 3. Growth of Korean Imports and Exports

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports (million dollars)</th>
<th>Korean Imports (% of World Imports)</th>
<th>Imports (% of GNP)</th>
<th>Per Capita Imports (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>422</td>
<td>6.32</td>
<td>18.2</td>
<td>16.2</td>
</tr>
<tr>
<td>1965</td>
<td>463</td>
<td>0.26</td>
<td>15.4</td>
<td>16.4</td>
</tr>
<tr>
<td>1970</td>
<td>1,984</td>
<td>0.67</td>
<td>25.3</td>
<td>61.6</td>
</tr>
<tr>
<td>1980</td>
<td>22,293</td>
<td>1.16</td>
<td>36.4</td>
<td>584.8</td>
</tr>
<tr>
<td>1986</td>
<td>31,585</td>
<td>1.53</td>
<td>37.7</td>
<td>760.0</td>
</tr>
</tbody>
</table>

intensive exports -- in line with the changes in its factor endowments from a labour-abundant to a labour-scarce but a skill-abundant economy. In a word, the success of Korean exports lies basically in its efficient allocation of resources, to which policies as well as private initiatives have been attuned.

Table 3. Commodity Composition of Korean Exports

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>13.0 (23.0)</td>
<td>53.0 (2.9)</td>
<td>458.9</td>
<td>395.3</td>
<td>1,060 (2.3)</td>
</tr>
<tr>
<td>Fishery</td>
<td>12.5 (22.0)</td>
<td>137.5 (7.6)</td>
<td>759.5</td>
<td>861.2</td>
<td>1,626 (0.9)</td>
</tr>
<tr>
<td>Mining</td>
<td>15.9 (28.0)</td>
<td>32.2 (1.8)</td>
<td>135.6</td>
<td>106.2</td>
<td>129 (0.3)</td>
</tr>
<tr>
<td>Manufacture</td>
<td>15.3 (27.0)</td>
<td>1,584.3 (87.7)</td>
<td>16,150.8</td>
<td>2,053.5</td>
<td>44,467 (94.0)</td>
</tr>
<tr>
<td>Heavy &amp; Chemical Manufacture</td>
<td>n.a.</td>
<td>n.a.</td>
<td>7,685.5 (43.9)</td>
<td>11,605.7 (50.8)</td>
<td>24,465 (51.7)</td>
</tr>
<tr>
<td>Light Manufacture</td>
<td>n.a.</td>
<td>n.a.</td>
<td>8,465.3 (48.4)</td>
<td>9,061.8 (42.9)</td>
<td>20,001 (42.3)</td>
</tr>
<tr>
<td>Textile</td>
<td>n.a.</td>
<td>n.a.</td>
<td>5,414.3 (28.6)</td>
<td>5,423.7 (27.4)</td>
<td>11,823 (25.0)</td>
</tr>
<tr>
<td>Other</td>
<td>n.a.</td>
<td>n.a.</td>
<td>3,451.0 (19.7)</td>
<td>3,344.3 (15.5)</td>
<td>8,178 (17.3)</td>
</tr>
<tr>
<td>Total</td>
<td>56.7 (100)</td>
<td>1,807.0 (100)</td>
<td>17,504.9 (100)</td>
<td>21,616.1 (100)</td>
<td>47,281 (100)</td>
</tr>
</tbody>
</table>

Unit: million dollars, %

Table 4. Regional Structure of Korean Trade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrialized Countries</td>
<td>85.7</td>
<td>86.6</td>
<td>76.6</td>
<td>64.2</td>
<td>76.8</td>
</tr>
<tr>
<td>U.S.A</td>
<td>11.1</td>
<td>47.3</td>
<td>30.2</td>
<td>26.4</td>
<td>38.8</td>
</tr>
<tr>
<td>Japan</td>
<td>61.5</td>
<td>28.7</td>
<td>25.4</td>
<td>17.4</td>
<td>16.7</td>
</tr>
<tr>
<td>EC</td>
<td>12.8</td>
<td>7.7</td>
<td>14.3</td>
<td>15.0</td>
<td>14.6</td>
</tr>
<tr>
<td>Non-Oil Developing Countries</td>
<td>11.3</td>
<td>10.6</td>
<td>15.1</td>
<td>18.3</td>
<td>14.7</td>
</tr>
<tr>
<td>Oil-Exporting Countries</td>
<td>0</td>
<td>1.9</td>
<td>6.6</td>
<td>12.8</td>
<td>5.5</td>
</tr>
<tr>
<td>Others</td>
<td>3.0</td>
<td>0.9</td>
<td>1.7</td>
<td>4.6</td>
<td>2.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrialized Countries</td>
<td>86.5</td>
<td>83.3</td>
<td>72.3</td>
<td>61.5</td>
<td>74.6</td>
</tr>
<tr>
<td>U.S.A</td>
<td>38.9</td>
<td>29.5</td>
<td>25.9</td>
<td>21.9</td>
<td>20.6</td>
</tr>
<tr>
<td>Japan</td>
<td>20.5</td>
<td>41.0</td>
<td>33.5</td>
<td>26.3</td>
<td>35.1</td>
</tr>
<tr>
<td>EC</td>
<td>21.3</td>
<td>10.5</td>
<td>7.3</td>
<td>7.1</td>
<td>10.8</td>
</tr>
<tr>
<td>Non-Oil Developing Countries</td>
<td>9.1</td>
<td>8.5</td>
<td>7.1</td>
<td>8.1</td>
<td>10.0</td>
</tr>
<tr>
<td>Oil-Exporting Countries</td>
<td>0.2</td>
<td>6.5</td>
<td>18.2</td>
<td>26.3</td>
<td>8.3</td>
</tr>
<tr>
<td>Others</td>
<td>4.2</td>
<td>1.7</td>
<td>2.4</td>
<td>4.2</td>
<td>5.5</td>
</tr>
</tbody>
</table>


Structurally enhanced and expanded in size as they are, Korean exports are not without structural imbalances. First, they are heavily concentrated on a few export commodities. For example, the ten major export goods accounted for more than 84% of total exports in 1983. Second, Korea is dealing with limited trading partners (Table 4). Though it shows a somewhat receding trend, the share of Korean exports to industrialized countries commanded more than a three-fourths share in 1987; this was down from seven-eighths in 1970, when exports to the two major trading partners (the U.S. and Japan) covered more than half of total exports. These two shortcomings of Korean exports were enough to explain the rising import restrictions against Korean exports in developed countries, and they reflect that underdevelopment of downstream, parts and components industries is the main obstacle to the diversification of export commodities and markets. Third, the concentration of export activities is also reflected in the fact that more than half of total exports (51.3% in 1983) is carried out by general trading companies. This reveals a dichotomy of export sectors, with well-organized general trading firms and poorly organized, small- and medium-sized firms; the policy focus on the latter has often been weak.
Fourth, Korea is increasingly burdened with insecurities in its future export potential because of the fast rise in competition in the traditional export markets of Korea. In particular, the already high wage rates of Korea and the rise of competitors from newly developing countries pose serious threats to the stable market maintenance of Korea’s exports of labour-intensive commodities. On the other hand, Korea faces additional difficulties in heavy and chemical exports and has to cultivate new markets, replacing traditional suppliers such as Japan, so as to compete with other newly industrializing countries which share almost identical spectra of commodities for international competition, i.e. skill-intensive or technology-intensive exports. Fifth, the industrial structure, or simply the technological edge, of Korean exports forces the growth of Korean exports to be accompanied by a corresponding increase in imports. The ratio of import requirements per export reached 0.38 during 1980, and is still rising; and the ratio of intermediate goods imports to exports was 29.4% in 1980 and rose further to 43.6% by 1987. All these developments reflect the unbalanced growth of industries, and the assembly-oriented characteristics of Korean export industries.

Last, and equally important, Korea recognizes that the most damaging threat to the stable growth of Korean exports is rising protectionism in the industrialized countries. Whether the incentive for the alarming proliferation of protectionist measures taken by the developed countries is the drastic and long-term recession since the late 1970s or the delayed structural adjustments of the developed countries to the changes in international competitiveness, as pressured by the emergence of the Newly Industrializing Countries (NICs), its threat to Korean exports is serious and increasing rapidly. Thus, the share of Korean exports under some form of import restrictions to total exports to industrialized countries was 32% in 1981; it increased to 36% in 1985, then declined to 22% by 1987.

Imports

As already mentioned, during the period of reconstruction after the Korean War, the level and structure of Korean imports were determined or constrained by the availability of foreign aid. However, unlike exports, the level of Korean imports was already high, even in the early 1960s over 400 dollar million and comprising 0.3% of world imports (Table 2). Imports maintained a long-term growth trend throughout the period. In the early period of the 1950s and the 1960s, imports satisfied the demand for raw materials and capital goods needed for domestic consumption and production activities, but from the 1970s on the demand for imported materials and intermediate goods for the production of export goods increased in line with the rapid growth of exports, dominating the main purpose for imports. The share of imports in GNP, already 18% in 1962 (compare this with the share of exports in GNP in the same year, 2.4%), reached 28% by 1987 through continuous growth, and the share of Korean imports in the world imports increased to 1.53%. It can be said that, contrary to the misconception prevalent in developed countries, Korea is mainly an exporting country, but it does import. In the history of Korea’s foreign trade until 1985, 1977 was the single year when Korea experienced nearly balanced trade; still, the trade deficit before 1986 had never been out of Korea’s grip, particularly in relation to deepening economic cooperation with its major economic partners. It remains to point out that Korea’s potential as a future market for manufactured goods has never been greater.

The growth of import volume has been accompanied by changes in commodity composition. While the imports of primary products have been commanding one-third of total imports due to Korea’s scarce endowment of natural resources (Table 5), the emphasis on imports has shifted from consumer products and finished products to intermediate goods, capital goods and raw materials in line with Korea’s progress in industrialization. Among manufactured imports, as a result, imports of heavy and chemical products that were five times greater than those of light manufactured goods, came to command a ten times greater share of total imports than those of light manufactured goods since the mid-1970s.

Table 5. End-Use Composition of Korean Imports

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Material</td>
<td>1,300 (40.3)</td>
<td>15,516 (64.0)</td>
<td>15,564 (59.4)</td>
<td>22,613 (55.1)</td>
</tr>
<tr>
<td>Petroleum</td>
<td>206 (15.0)</td>
<td>6,977 (21.3)</td>
<td>5,572 (9.0)</td>
<td>3,702 (9.0)</td>
</tr>
<tr>
<td>Capital</td>
<td>754 (28.1)</td>
<td>6,233 (29.8)</td>
<td>7,815 (34.6)</td>
<td>14,185 (34.6)</td>
</tr>
<tr>
<td>Goods</td>
<td>268 (9.1)</td>
<td>2,502 (10.7)</td>
<td>2,813 (10.2)</td>
<td>4,180 (10.0)</td>
</tr>
<tr>
<td>Grain</td>
<td>283 (4.1)</td>
<td>937 (4.9)</td>
<td>1,288 (5.2)</td>
<td>1,080 (4.9)</td>
</tr>
<tr>
<td>Exports</td>
<td>-</td>
<td>6,353 (3.9)</td>
<td>7,030 (4.4)</td>
<td>17,397 (4.1)</td>
</tr>
<tr>
<td>Production</td>
<td>-</td>
<td>26.2</td>
<td>26.8</td>
<td>43.6</td>
</tr>
<tr>
<td>Domestic</td>
<td>-</td>
<td>17,898</td>
<td>19,162</td>
<td>23,123</td>
</tr>
<tr>
<td>Use</td>
<td>-</td>
<td>73.8</td>
<td>73.2</td>
<td>56.4</td>
</tr>
</tbody>
</table>

Unit: million dollars, %


Long-term characteristics of Korean importation are summarized as the importation of raw materials and capital goods for export production rapidly replacing the importation of both raw materials and finished products for domestic consumption. While the continuous growth of exports was generating greater demand for imported raw materials, the development of import-substitution industries was reducing dependence on imports of finished consumer products. More recently, the development of heavy and chemical industries necessitates the increased importa-
tion of intermediate and capital goods.

For example, the share of imports of textile products, which used to comprise around one-sixth of Korea's total imports during the early 1960s, declined to less than 7% by the late 1970s. Imports of lumber and wood products, leather and its products, and petroleum and its related products, all of which are scarce materials in Korea, have increased, owing to the increased demands for their use in the domestic consumption and export sectors. Imports of chemical products, though they declined substantially because of import-substituted chemical fertilizer, increased over time; this is most pronounced in the imports of industrial chemicals; and imports of heavy manufactured goods, such as iron and steel products, metal products, working machinery, electrical machinery and transport equipment all increased their shares of total imports during the course of Korea's industrialization.

6. Import Liberalization

While the extent of import liberalization continued to strengthen, and the share of items for automatic approval rose, the protection of domestic industries, especially those connected to development plans, remained in force through outright prohibition or restriction. Thus, the process of import liberalization was sporadic at best, and sometimes retreated as the adverse situation of the balance of payments and debt services dictated.

For example, the principle of import liberalization was seriously damaged, and various restrictions of imports followed whenever problems were encountered, such as unstable supplies of raw materials (always an impending policy issue for Korea because of its limited natural resources), deterioration of the balance of payments, or stagnations in Korea's major markets. Thus, while financial support and reduced tariffs were accorded to the imports of major raw materials such as petroleum, cotton and lumber, the effort to reduce the balance of payments deficit was prodded through strict import restriction of luxury and other "unnecessary" products.

The drastic improvements of the balance of payments in the late 1970s, especially in 1977, have completely changed the policy environment.

The surge of foreign exchange reserves attributable to the rapid increase in commodity exports, booming construction activities in the Middle East, and the ensuing expansion of money supply all started to increase the pressure for more prudent domestic demand management and import liberalization. As a result, import liberalization was ambitiously advanced as a double-edged means to absorb the increased money supply from foreign sectors and to realize price stability.

Though the slow, and sometimes the outright negative growth of the economy, and the massive investment effort in heavy and chemical industries of the late 1970s brought serious problems of balance of payments and debt services, the process of import liberalization, once initiated, was hard to reverse. Thus, the ratio of import liberalization, which stood at 33% in 1977, was drastically raised to 69% in 1978, and to the present level of 95.4%. To complete the effects of import liberalization, the average level of tariffs was also reduced, from 22.6% in 1983, to 20.6% in 1984; it was expected to decline further to 16.9% by the end of 1988.

The most significant change in import policy is reflected less in figures than in the fact that the imports policy, which had been managed in the light of utilizing protection as a means to nurture domestic import-substitution industries, is geared to open-economy industrialization. Increasing protectionism abroad and rising reciprocal demand, stemming from both Korea's enlarged posture in world trade and its greater potential as an export market, have also induced the stepped-up effort of Korea's import liberalization. But, they cannot fully account for the open-market orientation of Korea's import policy. While the ratio of import liberalization has been rapidly raised, reaching a level comparable to that of developed economies, it has been done through an advance-notice system in order to offer adjustment periods for the business communities of both indigenous producers and foreign exporters, and imports of commodities produced in monopolistic domestic markets were first to be liberalized. Furthermore, non-tariff trade barriers were gradually replaced by tariffs together with general reductions in tariffs. More importantly in the practical sense, there has been a clear commitment by the Korean government to avoid using special laws and an import surveillance mechanism as a means of restricting imports.

It is important to note that the import liberalization policy in recent years reflects the change in the government's philosophy of economic management since the early 1980s. The new approach to economic policies, and in particular industrial policy, rests on two liberalization policies. First is the policy of 'internal liberalization,' or drastically reducing government interference and increasing foreign sector initiatives in the nation's economic affairs so that the market system is allowed much freer play. Second is 'external liberalization' or import liberalization in the present context. The new industrial policy is centered on improving the economic environment for de-centralized decision-making by gradually introducing measures which will facilitate the functioning of the market mechanism, and consequently will ensure greater efficiency in the allocation of the nation's resources -- including not just natural, but particularly entrepreneurial and creative human resources. This implies that promotion of hand-picked industries at the expense of others is no longer on the government's industrial policy agenda.

Two main reasons explain this turnabout in the Korean government's industrial policy stance. The first fundamental reason is that the Korean economy has grown so much in size and complexity that centralized decision-making and close government control of the workings of the national economy are no longer considered efficient or feasible. The new approach, therefore, relies increasingly on indirect rather than direct control of the economy, with the government pursuing a broad programme of deregulation and privatization that will enhance efficiency through greater use of the market system. The second reason, closely related to the first, has to do with the painful realization that the industrial policy of the past, based largely on preferential support of selected industries and partly on protection of the home market from foreign competition, resulted in resource-allocation inefficiencies, and imbalances among industrial subsectors and between large and small firms.
Table 6. Import Liberalization: 1983-1988

<table>
<thead>
<tr>
<th>Sector</th>
<th>1983</th>
<th>1986</th>
<th>1988</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>73.2</td>
<td>79.7</td>
<td>80.2</td>
</tr>
<tr>
<td>Chemicals</td>
<td>94.4</td>
<td>97.9</td>
<td>99.7</td>
</tr>
<tr>
<td>Iron &amp; Steel</td>
<td>90.9</td>
<td>99.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Electric &amp; Electronic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery</td>
<td>53.6</td>
<td>86.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Textiles</td>
<td>80.4</td>
<td>96.1</td>
<td>97.9</td>
</tr>
<tr>
<td>Other</td>
<td>81.2</td>
<td>85.3</td>
<td>90.1</td>
</tr>
<tr>
<td>Total</td>
<td>80.4</td>
<td>91.5</td>
<td>95.5</td>
</tr>
</tbody>
</table>

7. Summary

Korea’s economic success has been achieved mainly through the rapid growth of manufactured goods exports. Korea in the early 1960s was a typical underdeveloped economy, without any significant industrial basis or considerable trading activities, but with a fast growing population and serious unemployment and balance of payment problems. Korea today has a variety of industries extending from labour-intensive ones such as textiles and clothing to technology-intensive ones such as electronics. It now records a considerable balance of payment surplus and enjoys almost “full employment.”

Since the Korean War in 1950, the trade policy of Korea has been continuously re-oriented. When import substitution and reconstruction, mostly on vital consumer non-durables, were about to outlive the domestic market by the early 1960s, Korea was quick to turn to an outward-oriented and export-led industrialization strategy. When structural imbalances emerged in the late 1970s (assembly-oriented industrial structure and exports; high import dependence, and declining international competitiveness, particularly in labour-intensive industries) Korea’s trade policy of the previous one and a half decades became seriously compromised. In the general context of its inward-looking development strategy, the trade policy of Korea turned to import substitution on selected “strategic” heavy and chemical industries. Korea had its own share of hardships for the following years until the early 1980s, when improved internal and external economic conditions set the stage for Korea to embark on a liberalization of trade policy which remains in force today as the basic orientation of Korea’s industrialization strategy.

A few observations can be made on the salient features of Korea’s trade policy and its evolution over time. First, the trade policy experienced repeated re-orientations, rapidly and sometimes drastically, and in line with rapid adjustments to equally swift and fundamental changes perceived in both domestic and international economic environments.

Second, Korea’s trade policy, be it export promotion or import substitution, has been more or less dictated by its own limitations of resources and market. Korea seems to have known all along where it stood, and how its position changed over time. This is well reflected in its self-restraint from excessive or extended drives of import substitution and the continuous adjustments of policies in order to cater to the ever-changing comparative advantage of Korea, from labour-intensive to capital intensive and eventually to skill-cum-technology intensive trades. Repeated adjustments, however, should not be confused with frequent changes in policy directions: Korea has maintained clear visions of its future role in the international economic community, shared by both the government and the business community, reflecting the political and social stability which are necessary conditions for steady economic development.

Third, Korea has not been shy of internationalization and of meeting new challenges. Though still a developing country, it has actively and fiercely competed in international markets well beyond the Far East; and it has not hesitated to invite even foreign competition in its domestic market. This has been possible because most of the time Korea has attempted to maintain competitive environments, where “efficiency” and “survival of the fittest” are the guiding principles.
DISTORTIONS, IMPORT SUBSTITUTION AND EXPORT PROMOTION

Comment by Safwan Toqan

In his paper, The Industrialization of Korea: Export Promotion vs. Import Substitution, Dr. Chungsoo Kim reviewed the import substitution strategy that Korea began to adopt after the war. As the Korean economy grew at an average yearly rate of 15% between 1962 and 1968, basic structural changes were forced to happen as the government designed and implemented measures and policies aiming at substituting for the imports of different categories of commodities at different times. The import-substitution and export-promotion strategies went through three different stages in the last 25 years.

The first stage, which extends to the late 60s and early 70s, focused on restructuring the infrastructure and substituting for final consumer commodities which are labour intensive. Any excess production of such goods over and above domestic consumption had to be exported to reduce the balance of trade deficit. The policies and measures adopted ranged from increases in deposit and lending rates of interest, devaluation of an overvalued currency, to preferential export credit and tariff and tax exemption on export income.

The largest balance of payment deficits resulting from the subsidized importation of raw materials and intermediate goods had to be reduced by domestically producing some of these basic goods.

The second stage of import substitution covers the 70s and is characterized by a shift in policies towards the establishment of heavy and chemical industries, in order to mitigate the impact of the expected gradual withdrawal of American forces; the loss of competitiveness due to new entrants like Taiwan; Korea's rising wage rates; and the then prevailing mood in industrial countries.

During this period, Korea replaced its export-led drive by the industrial deepening drive, emphasizing investments in steel, non-ferrous metals, ship-building, machinery, chemicals and electronics industries.

Promotional measures, such as preferential interest rates, special purpose set funds, tax reductions and exemptions on capital goods imports, and other restrictive measures, were strictly applied. Furthermore, some export-led incentives were reduced or abolished owing to the effect these could have in retarding the development of an indigenous capital goods industry. Accordingly, effective tariff rates were on the rise again, and structural imbalances from overinvestment in heavy industry could be observed.

The value of exports continued to increase as a percentage of GNP, with the share of sophisticated manufactured commodities increasing as we move from the 60s to the 70s and 80s.

The third stage is characterized by a policy of liberalization of imports based on reducing the average level of tariffs to closer to what prevails in developed countries. In addition, the Korean economy is now experiencing internal liberalization through the privatization process. The policy of the 80s is to promote the market mechanism and to achieve greater efficiency in resource allocation.

To comment on Dr. Kim's paper is not easy, both because of the successful results that Korea was able to achieve and the distortional impacts that the export-led and industrial-deepening drives have left on resource allocation.
However, the following points could be of interest.

1. A question should be asked as to why Korea, in comparison with other developing economies, was able to produce for domestic consumption with further production for external markets without any extensive wasteage in pursuit of import substitution? Is it because of planning for, and utilizing, multi-purpose equipment, or the wise and proper selection of commodities that were in demand locally and abroad at the right times?

2. What effects did Korea’s export policies have on domestic inflation?

The financial reforms of 1965 increased the deposit and lending rates, to which savers responded enthusiastically so that by 1969 real money balances increased by seven times their 1964 levels, and as a percent of GNP they rose to 33% from a meager 9%. Did all that happen because government fiscal policy relied less on the central bank?

However, Korea still faced several problems.

First, it remained heavily dependent on foreign savings, which the government was working on reducing without sacrificing the 9% real rate of growth.

Second, the government appeared to lose control over monetary base: inflationary pressures reappeared which could be traced back to the preferential rates of interest for export activities. This generated foreign exchange reserves which boosted the foreign component of the monetary base, thus creating a monetary control problem.

Third, the return on monetary assets is a policy variable since the role of money as a store of value is of considerable importance. Such real rates of return went into decline again due to the surge in inflation, approaching negative numbers in some cases. This was very noticeable if compared with competitors like Taiwan.

Fourth, the preferential rate policy created highly subsidized credit for exporters which guaranteed continued high price inflation as long as such preferential treatment of export financing was maintained. In this context, the subsidy is an implicit tax on private savers who hold monetary assets. Any reduction in interest rates seems unwise before inflation is brought under control.

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**INDUSTRIALIZATION POLICIES IN SOUTH-EAST ASIA WITH PARTICULAR REFERENCE TO SOUTH KOREA**

Comment by

**Lutz Hoffmann**

When considering their industrialization policies, many developing countries today look to South-East Asia, where a handful of countries has made headlines with high rates of growth of GDP and manufacturing production and exports, over a period of more than 15 years - most of them without the availability of significant natural resources. Much has been researched, speculated and written about the reasons for these successes in economic development. The paper by Mr. Chung soo Kim presented to this conference gives an overview of the experience in South Korea. I will structure my own comments around what I consider to be the essential elements of a successful industrialization strategy, making reference to Mr. Chung soo Kim’s paper, some other studies and my own experience in the region.

1. The role of government

Today’s discussion on development economics in general and industrialization policies in particular abound with general prescriptions, often of an ideological nature. Several flow directly from the discussion of policies to deal with economic problems of developed countries, and therefore do not reflect the economic realities of developing countries. This holds for the request to reduce the role of government as well as for the denouncement of planning; the demand for deregulation; and the emphasis on privatization. Others are derived from specific experiences in individual countries, and often are too quickly generalized as being applicable to all developing countries. This can be said for the recommendation to follow an export-oriented trade policy or to liberalize capital markets. While it is not denied that any of these demands can be a useful and important element of a country’s development strategy under particular circumstances, any government would be ill-advised to follow blindly such general prescriptions, and no successful government has actually done so.

The role and attitude of the government is absolutely crucial for a successful industrialization process. As a company is as good as its management, so is an economy to its government. While the external environment in which an economy operates can be more or less conducive to development, the end it is the government which is responsible for whether or not a country overcomes underdevelopment and improves the well-being of its people. For none of the countries of South-East Asia, now praised as success stories, did the situation look bright in the 50s and early 60s when development took off. They were either war-ridden or deprived of their hinterland; they faced high protection and other trade impediments, like exchange restrictions, in developed countries, and they had to struggle with the prejudice that developing countries are unsuited for exporting manufactures. But they had determined and, on the whole, capable governments.

What were their key characteristics? The first is the active commitment of the
country's top leadership to economic development. This implies not only patriotic speeches on festive occasions, but actual involvement by chairing decision-making bodies on development policy, and motivating the civil service in charge of policy design and implementation. The latter requires non-pecuniary and/or pecuniary rewards which allow the government to hire and to retain a competent and largely uncontrupted staff. This kind of personal involvement of the leaders and motivation of top civil servants was present in such countries as Korea, Taiwan, Singapore and Malaysia. Korea’s President Park, for instance, was personally involved down to the project level. He presided over the monthly meeting of the export promotion committee, in which economic ministers, heads of economic institutions and leading businessmen participated; he received detailed reports on the status of the economy from the economic planning minister in the monthly economic report session; and he propagated administration by identification.

The leadership commitment in these countries was also reflected in the establishment of an institutional structure for economic planning and plan implementation, reaching into the office of the president or prime minister, in order to assure the highest authority for the planning process. Thus, in both Korea and Malaysia, for instance, planning units were established in the office of the president/prime minister. Economic planning was understood as an essential tool for consistent policy making. No government official was suspected, as far as I know, by ideological scruples that planning might be considered as a sin against the market system and private enterprises. Indeed, as Whang In-Joung (KDI 1986, VI, 10) put it, “the pragmatism which prevailed in the policy-making process allowed the government to choose among all available instruments and tools, without any ideological bias, in achieving the defined goals.”

This almost complete lack of ideological bias allowed the government to adopt a positive, accommodating and even cooperative attitude towards private business, and to look at public enterprises on their own merits. The issue of nationalization to stop capitalistic exploitation or to expropriate foreign capital was not raised, nor did privatization become an issue in itself. Governments were primarily interested in fast growth and adopted whatever means appeared to serve this end best. In spite of planning, policy making was on the whole relatively free from rigidities. Speed and flexibility characterized the policy response to unforeseen changes in most countries under discussion. The Korean policy approach has been described as a process of trial and error, in which the government quickly prescribed a solution to a problem, constantly monitored its progress, and adjusted the policy as necessary (ibid).”

One may conclude from the South-East Asian experience that governments were successful in promoting industrialization to the extent that they observed the following principles:

- A positive, cooperative but not protective or patronizing attitude towards producers (exchange government and business personnel -- Japan).
- Clear and transparent government procedures.
- Predictable and stable regulations; little room for discretion.
- Institutional centralization of administration dealing with business in one institu-

tion.
- Speedy handling of applications (maximum time limit); avoidance of unnecessary red tape.
- Active involvement of top political leaders in policy-making and in implementa-
tion.
- Quick policy response to new problems.
- Avoidance of discrimination, by firm size, industry or any other criteria.

2. The incentive system for producers

The success of an industrialization policy stands and falls with the incentive system which steers decision-making by producers. The overriding significance of this aspect of policy-making today is widely acknowledged, including by socialist countries. A wide range of government policies, either explicitly or implicitly, affects the prices producers have to pay for imports or receive for their output, and thereby reduces or enlarges a company’s value-added available for paying factor (labour and capital) incomes and profits. Where value-added increases, resources are attracted, whereas they are released where value-added is squeezed.

The discussion on appropriate incentives has become particularly intense on the issue of import substitution versus export expansion. In the first alternative, incentives would be set such that resources are attracted by industries competing with imports; whereas in the second alternative, a discrimination of export industries is at least being avoided if not over-compensated for by incentives which actively promote exporting.

In its early phase of industrialization, no country could or should avoid import substitution, and even later on import substitution may gainfully continue in a number of areas. The crucial question really is whether import-substituting industries should be given incentives which are denied to others, or where the extension of certain incentives to all industry is technically not feasible, whether compensatory incentives are given to the other industries.

