Royal Scientific Society

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BOT, BOOT, BOO
"New Investment Schemes"

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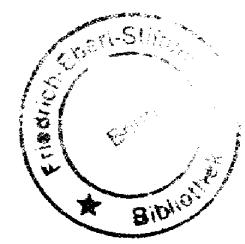

Preface

One of the main objectives of the Royal Scientific Society is to conduct scientific and technological research associated with the overall development process in Jordan particularly in the field of industrial development.

Investment has a significant role in achieving a dynamic economic growth which will be reflected in the stimulation of employment , the exchange of know-how, the augmentation of foreign exchange reserves, and the acceleration of GNP.

The main purpose of this activities is to highlight potential investments in Jordan with special emphasis on new investment schemes such as Build, Operate, and Transfer (BOT), Build, Own, Operate, and Transfer (BOOT), and Build, Own, and Operate (BOO).

In addition, the Industrial Sector Division conducts applied economic studies on various issues pertinent to the Jordanian economy that provide the concerned parties with policy recommendations that would overcome the arising economic problems which obstruct the development process. This study is one of a series of studies on Jordanian economy that will be published this year by the Division. These studies will take note of the progress in the peace process and its impact on various sectors of Jordan's economy.

This research work is one of several research cooperation activities between the Industrial Studies Division at the Royal Scientific Society and the Friedrich Ebert Stiftung of Germany. FES in the last two decades has supported the economic research activities at the RSS financially and technically. FES Representative in Jordan Mr. Manfred Haack, to whom we extend our deepest appreciation, did not only assist in financing this important study, his thoughts and ideas contributed in this regards, was highly appreciated. However, FES is in no way responsible for the results and contents of the study.

Acknowledgment

The Industrial studies Division of the Royal Scientific Society extends its thanks and gratitude to Fredrich Ebert Stiftung (FES) of Germany for financing the preparation and publication of this study.

Thanks are also due to the various public and private institutions that provided the required information and facilities. The Royal Scientific Society would like to extend its gratitude and thanks to HE Dr. Hisham Khatib (former Minster of Planning) and Mr. Shami Puri representative of Scott Willson Kirkpatric for their insight information and guidance. Thanks are also due to Mr. Mohened Sahawni for the participation in field data collection through the questionnaire, and also thanks to the various Public and Financial Institutions for their help provided to the field team. Finally, thanks are extended World Bank (MIGA) for supplying us with the literature and information needed and to Miss Maha Obiedah for typing the study.

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Introduction

For more than a century, the countries of the Middle East region suffered heavily from the state of war and instability. They were forced to choose investment in military goods over civilian goods, and an arm race was initiated as a result of the state of belligerency between the Arab State and Israel. This campaign of arm race which aimed at that time to achieve a military parity between both sides of the conflict resulted in a massive spending and heavy foreign debts. Hence, military goods are an economic waste and entailed a massive shift of real capital and high level technical manpower from civilian sector to the military sector. The Treaty of Peace between Jordan and Israel, and the Oslo agreement between Israel and the PLO opened the way for the socio-economic rebuilding of the Middle East region. This fact entails that the dividends of peace should be realized through the integrated development of the region. Jordan is considered as one of the countries which suffered dearly from the political instability of the region.

Jordan through the latest modification of its investment laws and regulation aimed at creating a suitable environment to attract foreign investment to the country. Presently, economic infrastructure -transport, electric power, telecommunication, water, and waste disposal projects in Jordan are financed through the transfer of public funds from the budget, foreign loans, and grants. However, these methods of financing have reached their limit, and new investment schemes are envisaged. Within the last ten years several financing and management concepts have been developed such as Build, Operate, and Own "BOO", Build, Operate, Own and Transfer "BOOT", and Build, Operate, and Transfer "BOT". Its worth mentioning that one of the widely used and worldwide financing known concept is the BOT. These concepts aim at involving the private sector within the country and from abroad in financing and operating the proposed project. The BOT concept simply means that a private sector company or companies (Joint Venture) builds a project, operates it long enough to pay back debts and equity and then transfers it to the host government. However, the BOT approach might also encourage foreign expertise to help develop local know-how.

The study included the following objectives:

1. Definition of BOO, BOOT, and BOT
2. Where and why these schemes implemented.
3. The merit of BOT.
4. The demerits of the BOT.
5. The relation between BOT and the overall national economy.
6. Other countries recorded experience with the BOT.
7. Jordan's public sector and Financial institutions experience and knowledge of the BOT concept.
8. Potential projects qualified for BOT and the willingness of Commercial Banks to finance project through this concept.
9. BOT as a tool for attracting foreign investment to Jordan.

Chapter One
Methodology of the Study

1.1 Background

For the last seven decades Jordan played as a corner stone in the stability of this region. It is believed that the future of Jordan will have a significant economic dimension, that will outweigh the earlier political dimension. Taking into consideration the political stability and the flourishing democratization process, the essential parameters to attract foreign investors to any country. However, Jordan share of foreign capital investments is still low, this due mainly to the fact that international competition for foreign capital is stiff.

Jordan's 1993-1997 Economic and social development plan gives a greater share to the private sector in the infrastructure investments. Off the "Plan" required investment of JD 5,242 million, more than 64% are expected to come from the private sector. Presently, there are about $1,7 billion in accounts in foreign banks, which belongs to Jordanians. Attracting these fund back into Jordan will cover most of the "Plan" private sector required investments.

Jordan's adopted an ambitious scheme to attract foreign capital, which is badly needed to alleviate poverty and unemployment problems. The main elements of this scheme are:

- Reducing red taps.
- Cutting bureaucracy
- Increasing incentives for foreign capital
- Amending the legislation

Although a number of research work were carried out about the country investment climate, these concentrated only on the traditional methods of financing schemes. In 1992, the Royal Scientific Society organized a seminar and invited well-known experts from Pakistan and from the World Bank (MIGA), to

introduce some of the new investment schemes, such as BOT, BOOT, and BOO. The two days workshop touched on these schemes with concentration on the private component of it. RSS has initiated this comprehensive study in order to introduce these investment schemes to both public and private sector, and financial institutions in Jordan. Furthermore this study which was initiated after the Amman Economic Summit, will bridge these concepts and the reality of financing.'

1.2 Methodology

The study was conducted through the following steps:

1. A composite of field and organizational interviews with the concerned Public sector officials and Financial Institutions.

2. A survey of literature, studies and articles available, at both levels local and international was carried out. The research team corresponded with various international organization such as the world Bank, UNDP....etc.

3. Two types of questionnaires were designed for this research.

3.1 A questionnaire for the Public Institutions concern: It contains some questions on the characteristics of these institutions, project implementation stage, project operation stage, project financing stage, and their knowledge of these new investment schemes namely (BOT, BOOT, and BOO), (Annex 1).

3.2 A questionnaire for the Financial Institutions: It contains some questions on their status, their contribution in financing infrastructure projects, their knowledge of these investment schemes, and their willingness to finance projects under BOT, BOOT, and BOO, terms (Annex 2).

4. Other countries' experiences with these schemes BOT, BOOT, BOO, were gathered and thoroughly analyzed. Following the collection of data and related information the research team evaluated and analyzed the literature, and came up with the findings and recommendations.

After the completion of the first draft of the study by the researchers a workshop was organized by the Industrial Research Division in Cooperative with the Fredrich Ebert Stiftung (FES). The Workshop was attended by several knowledge able persons with in the public and private sectors the name of the participants and there institutions were listed in annex (3).

1.3 The Study Sample

Since there were only few public institutions and financial establishments which might be concerned with projects investments, the study sample was comprehensive one. The sample of the first questionnaire (Public institution) covered thirteen Ministries, Authorities, and establishments. The table below Table (1.1) indicates their names, location, and their response.

Table 1.1: Sample of the Public Institutions

Name	Location	Response
1. Water Authority	Amman	Positive
2. Jordan Valley Authority	Amman	Positive
3. Electrical Authority	Amman	Positive
4. Mineral Resource	Amman	Negative
5. Aqaba Region Authority	Aqaba	Positive
6. Aqaba Port Cooperation	Aqaba	Positive
7. Greater Amman Municipality	Amman	Positive
8. Telecommunication Corp.	Amman	Positive
9. Public Transport Corp.	Amman	Negative
10. Ministry of Tourism	Amman	Negative
11. Ministry of Transportation	Amman	Positive
12. Ministry of Public Works	Amman	Positive
13. Ministry of Industry	Amman	Negative
14. Aqaba Railway Authority	Aqaba	Positive
15. Jordan Hijaz Railway Authority	Ma'an	Positive

As for the second questionnaire, the sample also covered all financial institutions in Jordan. The sample included 23 financial institutions working in the Kingdom. Table (1.2) highlights the financing institutions and their response.

Table 1. 2: Sample of Financial Institutions

Name	Location	Response
1. Housing Bank	Amman	Positive
2. Jordan Bank	Amman	Positive
3. Arab Bank	Amman	Negative
4. Cairo-Amman Bank	Amman	Negative
5. Business Bank	Amman	Negative
6. Islamic Bank	Amman	Negative
7. Jordan-Gulf Bank	Amman	Negative
8. Arab Jordanian Invest.	Amman	Positive
9. Jordan Investment & Finance	Amman	Negative
10.Amman Investment	Amman	Positive
11. United for Saving and Investment Bank	Amman	Positive
12. Philadelphia Bank	Amman	Negative
13. Middle East Bank	Amman	Negative
14. Industrial Development	Amman	Positive
15. Cities and Villages Development Bank	Amman	Positive
16. British M.E. Bank	Amman	Positive
17. Arab Land Bank	Amman	Negative
18. A.N.Z. Grindles	Amman	Negative
19. City Bank	Amman	Negative
20. Al Rafedan	Amman	Negative
21. Arab Establishment	Amman	Negative
22. Jordan National Bank	Amman	Positive
23. Social Welfare Corp.	Amman	Negative

Chapter Two
Overview of The Jordanian Economy

Introduction

Since the mid-1980s Jordan has faced economic difficulties. The decline in the price of oil led to a steep decline in workers' remittance and in foreign assistance especially from the Arab Gulf Countries. Furthermore, a concomitant rise in foreign debt and interest payments compounded the difficulties facing the Kingdom during the global recession period of the 1980s.

As a result, the government with the support of the IMF and the World Bank requested the rescheduling of its debt and adopted a structural adjustment program. This program included a comprehensive economic reform scheme to remove macroeconomics imbalances, minimize sector distortions and re-establish economic growth.

The Iraqi-Kuwaiti conflict adversely affected the newly under taken reform program and imposed a serious burden on the Jordanian economy caused by the loss of Jordan's traditional agricultural export markets in the Arab Gulf states, and the return of more than 216,000 Jordanian workers[1].

However, Jordan's economic reform program was successful in meeting the macroeconomics targets. After registering negative and declining rates of growth in the late 1980s, the economy rebounded with a rate of output growth of 5.8% in 1993[2]. The strict control over government expenditures accompanied by a strong revenue performance in 1993 resulted in a decline in the budget deficit to 4.1% of GDP in 1994 (without foreign

[1] DOS, 1994 Census.

[2] Central Bank of Jordan, Various issues.

assistant) while the rate of inflation fell to 4% compared with a high of 21.2% in 1989[3].

2.1 Main Economic Indicators

The main economic indictors of the Jordanian economy are presented in table (2.1), GDP at market price increased from JD 2428.8 Million in 1990 to JD 4134.2 million in 1994, this increase reflects the recovery of the Jordanian economy after the slow down caused by the Gulf crisis, the real GDP growth rate increased from 1.7% to 5.7% in the same period.

Exports rose from JD 612.3 million in 1990 to JD 793.9 million in 1994. The kingdom reserve increased from US$ 849 million to US$ 1675 million by the end of 1994.

The total external debt declined from US $ 7276 million in 1990 to US $ 5550 million in 1994, consequently, the debt service ratio declined from 18.2% 1990 to 14.6% in 1993.

Table 2. 1: Jordan's Main Economic Indicators

Items	1990	1991	1992	1993	1994
GDP at market price JD m	2428.8	2634.0	3306.8	3733.4	4134.2
Real GDP growth rates %	1.7	1.8	11.3	5.8	5.7
Consumers price inflation	16.1	8.2	4.0	4.7	4.5
Population (m)	3.4	3.7	3.8	3.9	4.1
Export's JD (m)	612.3	598.6	633.8	691.3	793.9
Import's JD (m)	1725.8	1710.5	2214.0	2453.6	2.362.6
Trade deficit	-1113.5	-1111.9	-1580.2	-1762.3	-1568.7
Current account balance	-272.8	-288.1	-568.7	-435.3	-231.9
Reserves' ex. gold US $	849.0	826.0	767.0	1637.0	1675.0
Total external debt US $	7276.0	7787.0	7184.0	692.0	5550.0
Debt -- service ratio %	18.2	20.1	18.5	14.6	N/A

Sources:
- Central Bank of Jordan, annual report 1994.
- EIU, Country Report 3rd quarter 1995.

[3] Ibid.

2.2 Origin and Components of Gross Domestic Product

Inspite of all the efforts to increase the share of the commodity producing sectors in Jordanian GDP, the share of services sectors accounted for more than 60% for the period 1990-1994. The agricultural sector contributed 10.9%, and industry 16.2% and construction sector 7.5% (Table 2.2). (1994 figures). This is due to several reasons , mainly the large share of the Government sector, the development of the transportation and financial sectors.

Table 2. 2: The Relative Importance of Economic Sectors Contribution to GDP at Fixed Cost

%

Sectors	1990	1991	1992	1993	1994
Agricultural	9.8	10.5	11.0	11.4	10.9
Industry	17.3	16.1	16.1	15.8	16.2
Electricity & water supply construction	3.2	3.3	3.1	3.0	3.0
Construction	4.9	5.2	7.2	7.6	7.5
Total of commodity production sectors	**35.2**	**35.1**	**37.4**	**37.8**	**37.6**
General commerce	3.5	3.5	3.4	3.4	3.5
Transportation & Communication	16.2	15	14.6	14.4	15.2
Financial & Real estate & Business	20.2	21.7	20.2	20	19.7
Government services	23.2	23	21.7	20.7	20.6
Others	1.7	1.7	2.7	2.7	2.6
Total Services	**64.8**	**64.9**	**62.6**	**62.2**	**62.4**
GDP	100	100	100	100	100

Source: Central Bank of Jordan, annual report 1994.

The main components of the GDP in 1994 were:

* Government final consumption, 21.2%
* Private final consumption 74.3%, while the fixed capital formation was 28.6%, this means that 23.1% of the fixed capital formation in Jordan has been financed by external sources (foreign aid, workers remittances, foreign loans) .....Table 2.3.

Table 2. 3: Major Indicators of GDP Expenditures at Market Price

%

	1990	1991	1992	1993	1994
Govern. Consumption	25.7	27.1	23.9	21.9	21.2
Private consumption	87.4	75.3	79.7	76.9	79.3
Change in stoke	1.9	1.9	1.8	0	-1
Fixed capital formation	21.8	20.6	30.3	-31.8	-28.6
Net foreign trade (X-m)	-32.1	-26.6	-35.7	-30.6	-23.1
GDP.	100	100	100	100	100

Sources: Central bank of Jordan, annual report 1994.
- Economic and social development plan 1993-1997 ....P.10.

2.3 Foreign Trade

2-3-1 The Structure of Jordanian Foreign Trade

Jordanian exports rose from JD 612.3 million in 1990 to JD 793.9 million in 1994. However, the trade deficit increased from JD 1113.5 million to JD 1568.7 million for the same period.

Table (2.4) reflects the developments in the structure of Jordanian exports and imports. The share of the consumption goods in Jordanian exports, rose from 28.3% in 1990 to 41.5% in 1994. On the other hand, raw materials goods share declined from 69.1% to 55.1% which is a positive trend and reflects the development of the Jordanian Industrial sector. Capital goods share rose from 2.6% to 3.4% in the same period. On the imports side the share of consumption goods declined from 38.2% to 33.2%, and raw materials imports rose from 18.5% in 1990 to 24.7% in 1993 and then declined to 18% in 1994, also, reflecting the development of the industrial sector in Jordan.

Table 2. 4: External Trade by Economic Function

%

Items	1990	1991	1992	1993	1994
Domestic exports	**100**	**100**	**100**	**100**	**100**
Consumption goods	28.3	33.5	40.3	51.6	41.5
Row materials	69.1	65	57.4	45.5	55.1
Capital goods	2.6	1.5	2.3	2.9	3.4
Domestic Imports					
Consumption goods	38.2	42.6	40.7	38.2	33.2
Row materials	42.3	39.8	35.7	36	48.3
Capital goods	18.5	17	23	24.7	18
Others	1	0.6	0.6	1.1	0.5

Source: Central Bank of Jordan, annual report 1994.

2-3-2 *Jordan's Principal Exports & Imports*

Jordan's principal exports and imports are listed in table (2.5). The main Jordanian exports in 1994 were: Phosphate (12.6%) Potassium (11.6%) medicament (11.4%). On the imports side: the machinery & transport equipment's share was (25.4%) of the total, followed by the manufactured goods 18.2%, and crude oil 9.8%.

Table 2. 5: Jordan Principal Exports & Imports 1994

Exports	JD/Million	%
phosphates	100.4	12,6
Potash	92.6	11.7
Food & live Animals	91.3	11.5
Medicaments	91.3	11.4
Total INC. others	793.9	
Imports	**JD/Million**	**%**
Machinery & Transport Equipment	600.3	25.4
Manufactured Goods	432.2	18.2
Chemicals	279.9	11.8
Crude oil	232.3	9.8
Total INC. Others	2362.6	

Source: Central Bank of Jordan , Annual Report 1994.

2-3-3 *Geographic Distribution of External Trade*

The main market for Jordanian exports in 1994 was: Iraq 13.3% of the total, India 11.1% (mainly phosphates and potash), Saudi Arabia 9.1%, and UAE 4.9%.... Table (2.6).

On the imports side, 12.3% of Jordanian imports in 1994 came from Iraq (mainly crude oil & oil products), 9.9% from USA, 7.8% from Germany, and 5.9% from Italy.... Table (2.6).

As a group the natural market for Jordanian export was the regional market of the Arab states with a share of 42.4% of the total, while EU countries share of only 5.1% ... 1994 Figures. On the other hand, the EU countries were the origin of 33.6% of the Jordanian imports, and Arab countries for 22.1% ...1994 figures[4].

Table 2. 6: Geographic Distribution of External trade, 1994

Destination of Exports	% of total exports
Iraq	13.3
India	11.1
Saudi Arabia	9.1
UAE	4.9
Main Origin of Imports	**% of total imports**
Iraq	12.3
USA	9.9
Germany	7.8
Italy	5.9

Source: CBJ annual report 1994.

[4] Central Bank of Jordan, annual report, 1994 p 96

2.4 Public Finance

As a result of the adjustment program, the Central Government revenues as represented in table (2.7) increased from JD 938.3 million in 1990 to JD 1492.3 million in 1994. The domestic revenues increased from JD 747 million in 1990 to JD 1270 million in 1994. Therefore the ratio of the domestic revenues to the current expenditure increased from 88.9% to 113.5% for the same period.