From an economic point of view, the balancing of incentives is the most sensible approach among practically available options. Some economists have argued that one could do without industry-specific incentives and rely instead on a free exchange rate which would provide sufficient protection to import-competing industries, by limiting imports to the extent of export capability and net capital import, and at the same time would encourage exports. However, there are a number of technical and political reasons why governments don’t want to renounce industry-specific incentives, and why they favour those which benefit import-competing industries: incentives to import-substituting industries in the form of tariffs and non-tariff import barriers are administratively easy to handle, and tariffs have the added advantage of generating income for the government; tariff revenue is usually an important source of government revenue in the early stages of industrialization; import barriers also seemingly help to save foreign exchange by restraining imports; and finally, in all countries there is an easily identifiable and often politically powerful group that benefits from import protection, whereas those who suffer are a more diffused group.

For all these reasons, countries like Taiwan, Korea and Singapore relied heavily on import protection in the 1950s and the early 1960s, and as a consequence
developed import-substituting industries, hardly any exports and large trade deficits. Malaysia was a notable exception. It refused, against the advice of the World Bank, to raise import tariffs, and resorted instead to generous tax incentives in the form of exemptions from income and corporate tax. Important reasons for this were that Malaysia, as a major producer of primary products in high demand on the world market, received revenue from export tariffs, and therefore did not need to rely on import tariffs for fiscal and balance-of-payment reasons, and that the potential lobby for import barriers was Chinese, an ethnic minority without political leverage. In Korea, Taiwan and Singapore, the switch towards an export-oriented trade policy came in the early 60s, in Taiwan slightly earlier than in the other two countries. In both Korea and Taiwan the important reasons were the scheduled phasing out of U.S. aid at a time when the trade deficit was running high, and limits to growth through import substitution, which became increasingly felt in the small markets of the two countries. The inflow of labour and the pressure to create jobs for them in Korea was also an important factor in Taiwan. In Singapore, the separation from Malaysia in 1965 made further import substitution in the city-state practically unfeasible.

The policy means by which the switch towards export orientation was initiated differed from country to country. Singapore and Taiwan came closest to what is called an outward oriented economy, where domestic prices of tradable goods largely reflect world market prices. They reduced import barriers and liberalized the exchange rate, followed an anti-inflationary monetary and fiscal policy, created public savings, and encouraged both domestic and foreign investment through the provision of infrastructural facilities and generous tax and tariff exemptions, in particular for export. It is estimated that in Taiwan, government revenue foregone in order to promote exports was in the range of 40% of total tax revenue between 1950 and 1980. (Myers, 1986, 48). However, to the extent that the incentives were effective, the expansion of investment and exports may have generated more additional tax revenue than was lost through the exemptions.

The Korean policy was somewhat different. Although the currency was devalued, it was only temporarily allowed to float. Nevertheless, recurrent devaluations kept the exchange rate close to the equilibrium rate, and thus avoided a discouragement of exports through over-valuation.

The rather frequent devaluations became necessary because of the relatively high rate of inflation which ranged between 10 and 16% since the early 60s, with the exception of 1973, when it was lower, and of the years of the rapid oil price rises when it exceeded 20%. By contrast, in Taiwan the inflation rate remained under 8% except for the years of high oil prices.

Korea's inflation was largely due to what Seitzovsky (1986, 178) called "forced investment." Korea's development planners aimed always at more investment than seemed feasible on the basis of expected savings. Then they used every kind of incentive, including informal pressure, to push the private sector and government enterprises to implement the investment plans. The resulting supply was pushed on the world market, again with massive government support. Domestic prices rose, but not export prices because of devaluation and other neutralizing benefits. The balance of payment worsened, and was mirrored by capital import. The growing export success established the country's creditworthiness, which made capital imports feasible.

The continuing balance-of-payment problem was partly responsible for the rather slow progress of import liberalization. Only in 1967 was the positive list of admitted imports changed into a negative list. Tariffs were selectively reduced, but remained high on average. Nationalized industries, like fertilizers, petroleum, steel and electricity, were almost totally protected. The government's strong promotion of these industries raised their share in GNP from 6.6% in 1963 to about 10% in 1972. When in the mid-70s government policy focused attention on the development of so-called "strategic" heavy industries (steel, non-ferrous metals, ship building, machinery, electronics, and chemicals), import protection tightened again.

During this period, the heavy incentives for import-substituting industries appeared to upset the balance between export and import competing industries. Another country in the region which followed this policy course was Malaysia. While for Korea, Chungsoo Kim relates the new policy initiative to the Nixon shock and to the need felt by the government to build up its own defence industry, in Malaysia it was the high revenues from oil exports and the exacerbated expectations of the government for a quick switch to a capital-intensive high-tech industrial sector. The tightened labour market in the wake of the oil boom was seen as an indication that the end of labour-intensive development was approaching. Even policymakers in Singapore were infected by this new thinking.

The targeting of strategic industries as a private sector activity in Korea was possible due to the traditionally close cooperation between the big industrial conglomerates (chaebols) and the government. While this cooperation was of course avoided by policy decisions operating against the market in earlier periods, it is not clear why it failed in that respect during the second half of the 70s. As Kim Chulsu, assistant minister in the Korean Ministry of Trade and Industry, has pointed out, the result of the policy was excessive investment in heavy and chemical industries at the expense of the labour-intensive light industry sector and small and medium business firms (KDI, 1986, V, 12). Since 1973, more than 70% of total investment in the manufacturing sector went into these industries: "Under the preferential financing schemes made available by the government, Korean businessmen rushed into heavy and chemical industries without much regard for domestic and world demand for their products. And often, the allocation of investment resources in heavy and chemical industries was not guided by market mechanisms, but in many cases by government decisions."

Fortunately, this policy was corrected in the early 80s. However, it left the government with severe structural imbalances which were responsible for the setback in export performance and economic growth. The heavy industries lacked domestic suppliers from the small and medium size enterprise sector, which was rather underdeveloped, and therefore depended highly on imported inputs.

Consequently, the corrective measures adopted were aimed at shifting the balance towards smaller companies by improving the competitive environment and restructuring the incentive system. The industrial development law of 1985 legally abolished strategic industries and reduced the role of government to that of troubleshooting when market failure occurred (ibid: ch3).

3. Development finance

Different from many other developing countries, the public budgets of the countries under discussion all contributed positively to the mobilization of savings for
investment purposes since the early 60s. This is remarkable in light of relatively high defence expenditures in Korea and Taiwan. Taiwan also followed a policy of high real interest rates on private deposits, and thereby effectively mobilized private savings. In Korea, there were periods when the real interest rate on deposits rapidly increased (for instance around 1965), with the consequence that saving deposits in commercial banks nearly doubled each year over a period of three successive years (Jin Nyum, KDI, 1986, II, 7). But on the whole, the real interest rate was rather low, and sometimes even negative, with the consequence that the savings rate of the private sector in Korea was less than half that in Taiwan. The balance was made up by foreign savings.

The financing sector was used by the government as an important instrument—maybe the most important one—to promote investment, in particular in export industries. Under the export financing scheme, loans were preferentially allocated to export industries and charged with much lower interest rates than commercial rates. This system lasted through the 1960s and the 1970s until it was abolished in June 1982 when a unified interest rate structure was established.

Chapter Three

INDUSTRIAL GROWTH AND EMPLOYMENT CREATION

THE ROLE OF SMALL AND MEDIUM SCALE ENTERPRISES IN JORDAN

Sudhir Chitale*

1. Introduction
2. Structure and Recent Developments in the SME Sector
3. Policy Environment for the SME Sector
4. An Agenda for Reform

1. Introduction

This paper addresses the central question arising out of the 1986-91 Five Year Plan, which is: “What is the potential for the Small and Medium Scale Enterprise (SME) Sector in Jordan; and what could be done to realize it?” We will argue that over the medium term, the SME sector in Jordan has the potential to grow, to contribute to increased foreign exchange earnings and to generate employment. However, in order to achieve this, we believe that a number of measures must be enacted, as soon as possible, to improve the working of the SME sector. These measures include both a reform of policies which allocate resources within the sector, and institutional improvements which enhance productivity.

The rest of this paper is divided into three sections. Section 2 discusses the structure and recent developments in the SME sector in Jordan; Section 3 discusses the policy environment confronting the SMEs; and Section 4 proposes an agenda for reform.

2. Structure and Recent Developments in the SME Sector

Structure: Small and Medium Scale Enterprises (SMEs), the focus of this paper, amount to a small portion of the Jordanian economy. During 1981-85, industry (i.e. manufacturing and mining) averaged about 18% of GDP. Sixty percent of this, however, consisted of the large natural resource-based industries (NRI), such as potash, phosphate and petroleum refining, leaving the share of SMEs to 7.2% of GDP. Investments in industry have also been dominated by the NRI. These accounted for 75% of the industrial investment program, which amounted to 23% of overall investments during 1981-85. However, SMEs feature

(1) This paper covers small and medium “manufacturing” enterprises as defined by the Department of Statistics Survey of Industries. Thus it would exclude small farms or other household activities.

* The views and interpretations in this document are those of the author and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting on their behalf.
more prominently in trade and employment. In 1985, products of SMEs accounted for 24% of the value of domestic exports (most of them to the neighbouring Arab countries), and as much as 40% of commodity imports. Mining and manufacturing employ 12% of the Jordanian labour force, and 85% of these workers are employed by SMEs.

In response to the policies followed by the government, combined with the rapid growth in the domestic and regional economies, the SME sector grew by over 18% per annum during 1975-82. The pattern of growth, however, left the SME sector with a number of structural weaknesses. To begin with, the rapid growth of SMEs was based on a narrow range of markets and product lines. The policies followed by the government had made it possible for a large number of firms to grow on the basis of import substitution within the small domestic market, while over 90% of exports remained concentrated in the Iraqi, Syrian and Saudi Arabian markets. Further, both import substitution and export industry were excessively dependent on construction activity. Thus, by 1983, Jordanian SMEs had very few linkages with the rest of the economy, weak technological capabilities, inflexible product lines and undeveloped marketing skills.

The economic recession in 1983 exposed the major structural weaknesses in the SME sector. The economic recession resulted in a slowdown in the regional economy and sharply reduced the domestic and regional construction activity which was the main market for a large part of the SME sector. Jordanian manufacturers, handicapped by the structural weakness described above, were ill prepared to deal with this loss of markets. Consequently, the real value added in manufacturing grew only by 1.7% per annum during 1982-85, compared to 17.1% during 1979-82. The slowdown has become more pronounced since 1985. In 1986, in nine out of 12 sub-industry groups monitored by the Department of Statistics, output has fallen in absolute terms. On average, the capacity utilization is running at 60% and most industries have difficulties in competing with imports and maintaining market shares in exports.

A reversal of the current decline in the growth of the SME sector, therefore, requires a combination of a reform of the policy environment in which they operate, combined with a strengthening of institutions designed to serve them. Thus, the analysis in this paper seeks to answer the following two questions:

(i) How effective are existing policies in channeling resources to the most efficient firms within the SME sector?, and,
(ii) Do institutions designed to serve SMEs do so effectively?

3. Policy Environment for the SME Sector

The analysis of the policy environment facing the SME sector is carried out below in a traditional fashion. First, we discuss the policies that influence external competition (i.e. the trade regime). Second, we examine policies which affect competition within firms in the domestic market, such as the regulation of investment and price control.

3.1. Policies Affecting External Competition -- The Trade Regime

Up to the beginning of 1984, the trade regime had very few quantitative restrictions (QRs). The protection offered to SMEs was mainly through a low level of tariffs on inputs coupled with relatively high tariffs on competing imports. This trade regime operated within the framework of a stable currency that was linked to the SDR. Over the past three years, however, there has been intense lobbying by the industry for increased protection as it faced shrinking markets and rising costs, due to falling capacity utilization which eroded competitiveness in exports and import substitution. In response, since the beginning of 1984, there has been gradual increase in the protection offered to industry. Simultaneously, the government has attempted to encourage exports by offering income tax exemptions, customs duty drawbacks and below-market rate export finance. On balance, however, the trade regime continues to have an anti-export bias because it remains more profitable to produce for import substitution than for exports.

Quantitative restrictions (QRs). Until the middle of 1984, Jordan had very few quantitative restrictions (QRs) on its imports. Since the middle of 1984, however, in response to the regional and domestic recession, 32 manufactured goods have been protected by introducing QRs. (Sheet glass, matches, washing machines and aluminum profiles are some of the items whose imports are banned).

While the QRs are not significant from a macroeconomic perspective, they protect a significant portion of the SME sector. Based on the pre-QR (the 1983) structure of imports, we estimate that the QRs would have applied to only about 4% of the total value of imports. The macroeconomic impact of QRs therefore is small, since the removal of QRs would only increase imports by a small amount. However, QRs apply to products which account for over 40% of the total SME value added. Thus, the profitability and, hence, the chances of survival of nearly 40% of the SME sector are determined by the QRs.

Tariffs. Together with the emergence of the QRs, the protection offered by tariffs has also increased. The average level of tariffs in 1986 was not different from that in 1983. The increase in protection, therefore, is the result of a selective increase in tariffs on final goods produced by the SMEs, coupled with a decrease in tariffs on intermediate inputs used by the SMEs.

The existing trade regime creates a wide variation in effective rates of protection (ERPs) across sectors, not only due to the wide variation in tariffs but also due to an extensive system of tariff exemptions. All exporters are exempt from duty on imported inputs. In addition, 27 institutions in Jordan are currently exempted from paying customs duties on their imports. Central government, municipalities, the sports complex and public sector undertakings such as the refinery and potash company belong to this list. This exemption, however, does not apply to yet another list of items produced by a scheduled list of industries.

The main impact of the institutional tariff exemption is that it differentiates the price of a commodity subject to tariff to different consumers within Jordan, concomitantly affecting the pattern of consumption without any economic rationale. More importantly, however, it places the domestic manufacturer at a significant disadvantage vis-a-vis imports within a large portion of his market, in effect reducing the size of his market substantially. In all, the value of imports which came into Jordan in 1985 without paying any tariff was about half the total value of imports. Of these, roughly JD 125 million, amounting to nearly 25% of the gross output of the SME sector, competed directly with domestically manufactured products. Thus in 1985, the institutional exemptions effectively reduced the available market for the SME sector by as much as 25%. Since 1985, the scheduled industries list has been expanded, hence, the distortion is likely to be less in 1987 than in 1985.
3.2. Policies Affecting Internal Competition

Investment Licensing. In spite of efforts made by the government to streamline procedures the investment licensing process remains cumbersome. Investment licensing in Jordan is carried out by the Department of Industry, at the Ministry of Industry and Trade. A prospective investor is required to submit a 20-page report highlighting the results of a feasibility study for the venture as a part of his license application. In parallel, the investor has to apply for registration with the Department of Companies and the municipality, and to apply for benefits under the Encouragement of Investment Law.

A recent amendment to the procedure which took effect on December 10, 1986 has increased the uncertainty for investors even after obtaining licenses. As per this amendment, only a temporary license valid for six months will be issued to prospective investors. During these six months the investor has to produce documents which provide evidence of the implementation of the project in conformity with the license application. At the end of these six months, the company’s progress is reviewed by the ministry, and at that point the license could be cancelled, extended or made permanent. In practice, however, the government believes that this amendment is necessary to separate serious investors from those who merely corner the licenses. This amendment increases the complexity and uncertainty of investing in Jordan.

Encouragement of Investment (EI) Law. Using the benefits offered under the EI Law, the government has attempted to increase the level of investment in the economy as well as to influence its pattern in the favour of manufacturing. The EI 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 to the objectives of the national plan. All fixed assets imported for the implementation of an “Economic Project” (EP) are exempted from customs duties. An “Approved Economic Project” (AEP) further enjoys the benefits of exemptions from profit tax for a stipulated period.

Although the macroeconomic impact of the EI Law is rather small, its impact on the SME sector is significant. Investments by projects benefiting from the EI Law amounted to less than 3% of total investments in the economy in 1985. An analysis of the EI Law carried out by Dar Al Handasah (Industrial Programming Study, Task 1.17, March 1982) showed that the tax revenue foregone from both the profits tax exemption and the customs duty exemption was a small proportion of the total budgetary revenue. The benefits of the EI Law, however, are important in determining the profitability of the few projects in the SME sector which it covers. In 1985, the EI Law benefited only 16 of the 116 projects approved by the Ministry of Industry. These projects, however, accounted for nearly 45% of total investments in the SME sector.

There are two problems with the present design and implementation of the Encouragement of Investment Law. First, the eligibility of a prospective project for benefits under the EI Law is discretionary. Although government officials make every effort to be objective, a prospective investor has no way of being absolutely sure whether or not his project will be declared an EP or an AEP. Second, the implementation and extension of benefits is discretionary as well as administratively cumbersome.

Price control for consumer goods was introduced in Jordan around the mid-70s in response to the rise in inflation as a result of the rise in the price of oil. The Ministry of Supply was created in 1974 with the objective of ensuring the supply of basic food items such as wheat, rice, sugar, red and white meats at reasonable prices. (In addition to the items whose prices are regulated by the Ministry of Supply, prices of items protected by QRs or high tariffs are also regulated by the Ministry of Industry and Trade).

At the moment, the impact of the pricing system on the profitability of the SME sector or consumers is not significant. Price control is exercised only on eight items locally produced by the manufacturing sector and three manufactured imports which compete with domestic producers. It is hard to see what benefit this system confers on consumers, especially since the government is committed to a “no subsidy” policy. For example, if the controlled price (of say school uniforms) is fixed below its market clearing price, the manufacturer will produce something else, and therefore, the supply would be reduced (unless the government is prepared to subsidize him). The consumer would then suffer due to the unavailability of school uniforms. It is even more difficult to set a price on manufactured imports because it is impossible for the government to guess the premium that a consumer would be willing to pay for an imported item vis-a-vis a domestically-produced item.

3.3. Implications of the Policy Framework to the Economy

The increase in protection resulting from restricting domestic and external competition over the years has helped a number of firms within the industrial sector to survive. The sharp reduction in domestic and regional demand since 1983 was unexpected. Without the measures enacted by the government many of these firms would have lost their markets and would have had to close down. However, these measures could not discriminate between efficient and inefficient firms in the process of offering protection. Consequently, the SME sector in Jordan consists of a mix of efficient, well-managed firms coexisting with high cost, inefficient firms. One consequence to the economy of the continued existence of these firms is that they increase the cost of manufactures in the domestic market over the CIF import price. For example, the analysts presented in Table 1 suggests that because of the existing system of tariffs on intermediate inputs and outputs and QRs, the prices of adult jeans and clear sheet glass charged by domestic producers are respectively 14% and 78% higher than the prices at which they could be imported. This increase in cost induced by the existing policies can, therefore, be thought of as a tax paid by consumers (in the case of jeans) and downstream industries (the construction industry in the case of glass). Based on a sample survey which we carried out, we estimate that in 1985 this tax burden induced by the SME sector as a whole was nearly JD 126 million, which was almost equal to half the total tax revenue of the government. Of this burden, JD 62 million was imposed on downstream industries and JD 64 million was passed on to the consumers. In short, in 1985 the rest of the economy paid JD 64 million of implicit subsidy to maintain the existing structure of SMES.
Table 1: EX-FACTORY PRICES AND C.I.F. IMPORT PRICES

<table>
<thead>
<tr>
<th>Units</th>
<th>Ex-factory Price</th>
<th>C.I.F. Import Price</th>
<th>Duty on output(%)</th>
<th>Major Input(%)</th>
<th>Duty on Major input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>JD/H.L.</td>
<td>32.60</td>
<td>11.20</td>
<td>n.a.</td>
<td>Malt</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>JD/1000</td>
<td>5.48(4)</td>
<td>8.50</td>
<td>0.3</td>
<td>Leaf Tobacco</td>
</tr>
<tr>
<td>Adult jeans</td>
<td>JD/trouser</td>
<td>6.25</td>
<td>5.50</td>
<td>58.00</td>
<td>Fabric</td>
</tr>
<tr>
<td>Childrens jeans</td>
<td>JD/trouser</td>
<td>3.32</td>
<td>2.76</td>
<td>58.00</td>
<td>Fabric</td>
</tr>
<tr>
<td>Corrugated boxes</td>
<td>JD/MT</td>
<td>384.00</td>
<td>236.40</td>
<td>58.00</td>
<td>Kraftliner</td>
</tr>
<tr>
<td>Paper &amp; Paperboard</td>
<td>JD/MT</td>
<td>213.00</td>
<td>216.70</td>
<td>32.00</td>
<td>Chemicals</td>
</tr>
<tr>
<td>Quick Lime</td>
<td>JD/MT</td>
<td>35.00</td>
<td>20.30</td>
<td>36.00</td>
<td>Local Materials</td>
</tr>
<tr>
<td>Hydrated Lime</td>
<td>JD/MT</td>
<td>30.30</td>
<td>26.00</td>
<td>34.00</td>
<td>Local Materials</td>
</tr>
<tr>
<td>Limestone brick</td>
<td>JD/MT</td>
<td>25.30</td>
<td>29.10</td>
<td>36.00</td>
<td>Local Materials</td>
</tr>
<tr>
<td>Clear sheet glass</td>
<td>JD/MT</td>
<td>196.10</td>
<td>110.00</td>
<td>B. Soda Ash</td>
<td>4.50</td>
</tr>
<tr>
<td>Ord. Portland cement</td>
<td>JD/MT</td>
<td>27.10</td>
<td>14.30</td>
<td>B. Local Materials</td>
<td>0.00</td>
</tr>
<tr>
<td>Cement</td>
<td>JD/MT</td>
<td>27.10</td>
<td>14.30</td>
<td>B. Local Materials</td>
<td>0.00</td>
</tr>
<tr>
<td>Pozzolanic cement</td>
<td>JD/MT</td>
<td>28.10</td>
<td>14.70</td>
<td>B. Local Materials</td>
<td>0.00</td>
</tr>
<tr>
<td>S.R. cement</td>
<td>JD/MT</td>
<td>1323.00</td>
<td>1281.00</td>
<td>B. Aluminum</td>
<td>0.00</td>
</tr>
<tr>
<td>Aluminum profiles</td>
<td>JD/MT</td>
<td>239.00</td>
<td>149.70</td>
<td>48.00</td>
<td>Zinc</td>
</tr>
<tr>
<td>Galvanized pipe</td>
<td>JD/MT</td>
<td>192.00</td>
<td>112.30</td>
<td>–</td>
<td>Steel</td>
</tr>
<tr>
<td>Black pipe</td>
<td>JD/MT</td>
<td>5.95</td>
<td>2.95</td>
<td>51.00</td>
<td>Semifinished</td>
</tr>
<tr>
<td>Radiators</td>
<td>JD/Th. Mtr.</td>
<td>225.00</td>
<td>197.00</td>
<td>Steel Sheets</td>
<td>24.00</td>
</tr>
<tr>
<td>Steel boilers</td>
<td>JD/Boiler</td>
<td>4.50</td>
<td>2.76</td>
<td>N.A.</td>
<td>Local Steel</td>
</tr>
<tr>
<td>Scaffolding</td>
<td>JD/prop</td>
<td>195.00</td>
<td>177.30</td>
<td>51.00</td>
<td>Hot Rolled</td>
</tr>
<tr>
<td>Welded wire mesh</td>
<td>JD/MT</td>
<td>624.00</td>
<td>567.70</td>
<td>B.(2)</td>
<td>High Carbon Steel</td>
</tr>
</tbody>
</table>

Sources: Manufacturers of items described; private importer: Customs Evaluation Unit.


The tax burden (or implicit subsidy) described above represents a large transfer of resources from one social group to another. In addition, our analysis of a small sample of firms shows that protected firms also tend to be poorly managed and tend to impose resource losses on the economy as a whole. We estimated, in our sample of firms, that JD 40 million of Jordanian resources in the form of capital and labour are used to produce value added worth JD 30 million. This implies a resource loss of nearly JD 10 million for a group of industries accounting for 29.2% of the value added in the SME sector. If the sample is representative of the general structure of the SME sector, Jordan is wasting roughly JD 34 million per year, maintaining the existing structure of industries.

4. An Agenda for Reform

4.1. A uniform set of incentives and institutional reform

In order to enable the Jordanian SME sector to realize its full potential, its overall competitiveness must be increased by a package of measures that will restructure the incentives facing the sector as well as offer institutional support to overcome some of the long-standing structural weaknesses. The restructuring of incentives would involve creating a uniform non-discriminatory set of incentives across different sub-sectors (or product lines) within the SME sector. Such a restructuring of incentives, complemented by a reform of the investment licensing system, would allow resources to flow to more efficient firms (or product lines) at the expense of less efficient firms, thereby increasing the competitiveness of the SME sector.

To increase the competitiveness of the SME sector, the restructuring of incentives must be buttressed by improvements in institutional support for: export promotion; facilitating efficient import substitution; improving quality and standards; and improving the availability of credit. In the short run, the package of measures would result in higher levels of capacity utilization in efficient firms, and could involve closures of some inefficient firms. In the medium/long-term, new firms could emerge, some of which could become competitive exporters.

The measures needed to restructure the SMEs could be grouped into two broad categories, as listed below:

**Measures to alter the incentive structure**

(i) Remove tariff exemptions for selected institutions
(ii) Replace QRs by tariffs
(iii) Reduce the level and variation in the tariffs
(iv) Reduce the scope of the investment licensing system
(v) Simplify the Encouragement of Investment (EI) Law

**Measures to improve institutions**

(i) Improve institutions for export promotion
(ii) Improve institutional arrangements to promote efficient import substitution
(iii) Improve institutional support for improving quality and standards
(iv) Improve the working of financial institutions

The whole question of the time frame over which these reforms can be implemented has not been discussed. Clearly some reforms such as removing tariff exemptions could be carried out quickly, whereas others, such as reforming the tariff code, could take two to three years.
4.2. Measures to alter the incentive structure

4.2.1. Remove tariff exemptions for institutions

For any commodity bearing a tariff, exempting selected institutions from paying this tariff differentiates the price of this commodity to different consumers without any economic rationale, and also places the domestic producer at a disadvantage vis-a-vis imports for a large segment of the domestic (import substitution) market.

An example could best illustrate the above phenomenon. On the one hand, overall imports are paid by the refinery (or its workers), and it does not pay the scheduled customs duty of 58%. On the other hand, a Jordanian manufacturer of overalls pays the scheduled customs duty of 28% on the cloth, even if the final product is destined for the refinery. (The argument, however, does not apply in the case of non-competing imports such as oil which are also exempted from tariffs). Given that almost half of total imports come in without tariffs, the domestic manufacturer is placed at a disadvantage vis-a-vis imports in a large segment of the domestic market.

Thus, there is a strong case for doing away with tariff exemptions for competitive imports. This would offer a more uniform structure of protection to domestic producers, expand the market for import substitution and increase budgetary revenue.

4.2.2 Replace QRs by tariffs

The QRs have a significant impact on protection, and there is a real danger that their use will increase as domestic industry faces shrinking markets. The increase in QRs should be stopped and an attempt should be made to replace existing QRs by tariffs. There are three reasons why tariffs are preferable to QRs as an instrument of protection. First, unlike tariffs, which place a ceiling on the price of the domestically produced good, the maximum impact of QRs on prices cannot be predicted. Therefore, the policy-maker is not sure of the maximum possible increase in the cost to the consumer. Second, QRs deny revenues to the government; and third, importers in Jordan cannot be responsive to changes in international prices. Thus, there is a strong case for replacing existing QRs by tariffs. The government, however, should retain the existing mechanisms to examine complaints of unfair trade practices and dumping where a system based on tariffs and import surcharges may be inadequate.

4.2.3. Reduce the level and variation in tariff levels

Increasing tariff levels for selected products of the SME sector during the past two years has placed a heavy burden on consumers and increased costs to downstream industries. These increases have come about on a case-by-case, and have added to the complexity of the tariff code. High tariffs have also accentuated the anti-export bias within the tradable sector by encouraging the production of import substitutes over exports.

High levels of protection are probably necessary in the case of an infant industry or a sharp recession such as the one faced by Jordan in 1983. However, in both cases, the protection offered should be temporary and should be reduced after allowing the industry the necessary time to make the needed adjustments. Given that the economic recession and the protective tariff structure have applied to Jordanian industry for at least the past three years, we believe that the average level of tariff could be reduced. The reduction in tariffs should be accompanied by a uniform tariff structure. This would equalize the effective rates of protection across different activities within industry, and thus allow resource allocation to be guided by efficiency considerations rather than by an externally-imposed tariff structure.

4.2.4. Reduce the scope of the investment licensing system

There are four arguments advanced by government officials in favour of maintaining the licensing system in its present form. First, the licensing system was useful in advising prospective investors about general market conditions. Second, it was necessary for "statistical" purposes to keep track of developments in the SME sector. Third, it could be used to stop projects that did not have a chance to succeed and be profitable. Finally, it is easier to stop investment in weak projects than to deny tariff protection or/and subsidy at a later date when the project is unprofitable.

The use of an investment licensing system for advising prospective entrepreneurs about general market conditions and for statistical purposes is legitimate. In fact, this function of the Department of Industry should be strengthened considerably, by making up-to-date reports on market conditions and on government policies available to potential investors. It is, however, hard to see the value of the licensing system as an instrument to regulate market entry on the basis of likely profitability. It is impossible for government officials to have a better assessment of business opportunities than the entrepreneurs themselves, and even if they did possess such knowledge, the advantages of free market entry and the competitive pressures it generates on reducing cost would outweigh any dislocations caused by closing down of firms.

4.2.5. Simplify the Encouragement of Investment (EI) Law

A reform of the EI Law is desirable to do away with the discretionary aspects, and reduce the administrative and information demands of its implementation. The existing complex system of awarding benefits could be replaced by the following two measures: (i) place a zero or a very low uniform tariff rate on all capital goods; and, (ii) allow profit tax exemption to all projects in specific sectors for a fixed period from the time of issue of the license.

The two measures would do away with the complex administrative machinery set up to define and implement the law in its present form in three ways. First, the whole process of defining a project as an EP or an AEP would be redundant. Second, a zero (or low uniform) duty on all capital equipment would do away with the need to administer the exemption of customs duties under the new law. Third, it would relieve the Ministry of Industry and Trade of the burden of administrating the profit tax benefit, which could easily be done by the income tax department as part of its routine work.