On the expenditure side, current expenditure increased from JD 841.4 million in 1990 to JD 1118.5 million by the end of 1994. The structure of the Jordanian expenditure was characterized by the high rates of military expenditure in 1990. The military expenditures reached JD 254.7 million, and increased to JD 348.2 million in 1994 which represent 24% of the total expenditure. The comprehensive peace in the Middle East will shift large share of these expenditures to civilian needs.

Table 2. 7: Public Finance Indicators, 1990-1994

Million JD

Government Budget	1990	1991	1992	1993	1994
Revenues	**938.2**	**1112**	**1358.7**	**1406.3**	**1492.3**
Of which					
Domestic	744	828.8	1168.9	1191.5	1270
Expenditures	**1032.6**	**1099.6**	**1177.7**	**1336.6**	**1437.1**
Current Expend. of which	841.4	904	929.5	1044.3	1118.5
Military	254.7	269.7	272.8	299.5	348.2
Capital	191.2	195.6	248.2	292.3	318.6
Payment of debt	68.2	125.3	119.8	263.5	216.5

Source: Central Bank of Jordan annual report 1994.

2.5 Financing The Development

Due to the negative domestic savings, which is one of the traditional problems of the Jordanian economy, Jordan was forced to depend upon external resources in order to finance its development process. The main sources were: the workers remittances, the Arab & foreign Aid ,and the external borrowing which grew during the 1980s to high levels. In the next section we will discuss the developments of the debts problem , followed by discussion about the foreign aid and workers remittances

2-5-1 Jordanian External Debt

Due to regional factors, the Jordanian economy faced serious economic crisis in the mid eighties. At that time Jordan found itself unable to fulfill its international financial obligations. As a result, Jordan was forced to adopt the so called economic adjustment program in cooperation with the International Monetary Fund IMF. This program began to give its fruits after the Gulf crisis was over. So, since 1990 the problem of external debt has been relatively under control. The international community appreciates Jordan's commitment and work for a sustainable peace in the Middle East. And after the Treaty of Peace has been signed between Jordan and Israel, a different rescheduling and debt releases operation took place, It's worth mentioning, that more than $830 million of the country's debt were written off in 1995, and nearly $3.0 billion rescheduled. Japanese government is considered to be Jordan's biggest creditor, holding about $1.8 billion, agreed to adjust the interest rates.

Table 2. 8: External Public Debt, Some Indicators

	1990	1991	1992	1993	1994
Outstanding Debt JD (m)	5064.3	4958.6	4577.6	4229.6	3914.8
Debt/GDP	189.7%	173.6%	131 %	108.9 %	91.8 %
Debt /exports	247.8%	238.8%	185.8%	154%	134%
Actual Payment of Debt JD (m)	314.7	469.9	599.9	495.7	350
Supposed Payment of Debt JD (m)	882.8	852.6	972.9	857.6	606.5
Actual service[1]	15.4%	22.6%	24.4%	18.1%	12%
Supposed service[2]	43.2%	41.1%	39.5%	31.2%	20.8%

(1) Actual Payment / exports of goods and services
(2) Supposed Payment / exports of goods and services
Source: Central Bank of Jordan, annual report 1994 ..... p(86).

As shown in Table (2.8) the total outstanding debt declined from JD 5064.3 million in 1990 to JD 3914.8 million in 1994. The burden of the actual debt services relative to the export of goods and services declined from 15% to 12% and the real debt service ratio declined from 43% in 1990 to 20% by the end of 1994. But, in order to make Jordan an attractive place for investment, foreign investment in particular, Jordan must return to be a credit worthiness case, there is two ways of measuring the credit worthiness of a country:

1- The ratio of debt to GDP (D/GDP) which must fall some were below 75%. Jordan succeeded in reducing this ratio in the last years, but, it is still higher than 75% (91% in 1994) so additional efforts had to be done.

2- The ratio of debt to exports from goods and services (D/ X) which must fall below 150%. Jordan achieved that goal, this ratio declined from 247% in 1990 to 134% in 1994 .....Table (2.8)

So Jordan can no longer depend upon external borrowing in order to finance its development process. This means that the country should look into finding new investment schemes that must be envisaged.

2-5-2 Aid and Remittances

Jordan took advantages from its geopolitical location. As a country on the direct tangent line with the Arab - Israeli conflict and due to the direct effect of this conflict on Jordan, the Kingdom received Arab and foreign Aid. Between 1967-1973 the average flow of foreign Aid was JD 40 million, as shown in Table (2.9), and that average rose to JD 260.3 million during the period 1990-1994.

Table 2. 9: Average Aid & Worker Remittances

Million JD

Average	AID	Worker remittances
1967-1973	40	7.2
1974-1982	139.5	184.5
1983-1988	152.9	391.5
1989-1990	212.2	382.2
1967-1990	119.9	201
1990-1994	260.3	543.2

Sources: Jordan economy and the Dutch disease, paper presented to the conference: The Jordanian economy, which held at the university of Jordan 1994, by Khalid al Wazany. P 150.
- For 1990-1994 Figures-CBJ annual reports 1994

However, the international attitude toward aid is not encouraging, and many countries reduced their assistants budgets, and began to talk about investment rather than giving Aid.

Jordan took advantage of the availability of its well trained and educated labor force and was able to provide the neighboring Arab countries with its needed labor. This process increased rapidly after the rise in the price of oil which led to great construction process, and in turn the amount of these remittances rose from an average of only JD 7.2 million during the period 1967-1973 to JD 184.5 million for 1974-1982, then to JD 391.5 million for the period 1983-1988. This source was a major element in the gross capital formation in Jordan, but the future for the increasing of this source is not encouraging too. The Gulf Crisis caused the return of more than 216,000 Jordanian citizens. Even if the relations with the Gulf states return to its normal levels its unexpected that Jordanian labor force will find jobs in the Arab Gulf States in such numbers as before .

So, the overall view of the traditional source of finance for Jordanian economy, indicates that Jordan can no longer rely on these sources. In light of the growing need for new investments, especially in infrastructures projects, Jordan's challenge is to develop, introduce and investigate new investment schemes, some of which is already known in the world, such as: BOT, BOO, BOOT. This study can assist both decision makers and planers in Jordan by highlighting these, new investment schemes, in addition to the preliminary goal of introducing these concepts and illustrate there important and different dimensions for researcher, and investors.

2.6 Financial System in Jordan

Jordan has a well - established, expanding and diversified banking system that offers a full range of business services including the ability to raise syndicated loans to finance large - scale projects.

The financial system in Jordan consists of the Central Bank and different types of financial institutions such as: commercial

banks, investment banks and specialized credit institutions. Nowadays they are distributed as follows:

- Eight Commercial banks with 171 branches
- Six investment banks with 43 branches
- One Islamic bank with 26 branches
- Six specialized Credit Institutions with 136 branches (including the Housing bank)
- Five non-Jordanian banks with 41 branches

The total assists of the Jordanian financial system in 1994 was JD 7915.7 million, and the total Credit was JD 3248.4 million distributed as shown in Table (2.10):

Table 2. 10: Sectorial Distribution of Outstanding Licensed Banks Credit, 1994

JD million

Sector	Value	%
- Agricultural sector	75.5	2.3
- Manufacturing & mining	471.6	14.5
- Construction	687.0	21.1
- Transportation	198.6	6.1
- General commerce & trade	798.6	24.6
- Tourism, Hotels & Restaurant	38.1	1.2
- Services Infrastructure	150.5	4.6
- Financial services	175.3	5.3
- Others	653.5	20
Total	3248.4	

Source: Central Bank of Jordan, Annual report 1994, p 213 .

Table (2.10) shows that the share of the commerce and construction sectors was the highest with 45.7% of the total, and the manufacturing sector share was 14.5% and services infrastructure share was only 4.6%.

In January 1995 the CBJ instructed all commercial banks, that they should increase their capital requirement, from JD 5 million to JD 20 million, by the end of 1996. In addition the CBJ allows the partnership between foreign and local banks, as long as foreign banks provide the supply of capital.

2.7 Interest Rates

The average interest rates in Jordan for the period 1990-1994 are presented in table (2.11) as follows:

Table 2. 11: Average Interest Rates in Jordan

	1990	1991	1992	1993	1994
Deposit:					
Demand	1.59	1.43	0.76	0.93	1.03
saving	5.29	5.03	4.91	5.13	4.94
Certificates of Deposit				7.27	7.66
Credit					
Over draft	11.42	11.74	11.44	11.11	10.94
lawns	10.13	10.37	10.16	10.23	10.48
Bills	11.17	12.8	11.9	11.07	11.27

* Interest rates here represent weighted averages for different customers & different banks.

Source: Central Bank of Jordan , annual report 1994 p 62.

These figures show that the interest rates in 1994 increased in comparison with 1993 on both deposit and credit , but the rise of the interest rates on deposit was greater than those on credit, allowing some reduction on the margin between them.

The rise in interest rates was due mainly to the policy of the Central Bank of Jordan in rising the interest rates on certificates of deposit, in order to maintain the attractiveness of the Jordanian Dinar as a saving container, and to defined the JD exchange rate. On the other hand, some economists argue that the high interest rate could affect investments negatively as well as demand, so, in order to promote investment some reduction in interest rates margin is required. To iterate, investment occurs when the marginal efficiency of investment (the expected rate of return on an investment) exceeds the rate of interest or cost of capital that is incurred in making the investment.

However, if we compare the interest rate in Jordan with some neighboring countries (Table 2.12), it's clear that the interest rate for lending money in Jordan is less than those is both Egypt an Israel. But the interest rate paid on deposit in Jordan is less than those in both Egypt and Israel.

Table 2. 12: Average Interests Rates in Jordan, Israel and Egypt 1994

Country	Discount Rate	Deposit Rate %	Lending Rate %
Jordan	8.5	3,25	9
Egypt	14	12	19
Israel	17	12.%	12.3

Source: International Financial Statistics, IMF. June 1995.

2.8 Labor Force

The labor force in Jordan increased from 521.8 thousand in 1988 to 859.3 thousand in 1993 ,its sectorial distribution is presented in Table (2.13) as follows:

Table 2. 13: Sectorial Distribution of Labor Force

(Thousand)

	1987	1989	1990	1991	1992	1993
Agriculture	39.6	37.6	38.2	40.8	44.4	54.9
Mining & Manufacturing	53.7	54.4	53.4	56.8	61.8	91.0
Electricity & water	8.3	7.3	6.8	7.2	6.6	6.0
Construction	52.2	50.8	51.9	54.0	60.0	60.1
Trade, Restaurant & hotels	52.1	53.4	52.9	56.8	63	129.7
Transport, Storage and communication	46.9	46.1	44.5	48.5	52.2	57.6
Finance, Insurance & Real estate services	17.7	16.2	16.7	17.6	19.8	24.9
Social, Personal & public Administration services	250.9	257.6	259.5	269.9	292.2	434.8
Total	**521.8**	**523.5**	**524.2**	**552.0**	**600.0**	**859.3**

(1) 1993 data is for the over all labor force , previous data for Jordanian labor force only

Source :Monthly Statistical Bulletin , Central Bank of Jordan ,April 1995 .

It is ironic that more than 50% of the country labor force were in the social, personal and public Administration Services. This indicates that the burden of employment in Jordan depends in the public sector. This fact has a negative impact on the productivity and efficiency of this sector.

The distribution of the Jordanian labor force according to the vocational groups is presented in Table 2.14 as follows:

Table 2. 14: The Distribution of The Jordanian Labor Force by Vocational Group

	Number	%
Specialists & Technicians	158970	18.5
Administrators	20623	2.4
Clerks	66176	7.7
Salesmen	76478	8.9
Services	41246	4.8
Agriculture Productive Workers	48121	5.6
Production Workers & Others	447695	52.1
Total	**859300**	**100**

Source: Ministry of labor, annual report 1993.

From those tables it's obviously clear that the Government sector who have the lion share in the labor market (50%) followed by the Trade and Restaurant, Hotels sector, then Mining and Manufacturing. If we look at the vocational distribution Table (2.14) we find that 52.1% of the labor force was classified as production workers, 18.5% as specialist & technicians. In general, and due to the fact that 82% from the population is literate, the Jordanian labor force can be trained to operate in modern technologically advanced industries.

Most of the labor force is not unionized, labor unions exist in some large industrial firms, in the banking sector, and engineers, physician, pharmacist lawyers. Moreover, the present labor law does not impose a minimum wages. The new labor law of 1995 allow labor disputes to be settled through arbitration during which no strike are permitted.

It's worth mentioning that, Jordan labor market enjoys the availability of more than 30000 engineers , those forms a good base to advanced industries.

Other aspect to Jordanian labor market is the availability of laborer from different nationalities, which enhance the ability of labor market in Jordan to provide the investors with their needed skills and experts.

2-8-1 Wages

The average monthly wage for skilled labor ranges from approximately US$ 150 to US$ 400 depending on the type required. And as mentioned earlier, the labor law does not impose minimum wage principle on employers.

2-8-2 Unemployment in Jordan

The unemployment rate rose from 8.9% in 1988 to 18.8 in 1991[1]. The rise in unemployment is attributed to a number of factors most important of which are: the decline in economic growth rates, the increase in the natural growth rate of the population, the decline in migration to the Gulf states, the return of large number of Jordanians working abroad, the increase in foreign labor, incompatibility between the outputs of the educational and training systems and the requirements of the labor market, the increase in female participation in the labor force, and the lack of regular information on labor supply and demand.

2 Unemployment in Jordan: Dimensions and Prospects, Center for International Studies, Royal Scientific Society, Amman, Jordan 1993.

The preliminary estimations for the unemployment rate in 1994 shows that a decline was registered and the estimated figure is about 15.3%[2].

The only way to reduce the unemployment rate in a productive activity is to increase the private investment, since employment in the public sector has reached its limits.

Summary

This chapter shows the development of the Jordanian economy with an emphasis on the last period. From the previous overview we can conclude that:

- Jordan is a small country with limited resources.
- The foreign resources can play a key role in the Jordanian economy in the peace development process era.
- Jordan suffered from a serious economic crisis in the mid eighties, but Jordan overcame these crisis by the good administration of the macroeconomics policies.
- In the last years and due to the successes of the economic adjustment program, Jordan is on the way of economic independence, The local revenues covered all the government current expenditure, and an increasing part of the capital expenditure.
- The peace in the Middle East will affect the economy of Jordan positively. The military expenditure will decline and a new opportunities will be opened for the Jordanian business and exports, and in turn, the investment climate will be improved.
- Part of the traditional financing sources for Jordan (aid, and loans) is no longer available, so the introduction of a new financing schemes like BOT, BOO, BOOT, is needed.

1 Central Bank of Jordan-Annual report 1994, DOS 1994 census.

Chapter Three
Sectorial Analysis

Introduction

The Kingdom is a small country classified by the World Bank as a lower-middle-income economy, with a population of 4.1 million (1994)[1]. Natural resources is scarce in Jordan, and the economy to large extend is service oriented. Jordan's public sector, in addition to the transportation, telecommunication, tourism, and financial service accounted for more than 68% of the country GDP and provide employment for a large portion (62%) of Jordan's work force[2]. A basic purpose of sector analysis is to bridge the gap between the macroeconomics of the Kingdom policies and investment programs and the microeconomics of potential projects. In this chapter we have opted for a brief analysis of some of the Kingdom important sectors. This chapter is examining and assessing the resources, needs, problems, and opportunities in the following sectors of the economy.

3.1 Water Sector

Natural resources are a prime support of Jordan's national economy. Water is one of the scarcest natural resources; its requirements of domestic water supply, for agricultural and industrial uses, depend largely on rainfall. Water resources are a key factor in socio-economic growth; any deficiency or decrease of water supply will impose a constricting effect on the general development effort. Therefore developing the water sector is crucial for the growth of the other sectors.

As it has been emphasized by several experts, that this region is suffering from an imbalance in the population-natural resources-development requirement triangular equation. Economic growth and a burgeoning population gave rise to a tremendous pressure on the limited water resources of Jordan. Furthermore, future projections indicate a widening gap between available water resources and demand.

The country's water balance is suffering from a chronic deficit as a result of the large increase in demand. By the year 2000 the anticipated deficits expected to reach more than 500 mcm which is about 50% of 1994 total water consumption. Table (3.1).

Table 3. 1: Jordan's Water Supply and Demand, 1991-2005

(MCM)

Sector	1991	1995	2000	2005
Available Resources	776.5	870.5	1039.5	1036.5
Surface water	321	400	555	555
Renewable G. water	275.5	275.5	275.5	275.5
Non Renewable G. water	143	143	143	143
Treated waste water 37	52	66	90	
Demands	1098	1449.5	1548	1638
Agricultural	800	1088	1088	1088
Industrial	43	61.5	101	124
Municipal	255	300	359	426
Balance (Deficit)	(321.5)	(579)	(508.5)	(574.5)

Source: Ministry of Water and Irrigation.

[1] Dos, 1994 Census Results.

[2] Central Bank of Jordan, Monthly Statistics Report, Nov., 1995.

Given the above situation and recognizing the constraints on direct water availability to meet the ambitions of the country for economic and social development, the performance of the water sector must be improved through projects for water storage and wastewater treatment schemes that are economically viable.

However, in spite of all restraints, Jordan has been able to stride in the development of its water resources primarily through loans grants and technical assistance from international agencies. It's worth mentioning that between 1973-1992, Jordan total investment in the water sector exceeded $1 billion[3]. According to Jordan's Economic and Social Development Plan 1993-1997, the total cost of the water sector investment program projects estimated at JD 864,000 thousand or 45.4% of the grand total cost of the investment program projects of all sectors Table (3.2).

Table 3. 2: Water Sector Investment Program Projects 1993-1997

(Million JD)

Project	JD	%	Expenditures 1993-1997
1. Pumping Disi water to Amman	280	32.40	150
2. Completion water network improvement and renovation project	25	2.90	25
3. The Salt water project	16	1.85	16
4. The Greater Irbid sanitation project	39	4.50	39
5. Expansion of Khirbat-Samra treatment plant	50	5.80	50
6. Dams Construction	372	43.6	112
7. Completion of the Northern Ghor conversion project	26	3.00	26
8. The Moujeb and Southern Ghor irrigation project: Stage II	56	6.48	20
Total	864	100	445

Source: Ministry of Planning, Economic Social Development Plan, 1993-1997.

[3] Ministry of Water and Irrigation, 1995.

It is hence obvious that, enhancing water supply require a vigorous regional economic development effort that has to enlist international support, to enable the people to afford its high marginal cost. Below is some potential fields to be invest in the water sector:

- Improvement of conveyance and distribution efficiencies
- Utilization of marginal flood water
- Rain enhancement
- Utilization of still untapped ground resources
- Increased reclamation of waste water (irrigation and industry)
- Desalination of brackish water
- Desalination of sea water
- Regional water imports
- Improvement of agricultural yields per unit flow of water

The Ministry of Water and Irrigation/Water Authority in Amman Economic Summit presented a water project "pumping water from Disi area in the south of the Kingdom to Amman" to private investors under the terms of BOT. Prior to the Summit a British Company Scott-Wilson Kirkpatrick proposed a BOT scheme to WAJ for the conveyance of the Disi water to Greater Amman area, however, due to technical misunderstanding of the BOT concept, the deal was not concluded[4].