4.3. Measures to improve institutions

4.3.1. Improve institutions for export promotion

At present, efforts to expand export markets are almost entirely focused on expanding the scope of bilateral agreements with neighbouring Arab countries. While this will continue to be an important market segment, efforts need to be made to expand exports outside the region. There are three areas in which prompt action could help exports. The first is between the Ministry of Industry, trading houses and
the Commercial Centers Corporation (CCC). The responsibility of CCC, which now basically monitors the implementation of bilateral agreements, could be expanded to allow it to become the central institution in export promotion. Second, Jordanian exporters will need substantial marketing assistance if they are to expand beyond the regional markets. This could take the form of setting up a service to provide information and process inquiries. The government should also consider offering incentives such as tax breaks to trading houses engaged in exports (currently, only firms which produce for export are exempt from income tax). Third, the creation of an export credit guarantee scheme (discussed fully in Section (iv)) to cover the country’s risk would be useful in promoting exports.

4.3.2. Improve the institutional arrangements to promote efficient import substitution

An analysis of the purchases of major public sector undertakings revealed that a large number of imported products could be produced domestically by the SME. Work clothing, nuts and bolts, V-belts, hydrazine, process hoses and simple gaskets are some of the imported items which, in principle, could be produced efficiently in Jordan. Though our discussions with purchasing managers, we identified the following reasons why domestic industry has not been able to penetrate this market. First and most important is the system of tariff exemptions for these undertakings which has been discussed before. Second, there appears to be an absence of an effective dialogue between the SMEs and large industry. Therefore, there is a need for public intervention to assist with the dissemination of marketing information. The government could help create and operate a central facility for recording the purchasing requirements of large industry for the benefit of potential suppliers in SMEs. Similarly, the membership of the existing joint committee on spares of phosphate, potash and fertilizer industries could be expanded to include representatives of the small and medium engineering industries. Third, the large industries could be discouraged from expanding into ancillaries whenever they are more cheaply available within the SME sector. For example, activities such as LPG cylinders (reﬁnery) and recycling of centrifugal phosphate ﬁlters (phosphate mines), currently located within the large industries, could be spun off or sold, thereby expanding opportunities available to the SME sector and improving efﬁciency of the industrial sector as a whole.

4.3.3. Improve the institutional support for improving quality and standards

The poor quality of Jordanian products is often pointed out by government ofﬁcials as a key factor behind poor export performance. Quality control is carried out today mainly by the Bureau of Standards at the Ministry of Industry, and some testing by the Royal Scientific Society. These institutions need to be strengthened and should offer testing and a standardized certiﬁcation assuring quality. It is important, however, that testing is not made mandatory. Both certiﬁed and non-certiﬁed products should be allowed to be sold in the market, and it should be left to the supplier and the customer to decide on a premium paid on certiﬁcation.

4.3.4. Improve the flow of credit to SMEs

There are three areas in which the working of ﬁnancial institutions could be improved. The ﬁrst is the banks’ capacity to assess risk and carry out effective pro-

ject financing; the second is the paucity of sources for venture capital; and the third is the existing arrangements for export ﬁnance.

We expect the Industrial Development Bank (IDB) to continue to be the central institution in providing medium and long-term loans to SMEs. The following reforms, however, could help the IDB as well as other ﬁnancial institutions to lend to projects on the basis of a proper assessment of risk rather than on the basis of collateral or government guarantee:

(i) The government could consider allowing the ﬁnancial institutions some ﬂexibility in setting lending rates. This could enable them to charge higher rates for riskier ventures and lower rates for less risky ventures, thereby improving access to credit for small entrepreneurs without collateral.

(ii) The government could help create a guarantee scheme for SME project loans. This would contribute to relaxing the present collateral requirements as well as reducing the pressure for larger spreads.

(iii) The Central Bank of Jordan (CBJ) could establish rediscounting facilities available to all ﬁnancial institutions qualiﬁed for SME ﬁnancing. The use of this facility, however, must meet strict eligibility criteria to discourage large investors who have recourse to other sources of ﬁnancing, and to select new projects for exports and import substitution.

To improve the availability of venture capital to SMEs, the government, as a matter of policy, could direct the efforts of public sector ﬁnancial institutions towards higher risk, non-corporate borrowers. The Pension Fund (PF) and the Social Security Corporation, for example, could be encouraged to set aside part of their resources to provide venture capital. To achieve this objective, however, the two institutions will have to strengthen their project appraisal and supervision capabilities. Similarly, the government could clarify the relative responsibilities of the Small Scale Industry and Handicraft Fund (SSIF) at the IDB, and a parallel fund which is being set up at the Cities and Villages Development Bank (CVDB).

The third area where immediate action is required is that of improving the existing arrangements for export ﬁnancing. To begin with, the government should consider lowering the CBJ’s rediscount rate, or increasing the ceiling on the commercial banks’ lending rate, for pre- and post-shipment ﬁnance, by one or two percentage points. Our discussion with banking ofﬁcials indicate that the current spread of 1.5% is not attractive for most commercial banks. (Even margins of 3.5% to 4.5% in the case of Tunisia were considered inadequate by a World Bank study carried out in 1985). Although an increase in the spread would raise the implicit gross subsidy to exports, the subsidy would still be small compared to the protection offered to import substituting activities by the existing system of tariffs. The government should also consider establishing a national export credit guarantee agency to insure against risky importers and importing countries. Currently, exporters to Iraq and Syria are covered by special arrangements at the CBJ while other exporters have to rely on a Kuwait-based agency. Finally, the government should consider instituting the Domestic Letter of Credit (DLC) system. (For detailed discussion of the DLC System, see Yung Whee Rhee, “A Framework for Export Policy and Administration -- Lessons from the East Asian Experience,” World Bank, Industry and
PROBLEMS IN IDENTIFYING SMALL AND MEDIUM SCALE ENTERPRISES IN JORDAN

Comment by Mohammad Smadi

First, I would like to thank Dr. Sudhir Chitale for such an excellent paper, which analyzes in depth part of the industrial sector in Jordan with great potential. However, there are a few points which I would like to raise in these comments and which, I hope, would add to the paper and the discussion.

1. From a methodological point of view, while the paper addresses itself to an important sector and perhaps suggests a de facto strategy for industrialization in Jordan, it has failed to identify this sector and its characteristics; or, more in depth, to make an analysis of its linkages to the rest of the industrial sector and to the economy at large.

2. The paper seemed to have taken the concept of evolving SMEs for granted. It did not attempt to define the small scale vis-a-vis the medium scale enterprises, the characteristics of each and their importance in the context of Jordan.

Clearly, there is no such thing as the “typical” small enterprise, even within a single country. What is considered to be small in an industrialized mature economy may not be small in a developing country. Yet, worldwide analysis indicates that there are certain characteristics that such enterprises share:

(i). The number of workers. The World Bank considers those establishments with fewer than 50 workers engaged in manufacturing activities or related to repair-work to represent small-scale industries. If we consider this in the case of Jordan, then one may ask, what are the medium or large scale industries? Certainly, the answer would have certain policy implications.

(ii). Other developing countries' experiences show that most industrial firms are located in rural areas. Is this the case in Jordan? And if not, why and how can we utilize available instruments to make it happen? Virtually all of these small enterprises are privately owned and organized as sole proprietorships. Proprietors and family workers generally form the largest components of SMEs.

(iii). It seemed to me that the author accepted the need for adapting a strategy to develop SMEs, yet the paper made no effort to present an argument for or against SMEs. Moreover, since it is a case study for Jordan, I believe it would have been appropriate to develop that argument within the Jordanian context. Drawing on other developing countries' experiences would have enhanced the argument as well as the policy options.

(iv). In analyzing the QRs, the paper showed that the macroeconomic impact of QRs is small (4% of total imports), yet they affect the chances of survival of 40% of the SME sector. However, while the analysis made it clear that QRs are important and much needed, the paper did not analyze their long-term impact on the structure of the sector itself.

(v). I took notice of the implicit support the paper gave to Jordan's protection policy. This was clear by the fact that the analysis revealed that distortions are likely to

References
(1) Dar Al Handasah, "Industrial Programming Study," Task 1.17 Amman, March 1982
be fewer in 1987 than in 1985. Again this may be true in the short term, but the question remains, what about the long term?

3. In its recommendations for the improvement of the flow of credit to SMEs the paper rightly identified the main areas in which the work of financial institutions could be improved, namely: bank capacity to assess risk; paucity of sources of venture capital; and existing arrangements for export finance. However, it seems to me that the recommendations stood prisoner of the current structure, and failed to suggest any innovative credit schemes, particularly in the area of venture capital.

Looking at the situation in Jordan, and if I were to rearrange the emphasis on the measures needed to improve the role of the SMEs, I would have put them under three categories:

- Structural changes in the incentive system.
- Institutional improvement.
- Financial innovation.

thus laying greater emphasis on the availability, channels and new means of credit flows to SMEs.

SMALL AND MEDIUM SCALE INDUSTRIES IN JORDAN: ADDITIONAL ASPECTS

Comment by Samir Radwan *

It is difficult to do justice to this excellent paper in such a short time. Ms. Chitale’s paper, based on a World Bank report published early this year(2), provides a new data base on a hitherto neglected area, medium and small scale industries (SMIs)(3). It also tries to examine the constraints on continued growth; identifies the causes of inefficiencies wherever they occur; and, finally, presents a recipe of reform suggestions. The latter spans two basic areas: (i) measures to alter the incentive structure; and (ii) measures to improve institutions. The main conclusion of the paper is that the SME sector in Jordan, which has grown very rapidly in recent years, is now facing a number of problems that relate mainly to the system of protection which leads to the transfer of resources to otherwise inefficient activities. The paper also points out that the future growth of SMIs requires the removal of such constraints.

I find myself in agreement with the broad lines of the study and its conclusions. However, I feel that some important aspects have been missing from our debate so far, and I shall limit my comments to these aspects.

The first area concerns the relationship between the macroeconomic framework and the performance of SMIs. Our discussion of the competitiveness of Jordanian industry could have been much more useful if we had placed the issue in the macroeconomic perspective. This is important since it helps us to understand the broader factor that affects performance. Thus, if we take the last four decades of Jordan’s economic history, we can distinguish three phases, each of which witnessed a certain pattern of development:

(i) 1950s to mid-1970s, the period of traditional economy. This economy depended mainly on agriculture/livestock herding; industry was limited to mineral extraction, and contributed very little to GDP and employment.

(ii) Mid-1970s to 1982, the boom economy. This period was characterized by rapid growth (GDP growth rate of 10% per annum during 1977-82). The main sources of growth were increased investment due mainly to remittances and the boom in the construction sector. It was during this period that SMIs grew very rapidly (GDP in this sector grow by 18% p.a. during 1977-82). This performance was basically due to two factors. (a) increased demand for the products of SMIs from agriculture, construction and consumer demand for domestic goods and (b) a favourable policy environment providing protection, infrastructure and bilateral trade agreements.

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(2) In this article, the term medium and small industries (SMIs) is used instead of the term medium and small scale enterprises (SMEs).
(iii) 1982 to present, the recession years, characterised by a slowdown of growth (GDP growth rate of 3% p.a. over 1983-86). The SMIs sector was no exception, as its growth declined to a mere 1.7% p.a. A number of factors continued to shape the crisis in this sector: (a) the narrowness of the market, especially after the recession in the oil producing countries (three such countries, Iraq, Syria and Saudi Arabia, accounted for 90% of exports); (b) competition from imports, and (c) lack of linkages between large industries and SMIs. At present, the SMIs stand at crossroads and are facing growing problems (excess capacity, for instance, is estimated at 40% on average).

This periodization helps us to put into perspective the present crisis of SMIs. This is important because even if Jordanian industry is efficient at the micro level, macroeconomic factors may be detrimental to this sector. Moreover, it emerges very clearly that when macroeconomic factors were favourable, SMIs performed very well, and responded positively within a very short period of time.

The second missing aspect from our debate relates to employment and the labour market. Jordan, with one of the highest rates of population growth (estimated at 4%) and a rising participation rate, has experienced an increase in the numbers of new entrants to the labour markets. In the past decade or so, a good proportion of this increase in the labour force has been absorbed by emigration to oil-producing countries (some 10-15% of the labour force is estimated to be working abroad). As a result of return migration and an increasing rate of unemployment, the prospects for the future point to the need for increasing employment-promotion activities if rising unemployment is to be avoided. According to ILO projections, the labour force of Jordan may increase from 799,000 in 1985 to 2,291,000 in the year 2010. Most of this labour force is with us now. All this points to the crucial role SMIs will have to play in employment creation, given the low employment intensity of large industries and the limited possibilities of increasing labour absorption in agriculture.

A third aspect that needs to be highlighted relates to the impact of the pattern of income distribution on demand for both domestic production and imports. The boom years created a pattern of income distribution conducive to a pattern of demand which is import-intensive. Improvements in equity may increase the internal market for the products of local SMIs. This issue will acquire growing importance in the coming years.

Another factor to enlarge the internal market for SMIs is increased linkages with both large industries (through sub-contracting) and with agriculture (through rural industrialization).

Where do we go from here?

Taking a forward look, one conclusion emerges very clearly: SMIs have to be given every opportunity to recover and to grow if unemployment is to be reduced. The crucial question is: How to do it?

Here are a number of suggestions:
(i) The role of the state: Aim at striking a balance between the role of the market and the function of enlightened public policy. In this respect, I must emphasize the case of "infant industry" protection to continue for efficient SMIs. After all, these enterprises are nascent, since they have grown over the relatively short period of the last decade or so.

(ii) Linkages: Measures should be taken to increase linkages with large enterprises and agriculture.

(iii) The regional dimension: Jordan's SMIs can only grow if access to regional markets were to be opened for their exports. No efforts should be spared to achieve this end, since this is the answer to the main constraint on the growth of SMIs -- the narrowness of the market.

Looking to the future, I am not alarmed by the problems that face SMIs in Jordan. These are typical of all processes of industrialization, with one difference: Jordan has achieved what it has achieved under extremely difficult circumstances, and despite them it has done very well so far. This is no call for complacency, but an attempt to recognize the limitations of national will in the face of a hostile external environment.
countries declined considerably during the first half of the 1980s. This decline took place in a period when foreign investment still expanded in a global scale. But an increasing amount of North-North investment flows has been taking place. Apparently, the developing countries became less attractive as host countries for foreign investment, compared to industrialized countries.

The second interesting aspect is the high concentration of foreign investment in quite a limited number of host countries. This concentration increased continuously during the 70s. While in 1970, the 20 largest recipient countries accounted for two-thirds of total foreign investment, their share had increased to 90% by 1983. Latin American countries, in particular Mexico, Brazil and Argentina, were the most important host countries.

By the early 80s, this picture had changed considerably. Latin America’s importance had diminished, as the flows to this region dropped by more than 50% from 1981 to 1983. By contrast, Asia, in particular South-East Asia, has gained as a target region. Its share in total foreign investment rose from 35% in 1980 to 54% in 1985.

These few figures clearly show how quickly foreign investment tends to react to the economic and political situation prevailing in different countries and regions.

Foreign investors’ motivations and strategies

An abundant literature exists on motivations of industrial firms to invest abroad and on their strategies of internationalization. For our purpose here, we will deal with some reasons or motivations underlying the decision of entrepreneurs to invest in foreign countries. The major reasons relate to three areas:

(a) access to resources.
(b) access to markets.
(c) access to production factors, mainly cheap labour.

Under the first group fall investments in mining and to some extent in agriculture (e.g. plantations). For Jordan as a country with limited natural resources, the second and third groups are of more interest than the first one. Access to foreign markets by export trade is often limited for several reasons related to political restrictions (custom duties and other important restrictions), and to product specific features (fresh products, special services, hard-to-transport goods, permanent relations to major clients [as public authorities] etc.). These restrictions and product features obstruct traditional export business and require, in general, closer entrepreneurial cooperation, for example a joint venture. The majority of joint ventures between European firms and partners in developing countries belong to this group.

Foreign investment motivated by access to cheap production factors, mainly cheap labour, but also a low level of industrial regulations like possibilities of multi-shift work, is highly concentrated in a few countries as well as in a few industrial branches. The most prominent examples are the clothing and garments industry, parts of the electromechanical industry (radios, television sets) and the optical industry (such as cameras).

The reasons mentioned above are the major prerequisites for any decision to invest in a developing country, but several other requirements also have to be met and concern:

(a) the political and administrative environment; and,
(b) the quality of the private sector.

As any foreign investment is a venture in a new and often not very well known environment, it is understandable that foreign investors react sensitively to potential risks. Normally, they will carefully assess the political and administrative environment of possible host countries.

Therefore, several socio-political preconditions have to be fulfilled in order to attract foreign investors. These conditions include a positive attitude towards private business, no excessive restrictions on transfer of capital and related flows (dividends), and non-discrimination of foreign investors.

Other barriers to be kept at a low level are regulations and procedures with respect to licensing, transfers of earnings, registration of property rights and the like. Especially for small firms and small projects, administrative procedures and related costs can be an important barrier. This does not mean that one is asking for a regulation-free environment. If a European company invests in Europe, it faces considerable procedures and corresponding bureaucratic red tape. It is not so much the level of regulations which matters, but their stability and the fact that regulations are specific enough for an investor to be sure to get the required permits and authorizations if he complies with specific rules. Administrative flexibility, which is sometimes asked for, can be a considerable risk, if the authorities granting licenses are not bound to pre-set, clear criteria. Some empirical research in Germany showed that difficulties to anticipate and foresee administrative decisions are a considerable hindrance for small and medium sized firms to start foreign cooperation.

Of course, economic policy can provide incentives to foreign investors. For instance, tax exemptions or subsidies can certainly encourage investors, as they reduce the cost of the planned project. Without denying the importance of these incentives, normally they can hardly compensate for the existence of major investment barriers. For example, if the protection of property rights, like patents or trade marks, is not assured, and if legal procedures cannot be enforced -- or only at very high cost, because of complicated and time consuming legal procedures -- it will be difficult to attract investors bringing high technology, even if tax holidays and similar advantages are provided.

To sum up, there has to be a sound economic reason for the foreign entrepreneur to start any cooperation -- a reasonable chance for profitable access to the market, profitable access to resources, or profitable access to production factors. This is the absolute prerequisite for any profitable foreign engagement. Then, there has to be a relatively positive environment and absence of major barriers at the political and administrative level. Finally, investment decisions may be encouraged by incentives, but they cannot compensate for the lack of a sound economic reason or for major political and administrative barriers.

2.2. Some recent trends -- the emergence of new forms of industrial cooperation

Host country policies and their impact on foreign investment

The controversial discussion on the true costs and benefits of direct foreign investment is accompanied by a policy of many developing countries to limit and to regulate foreign investment. The purpose of such a policy in most countries was not to discourage foreign investment, but to regulate entry as well as firms' behaviour. It includes the establishment of government boards for screening and registering foreign investment, the imposition of local integration and export performance requirements, limitations on profit remittances, exclusion of several sectors for foreign investors, control of foreign take-overs of local firms, and the restriction of foreign equity to minority positions, to mention some common policy measures.

From the industrialized countries' point of view, this meant a deterioration of the "investment climate," resulting in a lower level of foreign investment compared to the one in the absence of such regulations. It is not our purpose here to make a general assessment of those changes. At any rate, several studies show that foreign companies, by and large, were able to adapt their strategies to these policies. This is reflected in an increasing use of "softer" forms of foreign involvement than the wholly or majority owned subsidiary, the traditional form of direct foreign investment. The investment motivations previously discussed therefore can be achieved not only by foreign investment, but also by other contractual forms of industrial cooperation. These include minority holdings, licensing agreements and service contracts, subcontracting and co-production arrangements.

Varieties of foreign investors' strategies

These contractual forms of non-equity cooperation are more frequently used, not only as a defensive reaction or "second best" solution to adapt to restrictive host country regulations, but also for firm specific reasons. In this context, a survey carried out in Germany clearly indicates considerable changes in the forms of foreign involvement German companies were planning. The survey investigated the relationship between direct foreign investment, on the one hand, and other non-equity forms of cooperation, on the other.

The following graph summarizes the results.

<table>
<thead>
<tr>
<th>Direct Foreign Investment and Non-Equity Cooperation</th>
<th>Status and Prospects</th>
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<tbody>
<tr>
<td><strong>Industrialized Countries</strong></td>
<td><strong>Developing Countries</strong></td>
</tr>
<tr>
<td>last 5 years</td>
<td>last 5 years</td>
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<tr>
<td>coming 5 years</td>
<td>coming 5 years</td>
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<tr>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>50%</td>
<td>41%</td>
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<td>23%</td>
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<td>39%</td>
<td>37%</td>
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<tr>
<td>38%</td>
<td>53%</td>
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<tr>
<td>Total of responding firms</td>
<td>238</td>
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<tr>
<td>481</td>
<td>211</td>
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</table>

Source: Ifo-Institute, Munich 1988.
The survey clearly shows that foreign involvement in industrialized countries as well as in developing countries will rely less on direct foreign investment. Instead, a growing importance of non-equity forms of industrial cooperation is to be expected. This general preference for non-equity cooperation supports the argument that non-equity cooperation is not so much the result of an adaption to host country regulations, as it is the result of firm and industry specific reasons.

Two examples may show some of these specifics. In the clothing industry, there was over the 70s a strong movement of redeployment, including location of plants into countries with cheap labour, no restrictions on multi-shift work and other such factors. This relocation took place in the form of direct foreign investment, normally in a wholly or majority owned subsidiary company. Recently, we can observe that alternatives are used. Subcontracting and co-production agreements are becoming more and more popular in this industry: first, co-production on a contract basis allows one to shift more easily to other locations, if relative advantages change. Second, more and more qualified manufacturers are available as partners in developing countries. This allows firms to concentrate their resources on entering new markets, developing brand names, design and new models or research on new material, while production work is subcontracted.

In engineering industries, firms increasingly make intensive use of their technology and speed up entry into new markets: because of shorter life cycles of products, new developments make products and processes obsolete within shorter and shorter periods. Many firms lack their own resources to carry out all entrepreneurial functions such as research and development, marketing and production. Therefore, they are not in a position to invest in foreign production facilities, but they are able and willing to cooperate in other ways, for example under a licensing agreement.

To sum up: Direct foreign investment is not the only form in which entrepreneurial functions and know-how are transferred. The industrialization policy in developing countries, therefore, should not be limited to attracting direct foreign investment, but also should pay attention to other forms of industrial cooperation.

2.3 Preliminary conclusions on potential partners for Jordanian businessmen

Jordanian businessmen will find foreign partners for industrial cooperation under the following conditions. First, there has to be a business opportunity for the foreign company. Without the opportunity to make profits through cooperation, no foreign partner can be expected to show any interest.

Second, one has to understand the form of cooperation the foreign partner is likely to prefer. This preference is related to firm specific reasons (assessment of opportunities, availability of resources). The flexibility to shift from one form to another is often limited. A company interested in a licensing agreement may not be ready to go for a joint venture, and vice versa.

Third, the motivation for an increase of international cooperation should not be understood mainly as a profitable transfer of resources from the North to the South, but as a sharing of resources and a combination of each partner's strengths. Therefore the ability and the strengths of the partner in the developing country are of prime importance.

Fourth, in order to implement cooperation, foreign firms will assess the political and administrative environment, because all procedures involve risks or costs. This assessment will, of course, include special advantages and incentives.
or a joint venture. Such cooperation is quite different from any ordinary sale or purchase. The foreign partner will accept to share his technology only in exchange for opening to him new opportunities, in most cases access to markets.

In addition to technology, many Jordanian industrialists require partners to gain access to new markets. The low level of exports indicates the difficulties Jordanian firms have in entering new markets.

Indeed, the requirements for foreign cooperation can be met by foreign partners but what the Jordanian partner has to offer in exchange will determine if industrial cooperation is to materialize.

3.2. What Jordan offers

We have tried to show that cooperation will only materialize if the foreign partner sees a clear benefit for him as a result of such cooperation. Therefore, it is useful to have a quick look at what Jordan has to offer.

What can the Jordanian industrialist offer to the foreign partner he is looking for?

The first case to be discussed is access to the local and regional Arab markets. If a Jordanian firm is looking for a foreign partner for know-how, the first and by far the most important question from the foreign partner will be "What is the market?" As the local market is small, the Jordanian will be an attractive partner only if he can provide access to regional as well as local markets. As we are living in a competitive environment, he has to provide better access than the foreign partner already has or can get through a normal agency agreement.

The second case to be discussed is access to foreign markets in exchange for access to cheap production. Here, the Jordanian industrialist is looking for a foreign partner who provides him with access to new markets in the region or elsewhere. This will be attractive for the foreign partner only if the Jordanian partner can provide more efficient production facilities than others in the region who may seek the same type of cooperation. It is important to keep in mind the competitive environment in which cooperation takes place.

In addition to what the Jordanian industrialist can offer, there are, of course, other factors affecting industrial cooperation. Two of these factors are:

(a) The location of the country; and,
(b) The political and administrative environment.

These factors are closely related.

Economic policy in Jordan was traditionally open to foreign investment. Foreign investment is not only allowed, but welcomed and encouraged, and there are no major restrictions on foreign investment.

As far as administrative procedures are concerned, a first, and to some extent superficial, over-view confirms the positive attitude towards foreign investment. Nevertheless, in the business community one can hear complaints about long procedures involving red-tape which does not seem to be always necessary. Therefore, it is certainly useful to evaluate administrative procedures, to streamline them, and to make it easy for an investor to anticipate administrative decisions.

This open environment, together with the geographical location, makes Jordan an interesting place for cooperation, not only for the local market, but also for the region. This advantage is supported by several other factors, like the availability of a well educated work force and the highly developed infrastructure, among others.

There is little doubt that the regional location, the availability of production fac-

tors (manpower, infrastructure, etc.) and the political and administrative environment make Jordan an attractive place for cooperation. Discussions with foreign industrialists show that they recognize these positive facts. But there are some facts which are assessed as negative, reducing this attraction.

We will list here some frequently mentioned obstacles: The general political situation in the area makes foreign industrialists hesitate to take important steps for any cooperation. In addition, there are doubts on the usefulness of choosing Jordan as a production location for regional markets: Trade relations within the region show high fluctuations (in total volume, but also product-wise) and they depended in the past, at least to some extent, on the quality of political relations. Trade agreements providing specific advantages are negotiated on an annual or biannual basis, which is insufficient for long-term decisions. Increasing cooperation within one group of countries (Gulf Cooperation Council) aiming at a common tariff structure has some negative implications for an outsider like Jordan. The point of the competitive environment we have stressed above also applies here. As a location for production in the region, Jordan is in competition with other countries, like Egypt and Turkey. Compared to those two countries, Jordan has relative advantages, but so do they.

3.3. Preliminary conclusions on Jordan as a partner country

Concluding this chapter, it is worth noting several positive factors. First, Jordan has some locational advantages to attract foreign industrial cooperation. This attractiveness is backed by a well developed infrastructure and a skilled work force, to mention only two factors. On the other hand, one has to recognize that these advantages are offset by several negative factors. These advantages or positive factors are not strong enough to attract a significant level of foreign cooperation and, in particular, of foreign investment.

It also has to be noted that industrialists in Jordan are aware of the requirements for industrial cooperation and of the benefits they can expect from it. But in most cases, they are not prepared to offer enough to their partners. Sometimes, they do not seem to be aware that this explains the potential partners' hesitant attitude. Industrialists looking for industrial technology are rarely proficient enough in marketing to make cooperation attractive to the foreign partner.

4. Basic strategy to enter international cooperation

4.1. The gap and its features

Parts one and two of this paper explain to some extent the low level of international industrial cooperation between Jordanian and foreign firms. Looking at the main reasons motivating industrialists to invest in foreign countries, and in particular in developing countries, it is obvious that by and large these conditions are not met in Jordan. The country lacks a large domestic market, huge natural resources, and cheap production factors. This explains why no spontaneous or automatic inflow of foreign investment can be expected.

Fortunately, the foreign investor may well be attracted by initiatives from the partner's side, in our case from Jordanian businessmen. Even if not much initiative can be expected from foreign companies, their reactions to initiatives coming from Jordanian companies do not need to be negative. Therefore, initiatives should be prepared by Jordanian firms, who should market the idea of Jordan as a host country for joint ventures and other forms of international cooperation.

Marketing in the narrow sense of public relations alone is not sufficient. It should
be backed by efforts to improve all the other factors influencing industrial cooperation mentioned above. Of course, neither the public nor the private sector can control the totality of these factors, but many can be improved.

4.2. Measures to improve foreign cooperation

In dealing with measures to improve foreign cooperation emphasis should be put on the private sector, for several reasons. First, the private sector is the main actor in creating business opportunities. Second, on the political and institutional level, Jordan has already started many activities to make the potential of the country known to foreign business communities. Third, in my opinion short-comings or a lack of attractiveness of the private Jordanian partner can barely be compensated by investment promotion at the institutional level and by other incentives for cooperation.

These are very important to get a project off the ground, but only after the business opportunity has been clearly perceived by the Jordanian and foreign industrialists. Therefore, efforts should concentrate on this issue.

In my opinion, the basic question which needs to be answered is: “How does one attract a foreign businessman to cooperate and to invest in Jordan?” As no spontaneous inflow of cooperation and investment is to be expected, a considerable amount of preparation has to be done by the Jordanian promoter interested in finding a foreign partner.

Without going into many details, the preparation to make a project attractive to a foreign partner involves the following steps:

(a) Development of the project idea (the product and the market).
(b) Pre-feasibility assessment, including a preliminary study of the market, product design, production process and requirements for production (equipment, raw materials, labour, etc.).
(c) Assessment of the Jordanian promoter’s strengths and qualifications to carry out such a project.
(d) Identification and assessment of inputs required from a foreign partner; definition of the type of cooperation sought, and of the commitment the foreign partner should make and the risks he should share.
(e) Evaluation of the promoter’s offer to the foreign partner, i.e. the specific advantages of the Jordanian input in exchange for the foreign input.