3.2 Tourism Sector

No doubt that Jordan renewable natural resources is tourism. Currently, more than 8172 or 1% of the country total labor force are employed in the tourism sector[5]. Moreover, this sector average contribution to Jordan GNP is about 20%[6]. It is anticipated that this sector contribution to both employment and GNP will be significantly improved as a result of the peace

[4] Personnel interview with Scott-Wilson Kirkpatrick representative in Amman, 1995.

[5] Ministry of Tourism, 1995.

[6] Ibid.

one million tourists visited Jordan in the first 10 months of 1995, and the number is projected to reach 1.2 million in 1996[7].

The Kingdom possesses geological, archaeological, and recreational sites of sufficient interest to attract a wide range of tourists. A major attraction is the historic city of Petra with its fascinating structures that are carved into sandstone cliffs. Aqaba, on the Red Sea, possesses an exquisite stretch of coral reefs located on the southern coast of the bay. A tourist can also enjoy a swim in the Dead Sea with a surface elevation of about 390 meters below sea level, the lowest point on earth. In addition, Jordan possesses historical and archaeological sites in Jerash, Madaba, Karak, Wadi Rum, Shobak, and a string of 7th-century Omayyed castles in the desert east of Amman.

The tourism sector in Jordan, however, has not yet attained its potential. In 1989, tourist arrivals comprised of 638,980 tourists. The number of tourists decreased considerably during the Gulf Crisis in 1990 and 1991 and started to increase again in 1992, exceeding its 1989 level by 3.5%. The majority or 74% of tourists entering Jordan were from the Gulf countries. Europeans comprised about 18% in 1992. The rest come from North and South America, New Zealand, Australia and Japan. By 1992, the number or non-Arab tourists had reached just below its pre crisis level. The number of Arab tourists, however, exceeded its 1989 level by increasing 8.4%. Tourists traveling on package tours represent a significant percentage of non-Arab tourists. Table (3.3).

[7] Ibid.

Table 3. 3: Tourist Arrivals to Jordan, 1989-1994

Year		North America	Europe	GCC	Others	Total Arrivals
1989	Arrivals	48,257	127,148	452,559	11,016	638,980
	%	7.6	19.9	70.8	1.7	100
1990	Arrivals	38,538	117,366	404,567	11,439	571,910
	%	6.7	20.5	70.8	2.0	100
1991	Arrivals	23,978	57,968	348,216	5,699	435,861
	%	5.5	13.3	79.9	1.3	100
1992	Arrivals	39,250	120,898	490,629	10,337	661,114
	%	5.9	18.3	74.2	1.6	100
1993	Arrivals	51,512	151,475	547,006	15,607	765,600
	%	6,7	19,7	71,4	2,03	100
1994	Arrivals	59,154	156,929	497,337	24,626	738,046
	%	8	21.2	67.3	3.3	100
1995	Arrivals	87,117	218,547	507,783	34,124	932,430
	%	9.3	23.4	54.4	3.6	100

Source: Ministry of Tourism of Tourism, Statistics Section.

Its worth mentioning that , in 1995, and as a result of the peace treaty with Israel, a bout 84,859 thousand Israeli tourist arrived to Jordan, the future and evaluation of this new market, is under studying.

In 1994, the total number of hotels in Jordan reached 262, of which 129 hotel were unclassified[8]. Furthermore, the number of hotels in Amman amounted to 175 hotel (66.7% of the country total) with 6150 rooms or 70.8% of the country total hotel

[8] Ministry of Tourism.

rooms[9]. As shown in Table (3.4), Jordan started an ambitious. scheme to expand it's hotel capacity in Amman, Aqaba, the Dead Sea, and Petra, in order to meet the increasing demand. It's worth mentioning that most of these projects are due to be completed by early 1996.

Table 3. 4: Hotels Under Construction, 1994

Hotel Location	Number of Hotels	Number of Rooms	Cost (US$ Million)
Wadi Mousa			
5 Stars	5	614	21.5
4 Stars	4	456	10
Aqaba			
3 Stars	2	142	2.35
Amman			
3 Stars	8	598	15.6
Ajloun			
3 Stars	1	60	1.2
Tafila			
4 Stars	1	70	1.5
Total	**21**	**1943**	**59.25**

Source: Ministry of Tourism, 1995.

In conclusion, tourism is and will be one of the most important sector in terms of potential to grew. The peace era will be the driving force behind the expansion of this vital sector. During the period January-April 1995 tourists spent more than 424,000

[9] Ibid.

nights in Jordan compared with 216,000 nights during the same period of 1994[10].

Jordan proposed two major projects in Tourism sector in the Amman Economic Summit to diversify its tourist facilities and to meet the increasing demand of tourists[11]. These are:

1. The Aqaba South Coast Tourism Zone Projects.

1.1 Ras Al-Yamaniya Site: About 8 five-star hotels, three four-star hotels, and a motel.

1.2 Qabous Tourist Village: It consist of 740 residential tourists housing units, one five-star hotel, a social club, park, Commercial Center, and Water Park.

1.3 Golf Course and Resort Development: Two 18-hole golf courses with beach side resort of close to 250 rooms.

1.4 Amusement park: A 54-hectare Disney-style amusement park.

2. Dead Sea Tourist Area Projects:

2.1 Sumeimeh Master Plan: The long-term objectives of the plan is to provide the development of 4,000 hotel bed units and 8,840 tourist housing rental bed units on 281 hectares of land.

2.2 Zara Master Plan: It consists of 1,500 hotel bed units and 2,800 tourists housing rental bed units located on 50 hectares of land.

3.3 Industry and Mining Sector

For Jordan, expansion of industry offers prospects of increased employment, and improved balance of payments, and more efficient use of resources. Furthermore, Jordan is increasingly becoming aware of the fact that industrialization make intangible

[10] Ministry of Tourism.

[11] Ministry of Tourism, Tourism Development Option, MENA Summit, 1995.

contributions toward raising productivity by encouraging technological innovation.

Jordan's industrial sector is considered the backbone of the national economy. In 1994, the sector value added increased by 8.2% compared to 4.5% in 1993[12]. The value added of the industrial sector amounted to 14% of the country 1994 GDP[13]. It's worth mentioning that the sector overall performance in 1994 was encouraging, with 5.2% rise in the industrial production index. Furthermore, between 1989-1993 industrial exports amounted to 85.8% of the total national exports, and in 1994 the sector exports increased by 3.3% from the previous year. Table (3.5).

Table 3. 5: Main Indicators of the Industrial Sector 1992-1994

Item	Measure	1992	1993	1994
Value Added	MJD	525,8	552,0	599,4
Growth Rate	%	11.3	4.5	8.2
Industrial Exports	MJD	539,9	549,5	567,7
Industrial Production Index	1979=100	212,3	214,6	225,8
Registered Companies	-	813	665	648
Registered Capital	MJD	191,0	123,3	182,3
Outstanding Credit	MJD	285,8	380,1	447,0

Source: Central Bank, Monthly Statistics, Dec. 1994.

[12] Ministry of Industry and Trade, 1995.

[13] Central Bank of Jordan, Monthly Statistical Report, Dec. 1994.

Manufacturing industry, which is almost entirely of recent origin, is concentrated around Greater Amman area. In 1994, according to official figures, industry (including mining, manufacturing, construction and power) contributed only 26% of GDP (compared with 66% from services and 8% from agriculture) and employed 27% of the country labor force[14]. About 65% of all factories produce food products or clothing, but, the major industrial income derives from the three heavier industries-phosphate extraction, cement manufacture and petroleum refining[15].

In a country which is short of natural resources, Jordan's mineral wealth lies predominantly in its phosphate reserves, which are estimated at more than 2,000m. tons, providing the country with its main export commodity, accounting for 12.6% of export value in 1994[16]. Jordan is the fifth largest producer of phosphate rock, after the USA Russia (former USSR) Morocco and China, and the third largest exporter, after Morocco and the USA. The expansion of the phosphate industry has been a major element in successive Development Plans. Quantities of uranium and vanadium are now known to be mixed in with the phosphate reserves. There are also known to be deposits of good-quality copper ore at Wadi Arabeh. Other minerals include gypsum, manganese ore, abundant quantities of glass sand and the clays and feldspar ore required for manufacturing ceramic.

Foreign investors have been found to finance the establishment of companies to produce ceramics and sheet glass and also to exploit potash deposits in the Dead Sea. The Arab Potash Company (APC), formed in 1956 as one of the earliest Arab joint ventures, is 51% owned by the Jordanian Government. The company was reconstituted in 1983 and produced 486,868 tons of potash in 1984, its first full year of operation, selling 450,000 tons, worth $36.4m. In 1986 production reached 1.1m. tons,

[14] Ministry of Industry and Trade.

[15] Ibid.

[16] Jordan Phosphates Company, Report.

compared with 932,000 tons and revenue of $77m. in 1994[17]. The company produces potassium chloride and there are plans to extract potassium sulphate, bromine, magnesium oxide and refectory bricks from the Dead Sea potash reserves.

In 1990 the APC recorded its first profit, about JD 39.6 million since it began commercial operations in 1983, owing to production of 1.4m. tons (compared with 1.3m. tons in 1989). Export sales in 1990 were 21% higher than in 1989, India being Jordan's most important customer, followed by China and Indonesia[18]. Following the Gulf crisis, the APC planned to extend its operations, especially around the Dead Sea, with the aim of achieving a 30% increase in output by the mid-1990s.

Jordan Cement Factories Company announced a $87 million expansion scheme to meet the expected growth in demand for Cement as a result of the Peace Process. The output of the company is projected to increase by 400 thousands tons annually, to stand at 3.8 million tons. The opening up of the West Bank market, an the increase in the infrastructure activities will necessitate the increase in Cement production.