To mention these points does not mean that a big study involving considerable paper work has to be done for every project. But it means that the promoter of any project has to have a clear understanding of these very basic points.

As steps (a) to (c) have to be carried out for any new industrial activity, it is not surprising that without them it will not be possible to get any reaction from potential partners. In addition to the basic steps (a) to (c) the Jordanian promoter should clearly work out what he needs (d), and what he has to offer (e).

In many cases, the results, after going through these steps, may be discouraging. The following example may illustrate this. Let us suppose that the results of steps (a) and (b) are positive. Let us further suppose that the technological input can be identified in a field where some foreign readiness to cooperate can be anticipated. The Jordanian promoter has a good sales record in the local market, but only occasional experience in exports to neighbouring countries.

Now let us assume the following reaction from the foreign partner: He has the required technology and transferring it would not involve high cost (preparation, documentation, adaptation). Planned production and sales would also reach break-even point if the project gets a considerable share of the local market. This would allow him to expect reasonable earnings through a licensing fee and through profits, if he takes equity. This would be the basis for a positive decision. But now let us assume some negative facts, too. The Jordanian businessman’s weakness in production is a potential danger for the licensor’s reputation (in particular if his brand names or trade marks are used). To improve production efficiency would involve costs and reduce expected profits. Therefore, the foreign partner hesitant to enter into such a close and more complex relationship. Also the lack of export experience limits the project to the local market, thus making it more vulnerable to competition from imitators.

In this case, it is understandable that the foreign partner will probably abstain, although the Jordanian partner has fulfilled all the requirements to plan for foreign cooperation. The reason is the lack of strengths and abilities of the local partner. It cannot be emphasized enough that any foreign industrialist is interested in a strong partner providing him with opportunities; he would not be able to proceed without such a partnership. The conclusion is a modest one: The key issue is the upgrading of entrepreneurial skills in Jordan.

Any improvement has to concentrate on two areas:

(a) ability to export, in particular to the countries of the region; and,
(b) efficiency of production.

It is obvious that both issues are related to industrial policy in general. It is not the purpose of this paper to make an assessment of economic policies affecting the industrial sector. Nevertheless, a few points should be mentioned.

The protection granted to some of Jordan’s industries may have some immediate benefits for them. However, it is questionable whether this offsets considerable negative aspects. First, protection rarely has been an instrument to encourage efficiency in production; and second, protection, like any other form of support, has its price, whoever has to pay for it -- the consumer or downstream industries. This means that protection requires resources which are not available for other (maybe more efficient) uses.

A policy bringing about a more competitive environment may encourage and enforce more efficiency within the private sector, and provide the basis for stronger export orientation.

This, of course, sounds very similar to conventional textbook wisdom. Doubts are valid about the capacity of the private sector to react positively to such a policy. Therefore, it seems justified that in addition to an economic policy bringing about a more competitive domestic environment, some technical assistance should be provided to the private industrial sector. We can only sketch some features of such assistance. It should concentrate on:

(a) export marketing (including product presentation; knowledge of typical trade channels in major markets; information on usual requirements such as guarantees: delivery schedules and establishing contacts with potential clients).
(b) production efficiency: positioning of machines; work organisation; worker specialization; maintenance; quality control, etc.

The main purpose of this type of assistance should not be limited to the demonst-
ration of what has to be done, but also to how it can be done in the present situation. In many companies, the problem may not be the lack of awareness of possible improvements, but the inability to fight routine which prevents implementation of such measures.

Such assistance may put Jordanian companies in a better position in the local market in competing with imports, and it will enhance their competitiveness in foreign markets.

Of course, one has to admit that even these improvements are not a guarantee that foreign investors will be attracted; but without these improvements, it is very unlikely that they will be.

ANNEX

Definitions:

In this paper the term industrial cooperation covers all forms of entrepreneurial cooperation going beyond simple sales. In such cooperation partners share, to a variable degree, opportunities, resources and risks. Therefore, industrial cooperation is closely related to foreign investment.

Industrial cooperation includes the following operations:
- licensing agreements, providing the right to use patented inventions or non-protected know-how;
- management contracts, providing managerial skills and know-how;
- service contracts, providing services for exploration and exploitation of mineral resources;
- co-production and subcontracting, transferring production or part of production to independent companies.

Direct foreign investment is understood as establishment or acquisition of a production or distribution unit -- including capital participation in existing ones -- in developing countries. It does not include portfolio investment.

A joint venture is a direct foreign investment carried out with one or more partners. To be considered as joint venture partners, minority partners should have a certain level of influence on the jointly owned company.

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JOINT VENTURES BETWEEN BUSINESSMEN FROM JORDAN AND ABROAD

Comment by
Isam Bdeir

I am indeed privileged to have the opportunity to comment on this very important paper presented by Mr. Christian Pollak. I emphasize the importance of this paper because Mr. Pollak has been working in Jordan for about two years on identifying and advancing ways and means of economic co-operation between Jordanian and German businessmen, especially in the field of joint ventures. Therefore, his paper could be considered as a practical approach in finding possible solutions for the problems and obstacles which stand in the way of developing and encouraging joint ventures in developing countries, and in particular in Jordan.

Mr. Pollak demonstrates that developing countries which want to become more attractive for foreign investors have to provide profitable access to markets, to resources or to cheap production factors. They also have to present sound economic projects and show the investor the positive factors in the local environment. The paper pointed out that foreign investment during the 70s was mainly in Latin American countries; and in the 80s it shifted to South-East Asia, but very little came to our area.

Mr. Pollak points out that Jordan has reached a good and considerable level of industrialization, but with rather simple technology or no technology at all, except in a few fields. I quite agree when he emphasizes the fact that the country needs new industries with new technologies and new markets.

To be able to attract foreign firms, which are usually privately owned in industrial countries, Mr. Pollak stresses the fact that these firms need to find in the receiving country a private sector ready to carry the burden, and having the same interests and aspirations. He correctly leaves to the public sector the task of improving the technical base in the country by providing the needs of research, training, technical assistance, quality control and standards, guidance and other basic services of a public nature.

It is therefore suggested by Mr. Pollak that other methods of indirect contractual cooperation be chosen by Jordanian businessmen. These other methods are in non-equity cooperation, such as minority holdings, and co-production arrangements. Even though Mr. Pollak called them “second best” alternatives, I have three criticisms regarding this matter.

First, these forms of cooperation do not involve a flow of foreign capital investment into developing countries, and therefore they will not contribute sufficiently to the growth of these countries through the encouragement of local resources to generate local capital formation.

Second, foreign partners in these kinds of cooperation tend to limit the utilization of the facilities of the transfer of technology to the extent needed to exploit the local market only, by preventing the products from being exported to other markets.

And third, some of these methods usually limit the transfer of technology to the bare minimum, and sometimes involve no transfer at all.

I would like to point out that I personally had the opportunity of participating in the preliminary study, feasibility study and implementation of more than one industry in Jordan with foreign firms, one of them a German company. Fortunately, all are progressing quite well now. These projects were with minority equity belonging to the foreign partner and with his technical know-how.

In conclusion, I would like to agree with Mr. Pollak that most of the burden falls on Jordanian businessmen in that they should have full knowledge of the specifics of projects which are available for profitable investment, especially those which provide opportunities that the foreign investor would not be able to tap without a local partnership.

I would also like to emphasize the fact that a good effort should be made to improve our ability to export, and to raise our efficiency and standard of quality. Mr. Pollak did mention these two factors, as they are very important in encouraging foreign firms to become involved in Jordan.
Comment by
Saleh Al Azouni

(1) Mr. Pollak clarified the different aspects of cooperation in joint venture projects. When it comes to Jordan, he showed that diplomacy would be a determinant, and not only the economics of joint ventures. He spelled out all possible mechanics of such ventures, but not the economics of joint ventures in Jordan, i.e., the reasonable chances for profitable engagement. However, we may list those specific unfavourable factors which the foreign partner might face:
1. A domestic market which is small, and cannot provide access to neighbouring markets.
2. Natural resources are not many, and are not varied.
3. Cheap production factors are absent; while industry is a process of change, management problems cause highly skilled labour to be ineffective, while building and transport costs are high.

Those basic strategic gaps explain clearly why almost no inflow of foreign investment can be expected under the prevailing circumstances.

(2) Mr. Pollak’s paper has not dealt with the fields of cooperation from a structural point of view with respect to industry:
(a) Industry in Jordan is saturated and there are very few profitable industries that can be established.
(b) There are no possibilities of cooperation or joint ventures in:
- Strategic industries for defensive or other purposes;
- Electronic industries with advanced and changing technology;
- Industries that need a large amount of capital, such as steel industries, petrochemicals, and other ferrous and non-ferrous metals.

What, then, can be expected as possibilities for further cooperation?

Let us review briefly the historical facts of all forms of cooperation.

First, there is one and only one industrial joint venture, namely the Danish Dairy Project, which started with Jordanian businessmen and now is owned completely by Danish businessmen.

Second, trademark licensing. These only cover beverages, drinks, food items, soap and detergents. All technical know-how sold by the foreign licensor was formulatory guides, built on raw materials.

However, Mr. Pollak has detailed all the different necessary elements and measures for joint ventures. If these requirements are fulfilled, the prospects for joint ventures between businessmen from Jordan and abroad will improve.

AN INFRASTRUCTURE FOR UPGRADING PRODUCT QUALITY

THE ROLE OF STANDARDS AND SPECIFICATIONS IN INDUSTRIALIZATION

Hugo Eckeler and Arafat Al Tamimi

1. Main goals and benefits of national standards and specifications
2. Some general policy conclusions
3. Relation of the intended reorganization to national development policy
4. The Jordan Standards Bureau
5. Basic recommendations for metrology, standardization, quality control and testing which the JSB should take into consideration

1. Main goals and benefits of national standards and specifications

Industries can be successful in the long run only if they can manufacture and sell products which meet market needs in terms of quality and price. This is a matter of fact and daily challenge, in particular, for export companies which try to win and hold market shares against strong international competition.

Industrial programs – in traditional industrial areas as well as in dynamic developing countries – have to take this basic rule into account. The predominant task of any national industrial policy, therefore, is, to provide the economic and technical infrastructure to increase the quantity of production and to improve productivity and quality. Of prime importance is a strong infrastructure of standards and specifications, or, to use an equivalent and familiar technical term, metrology, standardization, testing and quality control (MSTQ).

It is hardly possible to determine the impact of standardization, metrology, and quality control on the economy in exact figures. But the influence can be easily seen from the fact that there is no industrial country in the world without an efficient standardization system.

What role do standards and specifications play in a country’s economy, and what are their main goals and benefits?

(a) Standards and specifications define the state of the art and make know-how reproducible and transferable.

This transfer is of special concern for those companies and countries which have only limited research and development resources. This means, however, that national standardization systems cannot be stand-alone solutions, with no insufficient links to the “outside world.” Quite the reverse. Standards and specifications have to be updated steadily to what is regarded as state-of-the-art at an international level.
No, or too slow an adaptation will lead more or less directly to a loss of competitiveness and to trade barriers between the different standardization systems.

This concern is of top priority in Europe at the moment. It is the declared target of the European Community to establish the so called “Internal Market 1992.” That means: no borderlines; no customs; and free trade between all EC member states. One prerequisite to reach this ambitious goal is, among several others, the harmonization of technical regulations, standards, and specifications. This shall be done by replacing the different national standardization systems, step by step by a uniform European one.

The “Internal Market 1992” with a market potential of 320 million people is expected to provide many growth opportunities for European industries. It is watched carefully also by non-European companies, and will interest Jordan, especially in the field of standardization.

(b) Standards and specifications stipulate quality requirements for products and processes.

The quality level of industrial production depends, to a great deal, on standards and specifications. And we have to stress the point again that, in the long run, industries can only run successfully if the quality of manufactured products is not below the international level. Inferior quality cannot be exported.

The quality data laid down in standards and specifications form the basis for quality tests and for quality certification. Without clear requirements, including tolerances and well defined testing procedures, there is no reproducible and reliable evaluation of whether a product has the desired quality or not. This is necessary, however, to assure acceptance and success of export products, and to protect people in Jordan against poor quality from abroad.

(c) Standards and specifications make technical components and processes compatible.

The disadvantages of missing standards or of different standardization systems from foreign countries are well known in Jordan. Incompatible materials, components and finished products increase the cost of national production, make operation and maintenance of technical equipment more difficult, and undermine the international competitiveness of the country.

A uniform standardization system would allow optimum utilization of available means, and is the most important prerequisite for an economic structure based on the principles of the division of labour, with its complex network of suppliers of materials and components and manufacturers of finished products. Modern industrial planning, and manufacturing concepts like just-in-time programs and their inherent cost advantages, can work only if there is standardized communication among the companies involved.

(d) Standards and specifications are part of the country’s legal framework.

Economic life, with its inter-relationship between persons and companies, needs certain rules which ensure legal security for all business partners.

It is the task of the government to establish appropriate requirements wherever necessary. Metrology and calibration systems are necessary to protect the consumer or other groups, which otherwise would not have a fair chance to pursue their legitimate rights and interests.

(e) Standards and specifications help to protect people and the environment against negative effects of modern systems.

Increasing industrialization has led to increased potential hazards for people and environment. To evaluate and reduce the risks as far as possible and necessary, certain hazardous machines, materials and finished products have to be approved and inspected periodically.

This is true for areas such as:
- safety of working conditions;
- environmental protection; and,
- health care.

This can be organized most efficiently, as experience from industrial countries shows, by laying down the fundamentals and focal safety targets in governmental directives. Technical details, however, should be dealt with in standards and specifications, which can be updated more easily by experts and representatives of all groups concerned, without the involvement of political parties.

2. Some general policy conclusions

What conclusions are to be drawn from these basic considerations for national industrialization policy?

(a) The strategic role of metrology, standardization, testing and quality control in industrialization has to be recognized, and, consequently, supported by the government.

Without this support from the top, no concept of standards and specifications has a chance of success. This is true, in particular, for the initial start-up phase of a new standards bureau, but also in the long run. The legal basis and the organizational structure of the national standards bureau must assure that continuous participation and control from the top are guaranteed. Delegation of this strategic task to the third or fourth political level, without sufficient leadership by the “top management,” will have a negative effect.

A national standards bureau must have sufficient independence and legal competence.

Enforcement of standards and specifications often meets resistance from groups and persons involved due to different positions and interests. A national standards bureau can run its business successfully only if it is independent, i.e. not subject to biased influence from specific groups like manufacturers, consumers or testing laboratories. And it must have the authority to undertake necessary actions to attain the defined standardization and quality goals.

(b) The establishment of standards and specifications requires the participation of all groups concerned.

Participation of all relevant groups would assure that the effects of new or modified standards and specifications are recognized in advance, and that the groups’ legitimate interests are taken into account. Professional input from experts shall guarantee that inherent technical organizational and social questions are assessed, and that adequate appropriate measures can be taken.

This requires communication with the cooperation of authorities, consumer associations, industry and trade, testing laboratories and other organizations.
involved. The participation of all groups concerned would assure optimum transfer of the know-how associated with standards and specifications, and is a prerequisite for their general acceptance and use.

(c) Metrology, standardization, testing and quality control need qualified personnel and adequate equipment.

A national standards bureau can play its role as a competent and recognized partner of industry only if it has enough qualified personnel. This refers to technical expertise as well as to overall management abilities. Of prime importance for the procurement of qualified personnel, among other things, are adequate salaries which should be equivalent to industry levels. This is appreciated in Jordan, for without attractive salaries, much personnel fluctuation and a steady outflow of expertise cannot be avoided.

Furthermore, in those areas where the national standards bureau has to conduct tests of its own, it needs modern technical equipment which has to be updated continuously.

(d) The national standards bureau should cooperate with public and private laboratories and standardization institutes abroad.

To utilize the available resources in Jordan and to avoid redundant capacities, public and private laboratories should be coordinated and used to conduct tests and material evaluation, and paid for costs incurred. This includes that these labs get accreditation and be supervised by the national standards bureau. Responsibilities and procedures must be clear to assure an unambiguous and efficient system.

Cooperation is also necessary with the standardization institutes abroad. Establishing a complete specification network like DIN. or others, with nearly 25,000 specifications, would certainly be too much for a country like Jordan. Against the background of the strong international tendency towards harmonization of standards and specifications, Jordan should identify and seize all opportunities to set up its own and/or to adopt recognized international specifications. The current European harmonization activities for technical regulation should be of prime importance for Jordan in this context.

3. Relation of the Intended Reorganization to National Development Policy

For the reorganization of the system of standardization, metrology and inspection to succeed, economic conditions and national development policy aims have to be taken into consideration.

The balance of payments in Jordan always shows a pronounced import surplus. Such balances are a true reflection of the financial impacts on the economy of the possibility of importing inferior-quality products, and conclusively demonstrate the need for quality control.

The high surplus in Jordan has substantially drawn down the nation's foreign exchange funds. This is a cause for concern, since the sources of income, such as transfer remittances by Jordanian nationals living abroad, among others, have been showing a slight downward trend in recent years, thus adversely affecting the economic situation. In response, the government decided to impose restrictions on imports.

To compensate for products no longer available in the market due to the restrictions, domestic industrial output in Jordan is being enhanced. This is expected to increase exports, and thus to improve the national balance of payments.

To enable Jordan’s industry to meet competition at home and abroad, assurance must be provided on the quality of products. There is an understanding among all the relevant Jordanian bodies that they rely heavily on a strong national system of standardization and quality control to define quality and safety requirements, and to contribute to the transfer of technology and know-how.

In addition, many national committees and foreign consultants have discussed the issue of MSTQ, and all identified the following:

- many activities in the field of MSTQ in Jordan;
- regulations and codes of practice, in addition to standard specifications by different ministries;
- many inspection organizations;
- many overlapping responsibilities and areas of competence;
- shortcomings in coordination and cooperation.

Therefore:

- a drastic increase in efficiency is needed;
- a concentration of activities is the only way to overcome the present difficulties;
- coordination and cooperation alone will not be sufficient; and,
- independence and stability of MSTQ activities are required.

These improvements are especially important because the complexity of the industrial structure will increase rapidly, and the dampening effects of the present economic situation are noticeable. Furthermore, in a relatively small country with limited resources and limited qualified manpower, a concentration of all efforts is necessary.

The opinion of the World Bank in this matter is as follows:

"Establishment of technical standards and specifications; developing information services on international standards, and assisting firms to comply with their foreign customers' standards; implementation of quality control and assurance procedures; metrology, calibration and testing of instruments; and servicing laboratories are badly needed."

The following facts show the importance of the independence of the JSI:

- Standardization is important for the whole economy of the Hashemite Kingdom, therefore, MSTQ should be within a neutral system, and looked at as reference for the country.
- Standardization is not administration. It is linked very much with research and development. Therefore, it should be linked with science and technology policies and research plans and institutions.
- Standardization has an interdisciplinary function, which should be included in the form of the organization.
- Standardization means to find consensus among the involved partners.
- Standardization in a small country with limited resources like Jordan should concentrate MSTQ activities in one body with a high degree of efficiency, to prevent duplication of work and equipment.

One can see that the present situation of quality control in Jordan is an administrative-oriented system, while what is actually needed is a product-oriented system, which would reduce time and effort expended.

With these considerations in mind, what should a Jordan National Standards Bureau look like? Due to gaps in standardization, metrology and quality control, government and private bodies in Jordan have increasingly emphasized the need for rapid and comprehensive progress in this field. The concept described in this paper is based on internationally recognized guidelines and procedures for standardization and quality control.

In addition, the authors have tried to take into account relevant economic, technical and social aspects of Jordan, as well as national development of objectives.

4. The Jordan Standards Bureau

To concentrate, strengthen and streamline activities in the field of standardization, metrology and quality control, which are now conducted by a variety of government and public/private organizations, a central and independent national Jordan Standards Bureau (JSB) should be established.

This institution should replace the Jordan Directorate of Standards (JDS), and be given responsibility for the following functions:

- Preparation and issuance of all national Jordanian technical codes and standard specifications, in cooperation with the relevant government and public/private organizations.
- Supervision and quality control concerning the fulfilment of requirements set forth in the above mentioned regulations, by means of technically and economically adequate procedures, in cooperation with the involved ministries and authorities.
- Conducting tests and examinations in the framework of the above mentioned supervision and quality-control, using its own facilities as well as other accredited laboratories.
- Promotion of safety and quality to protect the consumer and to raise the competitiveness of manufacturers and exporters in Jordan.
- Legal metrology and hallmarking of precious metals.

To reach these goals, JSB must have its own identity and must be financially and administratively independent from other government and public/private organizations.

5. Basic Recommendations for Metrology, Standardization, Quality Control and Testing, which the JSB should take into consideration:

(a) Standardization

The proposed standardization procedure is outlined in the following diagram:

```
APPLICATION FOR STANDARDIZATION

DRAFT PROPOSAL

DISCUSSION/REVISION OF DRAFT PROPOSAL

DISTRIBUTION OF DRAFT FOR COMMENT

DISCUSSION/REVISION AFTER COMMENT

FINAL REVISION

FINAL APPROVAL

PUBLICATION AS JORDAN STANDARD

Interested Person/ Organization

Competent Persons or Organizations Commissioned by JSB

Technical Committee

JSBto government, Public and private parties

Technical Committee

Director of JSB

Board of Directors of JSB

JSB
```

"Jordan Standards" could be developed as follows:

- JSB should have exclusive authority for the preparation and issuance of national technical codes and standard specifications in Jordan.
- Other ministries and authorities may issue safety and quality guidelines as they may deem necessary according to their responsibilities, but technical procedures, requirements and methods shall be set only in specifications issued by JSB, in order to establish a systematic and uniform Jordan specification network.
- Standardization must cover all relevant fields for Jordan, such as: safety of people, protection of environment, quality of products and services, specification of testing methods, etc. This should be done by establishing national Jordan standard specifications, or by recognizing other national or international specifications.
- For the preparation of draft proposals for standard specifications, competent government or public/private organizations or persons should be commissioned and paid by JSB.
- Specifications should be discussed by technical committees consisting of:
a chairman (competent person from government or public/private organization).
* a managing secretary (from JSB); and,
* members (representatives from the government, the private sector and technical institutes).
  - The board of directors must be authorized to declare the published specifications to be either obligatory or optional.
  - In case of justified complaints, the board can return the draft to the technical committee for further discussion, or can withdraw the standardization proposal.

(b) Quality Control and Testing
  The parties involved and their main functions of supervision, quality control and testing can be seen in the diagram below

- JSB should have authority and responsibility for
  * supervision of fulfillment of safety and environmental requirements set forth in specifications, in cooperation with the relevant ministries and authorities;
  * quality control of materials, commodities and services.
- JSB should have the power to delegate authority for taking samples and testing, within the legal framework of supervision and quality control, to other accredited laboratories (RSS, universities, private laboratories, etc.). JSB must establish adequate procedures for the accreditation and supervision of these laboratories.
  - It should be, in principle, up to the client to choose which of the accredited laboratories he uses for tests.
  - The laboratory must take over the responsibility for the correct conduct of the tests excluding premeditation and gross negligence. The responsibility and liability of these laboratories should be fixed in written contracts.
  - To have a clear operational basis for all parties, JSB must establish written procedures for supervision and quality control, stating the responsibilities of the parties involved, the documents and forms to be supplied, the type and number of controls, tests to be performed, etc.
  - The quality of some imported products which cannot be determined in Jordan should be tested in the country of origin. In such cases, the necessary quality control measures should be delegated to manufacturers' associations abroad which are accredited by JSB.
  - Notwithstanding the need for quality control in Jordan by an independent organization, it has to be remembered that the manufacturer/supplier is responsible for the quality of his products.
  - The data gathered in quality control, therefore, must be collected and evaluated systematically for feedback to manufacturers and standardization committees, as well as for revisions of the quality control procedures, aiming at a stronger involvement by manufacturers in quality functions.
  - For the collection and evaluation of quality control data a computer-based information system should be built up to rationalize and improve the work to be done, and to offer modern facilities for statistical evaluation and graph plotting of the data.
  - JSB should take over the relevant laboratories of other ministries in order to:
    * raise the efficiency and productivity of these laboratories; and concentrate on modern equipment and adequately trained personnel;
    * end duplicated responsibilities;
    * achieve a uniform and systematic basis for personnel, equipment and testing methods; and,
    * avoid idle parallel testing capacities.

(c) Institutional Linkage and Organizational Chart
  In order to fulfill the above mentioned important aims, and to fully utilize future and available facilities of the Higher Council for Science and Technology (HCST) in Jordan, the authors recommend the establishment of the JSB, attached to HCST, as one of its independent institutions or centres. A well-functioning and organized MSTO system is a vital base for continued economic development in Jordan. Therefore, the JSB would have a high rank in the government, and should have close relations and connections with all relevant institutions.

The authors would like to thank the GERMAN TECHNISCHE ZUSAMMENARBEIT and the GOVERNMENT OF JORDAN for making it possible to introduce this concept in Jordan.

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1. Description of quality assurance measures, results of tests, etc.
2. Accredited laboratories can be part of JSB or of other institutions such as RSS, universities, private laboratories, etc.
3. Samples can be taken by JSB or by authorized accredited laboratories.
STANDARDS AND QUALITY CONTROL IN INDUSTRIALIZATION

Comment by

Hassan Saudi

Allow me at the beginning of my comments to thank Dr. Eckselor and Dr. Al Tamimi for their presentation and for giving us a general idea about standardization activities and on how to establish a new national standards center. It was mentioned in the paper that it is very difficult to determine the impact of standards, quality control (Q.C.) and metrology on the economy in exact figures. This is true, and I feel that people working in the field of standardization are unknown soldiers, due to the fact that their work is not tangible for others. But we can feel the importance of standardization. If we look at the dates of establishing standards organizations in developed countries, we realize the extent to which these countries paid attention to this field, and the way they linked standardization with the progress of their industry, over the long period since the Industrial Revolution. For example, standards organizations were established in Great Britain in 1901; in Germany, 1917; France, 1919; U.S.A., 1918; Japan, 1921.

I was hoping that the paper would concentrate more on the role of industry in promoting standardization and Q.C., and on the question of urging technical staff from industry to participate more actively in formulating and preparing national standards -- since standardization and Q.C. work is not solely a governmental role, but can be the responsibility of the manufacturer.

Standardization and Q.C. are a concept and a system. I have a strong belief that without adopting and following such a system we cannot upgrade the quality of our products and compete in local and international markets.

The paper also concentrated on the issue of creating a new standards center in Jordan. In my opinion, this will not solve the problem of our industry. What we really need at this stage is to create a Q.C. and standardization department in every factory.

In conclusion, I think that private industry could play a great role in improving the quality of our products. This can be done by creating a Jordanian Society for Quality Control.

Let me apologize that, due to limitation of time, I cannot inform you about the activities of our Standards Department at the Ministry of Industry and Trade.
STANDARDS AND SPECIFICATIONS IN THE DEVELOPING ARAB COUNTRIES

Comment by
Hamed Alameddin

Before I comment on the paper presented by Dr. Hugo Eckeseler and Dr. Arafat Al Tamimi, I would like to thank them for their efforts on such a valuable and thorough study. In the introduction, the paper stresses the importance of standardization during the preparation of industrialization programs; but it fails to give examples to clarify such importance. The paper clarifies how standardization makes know-how reproducible and transferable. This, of course, is important for those countries with limited resources. It also states the fact that appropriate solutions and updating of standards could only be done at an international level, such as that in Germany and the European Community.

In my opinion, this explanation is good enough, but I think that there are priorities that should be considered. Above all, the expertise and know-how of neighboring countries should be benefitted from, whatever the level of existing expertise may be; and one should coordinate with these countries on the regional level, in order to be able to define the needs for foreign and international expertise.

Standards play a very important role in the protection of the consumer, and in upgrading the quality of products and the competitiveness of the country at the international level. Standardization is closely linked with legal, as well as industrial and scientific, metrology. The role of standardization in the protection of people and the environment against negative effects of modern production techniques is a topic that needs broader and more specific study, because the situation and circumstances in developing countries differ from those prevailing in developed countries. Thus, it is difficult exactly to copy the techniques and systems of industrialized and developed countries.

Most Arab national standards bodies have not yet established their own laboratories to make the required tests, analysis and calibrations. In these cases, the NSB runs its tests at the official and accredited private laboratories, through mutual agreements signed by both parties.

The paper calls for the harmonization of standards and suggests that Jordan should follow the example of the EC. But it does not mention the harmonization of standards on the regional level which is one of the aims of the Arab Organization for Standardization and Metrology (AOSM), comprising 18 Arab countries; including Jordan, one of the most active countries in the efforts relating to standardization and metrology.

Regarding the activities of standardization, metrology, calibration and quality control and their applications, information services, testing and analysis, now handled by both the RSS and the JDS, I believe best results could be achieved by better coordination and cooperation between the RSS and the JDS at the national level.

Finally, I would like to point out that standardization not only involves research, development, science and technology, but also trade, industry, agriculture, construction, environmental protection and telecommunications, among other fields.

THE HUMAN FACTOR IN INDUSTRIALIZATION

ORGANIZATIONAL AND MANAGEMENT EFFECTIVENESS: A CASE FOR JORDAN

Ivor McElveen*

1. Preamble
2. Introduction
3. Non-Universality of Management
4. Cultural Aspects
5. Organizational Structures
6. Human Resource Development
7. Conclusion

1. Preamble

It is a great honour to be invited to present a paper to this most important conference, an honour of which I am hardly worthy. But Dr. Matthes Buhbe insisted, and so he is to blame. While I have been visiting Jordan since the early 1980s, I have just started to learn how little I know about you and your people, so I shall spare you the agony of having to listen to yet another foreigner trying to tell you about your most delightful Kingdom.