In Amman Economic Summit the Jordanian government, introduced the following projects for private sector financing:

1. Bromine and Derivatives Complex.
2. Copper Exploration.
3. Granite Quarrying.
4. Industrial Minerals.
5. Industrial Workshops.
6. Magnesium Oxide Complex.
7. Oil and Gas Exploration.
8. Phosphoric Acid Complex.
9. Potassium Sulphate and Di- Calcium phosphate Complex.

[17] Arab Potash Company, Report.

[18] Ibid.

3.4 Energy Sector

Jordan is almost wholly dependent on imports of crude petroleum for its energy needs. Local production share of total energy requirement amounted to only 5%, and the remaining 95% were imported. The main sources, before the onset of the Gulf crisis in August 1990, were Iraq and Saudi Arabia, Iraq having replaced Saudi Arabia as Jordan's main supplier in the late 1980s. Output of petroleum products from Jordan's only Oil Refinery, at Zarqa, increased steadily from 445,800 tons in 1970 to 748,000 tons in 1974, and to 21915832 tons in 1994, of this total 99.9% came from Iraq and the remaining from Jordan's Hamzah oil field[19]. Under an agreement designed to relieve pressure on reserves of foreign exchange, Jordan imported from Iraq, in payment for goods, about one-sixth of its crude oil requirements in 1994, and 2,978,294 tons of fuel oil. Imports of crude petroleum amounted to 3.0m. tons, averaging 48,743 b/d, in 1994[20].

In an attempt to reduce petroleum imports, attention has been given to the possibility of exploiting the estimated 40 billion tons of shale oil deposits in the south of the country. In November 1984 a Ministry of Energy and Mineral Resources was created, and in the following month the Government announced a plan to double investment in oil exploration, following promising oil strikes in the Azraq area on the border with Iraq and Saudi Arabia, and to reduce oil consumption by cutting oil subsidies and by increasing the prices of electricity and petroleum-based products. However, no commercial oil discoveries were made in the late 1980s, while production from the Azraq area declined to 315 b/d in 1988 and to only 40 b/d by mid-1990. Over this period, the cost of imported oil declined in relative terms, owing to reductions in world prices and to the availability of Iraqi oil at preferential prices. In 1994, cost of petroleum imports amounted to JD 300 million compared with JD 332 million in 1992.

[19] Jordan Petroleum Company, Report.

[20] Ministry of Energy and Mineral Resource, Energy Statistics, 1994.

The discovery of reserves of natural gas at locations around Al-Risha in north-east of Jordan in 1987 and 1988 encouraged speculation that the deposits would be sufficient to satisfy a significant proportion of Jordan's energy requirements in the future. By 1989 gas from the new discoveries was fueling a 60-MW electricity generating plant at Al-Risha, employing two 30-MW gas turbines (ultimately to rise to six, producing 180 MW), which is connected to the main grid by a 220 km high-voltage transmission line. The plant was supplying 15% of national power requirements in 1990, and plans were underway transfer two turbines from the South Amman station, with the aim of increasing its capacity to 25% of national power requirements. Domestic gas production in 1994 rose to 10 billion CF (compared with 1.6 billion CF in 1989). Moreover, Al-Risha gas field contributed significantly in reducing Jordan's heavy oil imports bill. In 1993, gas substitute for more than 560,000 tons of heavy oil at a cost of $50 million. Recently the government in consistent with its privatization program, encourage the establishment of the, National Oil and Gas Company, which will be responsible for the oil and gas exploration and production.

Jordan also has a thermal power station at Aqaba, which currently consists of two 130 MW oil-fired steam units, and is undergoing a $75m. expansion with the addition of two more 130 MW units capable of burning coal as well as oil, which will give a potential reduction in operating costs of 28% when the scheme is completed[21]. A 400 KV transmission line, extending for 320 km, has been constructed, joining the power plant to Amman.

In 1994, the country total demand for primary energy reached 4156 000 Toe, an increase of 5.4% from 1993[22]. The electricity sector consumed 31,3% of the country total energy consumption in 1994, Table (3.6).

[21] Ibid.

[22] Ibid.

Table 3. 6: Energy Consumption and GNP 1990-1994

Year	GNP Million JD	Total Energy Consumption (Million tons)	Growth %
1990	2429	3.306	5.4
1992	3307	3.770	15.2
1993	3733	3.935	4.4
1994	4134	4156	5.6

Source: Ministry of Energy and Mineral Resource, Annual Report, 1993.

As mentioned earlier about one third of the country energy consumption used for the generation of electricity. About 4761 million kW of electricity were produced by JEA in 1993 compared to 4422 million GHW in 1994[23]. This 7.6% increase in consumption attributed to the improvement in the country economic performance and the increase in industrial production. It's worth highlighting that the industrial sector is the dominating sector in terms of electricity consumption with an average of 37% of all sectors electricity consumption during the period 1989-1994[24]. Recently, a $145 million contract was awarded to expand the capacity of the Aqaba Thermal power station. This expansion in addition to other proposed ones, was mainly due to meet the high growth rate in demand for electricity.

As shown in Table (3.7) Jordan's demand for electricity is in the rise and by the year 2000 the demand will reach 1238 MW compared to 895 MW in 1995, or an increase of more than 38%.

[23] Ibid.

[24] Ibid.

Table 3. 7: Projected Demand for Electricity and Energy, 1995-2000

Year	Primary Energy 1000/	Growth %	Max. Demand MW	Growth %
1994	4156	5.4	825	10.6
1995	4318	3.9	895	8.4
1996	5416	4.6	968	8.1
1997	4714	4.3	1038	7.2
1998	4900	4.0	1102	6.1
1999	5076	3.6	1167	5.9
2000	5234	3.1	1238	6.0

Source: Ministry of Energy and Mineral Resources Statistics, 1994.

Currently, the Ministry of Energy and Mineral Resources is studying an application for a $1 billion Refinery investment scheme for Jordan. The application was presented by a consortium of Jordanian, Japanese, and United States firms. The proposal is believed to be for a Refinery that would process 140 thousand barrels a day of crude oil. The Refinery would be operated by the private consortium under BOT arrangement. The government will supply the land and give tax breaks to the consortium, and will have priority in terms of supply. The Refinery is expected to complement the existing Refinery in Jordan, which will cease to satisfy the demand of the country[25].

3.5 Transport Sector

Jordan's transport sector serves both the national economy and the surrounding region. It employs more than 10% of the country

[25] EIU, Country Report, Jordan, 2nd quarter 1995.

labor force and accounts for an average of 15% of the GNP[26]. The sector also accounts for a large share of the national investment in the infrastructure. The development of the Jordanian economy has, in the past been hampered by the difficulty of communication.

The Kingdom is well aware of the fact that investment in transportation plays a vital role in achieving higher productivity and growth. Jordan has already prepared ambitious plans to expand its railways network, upgrade its roads network, and enhance its airports and Sea port infrastructure.

One of country's pressing priorities is to expand its railway system so that it integrates with the regional railway system and ensures the provision of an economic, safe and environmentally friendly mode of transport. A vital railway link between Aqaba and the al-Hasa phosphate mines has been built with financial assistance from Germany.

Moreover, what was formerly Jordan's only railway, the single-track Hejaz line used to run through Ma'an northwards to Damascus and south to Mecca and Medina in Saudi Arabia, but large sections of the line fell into disuse. A study published in 1987 concluded that the line would only be worth reopening if it were to be connected with European railway net works.

By mid 1990 the port facilities increased to more than 20 berths and one container terminal[27]. There were two 40-ton gantry cranes and 299,000 sq. m of storage area. The port benefited from increased trade with Iraq, which initially resulted from the 1980-88 Gulf war. During 1982 about 2,599 vessels called at Aqaba, compared with 2,491 in 1993. Freight unloaded increased to 7,837,200 tons in 1982 and fright loaded also showed an increase, of 305,400 tons to reach 12 million tons, in 1993. Overall trade rose in each year between 1984 and 1993, rising to 20m. tons (freight loaded 11,271,600 tons: freight unloaded 8,743,800 tons) in the latter year when 2,555 vessels called.

[26] Ministry of Transport, 1995.

[27] Ibid.

Jordan's road network has served both national and regional traffic for several decades. The total extension of the Kingdom road network is 6855 km in 1994. Furthermore, all of the Kingdom classified road is paved and in good condition. However, the development in the region and the anticipated increase in the economic activities will result in the expansion and improvement of the existence network. According to the Ministry of Transport figures the required investment needed in road infrastructure amounts to $1 billion. Currently, both government officials and private investors (local and international) are increasingly becoming aware of the need to build express road or highways crossing the Kingdom from the south to north and from East to the West with toll system. The peace era will result in the increase in the economic activities in this region, and proper road network will be essentials for such activities.

In April 1975 the state airline, Royal Jordanian, established an air freight company to operate on routes to other Middle Eastern capitals, Europe and the Far East. The new queen Alia International Airport was opened in May 1983 at Zizia, 40 km south of Amman. Figures published in April 1991 showed that Royal Jordanian RJ had carried 964,000 passengers in 1990, 20% fewer than in 1989. However, the number of passengers increased to reach 1,221,947 in 1994, and the total cargo also, increased Table (3.8).

Table 3. 8: Royal Jordanian Activities, 1990-1993

Year	No. of passenger	Cargo (tons)
1990	963,900	53162
1991	797,900	41637
1992	1,109,800	44452
1993	1,185,900	54062
1994	1,221,947	54579
1995 (Estimated)	1,281,056	66893

Source: Dos, Annual Statistical Yearbook, 1993.

A ferry link between Aqaba and the Egyptian port of Nuweibeh who was opened in April 1985. Presently, the ferry link is transporting thousand of passengers between the two ports.