This paper has, therefore, been prepared in the full cognizance of that infirmity and it is for this reason that I shall attempt to address matters somewhat on a philosophical note, pseudo or otherwise, and make observations or submit comparisons on aspects which I feel may be relevant to management in, and the industrial development of, Jordan -- comparing them with the so called Industrialized Nations as appropriate. Maybe there are some valid comparisons or similarities. But that will be for you to decide.

I come from a small nation. It often amazes me to note how similar Ireland and Jordan can be on occasions, with no offence to my Jordanian friends. Size, demographics, economic structure and aspirations, particularly in the desire to develop exports and establish a self-sustaining industrial sector, all ring familiar. But more than anything else the value placed on the family and the extended family within our respective societies strikes one the most, and all the ramifications that entails. Indeed, we are one of the few cultures to invoke peace or God in our salutations, not just a “Good Day,” “Assalam-u-alaykum” is equivalent to our Duis-mi ra-guth! Is it any wonder that some of our international friends fail to understand us at times?

But it is also my belief that this feature and bond between us make it a little easier to, not necessarily understand, but at least feel and appreciate some of the situations one finds within our respective societies and how it may effect the management, culture and the development of management within our industrial sectors. Indeed, any of the remarks that follow could be easily said, without much fear of contradiction.

* The views and opinions expressed in this paper are those of the author, and do not necessarily reflect the views or opinions of the secretariat of UNIDO.
of my own country, as they are equally applicable.

So, with that tenacious qualification, I shall proceed. But His Royal Highness Crown Prince Hassan has graciously given me encouragement by choosing to raise the issue of management effectiveness in his opening address, and it has also been referred to on more than one occasion by subsequent speakers.

2. Introduction

Organizational and management effectiveness is another way of saying "organizational performance" which is essentially how people organize themselves to get things done, or even more simply stated, manage themselves. Management is about helping people to do things better, the end concern being results, or to put that another way, searching for superior results through people.

It is becoming increasingly felt, by both development economists and planners alike, that management is the key factor in economic development.

Probably, it is also fair to state that Jordan's prime resource is people; this paper is based on that assumption.

Those three simple and straightforward paragraphs belie the complexity of the case, or more correctly, and after what has already been said by previous speakers, maybe yet another challenge facing Jordan. Clearly, this short paper could hardly be expected to do justice either to such an expansive subject or to Jordan itself; therefore, four basic elements which appear to be relevant to the author will be introduced, reviewed and submitted to the conference for consideration, as follows:

1. Non-universality of Management
2. Cultural Aspects.
3. Organizational Structures.

The objective will be to discuss, and even maybe a little provocatively at times, the relevance of the above to the industrialization of Jordan, in an attempt to identify the issues involved. The paper will conclude with a statement of the case, the challenge and the opportunity for Jordan.

3. Non-Universality of Management

Capital investment and the introduction of advanced technologies can only be fully effective in realizing the proper performance of an enterprise, an industry or the economy of a country when combined with good management. "Good management" has been mainly perceived as management in the West. The development of management as a distinct discipline of education at institutes of higher learning in many non-industrialized countries has been dependent in terms of objectives, design, content and methods on the disciplinary development of management education in the developed industrial world. The various types of assistance programs, commencing as far back as the early 1960, between those countries were mainly instrumental in the initiation of this dependency relationship. What may be interesting is not so much the beginning, but the continuation, of this dependency to the present time. I am confident that this could still be largely true for Jordan.

The main thrust of this relationship was the belief, on both sides, in the universal-
Obviously, the diagram is a very crude generalization and is comparative, not absolute. I have omitted Europe on purpose, as it complicates things. Neither are any of these groups considered to be homogeneous. But the diagram serves a purpose, as it can be readily seen that American society and to a lesser or maybe a more refined sense, Europe and particularly England, tend towards the individualistic and extrovert. By comparison, Arabian society and the individual within tend towards the collective and introvert. Should these observations hold to be true, it is reasonable to assume that the management system which suits Western cultures and societies will not necessarily be compatible with Arab cultures and societies; and it may be worth noting that Jordan has mainly acquired its modern management techniques and practices from the United States and the United Kingdom.

Western management tends to emphasize a mastery of its working environment; to be highly result-orientated (even if the results are incorrect at times!); wants specifics, eg. dates, data, benchmarks, etc., and how it can change the external world; objectivity and rationality; order in the form of systems, and when it does not find it, wishes to create it; participation in the form of collective decision-making; delegation of authority; and so on.

Clearly, some, if not all, of these characteristics are to be found to a greater or lesser extent in Jordanian management. But, for example, I am advised that the tendency to force a collective group decision is not too common. The decision is left to the person responsible, with the others present feeling that they ought not to express their own individual conclusions, but submit all information short of an actual opinion or conclusion. There is also less faith in delegation, with an instinct of the senior manager to adopt an attitude of: I know how to do something, and therefore, I ought to do it. This either results in delegation with interference; or the task does not get done in a reasonable time frame. Indeed, authority and delegation also appear to be a problem area which can manifest itself in under-stated or non-understood corporate objectives down-the-line, and be readily recognized by the symptoms of inconsistent decision-making and mind changes at senior management level, resulting in a certain lack of organizational dynamism.

But there is nothing necessarily wrong in differing cultural values, indeed ethics, in various societies, except that management practice will not be directly transferable from one society to the other because of cross-cultural considerations. Management and the organizational systems which arise are essentially, in themselves, cultural answers to the problems encountered by people in achieving their collective ends. Therefore, one must see the cultural problem not as secondary, but as a central problem in understanding management behaviour.

4. Cultural Aspects

If people matter in management, then the cultural context of people may have something to do with management practice in different societies.

The concern for the transferability of Western management to non-industrialized countries, in the context of development assistance, continues. There are basically two schools. The first has taken an open system or environmental approach, by which the impact of external environmental factors (not only cultural, but also socio-economic, political, educational, legal etc.) on managerial practices and effectiveness are emphasized in the host country (Messrs. Farmer, Richman and others). The second school of thought has taken a behaviour approach to explain individual and group behaviour differences in organizations in different cultures in predicting organizational behaviour patterns, attitudes and perceptions of managers (Messrs Davis, Barrett, Haire and others). Both schools attempt to integrate cross-cultural comparative organizational theory, but appear to imply a bias towards the study in the context of the culture of the recipient, with less attention being paid to the cultural properties contained in the original management concepts and practices to begin with (Messrs. England, Negandhi and Wilpert). Let us see if we can throw some light on this more integrated approach for Jordan.

In their explanation of industrial progress in the West, historians were obviously fascinated with the technological artifacts of Nineteenth Century industry, and the flamboyant entrepreneurs of that era. Lewis Mumford, Max Weber or even Karl Marx, while deeply concerned with the human aspects of industrialization, appear not to have sufficiently explored the specific details of the functional roles played by industrial organizers and managers which enabled those entrepreneurs to succeed. This is precisely because a large element of the people in those countries in that era was personally engaged in the never ending quest for superior results. There simply was insufficient emphasis placed on the primary which the people, management-factor played in progress. This ipso facto, exaggerated the importance of the techniques of management.

Rooted in the concept of "Western Economic Man," Frederick W. Taylor pioneered the movement of scientific management, in finding the most effective methods of task performance, time and motion, and matching workers to work. This created a functional school of management which included the French industrialist, Henri Fayol, amongst others. In short, the world was made to believe in the universal validity of a management process, comprising planning, programming, controlling, leading and motivating, etc., which was essentially an interpretation of people's behaviour in the Western industrial model organization.

A fundamental value at the centre of the process of building up modern industrial societies had been, and continues to be, the widespread readiness in society to challenge the status quo. The vital role of science in industrial and economic development through innovation has been possible through this fundamental value. Both technological and social changes are accepted in those societies as prerequisites or essentials in the normal path towards progress. One might tentatively beg the question: Can Jordan accommodate the challenge of such an environment, and how best should it do so?

But people in the Western world may be overly optimistic about their ability to control man's destiny. Embodied in this is the primary assumption that people want to change their future. Indeed, a relentless urge for improvement is part of the American cultural fabric, and the promotion of change and the search for efficiency are becoming more widespread in the majority of European societies. One can now even point to modern Russia! Objectivity and rationality are the driving cultural forces behind modern Western management, combined with the concept of shared decision-making. In their eyes, they have been successful, and will continue to be so for the foreseeable future. This breeds a certain confidence, a faith in a freedom of choice. This is the culture that breeds modern management and creates the modern manager as the West understands it. Clearly, it is not necessarily readily transferable in its "pure" form.
By contrast, in a more traditional society such as Jordan, where kinship and other group loyalties matter very much, emotional neutrality and impartial evaluation cannot always be expected to pervade society and its organizations. Therefore, a high degree of objectivity in the gathering, dissemination, analysis, and evaluation of information in those organizations must not be expected to happen on every occasion. This feature, which does much to create harmony, is not always readily appreciated by people from larger and more fragmented societies.

As has already been noted, it has been observed that in Jordan and throughout Arab society the concept of collective decision-making based on factual and rational analysis between the leader/owner and management is not common all the time. The reasons for this are obviously complex, but the following are suggested. First, a decision may be based on the personal judgment of a key executive, and any attempt by him to explain his action could be interpreted as implying a lack of confidence in his judgment, both by the executive himself and by his colleagues and subordinates. Second, the use of "hard data" is not always customary; instead, decisions are inclined to be expressions of wisdom based on seniority, which may become somewhat sullied if subjected to controversial, detailed information, particularly from juniors. Third, it may be inappropriate for a senior executive to consult others, at least personally, about matters in which he is already assumed to be wise. Fourth, he may enjoy his position from more important considerations other than experience and relevant skills, and thus may develop a protective pattern to isolate potentially embarrassing contact with management, which in turn is understood and respected by the management. Not only does this scenario seriously impede the quality of decision-making, in both problem-solving and in strategic planning, but it also plays havoc with team work.

Further, the foregoing may have more depth to it than might be first suspected. For if the management system is not making an appreciable contribution to organized success, people in general become disillusioned and can contain deep resentments about what "good management" can do, but yet retain the charade of trying. They also become highly skeptical of any further attempt at change. This can become a bit of a dilemma and can result, amongst other things, in the mis-direction of energies, or in inertia and a great waste of talent.

In fact, there is some empirical evidence to partially support the above as Table 1, comparing Jordanian and American management on priority characteristics, tries to show:

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Jordan Manager</th>
<th>American Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalistic Goals</td>
<td>High Achievement</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Competence</td>
<td></td>
</tr>
<tr>
<td>Organizational Stability</td>
<td>Profit Maximization</td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>Efficiency</td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>Productivity</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>Group</td>
<td></td>
</tr>
<tr>
<td>Loyalty:</td>
<td>Higher Authority</td>
<td>Company</td>
</tr>
</tbody>
</table>

Source: Extracts and extrapolation from B.N. England's Survey of International Management (1975)

Again, the foregoing are very generalized, if not extreme, and certainly not typical. Indeed, it will be noted that the table is dated 1975, and obviously much has changed since that time. The point here is not to attempt to decide which is better, nor is any criticism implied, but to accept the reality of the situation and ascertain what changes and compromises are necessary in both the Western management system and Jordanian management culture in order to create more effective management within Jordanian society.

The growth of an industrial sector from out of a family mercantile background has some special considerations, as generally found to be the case in Jordan as in most other societies. Merchant-related management and associated decision-making are, by their nature, usually opportunistic, often expeditious and deal-oriented; and are invariably short term, utilizing a high degree of manipulative skills. One can throw in a fair amount of secrecy for good measure! While highly valuable personal skills in themselves, they are not necessarily the stuff that makes for good team work, collective analytical decision-making, strategic planning, or delegation and the motivational aspects of management all of which are required for the modern industrial cultural management environment.

The situation can be further compounded by the technical aspects of modern industry, particularly amongst top management or the leader, where neither each nor all can be expected to be individually well informed on all technical matters, either process or commercial. Here, communications and collective consultative decision making are often vital. This means the creation of new types of working relationships, if not new peer groups, outside of the traditional. This can possibly be illustrated by diagram 2, which attempts to show the evolution of the work-place and cultural change, from traditional to industrial societies. It applies to all societies, not exclusively to Jordan.
* Social and individual orientation/identification adjustments.
* Creation of new relationships with new peer groups, both superiors and subordinates.
* Social reorganization.
* Challenge to social group's and individual's culture/values/judgment.

One could reason that the further the concentric curves become extended, the more severe or even turbulent the situation may become, both for society and the individual. As an aside, this might be a good way to demonstrate why some societies go through more social unrest than others. But be neither distressed nor dismayed by this diagram. All societies have to go through these processes at one time or another, if not continuously.

I am sure that when we reflect on the four above points identifying potential problem areas, we may even be able to find parallels during our own working careers. How many of us have had to sit down and take advice or orders from a relative of a grandfather's enemy? Often we are obliged to work with people because they have certain skills, as equals or superiors with whom we could not, by tradition, normally socialize or customarily associate. Further parallels are to be found in the change from rural to urban societies. After all, the modern international suburbs of Amman are very different in every respect from the childhood village of some of our parents.

Diagram 3 illustrates this yet another way, within the context of management and occupation from the traditional to the modern, or from the "old" to the "new" order of things:

**Diagram 3**

Management and Occupation from the Old Order to the New.
Of course, what we are really talking about here is CHANGE, and the four principal results of change in modern management and the manager can be loosely stated as follows:

* Modern management challenges old values and concepts and creates new demands and stresses that involve learning trial-by-error processes.
* Options to cope? Either adjust or ignore, or accept the challenge. The reaction can either be positive or negative.
* Difficult to be selective, either the whole thing or nothing. If desired, a modern economic society must be prepared to make the effort and to pay the cost.
* Re-defines the work ethic.

All the foregoing is happening in all modern societies, and apologies if I have been stating the obvious but it is important from without and within our societies, and its effect in the workplace and on the modern manager.

In the final analysis, it is probably not so much a matter of changing loyalties or anything like that: it is more about creating different types of realities that express themselves in different ways of service and commitment, which in turn probably call for new levels of mutual trust and cooperation.

Scattered evidence suggests that in other societies experiencing change, the cultural paradigm is a root cause of management under-development, and Jordan at least should be aware of this potential situation, if it is not already aware.

But let it be categorically stated, that culture in itself is not an impediment to progress, as exemplified in German, Swiss, American, Anglo and Japan/S.E. Asian societies, all of which have different cultures, and obviously found their own management systems to accommodate their own cultural values and attitudes. The “Four Dragons” of Hong Kong, Singapore, Taiwan and South Korea are interesting cases in point, with their predominantly Buddhist or Confucian philosophies. The problem only appears to arise when the “foreign” management system does not “fit-in” with the cultural norms of the recipient society, nor is in harmony with the cultural and social changes in that society.

5. Organizational Structures

In industry, wealth is often generated by achieving a continuous increase in the value or volume of production per unit of labour by changing the utilization of labour in production. Better gains in the utilization of people result from changes in the methods of production, in the development of human skills appropriate to productive work, and in the cultivation of values and attitudes desirable to promote an organizational culture in which integration of man and work is achieved. The productivity of people in an organization is a product of management. Management also comprises people, and therefore the above holds equally true for management.

To talk about organization and management is like talking about life and living. At times, they are really the same thing, just seen in a different perspective. So, in some ways and at the risk of mixing my metaphors, it is a chicken and an egg situation. Which comes first? I would respectively submit that management and the culture in which it operates come first, for only then can one design and implement effective organizational structures.

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Please note that in the above examples, no mention was given of industry, which usually falls into the two second categories (line and staff, and functional) depending on the size and nature of the activity. Small to medium and proprietor-run are invariably and staff, often depending on the technology involved, or a hybrid consultative decision-making, involved. But whatever is the formal organizational structure, its nature can change. Examples would be in the case of growth, where more complex structures are called for, or in crises situations when a military command would possibly be superimposed.

But what am I doing? Am I falling into the same trap which I have just warned about? That management is not universal. Therefore, by deduction, neither are organizational structures. Indeed, if one takes even a cursory glance at corporate organizational structures throughout the world, one sees great variation. We all know that a Japanese organizational structure is entirely different from either the American or German model, which in turn can be entirely different from one another. They all attempt to do the same thing in establishing a frame work for good management, just as in the same way a house in those countries or in Jordan will be built for living in, but yet be entirely different in each: so why should we assume that the above formal organizational structures would suit the Arab World in general and Jordan in particular?

Maybe it only requires small refinements; but if it does, they should be recognized as such, and if what I have said above holds true on further analysis, it is clear that Arab organizational structures have to be designed for Arab needs. This is also a task for Jordan, and it is also about that well worn cliché adaptability not adoptability: in recognizing the strengths and weaknesses of both organizational structures and management systems, within Jordanian society and culture, and in designing structures and systems that build on the strengths and compensate for the weaknesses, taking cognizance of the needs of modern industry in Jordan.
6. Human Resource Development

It is now fashionable in Western industrial society to talk about human resource development, so I shall not disappoint you here. The first thing that one is usually told is that it is not about personnel management; and that is correct. Personnel management is primarily concerned with the personal affairs of employees in as much as they affect the organization, and can and often does include recruitment, salary and wage reviews, training, and so forth. On the other hand, human resource development is about treating people as your most important asset, and acting accordingly, not just giving lip-service to it.

The defence is that in order to survive we have to make profit in an increasingly competitive world, and that this leaves little room for trying to make people “happy.” The concept of human resource development is that actually treating people as your most important asset is vital — not for some woolly socialist ideal, but because it is the main route to competitive success, properly organized, motivated and led.

It is probably a truism that Jordan is surrounded by increasing competition. It will not go away by shouting “unfair”; the real world does not work like that. Achieving that competitive edge can be hard work. Large international competitors with deep pockets can buy into appropriate technologies and patents, or corner raw material supplies; they can even buy market share through heavy advertising or acquisition.

The one thing that they can not buy is the human side of the business. Therefore, an effective human resource strategy is the one thing that can give an edge over the competition.

In recent years, you have, no doubt, heard a lot about business strategy. How many of us, in Jordan and elsewhere, develop a sound human resource strategy which is compatible with the business strategy? When capital projects are being approved, which gets more attention: technical and financial specifications or the human resources strategy? When the project lets you down, which do you find fault with, whom do you blame? On the premise that there are “horses for courses” are managers and their teams selected for appropriate strategies of say, growth, retrenchment or export marketing? If exporting, what is being done to make the management team, including the leader, international in their outlook?

Humans have been around a long time, and human resource issues are well travelled. With all the books, papers, courses, conferences, theories, fads and angles — one would think that we would have it licked. But this is not so. Only a handful of companies seem to have come anywhere near achieving a superior competitive position, by acting out their convictions in human resource development and people.

IBM, Letraset of Sweden and Phillips of Holland come to mind by way of example. Maybe Jordanian industry can take a giant step in this direction, if not leap-frog the competition, and develop and implement an appropriate human resource strategy which brings out, harnesses and directs the enormous creativity and energy which exist inside every Jordanian, and to do this in a way which helps achieve corporate strategic goals. Maybe it is a tall order. But at the risk of being guilty of the crime which I am condemning — universality — it probably would be well worth considering.

Let me briefly address four human resource areas which I believe to be critical to competitive advantage:

-- Ways of organizing people: In the past we have seen valiant attempts to move away from the rigid hierarchies which were inherited from the military, and also from the successive division of tasks which came from the “scientific school.” In their different ways, companies like Phillips, Volvo and Hewlett Packard tried forms of job enrichment, autonomous groups and so on. There are also quality circles and centers of excellence in Japan. Despite this, new ways of organizing people have been slow to develop. Change is invariably difficult, and we cling, and perhaps for good reason, to mechanistic organizations which stress control, and therefore imply mistrust. Programming people is still very popular. Jobs are specified and boxed in very professional ways. Sophisticated training manuals are drawn up, leaving no room for error. People become good executors of detailed specifications. It is, in theory at least, predictable and neat.

But there is still a nagging doubt. Please ask yourself this question, and try and recall the time when you felt most motivated. What was it about that situation which made you give your all?

May I suggest that you probably had a sense of ownership of the task. You could identify with both the objective and the result. The task itself was interesting and challenging. Probably, above all, you had some freedom and discretion. You were trusted. You were important. These are persistent themes which run through attempts at organizing people. They are persistent because they strike deep chords with individual needs. Something to do with that old phrase, “job satisfaction.”

As authority, hierarchy and programming become less and less effective, as they surely will, one will see the growth of self-managed teams. The choice for Jordanian industry is either to succumb to events taking it over, or plan, and thereby, influence such an inevitability for its benefit and future.

-- Motivation: In the previous section, the elements of motivation were highlighted. The question that should be posed here is what will motivate people in the 1990s? While needs are deep-seated, they can change from generation to generation. Young people leaving school today have a different set of expectations and different attitudes to work, to authority, and so on. I am sure that this is also true for Jordan. The further (perhaps impatient) question is: Is anything really being done about it?

After all, if one compares the career of one’s father with one’s own, most of us would not have imagined it possible. How much different is it going to be for that of our children? The future is certainly not an extrapolation of the present, and the heartfelt concern today about change is the acceleration of change itself? Yet another challenge for all our respective educational systems, but it concerns both industrialists and planners today.

Companies with a high performance atmosphere usually are orientated towards people’s needs, be they either customer or worker. They often go to a great deal of effort to ensure that there is an “alignment” as well as loyalty, of the worker and management alike. Moreover, there is respect for the individual. There is pride in achievement, and in being on a winning team. There is recognition and praise. There is fun. There is hope.

Hard-bitten industrial relations experts may sneer at such unrealistic values. But let us stop and think, and create a climate of real realism, and recognize this unique
opportunity to move away from negative and sometimes adversarial attitudes, plan for the future, and move towards new and better ways.

All this means coming to terms with things like time clocks for management and staff, where there seems to be more importance put on "time put in" than on actual "work done"; and relating financial reward to achievement of results, and maybe degrees of co-ownership in companies by management and key workers alike. But at the same time, weak management must be penalized and irresponsibility must not go unchecked. It is a manager's duty, not his right, to protect the motivation of the responsible on which competitive advantage depends.

The management multiplier: In the context of human resources, management is the activating organ of the enterprise. A central part of any human resource strategy obviously has to focus on top management. Effective management is a result of having the correct mix of talent and experience, which is organized, directed and led with good teamwork. If management is weak, inexperienced or divided, the rest of the organization will suffer and maybe fail. The top management, particularly the chief executive, are on the firing line, take the risks and pressures, and navigate the company on the uncharted waters to success or failure. They and he must be motivated to give "back-bone" to the enterprise in a risk-reward situation of goal-oriented performance and review, linked, on one side, to the business strategy, and, on the other, to both recognition and reward, correction and development. This is the "management multiplier."

The rewards are a matter of what is appropriate to the company or the particular organization concerned. Share options or the annual bonus are the most common, as one sees operating in the most successful companies around the globe. In some societies, civic and public recognition are given as much for contribution to the general well-being as to enhance the status of the management profession itself.

Of course, promotion on performance and not just seniority is essential, as well as ensuring that there is a coherent and coordinated program of management development within the organization, not only in the acquisition of technical skills, but in the practice of management per se. Indeed, there is a tendency for "real" managers, and especially the CEO, to think that they do not need to learn and develop anymore. Once they make the grade, as perceived in their own eyes, they stop, and often with tragic consequences for them and the organization. Organizations change, and hopefully grow, and so must they.

The status of the manager vis-a-vis the owner or shareholder, and other professions, must be up-graded. There is a tendency in more traditional societies still to perceive the owner and manager in a master and servant role. Not only can this adversely effect relationships between them, but it can be demotivating for the manager and for those who might otherwise choose management as a career — indeed, if not virtually an impossible relationship to maintain in complex, often technical, commercial and industrial undertakings. Serious consideration may have to be given to this aspect of change within Jordan in upgrading and improving the professional status of the manager and management as a career, as it had to be done, and is continually being done, in other societies.

—Leadership: The subject of leadership is a vast one, and remains a difficult quality to define, as it is really very elusive. It can be simply stated that we know it when we see it, and it can also be defined by results. Yet, not all leaders have charisma, nor live to see the results of their efforts. But what we do know is that leaders can change the direction of an organization and lift it to new heights of performance. They have vision tempered with reality, based on experience and good judgment. They are able to engage the real needs of people by spelling out goals and objectives which people are able to understand, and to provide the resources so that the objectives can be achieved. They accumulate power through position, personality, or the sheer force of their conviction and values. Above all else, they have the courage to use that power both personally and by delegation of authority.

There is a difference between administrating, managing, and leading. Leaving aside the inert activity of administration, there is a perennial debate, "a la" Drucker and Peters, between management and leadership — the former stressing management, the latter making a case for entrepreneurial leadership. Perhaps, as John Kotter states, we need both — leadership from the front and from behind. Unfortunately, the strong leader and the effective manager are not often found in the same person. In particular, strong leaders usually need one or two highly effective managers around them to make things happen. Clearly, the best leader nevertheless will be recruited from management. But recognition should be given to this phenomenon of the leadership and management relationship.

In the area of leadership, the challenge for Jordan's industry would appear to be two-fold. First it is to spot and nurture suitably qualified and potential top leaders. The second challenge is to develop leadership at all levels in management. Leadership at the top is vital for vision, setting standards and being a converter and motivator of others; an organization, however, has to have everyone as a leader, committed to change, obsessed with service for the overall well-being of the organization and for everyone that works therein. Or to put that another way: the creation of a dynamic and effective management team.

7. Conclusion

Before we summarize and talk about challenge, let it be acknowledged that Jordan has achieved a great deal in obviously very troubled and sometimes painful times. It has managed to keep its head on its shoulders, both in a literal and an idiomatic sense, and is to be congratulated. You certainly, as a nation and a kingdom, do not lack leadership.

This paper has attempted to consider the non-universality of management, made observations on some cultural aspects, considered organizational structures in the context of the foregoing, and concluded with a case, if not a plea, for human resource development on the assumption that people are your nation's greatest asset. Again, at the risk of being universalistic, this would appear to be both the challenge and opportunity now facing Jordan which will contribute most to management effectiveness and organizational performance in your industry. But the real and immediate challenge is probably to assess the non-universality of the current management systems relevant to the cultural needs and aspirations of Jordanian industrial society, and adapt one, and maybe change the other, accordingly.

The author acknowledges with appreciation the assistance of, and source material from; Dr. G. Nanayakkara, Professor of the Postgraduate Institute of Management, University of Sri Jayewardenepura, Colombo; and Mr. B. Patterson, Group Director of Management and Corporate Development, Waterford Glass Group plc., and one time Director General of the Irish Management Institute.
ORGANIZATIONAL AND MANAGEMENT EFFECTIVENESS:
NO SPECIAL CASE FOR JORDAN

Comment by
Zaki Ayyoubi

At the outset, I agree with Mr. McElveen on the paramount importance of management. I think we all agree that it is a key factor, if not the key factor, in economic development. In fact, I agree with many of the statements in Mr. McElveen’s paper. However, I will dwell on the points which I do not agree with, and will elaborate on others.

1. Non-Universality of Management

I disagree with the basic assertion that management is not universal. My disagreement is based on both my training (which took place in England and the U.S.) in this field, and on 13 years of experience as a manager and director of several business organizations in the commercial, industrial services and educational sectors in Jordan.

It is true, as Mr. McElveen asserted, that “management practice will not be directly transferable from one society to the other because of cross-cultural considerations.” However, I maintain that management theory and the management process make sense in Jordan.

A manager of an industrial firm in Jordan, in order to be effective, has to develop a set of realistic and measurable objectives. He has to design plans of how to achieve these objectives, has to build an organization to motivate, and to lead his organization towards achieving its objective. He has to keep tabs on the environment of his organization, be it customers, markets, competition, suppliers, shareholders or government, and has to adapt his operation to changes in the environment. This is the substance of management theory; and in my judgement and experience it holds true in Jordan, as well as in the U.S., Korea or Japan.

Of course, what Mr. McElveen might be asserting is that we cannot provide American or German solutions for Jordanian problems. This is self-evident. No Jordanian manager will survive for long if he thinks that Harvard Case Method solutions can be applied here.

As regards culture, I have mixed feelings. Let us not exaggerate the extent to which our culture is so different as to nullify the basics of management. Mr. McElveen seems not to assume such great differences when he exposed to us, with gentle suggestion, the most recent ideas on human resource development. Indeed basic ideas have some transferability, but managers are assumed to be intelligent enough not to copy ideas blindly.

Objectivity and rationality are not alien to our culture. However, I agree that the social change from a predominantly agricultural beduin society to an urban and industrial society assumes, and later imposes, a set of social values that are concomitant with the demands of technology and organizations. Jordan is undergoing this social change. It must be aware of the values that go with a modern, urban society, train its children and youth in the importance of time, discipline, team work, cooperation etc., in order to develop effective managers and organizations.
2. Organizational Structures

It is my observation, as a result of research on Jordanian industrial organizations, that there are a number of factors which have an impact on the structure of Jordanian industrial organizations:

1. Technology: in general, the technology used by an industrial firm has a strong influence on how the firm is structured. An oil refinery has a different organization than a manufacturing assembly line or a chemical factory.

2. The size of the organization.

3. The type of ownership.

4. Moreover, the rate of change of the environment of the firm affects its degree of bureaucratization.

A large company with stable technology and a stable market (such as detergents or food products, etc.) will tend to have a more bureaucratic organization.

An organization which has shifting markets and a shifting products mix and rapidly changing technologies will have an organic, or if you want, "less formal" organization. Most of the industrial firms in Jordan deal with relatively stable technologies. But on the other hand, they have been dealing with rapidly changing markets and market conditions. In fact, this might be the source for many of the tensions now experienced by Jordanian industrial firms.

However, there are no ideal designs of organizational structures. Managers have to be aware of the factors that affect organizations, and have to develop their own design.

3. Human Resource Development

I agree with the substance of Mr. McElveen’s points on this subject. However, I will take the opportunity to present some ideas on improving the level of competence of our managers:

(1) University Training:

I have taught as a part-time lecturer at the University of Jordan for a few years. From my observation there and the graduates I meet, I feel that the methods of teaching and training leave a lot to be desired. The teaching is not creative or challenging, and graduates leave without much knowledge about Jordanian firms or the environment, industrial or otherwise.

We also need more interaction among the universities and the business community. I feel that the interaction between them is painfully little.

(2) We need more professional managers. I feel that Jordanian managers have an excellent reputation in the Arab region in their competence, work and reliability. However, the tasks ahead of us are becoming more varied and complex. A new generation of professional managers will be taking over from owner-managers who dominated industry in Jordan in the last three decades. These managers will determine the competitiveness of Jordanian industry in the 1990s.

ORGANIZATIONAL AND MANAGEMENT EFFECTIVENESS: A CASE FOR JORDAN

Comment by
John D. Andrica

I found Mr. McElveen’s paper to be very interesting, and to provide broad observations on the Jordanian business environment. While I agree with most of the concepts expressed in his paper, I believe them to be broad in nature. Therefore, I would like to deviate from the theme that has been set, and to offer a few observations that are grounded in realism.

Recognizing that Jordan’s private sector will be based on strong private sector companies, my comments are directed at those companies that will provide the growth in the private sector. They deal primarily with management effectiveness as it relates to market and organization structure.

My experience to date in Jordan has been working with manufacturing companies, through the efforts of the Manufacturing and Marketing Improvement Section (MMIS) of the Jordan Institute of Management (JIM/MMIS). A joint effort between JIM and A.T. Kearney, an international management consulting firm, and is sponsored by USAID. Our focus is to help Jordanian companies become competitive in world markets. Our experience indicates that the obstacles limiting Jordanian private sector companies from becoming world competitors do not lie solely with the Jordanian government, though there are government areas which negatively affect business but lie within the private sector companies themselves.

The first obstacle is in defining the business the company wishes to participate in. We have found local companies that require a better understanding of the markets they wish to serve, and that could better match their capacities to market demand and align their organization to serving market requirements. Only after a company has developed a complete understanding of the market (size and success factors) should a strategy be developed to enter a target market. A number of approaches can be used in defining market requirements within local or international markets. We have been more successful in our market analysis by utilizing field interviews, spending time with people actually involved in the target market, versus relying on governmental statistics. Addition to understanding the market success factors: method of distribution, product features, price, and service.

A second obstacle to world competition lies within the human resource area. In the Jordanian business sector, there is less tendency to develop internal skills within the work force. Our experience indicates that there is a direct correlation between the quality of people in an organization and the success of the organization. Therefore, companies that believe that people are not important to the success of a business, and that technical experience can be purchased when needed, are at a competitive disadvantage in world markets.

The leading companies in the world place great importance on their people; they are very committed to building their people and ensuring a longevity of the work force. As a result, the leaders have real depth in their organizations; they are able to delegate responsibility so that more can be accomplished by the company; and
they can respond to the technical requirements of their industry, because in most cases their people are creating the leading technology. To turn human resources into a competitive advantage, it may be necessary for local companies to review their organizational structures and human resource policies. Their goal should be to determine the right organization to meet market requirements, and to align their human resources for long term growth. They may also have to define new operating roles for each function within the company, i.e. emphasize delegation of authority. Simply stated, in terms of companies, the difference between the best and the rest is the people.

Organization

The way in which people are organized will determine their focus. The successful organization does what counts to achieve results and a competitive advantage. The organization needs to be organized around the activities that are required for the company to be a competitor. As Ivor McElveen mentioned, Jordanian companies have a tendency to organize around people, thus creating an allegiance to people as opposed to the company and its products.

If you look forward to becoming competitive in the world market, it is necessary to adopt an organizational structure which will at least allow for a competitive environment.

The key to developing the best organization for your company is to identify your effectiveness drivers: focusing on people, knowing what counts, organizing for results.

(a) Focusing on people

- Focused on what counts: measures and pay systems
- Accountable for results: defined mission and clear accountability
- Functioning as members of a team with common goals and unified direction; also, effectiveness requires team work: individuals or single functions can be productive, but not successful.

(b) Knowing what counts

- In terms of product (what you sell): customer application, reliability, service and value.
- In terms of process: repeatability, process reliability and cost.
- In terms of distribution: services and cost

The key to knowing what counts is defining the most important factors for your situation, and then focusing on them.

(c) Organizing:

- Focused on critical factors: market customers services, process and products.
- No fragmented lines of communications: minimum levels, no overlap of functions, and minimum protection.
- Clear accountability and responsibilities for each position.

A company that is organized for results is one where all employees can answer the three most difficult management questions: What counts? What is my job? How am I doing? The obstacles to effective organization are: islands of effort and poor coordination between functions; shared accountabilities; excessive organization levels; and low spans of control.

Conclusions

- Getting an effective organization -- the key to gaining a competitive edge -- means
- develop a fresh understanding of your business.
- consciously surface what counts -- your effectiveness factors.
- involve your people -- team work.
- create a plan.
- execute.

Structure your organization around individual and functional accountabilities -- and ensure that your people can answer: What counts? What is my job? How am I doing?

The difference between the leaders and the followers in the competitive race is that the leader does the right things, and does them right.
Chapter Seven

SOURCES AND POLICIES OF FINANCE TO INDUSTRY

INDUSTRIAL FINANCING AND INDUSTRIALIZATION

Ziad Annab

1. Historical Review
2. Sources and Instruments of Finance
3. Role of the Industrial Development Bank, Jordan
4. Financing Constraints
5. Prospects

1. Historical Review

1.1. Introduction

The aim of all national development plans is to raise the standard of living, but there is no consensus on how to achieve this goal. Historically, the growth of newly developed nations has been achieved by a shift from agriculture to industry.

During the 1950s and 60s, Jordan, like many developing countries, started to promote industrialization that was initially aimed at substituting imports of consumer goods in the domestic market. This happened in a protective climate, behind high tariff walls, or through monopolies. However, after this initial stage, Jordan gave priority to an export-oriented strategy, and was successful in establishing industries that catered to both local and export markets.


Over the 1970s, the industrial sector's (industry and mining) annual contribution to gross domestic product increased from 11.2% in 1973 to 18.8% in 1980. The industrial sector was attracting greater amounts of private investment than other sectors (tourism, construction, services). Private investment in industry accounted for more than 40% of total private investment in the plan. This continuous growth was the result of high investment by both the public and private sectors, which amounted to JD 317 million over the period 1976-1980, exceeding the plan target of JD 229 million. Nearly three-quarters of the total investments were carried out by the private sector, giving a clear indication that the private sector was ready and able to make use of the business opportunities in the country.

In the early 1980s, this picture changed, as industry was affected by the economic slowdown in the region and the domestic market. The growth rate of the industrial sector of 4.9% was well below the 1981-1985 plan target of 17.8%. Thus, industrial growth was only slightly higher than the overall growth of the economy (4.2%).

During the plan period (1981-1985), actual total investment in industry was JD 599 million, or about 79% of the planned target. The main reason for this shortfall was lower investment by the private and mixed sectors, reaching only 75% of the planned investments (JD 716.8 million). The shortfall in actual investment was not particular to the industrial sector, but in line with the general investment trend during the plan period.


Comparing industrial investment in the new five-year plan (1986-1990) with the previous plan, the considerable drop in investment in this sector becomes apparent. This plan allocates JD 393 million to industry and mining (12.62% of total investment), compared to JD 759 million envisaged in the previous plan.

About half the expected investment will be for projects in the large, natural resource based industries (potash, phosphate, fertilizers). These include new projects, extensions and modifications. The planned investment amounts to JD 227 million, or 54% of total industrial investments.

It is envisaged in the plan that the private sector is expected to invest JD 87.9 million, or 22.4% of total industrial investments (compared with JD 90 million, or 11.8% of 1981-1985 total industrial investments). Private investment includes the establishment of new industries and expansion of existing ones (not specified in the plan). Judging by the Industrial Development Bank's (IDB) volume of operations during 1986 and 1987, it is estimated that the total cost of industrial projects financed by IDB alone is about JD 20 million, constituting about 73% of the planned investments of the private sector for the first two years. This does not include other sources of finance, like commercial banks and financial institutions.

As revealed by the 1986 industrial sample survey carried out by the Department of Statistics, the industrial sector in Jordan consists of 1,485 establishments employing five or more workers, and 7,785 establishments employing four workers or less. Total employment in these establishments amounts to about 58,000 workers, of whom 16.2% are employed in the large natural resource based industries.

Jordan's industrial exports developed during the period under review, and increased from JD 9.2 million in 1973 to JD 96.5 million in 1980, of which 50.8% were phosphate exports. In 1987, industrial exports amounted to JD 216.11 million (compared with JD 195.7 million in 1986). In 1987, industrial exports worth JD 121.6 million were phosphate, potash and fertilizers. Manufacturing exports, other than natural resource based exports, constitute an important portion of Jordan's total exports. Neighbouring Arab countries, especially Iraq, Saudi Arabia, Syria and Kuwait, have been the most important markets for Jordan's exports, accounting for nearly 80%. Major export markets for phosphate, potash and fertilizers are India, South East Asian countries and East and West European countries.

1.4. Policies and Measures to Promote Investments in Manufacturing

Jordan recognized at an early stage the importance of encouraging and attracting local, Arab and foreign investment in manufacturing activities.

Investment incentives in Jordan are spelled out in the Encouragement of Investment Law. There are also incentives available to companies that locate in the Free Zone or the Industrial Estates. The available incentives are considered generous, and compare well with incentives available in surrounding countries. These include tax holidays from 7 to 15 years; exemption of imported fixed assets from customs
and import duties; and provision of project land through leasing of areas from the state. The magnitude of the incentives granted depends on several factors, such as type of industry, value of fixed assets and location.

In addition, the government pursues a policy of encouraging industry through various other measures, such as: tariff protection; export subsidy (related to consumed energy); restricting imports; and opening export markets through bilateral agreements. In limited instances, the government has granted monopolies to certain industries and guaranteed minimum dividends to their shareholders.

There are a number of policies pursued by the government for the protection of industry. These include quantitative restrictions, tariffs and investment licensing. Usually, protection policies are of a transitory nature that remain in force for a specified time and then begin to decline in order to expose the industry to healthy competition. Protection measures in Jordan are more or less of a permanent nature, and do not encourage a domestic firm to improve its product or reduce its cost. In addition, protection measures do not only shield industry from foreign competition, but also, in a number of cases, prevent competition internally by denying licences to similar industries. The Jordanian market should be open to all comers, and protection should be temporary and against foreign goods only just to enable an industry to overcome teething problems.

The monetary policy of the Central Bank of Jordan (CBJ) aims at encouraging investment through several measures, such as: adjustment of banks' legal reserve ratios on saving and demand deposits; revision of the interest rate structure; setting credit ceilings; rediscounting 20%–40% of the value of syndicated loans; and providing soft loans to exporting industries through commercial banks. In pursuit of this policy, the CBJ requested commercial banks to invest 15% of their capital and reserves in stocks of public sharing companies.

2. Sources and Instruments of Finance

2.1. Sources

The industrial sector in Jordan has access to financing through various channels. These include: the commercial banks; the Industrial Development Bank; finance companies; and other non-bank institutions such as insurance companies, the Postal Savings Fund, the Pension Fund, and the Social Security Corporation. Other specialized credit institutions -- the Housing Bank; Agricultural Credit Corporation (ACC); Cities and Villages Development Bank (CVDB) Fund; through its Regional Development Fund, and Jordan Cooperative Organization (JCO) -- are also involved in financing manufacturing industries related to their activities. In addition, industry has access to Arab and foreign financing institutions, which include: the Islamic Development Bank; Kuwait Fund for Arab Economic Development (KFAED); Arab Fund for Economic and Social Development (AFESD); Abu Dhabi Fund for Arab Economic Development; International Finance Corporation (IFC); European Investment Bank (EIB); Kreditanstalt Fuer Wiederaufbau (KFW), and others.

2.2. Instruments

Various instruments used to finance industry include:

- Over-draft facilities;
- Short-, medium- and long-term loans;
- Syndicated loans;
- Underwriting of share and bond issues;
- Equity participation; and,
- Others.

2.2.1. Over-draft facilities

The financing conditions differ from one instrument to the other. Generally, over-draft facilities are extended for one year renewable annually; disbursement of the funds is quite liberal, leading often to the use of short-term loans for financing fixed assets (machinery and buildings) or working capital. Interest charges vary from one client to another depending on the financial standing of the client. Over-draft facilities constitute about half the volume of industrial financing in the country.

2.2.2. Term loans

Term loans are usually provided for a period of up to eight years (door-to-door). IDB loans may be provided for longer periods, depending on expected project performance. Generally, interest on term loans is fixed for the whole period of the loan.

Repayment is either on a quarterly or semi-annual basis. These loans are extended to finance fixed assets and/ or working capital, and are usually disbursed in accordance with the progress of the project. Projects financed by such loans are usually supervised during execution and commercial operation, until the loan is fully repaid. Term loans are provided against a variety of collateral: mortgages of real estate (land and buildings); bank guarantees; charge on shares and bonds; and endorsement of LCs. The acceptance of transfer of rental rights at industrial estates was introduced in 1983 as collateral for projects located in the industrial estates.

2.2.3. Syndicated loans

In 1978, the Industrial Development Bank introduced financing of larger industrial projects through syndicated loans providing finance in sufficient amounts for larger projects which would be beyond the capacity of a single financing institution. They are considered an appropriate means of mobilization of funds and risk distribution. Since their introduction, 24 syndicated loans have been extended to the industry and mining sector, amounting to JD 87.7 million. The natural resources-based industries obtained eight of these loans, amounting to JD 72.5 million (82.7% of the total).

Syndicated loans are usually granted for a period of seven years at a floating interest rate varying from 8%–9% and a commission of 1%-2%. Other terms and conditions are similar to those of ordinary term loans. Out of the 24 syndicated loans extended to industry, 11 loans worth JD 77.4 million were government guaranteed.

2.2.4. Bond issues

Bond issues are another source of finance for industrial and mining projects. This activity, which started in 1979, was entrusted to the finance companies and IDB. Since 1979, 12 bond issues for industry and mining projects, amounting to JD 61.5 million, were arranged and underwritten either wholly or partially by IDB and the finance companies. Such bonds have a maturity period of seven years with a fixed
interest rate. All bond issues were guaranteed by the government. The establishment of the Amman Financial Market (AFM—stock exchange) was a major step towards the creation and development of the capital market in Jordan, with the aim of mobilizing financial resources for investment. The AFM regulates and controls the issue of and trading in shares and bonds, to ensure soundness and speed of transaction. By the end of 1987, 118 public shareholding companies were listed at AFM, of which 47 were industrial companies.

Since the creation of AFM in 1978, a total of 70.2 million shares were floated, amounting to JD 119.00 million, and providing equity for 33 industrial companies.

The finance companies and IDB are also entrusted with underwriting share issues. In contrast with the activity in underwriting bonds, only a few issues were underwritten, mainly due to the attitude and financial position of the issuing companies.

2.2.5. Equity participation

Equity participation is another instrument of industrial financing. The private sector has been the main source of equity participation in the capital of industrial projects. This was realized through direct equity in small enterprises, or through subscription to shares of large ones. The government also participates in the share capital of major industrial companies, together with other non-bank financial institutions, such as the Social Security Corporation and the Pension Fund. By the end of 1987, the government and its autonomous public institutions participated in 26 public shareholding companies to the amount of JD 104 million. This participation varied from 1% to 66%, with the major participation in natural resource based industries accounting for 93% of the total. The commercial banks and finance companies also participate in the capital of public share-holding companies. IDB holds equity of JD 4.3 million in 25 industrial companies.

2.2.6. Others

Other types of financing instruments, such as leasing, installment finance and others, are also available to industry. Leasing is practised by three local companies, with a major portion of their activities directed towards the contracting sector. The Islamic Development Bank is also known for its activities in both installment and lease finance, with one known deal for a Jordanian industry. Installment finance is practised by financial institutions operating according to the Sharia’a Islamic code. It is generally believed that such types of finance have played a modest role, compared with other financing instruments.

3. Role of the Industrial Development Bank

The Industrial Development Bank (IDB) was established in 1965 with the main objective of providing term financing for industry and tourism. It is the only such institution in Jordan, and plays a significant role in promoting and financing both sectors. The scope of loan financing is limited to the private sector, including industrial projects with government equity not exceeding 49%.

Loans are for financing fixed assets for a period not exceeding 15 years, and raw materials of industrial projects for up to three years. These loans are extended on the basis of the soundness of projects’ economic, technical and financial aspects, and the managerial competence of their promoters. Performance of projects during construction and operation is monitored until loans are fully repaid.

IDB investment in a single project may not exceed 15% of IDB paid-up capital and reserves.

By the end of 1987, the net loan approval by IDB amounted to 1,186 loans totalling JD 85.4 million, of which 10% was for tourism projects.

IDB implements a preferential loan policy for underdeveloped regions, which includes extended grace and repayment periods, exemption of commitment charge, lower interest rates and a higher proportion of loan to project cost, reaching 65% instead of 50% for developed regions.

Interest rates and other charges vary in accordance with project ownership, location and purpose of loan.

In order to make available necessary funds to meet the growing demand of industry, syndication and management of loans were introduced in 1978 to provide financing to larger projects. By the end of 1987, the bank syndicated and managed 14 loans totalling JD 34.016 million, and participated with other financial institutions in another six loans totalling JD 34.50 million. These loans were syndicated for industrial and tourism projects.

Since 1975, IDB has expanded its activities to cover small-scale industries and handicraft enterprises employing less than five workers. By the end of 1987, 2,360 loans totalling JD 6.45 million were extended. Though representing a small proportion of total IDB lending, this initiative has meant catering to the needs of a sub-sector which previously had virtually no access to institutional financing.

Through its policy of encouraging and promoting industrial projects, IDB participates in the equity capital of such projects. By the end of 1987, IDB had subscribed in the establishment of 30 projects with total equity investment of JD 4.89 million.

To encourage and develop the ownership of shares of industrial and tourism projects and the bonds they issue, and to assist the growth and development of the stock market in the Kingdom, in 1979 IDB started to participate in the underwriting of share issues and corporate bonds as new tools of industrial financing. The value of bonds floated with IDB participation was JD 37 million by the end of 1987.

In 1983, and as a result of studies carried out by the IDB on industrial projects, IDB established a fund to finance necessary studies on projects facing basic structural problems. Interest-free loans granted by this fund for a maximum of ten years included a grace period of up to three years and a service charge of 2% annually.

As a service to the business community, IDB established in 1979 the Jordan Institute of Management (JIM), to train the middle management of the private sector in modern practices in the fields of accounting, financial analysis, management, production, marketing and computer applications. Since its establishment JIM has conducted 246 training programs for 4,033 participants drawn from various local businesses and Arab states.

In 1988, IDB started to offer, through the newly established Manufacturing and Marketing Improvement Section (MMS) at JIM, consultancy services to industry in order to assist in resolving problems of production efficiency, quality, cost, marketing and management.

IDB continues its efforts, in conjunction with other institutional investors in the field of project identification, by undertaking or sponsoring necessary studies to identify and set up new projects in Jordan.
4. Financing constraints

After this brief review of the main features of the industrial sector and its development over the last 20 years, and of available financing instruments, it is important to mention some of the difficulties and constraints that face banks and financial institutions in dealing with small, medium and large private sector industrial projects. However, I would like to indicate here that due to the size, nature and importance of the large natural resource-based industries, they may not be subjected to all the usual constraints confronting medium and small-scale industries.

4.1. The financing of industrial projects is constrained by the almost total absence of necessary studies of projects submitted to financing institutions. The experience of IDB shows that very few entrepreneurs submit proper feasibility studies when they apply for financing. This, of course, leads to a situation where the financial institution is obliged to undertake the necessary studies from scratch, rather than to check or verify an existing report on the project. The evaluation or appraisal report prepared by IDB depends on basic information supplied by the applicant, which usually takes an average of one month to be completed, leading to delays in loan approvals. Another observation worth mentioning is the aversion of Jordanian investors, with few exceptions, to consulting services. Most investors tend to make decisions on the choice of machinery and know-how after visiting similar production units in Europe or the Far East. This process could be understandable in simple industrial projects, such as making nails, but is extremely risky in industries that involve more complicated processes, where the services of competent consultants are required to avoid pitfalls in the choice of production processes, determination of capacities, and technical skills required to run the project.

4.2. There is a tendency among promoters of industrial projects to try to finance their projects with a maximum level of debt-equity ratio, and in some cases to avoid altogether, putting any equity in the project. Of course, when the project is financed through an over-draft facility, which generally does not entail supervised proportional disbursement of the loan, it becomes very difficult to ensure that the right level of equity has been injected into the project. IDB's policy, in this regard, requires a debt-equity ratio of 1:1, with only slight variations. We believe that, in view of the level of managerial skills available in the country, it is very prudent to insist on such a ratio, in order to absorb delays in execution and production, and difficulties in marketing. A comfortable base of equity would help the project over such difficulties.

4.3. Generally, project execution faces many delays and cost over-runs. Such cost over-runs are not, in many cases, the result of unforeseen circumstances, but of a deliberate decision by the investors during execution to increase the area of buildings, and/or by additional machinery. Delays in construction lead to an increase in the amount of interest due during construction and on pre-operating expenses, and consequently contribute to cost over-runs.

4.4. All the problems and difficulties that I have mentioned are compounded by the lack of planning for the operational stage of the project. Training of staff, provision of technical expertise if necessary, and preparation of marketing strategy are activities which do not receive enough attention, and consequently lead to many difficulties.

4.5. As a result of the above factors, many industries find themselves, right from the start or a couple of years later, faced with liquidity (financial) problems leading to unbalanced capital structure (high indebtedness, accumulated losses and dependence on short-term financing). At this stage, the project gradually becomes a sick case, and needs remedial overhaul measures or must be liquidated, causing losses to all concerned.

4.6. Restructuring ailing companies is now well known, after several restructuring operations have been completed. The standard scenario includes:

a. Freezing of interest.
b. Write-off of losses and decrease of capital.
c. Increase of share capital.
d. Partial conversion of bank debt into equity.
e. Rescheduling of remaining debt.

Restructuring decisions for larger projects are usually taken by the “Committee for Economic Security.” The burden of restructuring falls, in the main, on the lending institutions, whether in terms of losing interest income or converting debt into equity that is not expected to earn dividends. In spite of restructuring steps, some industries are not capable of surviving, simply because they are not viable.

4.7. Due to the limitation of the market, industry in Jordan should be export-oriented. There are many successful examples in this respect, the most obvious of which is pharmaceuticals.

But gradually, neighboring countries are following in the footsteps of Jordan and are building their own “run of the mill” simple industries: plastics, paints, nails, etc. It seems that unless Jordan stays one step ahead in establishing slightly more sophisticated industry, the export market is bound to suffer as our neighbours are going to introduce protection measures which will hamper the flow of industrial goods.

The other difficulty facing export industries is that most of our trading partners have shortages of foreign exchange, and consequently revert to bartering or countertrade, with all accompanying difficulties, delays and distortions.

Regional cooperation is of the utmost importance to the future development of the industrial sector. This calls for continued endeavors to broaden the scope of bilateral trade agreements, to strive to enforce the rules of the Arab Common Market, and to reduce administrative obstacles that face the free movement of goods and services among Arab countries.

4.8. The industrial sector is highly regulated. An investor needs a licence to establish an industry or to expand an existing one, a licence to import machinery, another to import raw materials or spare parts, and other approvals or licences from various government agencies. Prices of products may be fixed by the government in certain industries. Licences are not granted in sectors with excess capacity. Such procedures and measures have a negative effect on the investment climate in the country. Therefore, I believe that eliminating, or at least, reducing the need for licensing industries (establishment or expansion) would have a positive effect on the future development of the industrial sector. If this is done, then it becomes the duty of the investor and the financing institution to make sure that the investment is economically justifiable, or face the consequences of failure and liquidation. Let the forces
of the market decide on the direction and allocation of investment, rather than administrative procedures and controls.

4.9. The implementation of procedures of applying for and getting investment incentives is a lengthy and cumbersome process. The committee administering the law uses a complex rating system for determining the granting of incentives. It is suggested, in this context, to overhaul the procedures in order to make them simpler, more explicit and less time-consuming. To facilitate the work, only large projects should go to the Council of Ministers; otherwise, the committee should be empowered to approve incentives.

4.10. Although Jordan has well developed financial institutions that offer diversified services to the industrial sector, there are still some aspects that deserve further improvement. These include: a) project evaluation, where, through staff training, projects' financial needs may be better assessed, and consequently appropriately satisfied; and, b) a gradual shift from over-draft facilities to term financing.

It is believed that achievement of the above, in addition to the creation of a loan guarantee scheme, would make financial institutions more forthcoming and risk-taking.

5. Prospects

The industrial sector in Jordan enjoys several comparative advantages, such as proximity to Arab markets, availability of developed infrastructure, comprehensive financial services, and non-restricted access to imported inputs. On the other hand, the sector is confronted with two major negative characteristics: smallness of the market, and dependence on imported raw materials. These are accompanied by high production costs attributable to costs of inputs, and by shortages of indigenous expertise in the fields of management and marketing.

Based on its own experience, the IDB shares the view of several agencies and institutions in recommending the following measures, to be implemented in order to better utilize advantages and overcome the negative factors:

1. Abolish, or if not possible, reduce, the scope of industrial licensing.
2. Simplify the application and approval process of the Encouragement of Investment Law.
3. Upgrade quality of manufactured products through standards, testing and certification.
4. Expand export markets through bilateral and multilateral agreements.
5. Improve institutions for export promotion.
6. Improve arrangements for export financing, including export guarantees.
7. Replace quantitative restrictions by tariffs, in order to avoid excessive price distortions in the market.
8. Allow more flexibility to financial institutions in setting lending rates, and consider a loan guarantee scheme for medium and small-scale industries.
9. Provision of training programs and seminars for the purpose of qualifying and upgrading upper management.

The future growth of the industrial sector in Jordan will be enhanced by the implementation of these measures, and it is likely that industries with a higher level of technology will benefit from the comparative advantages of the country. The sub-sectors that lend themselves to such growth are the chemical and pharmaceutical industries and down-stream projects of natural resource based industries, in addition to engineering components for maintenance of large projects in the country and the region. Subject to further studies, other potential industries may be identified.

Given the right incentives and infrastructural support, the industrial sector has the potential to grow. This calls for a concerted effort by the private sector, with the help of the government and the support of financial institutions to identify new projects and expand existing ones, in order to meet this challenge.