Jordan is under the process of reviewing its transport sector's regulations and laws in order to promote transport investment, and encourage private sector participation. In Amman Economic Summit Jordan's Ministry of Transport introduced the following transportation schemes for private investment[28]:

A- Railway Transport Sector Projects:

1. The North-South Corridor, which extend from Europe and Turkey to the Gulf countries via Aqaba and Saudi Arabia.
1.1 Shidiya and Aqaba Industrial Area Railway links.
1.2 Amman-Syrian Border Railway link.
1.3 Amman-Aqaba link.
1.4 Light Rail for passenger transport (Amman-Zarqa-Salt).
2. The Eastern Corridor: This Corridor Connects Iraq with the port of Aqaba.
2.1 Iraqi Border-Zarqa Railway link

3. Red Sea-Dead Sea Corridor, which extends from the Al Safi potash work at the Dead Sea to the port of Aqaba.
3.1 Dead Sea-Aqaba Railway link

4. The Western Corridor, which extends from the Jordan Valley eastwards through Irbid to join the North-South Corridor at Al-Mafraq.
4.1 Irbid-Jordan Valley Railway link

B. Road Transport Sector Projects:

1. The Central North-South Corridor (Syria-Saudi-Arabia)

2. The Western Border Corridor

2.1 Irbid-North Shuna Road

[28] Ministry of Transport, MENA Summit, 1995.

2.2 North Shuna-South Shuna Road
2.3 Kofruhooda-Damia Junction
2.4 Aqaba Coastal Road
2.5 Sheik Hussein Bridge, King Hussein Bridge, King Abdullah Bridge, and Prince Mohammed Bridge.

3. The Eastern Corridor
3.1 Iraqi Border-Mafraq-Irbid
3.2 Azraq-Safawi Road

4. East-West links

C. Air Transport Sector Projects:

1. Aqaba International Airport, expansion the Airport

2. Queen Alia International Airport, expansion and upgrading the Airport
3. Amman Civil Airport, renewed and Modernizing the Airport

D. Maritime Transport Sector Projects:

1. Aqaba port project components
1.1 New multipurpose Cargo Jetty
1.2 New passenger terminal berth

2. Shipping and Maritime Services
2.1 Jordanian International Ships Registry
2.2 Marine Workshop
2.3 Specialized Bulk Carrier Transport Company
2.4 Bunkering stations for ships

3.6 Telecommunications Sector

The Kingdom is fully aware of the fact that modern and reliable Telecommunication facilities are essential for socio-economic development. Telecommunication services considered a yardstick for investment promotion, taking into consideration the need for up to date and modern telecommunication services for efficient and fast economic transactions. Given the above situation the Kingdom embarked on a comprehensive scheme of restructuring

and modernizing the country's telecommunication sector. In 1995, both Jordan's Lower and Upper Houses of the Parliament passed a new telecommunication law. The law provides for regulating competition, including mobile voice and data services. A Regulatory Office was established by this new law, and charged with providing a transparent regulatory framework to allow fair and effective competition.

The telecommunications system in Jordan is considered among the most modern in the region, and is fully automatic through three earth stations. These "A System" stations are linked to Intel SATs in the Atlantic and Indian Oceans, connecting the Kingdom with the Eastern and Western Hemispheres.

Currently there are more than 303,590 telephone lines in the Kingdom, of which 65% in the Greater Amman area. Jordan Telecommunication Corporation is planning to expand its network, in the southern region and in Amman, with the goal of providing one quarter of a million telephone lines in Jordan by the end of next year. In 1994 the Ministry of Communication and Postal Services and the Jordanian Company for Mobile Phone Services reached an agreement to connect Amman's cellular telephone subscribers to the public telephone network within one year, with the service gradually expanding over four years to encompass all of the Kingdom. However, investment is highly needed in this sector, according to official figures more than 200 thousand waiting application for telephone service were requested by the Jordanian citizens. Both foreign and local private investment in this sector especially in the telephone service can improve efficiency and reduce the cost on consumers.

In Amman Economic Summit the Ministry of Communication presented three projects for investment. Below are some of these projects:

1. Spectrum management project, the purpose of this project is to equip the telecommunications regulator office with the capability to manage radio frequency spectrum in accordance with national interests. The estimated cost of phase of the project is about $6.6 million.

2. Digital Telecommunications Infrastructure.

3. Turnked or " smart" mobile radio systems.

4. Dispatch and mobile data system.

Summary

In addition to a wide ranging legislative review of most of the country regulations, laws and by laws governing the economy, Jordan presented a list of projects in Amman Economic Summit to attract direct private investment and assistance. The list concentrated on three areas namely; private investment, regional development and integration, and infrastructure required for a large-scale private sector investment. The projects list consists of $1.9 billion of industrial projects, $1.67 billion in tourism infrastructure, $520 million in transport, and $440 million for telecommunication.

Infrastructure upgrading needs, of Jordan to provide an important opportunity to mobilize new private investment and increase the competitiveness of existing firms by improving the quality of services. Improvements in quality will require greater technical efficiency and productivity. According to the World Bank figures, expanding and modernizing infrastructure in Jordan will cost about $500 million a year for the foreseeable future. However, government will not be able to afford more than 20% of this cost, and the remaining portion will have to come from private sector contribution.

This chapter provided the reader with the basic analysis of some of the country's economic sectors. As it has been stated earlier in this chapter potential investment (local and foreign) in these sectors are visible. The future projected demand for the services and products of these sectors indicate the need for the expansion and improvement of the existing ones.

A detail investment analysis for each sector individual projects is highly vital for investor to be undertaken to measure the anticipated rate of return and profitability.

Chapter Four
Investment Climate in Jordan

Introduction

Investment by definition is "The flow of expenditure on additions to the stock of capital . Alternatively, the flow of expenditures on goods that are used as inputs to further stages of production"[1].

Every country gives great attention to investment, and do what they can to stimulate the investment climate. Why is this the case?. It's due to the role of investment in the economic life of every nation. Investment is a basic factor in the economic growth .Change in investment changes all the ties of the economic activity. Capital accumulation has both demand-side and supply-side effects on the economy. On the demand side, investment is, simply, business spending and one of the components of aggregate demand. On the supply side, however, investment adds to the capital stock and thereby increases the productive capacity of the economy[2].

4.1 Investment in Jordan

As a developing country the Jordanian public sector took the responsibility of the development, specially in the infrastructure projects such as roads, electricity, communications etc.

In order to finance these projects and due to the poor domestic resources (poor domestic savings), Jordan was forced to relay upon external financial resources: Loans, Aid, Workers remittances etc. In the last few years and due to the success of the economic adjustment program, the economy of Jordan reached a higher level of self dependency. On the budget side, the local revenues covered at all the current expenditures and an increasing

[1] William J. Boyes, Macroeconomics, The dynamics of theory and policy. P 522

[2] William J. Boyes, ibed p 306

amount of the capital expenditures. On the savings side, the rate of consumption to the GDP decreased from 98.8% in 1993 to 95.5% in 1994[3].

Recently, Jordan is concentrating on the private sector to lead the development process, The government is moving toward the privatization of many state owned corporations, and updating the investment related laws and regulations (The Investment Promotion Law, Income Tax Law, Customs Law, etc.

In addition, Jordan has been giving great attention to foreign investments, which can play a great role in the development of Jordan through providing additional sources of funds and know-how .

The last investment figures shows that for the year 1995, more than 70 approved economic projects with total capital of JD 139 million and 48 economic project with JD 21 million in capital, has took advantage from the previous investment promotion law[4].

4.2 The Investment Climate

4-2-1 The Political Stability

Political stability is considered as a cornerstone in the process of achieving economic growth and development. In a recent survey conducted by an international advisers (Ernst & Young) they found that over 80 per cent of the 1000 global companies covered by the survey advised "improve stability" in order to attract foreign investments.[5] Stability offers predictability or known risk levels to the investor.

Despite of the conflicts in the region, Jordan enjoys a long period of political stability, due to the wise and moderate political

[3] Central Bank of Jordan , annual report 1994 p 22

[4] Department of investment promotion

[5] Ernst & Young, Investment in Emerging Markets, 1994

leadership. This was enhanced by the return to democracy as a way of life and method of decision's making. Furthermore, the peace process in the Middle East which started in Madrid in 1991, in order to achieve a comprehensive and justice peace, and its subsequent : the Jordanian-Israeli Peace Treaty, the self-rule agreement between the Palestinian and the Israeli government, has opened new opportunities for the economies of the region and the Jordanian economy in particular, and in turn will enhance the political stability of the region, which will encourage foreign investments.

4-2-2 Economic Stability

Chapter two highlighted the fact that Jordan had achieved a good economic stability despite the political and economical events in the region. The mid 1980s crisis that shocked the economy of Jordan and caused instability, which and was enhanced be the Gulf crisis, had been overcome by the adoption of the adjustment program. And since 1991 Jordanian economy achieved a stable growth rates .

One of the main objectives for the Jordanian monetary policy is to maintain the stability of the exchange rate of the national currency (JD) relative to the international currencies, the US $ in particular. This policy was operated with great success, the JD was linked to a basket of foreign currencies, the main component of that basket was the US $. The fluctuations was in small fractions until the economic crisis in 1987/1988 which forced Jordan to devaluates its currency from an exchange rate of JD 1 =3 US $ in 1987, to 2.7 US$ in 1988, then to 1.7 US $ in 1988. In the same period the exchange rate of JD to the SDRs decline from JD 1=2.6 SDRs to 1.6 SDRs.

But after the government adoption of the economic adjustment program with the IMF assistant, and the increase of the country reserves, the JD exchange rate return to the case of stability once again, since 1990 until now the average exchange rate for the JD was JD = 1.5 US$. Table (4.1) illustrates the development in this regard.