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### Table 1

**Sectoral Distribution of Outstanding Credit Facilities**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>2.8</td>
<td>2.5</td>
<td>2.2</td>
<td>2.1</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Industry &amp; Mining General Commerce and Trade</td>
<td>12.7</td>
<td>13.5</td>
<td>14.3</td>
<td>14.8</td>
<td>15.8</td>
<td>14.6</td>
</tr>
<tr>
<td>Construction</td>
<td>32.1</td>
<td>26.8</td>
<td>25.0</td>
<td>24.2</td>
<td>24.3</td>
<td>24.0</td>
</tr>
<tr>
<td>Tourism</td>
<td>24.4</td>
<td>26.3</td>
<td>27.4</td>
<td>26.0</td>
<td>24.3</td>
<td>23.7</td>
</tr>
<tr>
<td>Other Sectors</td>
<td>2.3</td>
<td>2.5</td>
<td>2.0</td>
<td>2.3</td>
<td>2.7</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total Outstanding Credit Facilities (JD Million)</strong></td>
<td>887.2</td>
<td>1030.9</td>
<td>1184.8</td>
<td>1274.4</td>
<td>1395.4</td>
<td>1513.0</td>
</tr>
</tbody>
</table>


### Table 2

**Syndicated Loans Extended to the Industry and Mining Sector, 1978 – 1987**

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>Amount (JDm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jordan Cement Factory Co.</td>
<td>7.50</td>
</tr>
<tr>
<td>2. Jordan Cement Factory Co.</td>
<td>5.00</td>
</tr>
<tr>
<td>3. Jordan Cement Factory Co.</td>
<td>9.00</td>
</tr>
<tr>
<td>4. Jordan Cement Factory Co.</td>
<td>12.00</td>
</tr>
<tr>
<td>5. Jordan Phosphate Mines Co.</td>
<td>10.00</td>
</tr>
<tr>
<td>6. Jordan Phosphate Mines Co.</td>
<td>12.00</td>
</tr>
<tr>
<td>7. Arab Potash Co.</td>
<td>5.00</td>
</tr>
<tr>
<td>8. Arab Potash Co.</td>
<td>12.00</td>
</tr>
<tr>
<td>9. Jordan Tobacco &amp; Cigarettes Co.</td>
<td>0.50</td>
</tr>
<tr>
<td>10. Jordan Tobacco &amp; Cigarettes Co.</td>
<td>1.00</td>
</tr>
<tr>
<td>11. Jordan Tobacco &amp; Cigarettes Co.</td>
<td>0.30</td>
</tr>
<tr>
<td>12. Jordan Lime &amp; Silicate Bricks Co.</td>
<td>1.50</td>
</tr>
<tr>
<td>13. Jordan Timber Processing Co.</td>
<td>2.50</td>
</tr>
<tr>
<td>14. Arab Aluminum Industry Co.</td>
<td>0.30</td>
</tr>
<tr>
<td>15. Jordan Ceramic Industries Co.</td>
<td>0.30</td>
</tr>
<tr>
<td>16. National Industries Co.</td>
<td>0.50</td>
</tr>
<tr>
<td>17. Jordan Glass Industries Co.</td>
<td>0.40</td>
</tr>
<tr>
<td>18. Jordan Ice &amp; Aerated Water Co.</td>
<td>1.90</td>
</tr>
<tr>
<td>19. Jordan Overall Co.</td>
<td>0.30</td>
</tr>
<tr>
<td>20. Household Appliances Mfg. Co.</td>
<td>0.50</td>
</tr>
<tr>
<td>21. The Arab Pharmaceutical Mfg. Co.</td>
<td>0.50</td>
</tr>
<tr>
<td>22. Jordan Blending &amp; Packing of Fertilizers Co.</td>
<td>0.20</td>
</tr>
<tr>
<td>23. Elba House</td>
<td>0.30</td>
</tr>
<tr>
<td>24. Jordan Industrial Estates Corp.</td>
<td>2.00</td>
</tr>
<tr>
<td>25. Jordan Cattle and Poultry Co. Ltd.</td>
<td>0.155</td>
</tr>
<tr>
<td>26. Arab Investment and International Trading Co.</td>
<td>0.360</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>88.215</strong></td>
</tr>
</tbody>
</table>

Table 3

Corporate Bond Issues of Industrial Companies

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>Amount (JD m.)</th>
<th>Date of Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jordan Cement Co.</td>
<td>5.00</td>
<td>1979</td>
</tr>
<tr>
<td>2. Jordan Cement Co.</td>
<td>6.00</td>
<td>1982</td>
</tr>
<tr>
<td>3. Jordan Fertilizers Industries Co.</td>
<td>6.00</td>
<td>1982</td>
</tr>
<tr>
<td>4. Jordan Fertilizers Industries Co.</td>
<td>7.00</td>
<td>1982</td>
</tr>
<tr>
<td>5. Jordan Glass Industries Co.</td>
<td>4.00</td>
<td>1983</td>
</tr>
<tr>
<td>6. Jordan Fertilizers Industries Co.</td>
<td>7.00</td>
<td>1983</td>
</tr>
<tr>
<td>7. Arab Potash Co.</td>
<td>7.00</td>
<td>1984</td>
</tr>
<tr>
<td>8. Jordan Timber Processing Co.</td>
<td>2.50</td>
<td>1984</td>
</tr>
<tr>
<td>9. Jordan Medical Corp.</td>
<td>1.50</td>
<td>1985</td>
</tr>
<tr>
<td>10. Jordan Cement Co.</td>
<td>6.00</td>
<td>1986</td>
</tr>
<tr>
<td>11. Jordan Cement Co.</td>
<td>6.00</td>
<td>1986</td>
</tr>
<tr>
<td>12. Jordan Glass Industries Co.</td>
<td>3.50</td>
<td>1987</td>
</tr>
</tbody>
</table>

Total 61.50

Source: Statistical Data, 1988, Amman Financial Market

Table 4

Number & Value of Stocks of Industrial & Mining Sector Companies Traded at the Amman Financial Market (1978 — 1987)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of stocks</th>
<th>Value (JD m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>0.88</td>
<td>2.89</td>
</tr>
<tr>
<td>1979</td>
<td>2.00</td>
<td>6.76</td>
</tr>
<tr>
<td>1980</td>
<td>5.10</td>
<td>17.22</td>
</tr>
<tr>
<td>1981</td>
<td>13.90</td>
<td>32.06</td>
</tr>
<tr>
<td>1982</td>
<td>14.70</td>
<td>39.83</td>
</tr>
<tr>
<td>1983</td>
<td>13.31</td>
<td>20.89</td>
</tr>
<tr>
<td>1984</td>
<td>12.38</td>
<td>14.64</td>
</tr>
<tr>
<td>1985</td>
<td>9.93</td>
<td>11.85</td>
</tr>
<tr>
<td>1986</td>
<td>15.99</td>
<td>18.34</td>
</tr>
<tr>
<td>1987</td>
<td>59.29</td>
<td>91.56</td>
</tr>
</tbody>
</table>

Total 147.48 256.04

* Source: Statistical Data, 1988, Amman Financial Market

Table 5

Number and Value of Floated Shares of Public Shareholding Companies (1978 — 1987)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Companies</th>
<th>New</th>
<th>Existing</th>
<th>No. of Shares</th>
<th>Value of Shares (JD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>11</td>
<td>3</td>
<td>8</td>
<td>6,653,126</td>
<td>11,901,117</td>
</tr>
<tr>
<td>1979</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>5,256,295</td>
<td>16,887,705</td>
</tr>
<tr>
<td>1980</td>
<td>23</td>
<td>13</td>
<td>10</td>
<td>28,294,483</td>
<td>47,764,260</td>
</tr>
<tr>
<td>1981</td>
<td>18</td>
<td>14</td>
<td>4</td>
<td>73,762,574</td>
<td>74,547,574</td>
</tr>
<tr>
<td>1982</td>
<td>24</td>
<td>12</td>
<td>12</td>
<td>58,347,788</td>
<td>91,308,682</td>
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<tr>
<td>1983</td>
<td>17</td>
<td>13</td>
<td>4</td>
<td>58,600,000</td>
<td>59,910,000</td>
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<tr>
<td>1984</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>6,233,592</td>
<td>6,283,630</td>
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<tr>
<td>1985</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>6,737,500</td>
<td>10,675,000</td>
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<tr>
<td>1986</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>5,290,000</td>
<td>11,420,000</td>
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<tr>
<td>1987</td>
<td>4</td>
<td>—</td>
<td>4</td>
<td>13,159,538</td>
<td>28,159,538</td>
</tr>
</tbody>
</table>

Total 121 65 56 262,334,896 358,857,506

* Source: Statistical Data, 1988, Amman Financial Market
### Table 6

**Government Equity Investment in Industrial Projects 1987**

<table>
<thead>
<tr>
<th>No. of Company</th>
<th>Authorized (JD m.)</th>
<th>Ownership (JD m.)</th>
<th>Ownership Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jordan Cement Factories Co.</td>
<td>50.00</td>
<td>13.656</td>
<td>27.3</td>
</tr>
<tr>
<td>2. Jordan Phosphate Mines</td>
<td>34.20</td>
<td>22.850</td>
<td>66.8</td>
</tr>
<tr>
<td>3. Arab Potash Co.</td>
<td>72.45</td>
<td>37.894</td>
<td>52.3</td>
</tr>
<tr>
<td>4. Jordan Petroleum Refinery</td>
<td>32.00</td>
<td>22.595</td>
<td>7.1</td>
</tr>
<tr>
<td>5. Jordan Tanning Co.</td>
<td>1.00</td>
<td>0.150</td>
<td>15.0</td>
</tr>
<tr>
<td>6. The Industrial Commercial &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural Co.</td>
<td>5.00</td>
<td>0.089</td>
<td>1.8</td>
</tr>
<tr>
<td>7. The Arab Pharmaceutical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing Co.</td>
<td>5.00</td>
<td>0.280</td>
<td>5.6</td>
</tr>
<tr>
<td>8. The Jordan Worsted Mills</td>
<td>1.35</td>
<td>0.323</td>
<td>23.9</td>
</tr>
<tr>
<td>9. Jordan Ceramic Industries</td>
<td>2.00</td>
<td>0.030</td>
<td>1.5</td>
</tr>
<tr>
<td>10. Jordan Dairy Co.</td>
<td>1.75</td>
<td>0.238</td>
<td>13.6</td>
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<tr>
<td>11. Public Mining Co.</td>
<td>1.00</td>
<td>0.510</td>
<td>51.0</td>
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<tr>
<td>12. Jordan Paper &amp; Cardboard</td>
<td>1.50</td>
<td>0.111</td>
<td>7.4</td>
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<tr>
<td>13. Jordan Pipes Manufacturing</td>
<td>2.50</td>
<td>0.252</td>
<td>10.1</td>
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<tr>
<td>14. Jordan Glass Industries Co.</td>
<td>9.00</td>
<td>4.524</td>
<td>12.5</td>
</tr>
<tr>
<td>15. Jordan Spinning &amp; Weaving Co.</td>
<td>4.00</td>
<td>0.50</td>
<td>12.5</td>
</tr>
<tr>
<td>16. Arab Aluminium Industry</td>
<td>4.00</td>
<td>0.002</td>
<td>0.06</td>
</tr>
<tr>
<td>17. Arab Investment &amp;</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>International Trade</td>
<td>3.489</td>
<td>0.004</td>
<td>0.10</td>
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<tr>
<td>18. Mas Industries Co.</td>
<td>0.370</td>
<td>0.010</td>
<td>2.9</td>
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<tr>
<td>19. The Arab Paper Converting &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trading Co.</td>
<td>1.00</td>
<td>0.023</td>
<td>2.3</td>
</tr>
<tr>
<td>20. Universal Chemical Industries</td>
<td>1.00</td>
<td>0.008</td>
<td>0.8</td>
</tr>
<tr>
<td>21. Jordan Industries &amp;</td>
<td></td>
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<tr>
<td>Match (JIMCO)</td>
<td>1.70</td>
<td>0.050</td>
<td>2.9</td>
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<td>22. Arab Center For</td>
<td></td>
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<tr>
<td>Pharmaceuticals &amp; Chemicals</td>
<td>2.40</td>
<td>0.044</td>
<td>1.8</td>
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<td>23. Jordan Precast Concrete</td>
<td></td>
<td></td>
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<tr>
<td>Industry</td>
<td>4.00</td>
<td>0.050</td>
<td>1.2</td>
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<td>24. Arab Industrial Group Co.</td>
<td>1.60</td>
<td>0.002</td>
<td>0.2</td>
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<td>25. Orient Dry Batteries Factory</td>
<td>1.00</td>
<td>0.010</td>
<td>1.0</td>
</tr>
<tr>
<td>26. Jordan Industrial Investments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporation</td>
<td>2.00</td>
<td>0.542</td>
<td>27.1</td>
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<tr>
<td><strong>Total</strong></td>
<td>245.30</td>
<td>104.68</td>
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### Table 7

**IDB Equity Investment in Industrial Projects (1987)**

<table>
<thead>
<tr>
<th>No. of Company</th>
<th>Equity Shares (JD)</th>
<th>Investment (JD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jordan Dairy Company</td>
<td>100000</td>
<td>107028</td>
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<tr>
<td>2. Jordan Phosphate Mines Co. Ltd.</td>
<td>25000</td>
<td>32749</td>
</tr>
<tr>
<td>3. Jordan Paper Cardboard Factory Co.</td>
<td>142152</td>
<td>142152</td>
</tr>
<tr>
<td>4. General Mining Company</td>
<td>7500</td>
<td>7500</td>
</tr>
<tr>
<td>5. Jordan Ceramic Industries Co. Ltd.</td>
<td>119024</td>
<td>136877</td>
</tr>
<tr>
<td>6. Jordan Polymers and Intermediate</td>
<td>6613</td>
<td>34565</td>
</tr>
<tr>
<td>Chemical Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Jordan Timber Processing Co.</td>
<td>344020</td>
<td>344020</td>
</tr>
<tr>
<td>8. Jordan Wood Industries Co.</td>
<td>122250</td>
<td>122250</td>
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<tr>
<td>9. Arab Investment and International</td>
<td>463497</td>
<td>463497</td>
</tr>
<tr>
<td>Trade Co. Ltd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* 10. Jordan Securities Corporation</td>
<td>33940</td>
<td>33940</td>
</tr>
<tr>
<td>11. Jordan Lime and Silicate Bricks Co.</td>
<td>318650</td>
<td>318650</td>
</tr>
<tr>
<td>12. Jordan Clothing Co. Ltd.</td>
<td>4050</td>
<td>1351</td>
</tr>
<tr>
<td>13. Intermediate Petrochemicals</td>
<td>146000</td>
<td>146000</td>
</tr>
<tr>
<td>Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Jordan Glass Industries Co.</td>
<td>125000</td>
<td>125000</td>
</tr>
<tr>
<td>15. Jordan Industrial Investment Co.</td>
<td>10000</td>
<td>10000</td>
</tr>
<tr>
<td>16. Jordan Petroleum Refinery Co.</td>
<td>10000</td>
<td>10000</td>
</tr>
<tr>
<td>17. Yarmouk Dairy and Food Industry Co.</td>
<td>5000</td>
<td>25000</td>
</tr>
<tr>
<td>18. Arab Aluminium Industry Co.</td>
<td>8616</td>
<td>8058</td>
</tr>
<tr>
<td>19. Jordan Precast Concrete Industry</td>
<td>75000</td>
<td>75000</td>
</tr>
<tr>
<td>Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Jordan Spinning and Weaving Co.</td>
<td>225000</td>
<td>225000</td>
</tr>
<tr>
<td>* 21. Jordan Tourism and Spa Complex Co. Ltd.</td>
<td>250000</td>
<td>250000</td>
</tr>
<tr>
<td>22. Jordan Blending and Packing of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fertilizers Co.</td>
<td>56250</td>
<td>56250</td>
</tr>
<tr>
<td>23. Jordan Craft Development Center</td>
<td>10000</td>
<td>10000</td>
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<tr>
<td>24. Jordan Industrial Estate</td>
<td>1000000</td>
<td>1000000</td>
</tr>
<tr>
<td>Corporation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* 25. Arab Engineering Industries Co.</td>
<td>200000</td>
<td>200000</td>
</tr>
<tr>
<td>26. Jordan Investment and Finance</td>
<td>30000</td>
<td>30000</td>
</tr>
<tr>
<td>Corporation</td>
<td>40000</td>
<td>40000</td>
</tr>
<tr>
<td>27. The Management Consultants Co.</td>
<td>350000</td>
<td>350000</td>
</tr>
<tr>
<td>28. Jordan Poultry Processing Co.</td>
<td>35000</td>
<td>35000</td>
</tr>
<tr>
<td>29. Arab International Hotels Co.</td>
<td>233334</td>
<td>233334</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>489284</td>
</tr>
</tbody>
</table>

* Tourism & Financial Companies (not included in figures quoted for equity in industrial projects).
Source: IDB, 1987 Annual Report
### Table 8

**Industrial Development Bank
Highlights of Operations (JDM.)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Number of Loans</td>
<td>98</td>
<td>85</td>
<td>129</td>
<td>95</td>
<td>85</td>
</tr>
<tr>
<td>2. Amount of Loans</td>
<td>8,450</td>
<td>7,122</td>
<td>7,483</td>
<td>8,865</td>
<td>7,713</td>
</tr>
<tr>
<td>3. Equity Investment</td>
<td>0.475</td>
<td>0.449</td>
<td>0.125</td>
<td>1.063</td>
<td>0.350</td>
</tr>
<tr>
<td>4. Bonds</td>
<td>0.250</td>
<td>0.150</td>
<td>0.119</td>
<td>1.500</td>
<td>0.442</td>
</tr>
<tr>
<td>II. Disbursements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Amount of Loans</td>
<td>8,360</td>
<td>6,612</td>
<td>6,804</td>
<td>8,599</td>
<td>7,733</td>
</tr>
<tr>
<td>2. Equity Investment</td>
<td>0.265</td>
<td>0.773</td>
<td>0.111</td>
<td>0.732</td>
<td>0.637</td>
</tr>
<tr>
<td>3. Bonds</td>
<td>0.250</td>
<td>0.150</td>
<td>0.119</td>
<td>1.500</td>
<td>0.442</td>
</tr>
<tr>
<td>Total</td>
<td>8,875</td>
<td>7,535</td>
<td>7,035</td>
<td>10,831</td>
<td>8,809</td>
</tr>
<tr>
<td>III. Collection of Loans</td>
<td>7,800</td>
<td>9,520</td>
<td>9,790</td>
<td>10,520</td>
<td>9,560</td>
</tr>
<tr>
<td>IV. Outstanding Loans</td>
<td>35,938</td>
<td>37,619</td>
<td>37,477</td>
<td>39,274</td>
<td>40,497</td>
</tr>
<tr>
<td>V. Paid-up Capital</td>
<td>5,252</td>
<td>5,691</td>
<td>5,691</td>
<td>5,691</td>
<td>5,691</td>
</tr>
<tr>
<td>VI. Net Worth</td>
<td>7,593</td>
<td>8,535</td>
<td>8,616</td>
<td>8,738</td>
<td>8,903</td>
</tr>
<tr>
<td>VII. Net Profit</td>
<td>0.713</td>
<td>0.962</td>
<td>1.113</td>
<td>1.156</td>
<td>1.245</td>
</tr>
<tr>
<td>VIII. Dividends</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>IX. Small Scale Industry &amp; Handicraft Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Number of Loans</td>
<td>261</td>
<td>188</td>
<td>417</td>
<td>404</td>
<td>77</td>
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<tr>
<td>2. Amount of Loans</td>
<td>0.774</td>
<td>0.491</td>
<td>1.274</td>
<td>1.239</td>
<td>0.216</td>
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<td>3. Disbursements</td>
<td>0.777</td>
<td>0.439</td>
<td>1.237</td>
<td>1.140</td>
<td>0.262</td>
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<td>4. Collections</td>
<td>0.477</td>
<td>0.546</td>
<td>0.577</td>
<td>0.601</td>
<td>0.720</td>
</tr>
<tr>
<td>5. Outstanding Loans</td>
<td>1.623</td>
<td>1.655</td>
<td>2.497</td>
<td>5.263</td>
<td>3.058</td>
</tr>
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</table>

### Table 9

**IDB Syndicated loans**

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Company</th>
<th>Amount of Loan (JDM.)</th>
<th>IDB Share (JDM.)</th>
<th>Year</th>
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<tbody>
<tr>
<td>A.</td>
<td>Loans Syndicated and Managed:</td>
<td></td>
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<td></td>
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<tr>
<td>1.</td>
<td>Jordan Cement Co.</td>
<td>7,500</td>
<td>0.500</td>
<td>1978</td>
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<tr>
<td>2.</td>
<td>Jodan Lime &amp; Silicate Bricks Co.</td>
<td>1,500</td>
<td>0.350</td>
<td>1978</td>
</tr>
<tr>
<td>3.</td>
<td>Arab Aluminum Industry Co.</td>
<td>2,500</td>
<td>0.500</td>
<td>1979</td>
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<tr>
<td>4.</td>
<td>Jordan Ceramic Industries Co.</td>
<td>0.270</td>
<td>0.170</td>
<td>1980</td>
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<tr>
<td>5.</td>
<td>Jordan National Industries Co.</td>
<td>0.480</td>
<td>0.260</td>
<td>1991</td>
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<td>6.</td>
<td>Jordan Timber Processing Co.</td>
<td>2,500</td>
<td>0.360</td>
<td>1981</td>
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<tr>
<td>7.</td>
<td>Jordan Cattle &amp; Poultry Co.</td>
<td>0.155</td>
<td>0.550</td>
<td>1982</td>
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<tr>
<td>8.</td>
<td>Jordan Phosphate Mines Co.</td>
<td>10,000</td>
<td>0.575</td>
<td>1982</td>
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<td>9.</td>
<td>Industrial Commercial &amp; Agricultural Co.</td>
<td>0.700</td>
<td>0.350</td>
<td>1983</td>
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<td>10.</td>
<td>Industrial Estates</td>
<td>2,000</td>
<td>1.000</td>
<td>1983</td>
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<td>11.</td>
<td>Arab Paper Converting &amp; Trading Co.</td>
<td>0.100</td>
<td>0.333</td>
<td>1986</td>
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<td>12.</td>
<td>Arab Investment and Int. Trade Co.</td>
<td>0.360</td>
<td>0.120</td>
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<td>13.</td>
<td>Arab International Hotels</td>
<td>3,000</td>
<td>0.060</td>
<td>1980</td>
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<td>14.</td>
<td>Jordan Hotels &amp; Tourism Co.</td>
<td>3,100</td>
<td>0.050</td>
<td>1980</td>
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<td></td>
<td>Total</td>
<td>34,165</td>
<td>6.016</td>
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<td>B.</td>
<td>Other Loans with IDB Participation:</td>
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<td></td>
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<td>1.</td>
<td>Jordan Cement Co.</td>
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<td>0.650</td>
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<td>Jordan Glass Industries Co.</td>
<td>0.400</td>
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<td>3.</td>
<td>Jordan Phosphate Mines Co.</td>
<td>12,000</td>
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<tr>
<td>4.</td>
<td>Jordan Cement Co.</td>
<td>12,000</td>
<td>1.000</td>
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<td>5.</td>
<td>Grand Palace Hotel Co.</td>
<td>3,100</td>
<td>0.500</td>
<td>1979</td>
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<td>6.</td>
<td>Jordan Tourism &amp; Spa Complex Co.</td>
<td>2,000</td>
<td>0.285</td>
<td>1986</td>
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<td>Total</td>
<td>34,500</td>
<td>4.036</td>
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</tr>
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<td></td>
<td>Grand Total</td>
<td>68.66</td>
<td>10.19</td>
<td></td>
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INDUSTRIAL FINANCING AND INDUSTRIALIZATION IN JORDAN

Comment by
Basil Jardaneh

1. Introduction

I am grateful to the sponsors for giving me this opportunity to comment on the valuable paper presented by Mr. Annab, the general manager of the Industrial Development Bank (IDB), with regard to industrial financing and industrialization in Jordan. Mr. Annab has rightly looked into the subject in an integrated manner, and has covered developments of industrial investments in Jordan and has analyzed the trends in such investments, as well as policies and measures adopted by the government to encourage these investments. In addition to analyzing the sources of finance, he has analyzed the constraints facing industry in Jordan, as well as the prospects of this sector. His coverage of these subjects was comprehensive, and not confined to financing in a limited manner. In my comments, I would like to elaborate further, or to comment on some of the points covered in his paper.

2. The innovative role of the IDB

Mr. Annab was certainly humble in reviewing the role of the IDB in support of the industrial sector in this country. I would like, in this respect, to emphasize the following:

(1) The IDB has made a great impact on supporting industrial entrepreneurs in this country, by providing substantial finance for start-up capital for new industrial companies. The risks involved in such finance are extremely high, and in many countries commercial banks do not finance such operations, but leave it to venture capitalists.

In addition, the risk-taking business of IDB includes its participation in the equity of new companies. IDB, in supporting start-ups, has certainly made a great impact on capital formation.

(2) IDB has been a pioneer in introducing project financing in Jordan and in offering loans based on cash flow management, without neglecting the importance of obtaining reasonable security for such loans whenever needed. The know-how that IDB has developed in this field has had great impact on the banking community in Jordan, and on the awareness of this community of the importance of financial management.

Whereas IDB, in historical perspective, has been innovative and has made great contributions to meet the emerging requirements of the economy, IDB and the banking system as a whole face a new challenge, to come up with new, innovative instruments to contain the constraints facing the industrial sector at present, and to help to continue the momentum that the sector has previously generated. I shall comment on this issue at a later stage.

3. Subjects requiring further elaboration

After reviewing Mr. Annab’s paper, it seems to me that the following three subjects were not covered comprehensively:

- The interest rate structure;
- Financing of exports;
- Incorporating sources and uses of funds for the industrial sector in Jordan.

3.1 The interest rate structure

Mr. Annab did not cover the interest rate structure prevailing in the country and its implications for the industrial sector. To complete his paper, I feel that this subject should have been covered in an elaborate manner. I realize that there are contradictory and extreme views in Jordan on this matter, which could be summarized as follows:

- Some economists hold the view that real interest rates in Jordan are very high, and do obstruct capital formation in the country.
- Some economists hold the view that interest rates in Jordan do not give savers appropriate protection against holding the Jordanian dinar or do not mobilize savings, and therefore they have to rise.
- Other economists would prefer to leave interest rates to be determined by market forces.

Within the context of the above, I would like to make the following comments:

1. It is imperative that discussions on financing the industrial sector should not be handled as an isolated issue, not connected to other issues facing the industrial sector; therefore, a comprehensive approach to problems of the industrial sector, in discussing the interest rate, is needed. Mr. Annab has definitely taken this into consideration.

2. One point worth considering in this regard is the high capital cost of projects in Jordan and the cost over-runs referred to by Mr. Annab. The capital cost of projects in Jordan is certainly high. Many papers written about projects in Jordan have always pointed out the transfer costs incurred by Jordanian projects due to import of know-how, foreign capital goods and other services from outside. Whereas the transfer cost is very important, there are certain internal factors contributing to the high cost of projects, including planning and supervision of execution.

One of the factors that I would like to emphasize, which is due to government policies and beyond the control of investors, is the high cost of some local building materials, like cement. This results in a high capital cost which lowers the profitability of the companies and subjects them to serious financial bottlenecks upon starting operations.

3. Government investment incentives for domestic industries seem to be generous. However, I doubt whether they are enough to overcome the bottlenecks resulting from high capital costs and costs over-runs.

4. Some action should be taken to overcome this problem so that IDB interest rates for projects may look reasonable. However, they are certainly not generous...
enough to offset the high capital cost; and it seems that some further measures should be taken, and may include direct subsidies to projects to offset the high capital cost and/or low level of interest rates.

3.2. Financing of industrial exports

Mr. Annab's paper also did not cover financing of industrial exports; this subject should have been also incorporated in his paper. I would like to make a few comments on this matter.

Jordan has no export-import financing agency or agency for guaranteeing exports similar to the Export-Import Bank in the U.S. or ECGD in the U.K. However, the Industrial Development Bank, commercial banks and merchant banks are very active in financing exports. The Central Bank of Jordan provides refinancing facilities up to 80% of the value of exports, and for up to 18 months, at an interest rate of 5% per annum. This seems to be appropriate at this stage of Jordanian development. However, such financing raises the following issues:

- Financing is made with recourse on banks.
- No national agency is available for guaranteeing exports, although it is possible to resort to the Inter-Arab Investment Guarantee Corporation to guarantee inter-Arab exports in a limited manner.
- No institutionalized financing is available for capital goods which require medium and long-term loans.

3.3. Incorporating sources and uses of funds for the industrial sector in Jordan

I would have expected Mr. Annab to incorporate in his paper sources and uses of funds for the industrial sector in Jordan, including the source of finances for capital formation in this sector. This would have given more insight into the behaviour of the industrial community in Jordan with regard to capital loan ratios as well as to sources of finance. I regret that I am not in a position to give further details on this issue.

4. Other points of interest

- With regard to sources of finance in Jordan, supplier credits from abroad are, to an extent, one of the sources of finance for capital goods in Jordan. Moreover, small-scale industries in Jordan rely heavily on domestic supplier credits.
- The capitalization of the Amman Financial Market, compared to gross domestic product, in Jordan seems to be high compared to other developing countries. This reflects a government bias towards establishing public share-holding companies.
- In my judgment, this policy has had a negative effect on the development of the industrial sector, its expansion, and especially, its efficiency. A review of this policy may be appreciated.

5. The new challenges and current issues

I do not see any need to review current economic conditions in Jordan, as I consider this subject beyond my terms of reference. However, with regard to invest-
sources of funds and users of funds, and they should develop this high risk business activity in a sound way. Here I ought to point out that merchant banks should play their intermediary role on the basis of realistic market surveys, and therefore they are not expected to take risks and to underwrite shares, bonds and loans that they cannot sell. Whereas they should be encouraged to perform their intermediary role, this should be done within limits allowed by market forces. Merchant banks should also play a meaningful role in providing the innovative financing and the creation of new instruments I referred to when describing the new role of the IDB.

Appendix A

A BRIEF SURVEY OF THE COMMODITY-PRODUCING SECTORS IN JORDAN

Matthes Buhbe

This survey does not intend to analyze in depth Jordan's industrial development. It has the modest objective of informing the less specialized reader of some basic facts concerning the size, structure and direction of economic development, with special emphasis on mining and manufacturing. In addition, the central goals and organizational measures of the 1986-90 Five-Year Development Plan with respect to industry will be stated at the end of this brief survey.

1. Relative importance of the commodity-producing sectors

Commodity production here is defined as all economic activities in, (i) agriculture, forestry and fishing, (ii) mining and quarrying, (iii) manufacturing, (iv) electricity and water supply, and, (v) construction. Industry comprises mining and quarrying, manufacturing and electricity supply. Accordingly, the economic activities of trade, tourism, transportation, communication, finance, public services and other services are considered to be non-commodity production. They will be treated as the services sector.

Table A.1 shows the relative importance of services and commodity production for selected years. Obviously, the services sector accounts for the larger part of Jordan's gross domestic product (GDP).

<table>
<thead>
<tr>
<th>(Percentage)</th>
<th>1975</th>
<th>77</th>
<th>79</th>
<th>81</th>
<th>83</th>
<th>85</th>
<th>87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td>65.6</td>
<td>63.2</td>
<td>63.3</td>
<td>60.2</td>
<td>61.3</td>
<td>62.6</td>
<td>63.7</td>
</tr>
<tr>
<td>Commodities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Agriculture</td>
<td>34.4</td>
<td>36.8</td>
<td>36.7</td>
<td>39.8</td>
<td>38.7</td>
<td>37.4</td>
<td>36.3</td>
</tr>
<tr>
<td>- Mining, Quarrying</td>
<td>8.6</td>
<td>9.5</td>
<td>6.5</td>
<td>7.2</td>
<td>8.9</td>
<td>8.5</td>
<td>8.8</td>
</tr>
<tr>
<td>- Manufacturing</td>
<td>5.4</td>
<td>4.5</td>
<td>4.1</td>
<td>4.1</td>
<td>3.1</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>- Electricity, Water</td>
<td>1.3</td>
<td>1.5</td>
<td>2.0</td>
<td>2.0</td>
<td>2.3</td>
<td>2.5</td>
<td>3.1</td>
</tr>
<tr>
<td>- Construction</td>
<td>6.3</td>
<td>8.4</td>
<td>10.5</td>
<td>10.6</td>
<td>10.2</td>
<td>8.2</td>
<td>7.0</td>
</tr>
</tbody>
</table>


By and large, these figures indicate a stable production structure, both with respect to services and commodities as a whole, and with respect to the commodity-producing sectors in particular. Only the relative importance of electricity and water supply has risen steadily, albeit starting from a very low share of GDP.

A closer look reveals some variations in the development of the different com-
modity production activities between 1975 and 1987. The information contained in Table A.1 can be roughly outlined as follows: Construction expanded its share during the boom years 1976-1982, when Jordan’s economy grew at enormous speed. In these years, real GDP increased at double-digit rates. A similar boom-development, though less significant, was witnessed in manufacturing. Accordingly, the relative importance of the more traditional sectors of agriculture, mining and quarrying diminished between 1976 and 1982. Exactly the opposite can be said for the period of economic slow-down in 1983-1987.

It is interesting to note that all this is true only if calculations are based on current prices. In constant 1975 prices (using the GNP-deflator developed by the Central Bank of Jordan), the relative importance of mining and quarrying would steadily increase from 5.4% in 1975 to 11.3% in 1987, and of agriculture from 8.6% in 1975 to 11.3% also in 1987. The relative importance of manufacturing and construction would remain about constant. This leads to an increase of GDP-share (1975 constant prices) of the commodity-producing sectors from 34.4% in 1975 to 45.5% in 1987. Obviously, inflation must have been considerably higher in manufacturing and construction (1975-1987) as compared to agriculture, mining and quarrying. It is believed that pressure from world markets of food and raw materials created this inflation differential. This would mean that international competition was less challenging for Jordan’s manufacturing and construction establishments. And it would mean that the least pressure from international competition was felt in the services sector.

2. Development of Jordan’s industry

In general, Jordan has performed very well economically during its recent history. By the early 1980s, in the World Bank’s classification it had almost reached the upper middle-income countries. In contrast to many other lower middle-income countries, the relative importance of agricultural production in Jordan has been low for a long time. Also, the known economically valuable natural resources of the country are rather limited in scope. However, Jordan is one of the world’s leading exporters of phosphate.

The development of Jordan’s industry, apart from natural resources extracting enterprises, can be characterized by three features: the virtual non-existence of any industry 40 years ago, the smallness of the domestic market, and a non-industrial environment with respect to neighbouring Arab countries.

Not surprisingly, large-scale enterprises have been built up almost exclusively in the natural resources based industries. Recently, production of potash and fertilizers have been added to these. Other important chemical enterprises include pharmaceuticals and paints.

Small and medium-scale manufacturing has been created relative to the needs of modern agricultural production and the construction sector. Also, import substitution policies have helped to build up enterprises for manufactured products that used to be imported, such as batteries, plastic materials, electrical equipment or cardboard.

Table A. 2 presents the industrial production index for 1980 - 1987. In this period, the index-value roughly doubled, which amounts to an average annual growth rate of 10.8%.

### Table A.2 Industrial Production Index (1979=100)

<table>
<thead>
<tr>
<th>Products (1)</th>
<th>Weight</th>
<th>1980</th>
<th>81</th>
<th>82</th>
<th>83</th>
<th>84</th>
<th>85</th>
<th>86</th>
<th>87</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Index (2)</td>
<td>100.0</td>
<td>119.5</td>
<td>139.2</td>
<td>143.8</td>
<td>150.9</td>
<td>181.2</td>
<td>185.2</td>
<td>187.8</td>
<td>205.2</td>
</tr>
<tr>
<td>Food Items</td>
<td>2.9</td>
<td>106.8</td>
<td>111.1</td>
<td>130.2</td>
<td>117.3</td>
<td>136.8</td>
<td>142.2</td>
<td>97.9</td>
<td>102.8</td>
</tr>
<tr>
<td>Soft Drinks</td>
<td>3.0</td>
<td>109.7</td>
<td>118.6</td>
<td>62.1</td>
<td>65.7</td>
<td>86.9</td>
<td>78.1</td>
<td>69.0</td>
<td>67.9</td>
</tr>
<tr>
<td>Fodder</td>
<td>3.1</td>
<td>93.0</td>
<td>108.0</td>
<td>124.7</td>
<td>119.1</td>
<td>118.9</td>
<td>90.3</td>
<td>87.8</td>
<td>85.7</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>12.2</td>
<td>123.7</td>
<td>140.4</td>
<td>139.8</td>
<td>119.6</td>
<td>131.8</td>
<td>107.7</td>
<td>100.1</td>
<td>125.9</td>
</tr>
<tr>
<td>Clothes, Textiles</td>
<td>2.6</td>
<td>112.5</td>
<td>94.3</td>
<td>81.8</td>
<td>96.3</td>
<td>126.4</td>
<td>167.3</td>
<td>148.2</td>
<td>167.3</td>
</tr>
<tr>
<td>Chemicals</td>
<td>6.7</td>
<td>132.1</td>
<td>141.5</td>
<td>146.3</td>
<td>139.9</td>
<td>193.2</td>
<td>184.5</td>
<td>217.3</td>
<td>226.8</td>
</tr>
<tr>
<td>Iron</td>
<td>12.6</td>
<td>106.9</td>
<td>169.0</td>
<td>158.3</td>
<td>173.2</td>
<td>139.1</td>
<td>165.5</td>
<td>173.8</td>
<td>183.3</td>
</tr>
<tr>
<td>Cement</td>
<td>3.5</td>
<td>146.4</td>
<td>154.7</td>
<td>126.5</td>
<td>203.6</td>
<td>325.1</td>
<td>324.6</td>
<td>287.9</td>
<td>380.5</td>
</tr>
<tr>
<td>Petro-Products</td>
<td>13.0</td>
<td>105.7</td>
<td>126.9</td>
<td>146.0</td>
<td>144.2</td>
<td>144.9</td>
<td>141.1</td>
<td>134.2</td>
<td>140.0</td>
</tr>
<tr>
<td>Phosphate</td>
<td>17.8</td>
<td>138.3</td>
<td>150.1</td>
<td>155.3</td>
<td>167.8</td>
<td>219.7</td>
<td>214.6</td>
<td>221.0</td>
<td>242.1</td>
</tr>
<tr>
<td>Electricity</td>
<td>12.8</td>
<td>121.9</td>
<td>135.0</td>
<td>169.8</td>
<td>207.1</td>
<td>250.6</td>
<td>326.3</td>
<td>323.7</td>
<td>381.8</td>
</tr>
</tbody>
</table>

(1) The following types of commodities have not been included, since their weight is below 2% (index of 1987 in brackets): alcoholic drinks (61.1), footwear and leather (128.1), plastic and sponge (113.0), wood products (75.8), other construction materials (134.0), paper cardboard (256.2), batteries (79.2).

(2) The index has been revised since 1984 to include potash and fertilizers.

Industrial production is defined as the quantity output in mining, manufacturing and electricity supply. The value added in these sectors has not been increasing at the same rates. In current prices, the yearly average growth rate of industry (1980-1987) was 7.2%. In constant 1975 prices, the annual average growth rate (1980-1987) was 7.4%.

This means that quantity has increased more than real value added, and real value added has increased slightly more than value added in current prices. Here, again, the world market price decline of phosphate offers an explanation. While Table A.2 shows a production index increase for phosphate from 100 in 1979 to 242 in 1987, the value added of phosphate mining in current prices (1980-87) increased only by about 40%.

Taking the general index as a reference, in the same period industrial manufacturing, except chemical manufacturing, rose at a below average rate. In 1987, the general index reached 205.2; only electricity, cement, phosphate and chemical industries showed higher indices in 1987. Their combined weight in the industrial production index is 40.8%. This further supports the conclusion that the industrialization of Jordan has not yet passed the take-off stage with respect to most industrial types of production apart from simple transformation of raw materials.

3. Value added and employment by type of industry

In 1986, the Department of Statistics carried out an industrial survey in accordance with the international standard classification of economic activities. Some results are given in Table A.3 from which it is possible to make several straightforward interpretations.
First, the establishments with less than five persons have little impact on the value added of Jordan's industry. However, their contribution to industrial employment cannot be disregarded. More than one in four industrial employees works in these establishments.

Second, total industrial employment represents roughly 10% of job opportunities in the Jordanian economy. The total labour demand in 1986 was estimated to be around 610,000 labourers -- 480,000 Jordanians and 130,000 non-Jordanians. According to Table A.3, the number of people employed in industry was 61,628 (see also Table A.8 below).

Third, labour productivity varies widely among types of industry. Taking into consideration the establishments with five persons or more, and measuring productivity as the ratio of value added to number of workers, the following results are obtained: Tobacco manufacturing ranks first in productivity with JD 45,645 per worker, and industrial services rank last, with JD 1,498 per worker. Also high in productivity are mineral mining (JD 12,544) and beverages (JD 11,168), while wood products (JD 2,510), fabricated metal and machinery (JD 2,865) and textiles, leather and footwear (JD 3,221) show low productivity in comparison.

<table>
<thead>
<tr>
<th>Type of Industry</th>
<th>Establishments with 5 persons or more</th>
<th>Establishments with less than 5 persons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Value Workers</td>
</tr>
<tr>
<td>Mineral Mining</td>
<td>100</td>
<td>1,102</td>
</tr>
<tr>
<td>Other Mining and Quarrying</td>
<td>100</td>
<td>1,059</td>
</tr>
<tr>
<td>Food Manufacturing</td>
<td>100</td>
<td>969</td>
</tr>
<tr>
<td>Beverage Industries</td>
<td>100</td>
<td>962</td>
</tr>
<tr>
<td>Tobacco Manufacturers</td>
<td>100</td>
<td>778</td>
</tr>
<tr>
<td>Textiles, Leather, Footwear</td>
<td>100</td>
<td>3,198</td>
</tr>
<tr>
<td>Wood and Wood Products</td>
<td>100</td>
<td>1,862</td>
</tr>
<tr>
<td>Paper and Printing</td>
<td>100</td>
<td>1,862</td>
</tr>
<tr>
<td>Industrial Chemicals</td>
<td>100</td>
<td>2,599</td>
</tr>
<tr>
<td>Refineries</td>
<td>100</td>
<td>2,789</td>
</tr>
<tr>
<td>Non-metallic Minerals and Products</td>
<td>100</td>
<td>2,599</td>
</tr>
<tr>
<td>Basic Metal Industries</td>
<td>100</td>
<td>2,395</td>
</tr>
<tr>
<td>Machinery</td>
<td>100</td>
<td>2,114</td>
</tr>
<tr>
<td>Total</td>
<td>1,000</td>
<td>7,867</td>
</tr>
</tbody>
</table>
Fifth, the number of establishments in the mentioned sub-sectors is inversely related to labour productivity in a stochastical sense. Petroleum products, mineral mining, electricity supply and tobacco manufacturing all comprise a very small number of establishments, but show the highest productivity. In fact, these ten establishments together share 47.2% of the total value added of Jordan’s industry. In contrast, 53.2% of all establishments with five persons or more are found in the following sub-sectors: industrial services, fabricated metal and machinery, wood and wood products, textiles, leather, footwear, and other mining and quarrying. Nevertheless, their share in total value added of industry is just 9.7%.

The statistical evidence, therefore, does not lend straightforward support to an industrial policy geared towards small and medium-scale enterprises. Although the employment-effects of enhancing these enterprises might be positive, the long-run viability of such a policy rests heavily on a low-wage strategy which would be necessary to cope with the low productivity to be expected. True, capital-intensive, large-scale establishments have shown their own weaknesses, and capital is a scarce resource in Jordan. Yet industrialization will need a minimal degree of mechanization and capital-intensity, especially if Jordan wants to remain an open economy.

4. World market integration

Strategies of industrialization are usually related to a country’s export and import activities. Inward-looking policies try to develop domestic production by protecting the domestic market from international competition. The relative importance of imports should go down, by substituting for these commodities with domestic products. Outward-looking policies try to develop domestic production by enhancing the competitiveness of domestic products abroad. The relative importance of exports should go up, due to export-oriented industrialization policies.

The relative importance of exports and imports in Jordan’s supply and demand of goods can be expressed as a percentage of gross national product (Table A.4).

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1975</th>
<th>77</th>
<th>79</th>
<th>81</th>
<th>83</th>
<th>85</th>
<th>87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports</td>
<td>10.6</td>
<td>9.1</td>
<td>9.0</td>
<td>11.3</td>
<td>9.0</td>
<td>13.8</td>
<td>13.3</td>
</tr>
<tr>
<td>Imports</td>
<td>62.2</td>
<td>68.8</td>
<td>64.0</td>
<td>70.6</td>
<td>62.4</td>
<td>58.1</td>
<td>49.0</td>
</tr>
</tbody>
</table>

Table A.4
Domestic Exports and Imports
(Percentage of GNP)

Sources: Own calculation based on CBJ Monthly Statistical Bulletin, several issues.

Two phases of economic development are reflected in Table A.4. In the boom-period (1975-1982) the share of imports gradually increased, while the share of exports remained stable at a low level. In the low-growth period (1983-1987), the share of exports rose while that of imports declined. However, it is premature to take these recent figures as proof of a successful combination of import-substitution and export-oriented trade policies. It might very well be just the result of the recessionary climate in the Arab region after 1982.

Since industrialization takes place in a competitive environment of external demand and external supply of goods, this brief survey includes three tables that show some compositional aspects of Jordan’s external trade. Table A.5 shows the relative importance of consumer goods, raw materials and capital goods in overall export values. It can also be derived from this table that phosphate, potash and fertilizers play a dominant role in commodity exports.

Tables A.6 and A.7 indicate the geographical distribution of external trade. There is an obvious imbalance of external trade with areas outside the Arab region. Most strikingly, Jordan imports more from the European Community than from all Arab countries. But its exports to the EC are lower than those to India (which imports large quantities of phosphate from Jordan). In fact, since the value of Jordan’s imports was five times higher than the value of Jordan’s exports in most of the period 1975-1987, the import-export ratio with the European Community has frequently been 30-to-1 and even more.

<table>
<thead>
<tr>
<th>Commodities</th>
<th>1975</th>
<th>77</th>
<th>79</th>
<th>81</th>
<th>83</th>
<th>85</th>
<th>87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Goods</td>
<td>40.0</td>
<td>53.4</td>
<td>50.8</td>
<td>45.4</td>
<td>58.9</td>
<td>62.9</td>
<td>57.2</td>
</tr>
<tr>
<td>– Food and Live Animals</td>
<td>25.5</td>
<td>34.3</td>
<td>25.7</td>
<td>19.5</td>
<td>22.7</td>
<td>17.1</td>
<td>13.6</td>
</tr>
<tr>
<td>– Fertilizers</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>12.9</td>
<td>12.0</td>
<td>12.1</td>
</tr>
<tr>
<td>Raw Materials</td>
<td>53.8</td>
<td>34.2</td>
<td>36.0</td>
<td>45.4</td>
<td>37.2</td>
<td>31.6</td>
<td>35.1</td>
</tr>
<tr>
<td>– Phosphate</td>
<td>48.9</td>
<td>28.6</td>
<td>31.8</td>
<td>32.4</td>
<td>32.2</td>
<td>25.9</td>
<td>24.5</td>
</tr>
<tr>
<td>– Potash</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>12.1</td>
<td>11.3</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>6.2</td>
<td>12.4</td>
<td>13.2</td>
<td>9.2</td>
<td>3.9</td>
<td>5.5</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Table A.5
Composition of Domestic Exports by Economic Function
(Relative Importance)

Sources: Central Bank of Jordan, Yearly Statistical Series, 1964-1983, (Special Issue), and Department of Statistics, Statistical Yearbook, 1987. Phosphate and Potash can add up to more than 100% of raw materials, since the figures are taken from different tables (phosphate and potash are classified according to SITC).
Table A.6
Destination of Domestic Commodity Exports
(Relative Importance)

<table>
<thead>
<tr>
<th>Year</th>
<th>Arab Countries</th>
<th>European Community</th>
<th>Socialist Countries</th>
<th>India</th>
<th>Japan</th>
<th>Other Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>42.3</td>
<td>5.0</td>
<td>16.0</td>
<td>5.0</td>
<td>4.7</td>
<td>27.0</td>
</tr>
<tr>
<td>1977</td>
<td>59.7</td>
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Sources: See Table A.5

Table A.7
Geographical Distribution of Commodity Imports
(Relative Importance)

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<tr>
<th>Year</th>
<th>Arab Countries</th>
<th>European Community</th>
<th>Socialist Countries</th>
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Sources: See Table A.5

Table A.8
Expected Job Opportunities in Economic Sectors
During Plan Years
1986–1990 (in thousands)

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<td>Agriculture</td>
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<td>Mining</td>
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<td>1.5</td>
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<td>Manufacturing Industries</td>
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<td>Electricity and Water</td>
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<td>Construction</td>
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<td>44.3</td>
<td>95.1</td>
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<td>Total Commodity-Producing Sectors</td>
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<td>Trade</td>
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<td>58.3</td>
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<td>Transport and Communications</td>
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<td>Government Services</td>
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</tr>
<tr>
<td>Other Services</td>
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<td>2.9</td>
<td>18.7</td>
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<tr>
<td>Total Services Sectors</td>
<td>321.4</td>
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<td>Grand Total</td>
<td>462.2</td>
<td>143.0</td>
<td>605.2</td>
<td>97.3</td>
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5. 1986-1990 Development Plan

As documented in the Five-Year Plan for Economic and Social Development 1986-90, Jordan's overall development targets include 6.4% average annual real growth of the commodity-producing sectors, compared to 5.1% GDP real growth (at factor cost). Thus, a modest structural change in favour of commodity production is envisaged. Also, the growth target is well above the expected growth rate of labour productivity. This is expected to create 43,000 new jobs, as described in Table A.8.

The plan also states problems, goals and organizational measures for the industrial sectors (see pages 559-562 of the plan document). To characterize some weaknesses of Jordan’s developing industry, a detailed list is given (5.1), followed by proposals to strengthen domestic commodity production. First, policy goals are stated (5.2). Second, 20 organizational measures are suggested to overcome major obstacles of industrialization (5.3).
8. Narrowness of the domestic market and consequent inability to absorb Jordanian industrial products. This, together with market flooding with competitive imports, leads to production surpluses.
9. Limited potential for industrial export as a result of insufficient integration and cooperation at the Arab level.
10. Inadequacy of measures and procedures governing export promotion and insurance. Also inadequacy of marketing supervision and promotion in external markets.
11. High cost of domestic inputs and services, such as energy. Also, shortage of shipping facilities at competitive prices to the natural markets for Jordanian products.
12. Inadequacy of tax incentives to encourage industrial exports and investments, such as:  
a) tax exemptions on profits realized from exports,  
b) accelerated depreciation on machinery and equipment,  
c) tax deductions to industries operating research and development centers.  
d) tax exemptions on reinvested profits,  
e) partial tax exemption on the profits of establishments with staff training programs.
13. Concentration of industrial investments in the Amman Governorate resulting from the lack of industrial services outside the capital.
15. Continued prevalence of small-scale industries within the overall industrial structure in Jordan.
16. Inadequacy of existing legislation, especially in respect of:  
a) Company Law  
b) Encouragement of Investment Law  
c) Labour Law.
17. Absence of an industry law.
18. Multiplicity of agencies involved with the establishment of industries.

5.2. Goals
1. To increase employment opportunities in the industrial and mining sector by about 12,600 jobs.
2. To increase Jordan's foreign currency holdings through encouraging exports and reducing imports.
3. To increase the value added and stages of domestic production in order to expand the share of the industrial sector in GDP.
4. To encourage the transfer and application of advanced technology wherever necessary or feasible.
5. To coordinate among the existing industries, especially in respect of:  
a) Marketing, training, research, maintenance and transportation.  
b) Interconnection and integration among the various industrial segments and activities to achieve balanced economic growth.
6. To encourage the establishment of export-oriented industries, and to provide incentives for import-substitution industries.
7. To regulate the import of goods which are similar to domestic products, and to protect domestic products through all possible means.
8. To strengthen Arab commercial ties, encourage joint Arab projects, and expand the scope of Arab and foreign investments in Jordan.
9. To upgrade the quality of domestic products and to strive in every possible way to reduce industrial costs through proper utilization of available resources.
10. To increase the marketing efficiency of domestic industries, locally and abroad.
11. To encourage the establishment of small, medium-scale and cottage industries suited to local conditions in the various regions.

5.3. Organizational measures
1. Conducting periodic investment studies to identify high-priority industrial projects and recommend them to the private sector, including small, medium-scale and cottage industries.
2. Establishing industrial estates with suitable infrastructure and service facilities in appropriate regions such as Irbid, Salt and Aqaba, and enlarging the Amman Industrial Estate. Also, endeavoring to reduce utilization costs through the provision of basic services.
3. Coordinating with the authorities concerned to identify suitable industrial zones close to public services.
4. Financing industrial exports, and providing incentives and credit facilities to achieve this goal.
5. Establishing a government corporation to provide export insurance against non-commercial risk.
6. Enacting legislation based on careful economic and scientific studies to protect domestic products.
7. Exempting imported raw and intermediate materials and spare parts needed by domestic industries from customs duties, except whenever such materials are locally available.
8. Enacting an industry law to ensure that industry keeps abreast of new developments and to regulate the establishment of industrial projects on a scientific basis.
9. Setting up and enforcing standard specifications for domestic and imported products.
10. Establishing a unified industrial cost-accounting system for use by large and medium-scale industrial establishments.
11. Organizing training programs in cooperation with domestic, Arab and international educational institutions in the areas of:  
a) Industrial management.  
b) Marketing.  
c) Labour productivity enhancement.
12. Strengthening the capabilities of government agencies in evaluating feasibility studies, especially for large projects, prior to implementation, and utilizing domestic expertise wherever available.
13. Encouraging the establishment of industries with a potential for achieving a high degree of interconnection, and integrating among domestic industries as well as between the industrial sector and other economic sectors, especially agriculture and construction.
14. Developing and intensifying industrial data-processing at the Department of Statistics to ensure the provision of accurate and up-to-date information suited to the sector's needs and to feasibility study requirements.
15. Regulating the transfer of industrial technology, and regulating agreements and licence registration. Also upgrading the patent registration and testing office.
16. Gearing vocational educational towards the needs of domestic industries, and supporting specialized technical training for engineers and technicians working in this sector.
17. Adopting a system of progressive customs duties on imported products with domestic equivalents, in direct proportion to the degree of domestic production.
18. Equipping large and medium-scale factories with quality-control laboratories wherever possible.
19. Making use of domestic mass media to encourage the public to buy Jordanian products. Also, endeavoring to reduce the cost of advertising domestic products through the mass media, including radio and television.
20. Regulating the accounts auditing profession.

References

and social development objectives of the country.

1.d. Provide the basis for a developed and comprehensive industrial information system on domestic, regional and international levels, to be used by industrialists and other concerned parties, especially in relation to domestic and foreign markets.

1.e. Adopt appropriate measures which would continuously help in creating and developing the management cadres.

1.f. Develop educational programs for the schools, universities and technical colleges that support excellence and inventiveness among youth in society.

1.g. Prod and support industrial institutions to adopt programs geared to upgrading the administrative and technical abilities of their cadres.

2. The Institutional Scope
2.a. Create an export promotion agency, or support and develop the current Jordan Commercial Centres Corporation to conduct this task effectively.

2.b. Consolidate industrial licensing procedures in one unit, to facilitate them and to save time and effort.

2.c. Provide the necessary support tools, such as financial and technical assistance, and develop the administrative structure of the standards and specifications department which would allow it to speed-up and independently accomplish different specifications, and introduce changes required by the market and future technological development.

2.d. Support and develop the Industrial Estates Corporation, to allow it to accomplish its mandated objectives and expand its activities to include all governorates.

3. Specific Policy Recommendations
3.a. Import substitution is a desired and necessary policy. However, it should take into consideration the following points:

3.a.1. Clarity, simplicity and uniformity of regulations and instructions.

3.a.2. Procedures aimed at encouraging investors within this policy, such as protection within a limited time frame, should be reviewed, evaluated and amended constantly and according to prevailing conditions.

3.a.3. Tariffs, as a means of protection, are preferable to quantitative restrictions.

3.a.4. Tariff levels, levied as a means of protection, should be on the basis of comparative cost studies and should take into account the importance of allowing for a certain level of competitiveness in the market.

3.a.5. The production of protected industries should enjoy specific standards and specification measures.

3.a.6. The private sector should have a leading role in clarifying the suggestions and ideas related to this policy, either relating to the level or the structure of preferred protection measures or in any sectors or industries.

3.b. Export promotion is a relevant and urgent policy. In this regard, the following policies are suggested:

3.b.1. Provide concessional loans with low interest rates to exporters.

3.b.2. Provide information and studies on both domestic and foreign markets.

3.b.3. Simplify export procedures and regulations.

3.b.4. Expand export markets through bilateral and multilateral agreements and take proper procedures to identify them in the domestic market for better implementation.

3.c. Small and medium-size enterprises should be encouraged and supported, for the following reasons:

- Their higher job-creation potential for Jordanians, since they are more labour-intensive than larger establishments.

- Their ease of management, and hence straightforward capability to provide them with suitable domestic cadres.

- The capital requirement of these industries is relatively small, and therefore it would be easier to provide it through the private sector.

- The degree of risk in implementing and operating these industries is relatively small in Jordan.

To promote these industries, the following important steps should be considered:

3.c.1. Identification of investment opportunities by the private sector.

3.c.2. Provision of necessary financing to these industries.

3.c.3. Inclusion of these industries within the Investment Encouragement Law.

3.c.4. Simplification of licensing procedures.

3.c.5. Provision of technical and training support in all forms to these industries.

4. Special Remarks on Foreign Investments

The establishment of joint ventures with foreign investors should be promoted within a framework that includes:

4.a. Foreign investors should face clear, simple and stable laws.

4.b. Identification of investment opportunities and joint ventures should come from the private sector.

4.c. One should benefit from the geographical location of the country and from bilateral or multilateral agreements with other countries, to provide markets and suitable marketing mechanisms to sell the products of the joint venture.

4.d. Joint ventures should not be solely embodied in the importation of machinery or patent rights, but should transcend these to include financing, administration and operation.

5. Industrial Financing

5.a. Review current financing procedures so that financing would be given to projects in light of credible economic feasibility studies.

5.b. Establish an export guarantee fund.

5.c. Facilitate financing procedures for imports of capital goods.

5.d. Financial and administrative measures should be taken immediately to care for existing companies.

5.e. The sound financial structure of the project should be considered when it is financed so that debt-equity ratio should remain within reasonable bounds, especially in the first stages of the project.

5.f. The need for innovative financing instruments in the Jordanian financial market.

5.g. Encourage the formation of venture capital.

Ultimately, what is required is the creation of a dynamic industrial sector which would play a significant role in achieving the economic and social development objectives of Jordan, and which could continuously grow and
develop in reasonable competitive conditions, with the private sector playing
the leading role in this regard.

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International Conference
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Amman, July 2 – 3, 1988
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<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position and Affiliation</th>
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<tr>
<td>62</td>
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</tr>
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<td>64</td>
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Appendix D

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(2) Chungsoo Kim, born 1950, Ph.D. in international economics, John Hopkins University, Baltimore U.S.A., was research fellow at Kiel University (Federal Republic of Germany) (1980-83) and has worked since then for Korea Institute for Economics and Technology, Seoul, Korea. Currently holds the post of director, trade policies division. Several publications in German and English.

(3) Sudhir Chitale, born 1951, Ph.D. in economics from Indian Statistical Institute, New Delhi, India. Worked at the Indian Planning Commission before joining the World Bank in 1980, where he is currently working as a country economist for Jordan.

(4) Christian Pollak, born 1947, holds a masters degree in economics from the University of Linz, Austria. Worked in the private sector before he joined Hof-Institut für Wirtschaftsforschung in Munich, Federal Republic of Germany. As a research fellow of the development policy department, he has specialized in technology transfer, instruments of financial cooperation, industrialization strategies and inter-firm cooperation. He has completed a large number of assignments abroad, and has just finished a two-year stay in Jordan with the Industrial Development Bank, Amman, as adviser for business cooperation, on behalf of the German Finance Company for Investments in Developing Countries (DEG).

(5) Arafat Al Tamimi, born 1939, Ph.D. in industrial chemistry, University of Aachen Federal Republic of Germany; held teaching and research assignments at Aachen University, and since 1976 leading positions at the Royal Scientific Society Amman including, since 1987, Vice President for Industrial Affairs. His academic work includes several publications in German, English and Arabic. Many activities in Jordan and abroad with respect to conferences, committees and visits.

(6) Hugo Eckeseler, born 1949, Ph.D. in physics, Westfälische Wilhelms Universität, Muenster, Federal Republic of Germany; has published several papers on metal science in German and English. Following his activity as research fellow at the university, he was authorized inspector for material testing and quality assurance in a German inspection agency from 1978-1986. In 1986, he joined 3M Germany, an industrial company in Neuss, Federal Republic of Germany, where currently he is manager for safety of working conditions, environmental protection and product assurance.

(7) Ivor McElveen, born 1936, holds an engineering masters degree from Trinity College, Dublin, Republic of Ireland. Diversified career within both the public service and the private sector. Founder of the Irishtech Capital Fund PLC, Boston; holds a number of private directorships. Was at one time an overseas director of the Industrial Development Authority of Ireland, and had longer assign-ments in Jordan for the World Bank and the Commission of the European Communities. He is currently an adviser to the United Nations Industrial Development Organization, and in this capacity is engaged with the Greater Colombo Economic Commission, Colombo, Sri Lanka.

(8) Ziyad Annab, born 1927, holds a B.A. degree in economics from the American University of Beirut. Distinguished career in Jordan’s public service, including assignments as undersecretary of the Ministry of Information and the Ministry of National Economy. Currently general manager of the Industrial Development Bank, several chairmanships and memberships of boards of Jordanian companies and institutions.

(9) Matthes Buhnke, born 1949, Dr. rer. pol. in economics from the University of Dortmund, Federal Republic of Germany. Held teaching and research assignments at the Universities of Regensburg and Dortmund before joining the research institute of Friedrich Ebert Stiftung (FES), Bonn, Federal Republic of Germany. Since 1986, resident representative of FES in Amman, Jordan.

(10) Sami Zreigat, born 1947, M.Sc. in economics, University of Southern California, U.S.A.; worked as an economic researcher in various positions. In 1982, he established the Economics and Social Research Department of Bahrain Center for Studies and Research, and headed the department until 1987. Returned to the Economics Research Department of the Royal Scientific Society, Amman, Jordan in October 1987. In October 1988 he established the National Co. for Development and International Trade and has been running it since then.