Table 4. 1: Average Exchange Rates of The JD

Years	JD Average Exchange Rate in US Dollars	JD Average Exchange Rate in SDRs
1980	3.4	2.6
1981	3.0	2.6
1982	2.8	2.6
1988	2.7	1.6
1989	1.7	1.2
1992	1.5	1.1
1993	1.4	1.0
1994	1.4	0.98

Source : Central Bank of Jordan , Monthly Statistical Bulletin, April 1995.

At the end of July 1995 the approximate JD exchange rates with some of the world's main leading currencies are presented in Table (4.2).

Table 4. 2: JD Exchange Value Against Major Currencies, 1995

JD 1 = US Dollars	1.43
Pound sterling	0.90
Deutsche mark	1.98
France franc	6.87
Swiss France	1.65
Japan yen	126.42
Hong Kong Dollars	11.11

This year, Jordan Central Bank adopted two key moves, which will reflect confidence in the Jordanian currency and the economy. The first move, was proclaiming the Dinner as freely convertible for current expenses, and the second move, was to allow commercial banks to lend in foreign currency (up to 50% of the total deposits the banks hold) for development projects and investments in Jordan. after the approvals of the Central Bank, the last condition was removed in regard of the exports promotion advances.

In an expected step, the Central Bank of Jordan decided in October 1995 to stabilize the exchange rate of the Dinar to the US$ at 1$=0.7080 JD. This step was welcomed by the business community in Jordan because they believe that this step will give a good advantages to the promotion of the investment climate by removing any suspicion about the future of the JD.

4-2-3 Geographical Location

Jordan is a small country, covering an area of 9.25 million ha., located in the heart of the Middle East, and situated near the south-eastern coast of the Mediterranean. Jordan has in the old times played a significant role in the trade routes. In the peace era, the country will be a bridge and a link to the region as whole. The geopolitical importance role of the country as political buffer zone is being replaced gradually by economic role, Jordan is so close to the sources of power in the Gulf, and to the manpower sources in Egypt, Syria, Iraq, and Palestine.

4-2-4 The Legal Environment, Laws and Regulations Reforms

In order to encourage investment in Jordan and foreign investment in particular, the Government adopted a package of reforms, with its laws and regulations, the current investment law, and the tax system are being reformed[6].

I Tax Reform

No doubt that taxation is one of the important variables that influence investment decision. It is believed that higher taxation close out many investment opportunities and reduce the total volume of investment. On the other hand, lower taxation tend to open up many investment opportunities and increase the total volume of investment. This does not mean the abolishing of taxation, but, several economist emphasize the enforcement of some forms of taxes such as sales tax and personal tax that are less injurious to investment and economic growth than corporation taxes.

The reform in the tax system aimed to achieve the following goals:

- increase the domestic revenues.
- widen the tax base.

[6] This part depends on data from the reformed relating laws and regulations , and Bulletins from the Ministries of : finance , Trade and Industry , and some documents produced for Amman summit 1995.

- provide more incentives to investment and export activities.
- rationalize tariff protection to local industries.
- reduce the tax burden on low income groups of society.

Therefore income tax rates on company profits are reduced significantly from the current :

(38%) on share holding companies

(40%) on other companies

(50%) on banks, insurance, exchange and intermediary companies as well as other financial institutions, and 55% if the companies are other than share holding organization.

The new rates are as follows:

(15%) if the company's income originates in priority sectors namely mining , manufacturing, hotels, hospitals or any other sector determined by the Council of Ministers.

(35%) on banks, insurance, exchange and intermediary companies as will as other financial institutions , and 25% on all other companies.

Also, all the company expenditures on training, marketing , and research and development (R&D) are totally exempted with no upper ceiling .

The profits from exports of goods and services are exempted too with the exception of the exports of phosphate ,potash, fertilizers and other exports that are governed by trade protocols.

II Investment Promotion Law Reform

Jordan is working hard to improve its image and make its policies internationally compatible to attract foreign investment. Therefore, the investment promotion law has been amended in 1995 as follows:

- A new institutional structure to oversee investment, including a Higher Council for investment chaired by the Prime Minister .
- Covers Jordanians and non-Jordanians.
- Eliminates discrimination between Arab and non -Arab investors.
- Establishes a one -step investment window.
- Provides tax exemptions on net profits from agricultural projects.
- Eliminates the distinction between "Economic" and "Approved Economic" projects in the previous investment law.
- Prohibits direct or indirect nationalization or confiscation of an investment project.
- Includes mechanism for investment dispute resolution. These are the Arab Agreement for Investment and Capital Flows(for Arab investors) and the International Center for Investment Disputes Settlement (for other investors).
- Expand investment incentives, These incentives include exemption:
  * of imported fixed assets of the project from tax and fees.
  * of imported spare parts from tax and fees.
  * of imported fixed assets of the project for the expansion of productive capacity by not less than 25 percent from taxes and fees.
  * from income and social services taxes for a period of 10 years from the date of production of the project in varying amounts according to the level of development of particular locales.

4.3 Investment Facilities

In order to facilitate the investments, Jordan established the Jordan Investment Corporation and has transferred all investments in government - owned companies to this corporation.

In addition, Jordan was well aware of the importance of providing the necessary infrastructure services. The government built and operated: roads, transportation facilities, power generation plants, communications services. These services cover all the Kingdom. In addition, the government established the Industrial Estates Corporation, the Free Zone Corporation, and Amman Financial Market which provide many services and facilities to the investors.

4-3-1 The Jordan Investment Corporation

The Jordan Investment Corporation JIC, was established, as the government investment arm. JIC manages government investments in a number of companies. The market value of these investments are estimated at JD 660 Million. JIC works under the provision of the law NO. 18 of the year 1991, and its amendments. The corporation enjoys financial and administrative independence, and is run by a board of directors chaired by the minister of finance. JIC plays a basic role in the privatization operation, by selling government shares in many companies to the private sector.

4-3-2 Industrial Estates Corporation

The Industrial Estates Corporation was established in 1980 by a law (revised in 1985). The main aim of the corporation is to set and operate industrial estates within the country. This corporation offers incentives for the establishment of new industries in those estates, as well as encouraging existing enterprises to relocate therein[7].

In addition to the exemption available under the Encouragement of investment law, an industrial enterprise established in an estate or relocated there, is entitled to exemption from income tax for a period of two years.

[7] Jordan, Tax & Investment Profile, Saba & Co. October 1995 .

The corporation established two such estate, the first in Sahab 25 km south of Amman, which provides facilities for 700 industrial units of various sizes, and this estate now is being expanded, and the second estate has been established near Irbid in the northern part of the Kingdom.

4-3-3 Free Zones Corporation

The Free Zone Corporation was established in 1978 to promote export-oriented industries and transit trade. The first free zone was established in Aqaba on the Red Sea, followed by another one near Zarka (30 km from Amman), while a third is now being established in Sahab Industrial Estate.

The Aqaba zone concentrates on transit trade, cold storage and manufacturing, while the Zarka zone offers warehousing and exhibition sites as well as manufacturing and distribution facilities.

The free zone offers the following incentives to the investors:

- Exemption of profits from income tax for a period of 12 years.
- Exemption of non Jordanian employees from income tax on their remuneration, and the social services tax.
- Exemption of goods imported into free zones from outside Jordan (or exported therefrom to a foreign market) from customs duties, import fee and any other taxes or fees, except those representing services and wages.
- Exemption of buildings constructed therein from licensing fees and real estate taxes.
- Freedom to repatriate capital invested and profits earned, subject to prevailing laws and regulation.

By 1994 the number of investors in the Jordanian free zones was more than 594 only 9 of them were industrial investors[8].

[8] Fawzi Sadiq & Mohanad Sahawnah, FREE ZONE IN JORDAN, 1994

Recently, there is 70 applications for the establishment of new industries in the free zones[9].

4-3-4 Amman Financial Market

The Kingdom has one of the most developed and fastest growing stock markets in the Middle East. The Amman Financial Market (AFM) plays an important role in the economic life of the country, and stocks are thought of as an instrument for savings. The AFM has traditionally been strong, surviving inflationary pressures caused by the inflow of oil-boom Gulf money in the 1980s, and comparatively unaffected by the October 1987 world stock market crash. While Jordan's future was being questioned during the Gulf Crisis, the AFM was not only up 24.4 percent, but also witnessed its price index for industries registering a thirty-six percent increase.

In 1992, Morgan Stanley Capital International listed the AFM as having the seventh highest rate of return among world stock exchanges. In June 1993, the monthly trading volume hit an all-time record of more than JD 174 million, while the total trading at the AFM in 1993 was over the one billion JD, an 11.5 percent increase over the previous year. However, in 1994 increased activity in the primary market, which handles fresh issues before the stocks enter the secondary market, contributed to a drop in turnover total and general price index. About JD 446 million was transferred from the main trading floor for varying periods throughout 1994, as twenty-six new companies were established with a capital of JD 7307 million and twenty-four existing companies raised capital of JD 139 million.

The movement of capital was coupled with anti-inflationary measures including a hike in interest rates and a ceiling imposed on credit facilities. The sum total of these developments led to declined capital in the secondary market and hence a 47.1 percent drop in turnover from 1993, down to JD 535 million. Fresh stock entering the primary market, however, grew 93.1 percent from 1993 to JD 446.8 million. Total market capitalization of the

[9] Hasan Baitony, head of the Jordanian free zone investors society, Al ASWAQ daily news paper 19-12 - 1995

companies listed in the AFM dropped to JD 3.397 billion from JD 3.463 billion in 1993, while the total number of shares in the market rose to 677,674,424 from 529,017,345. The decline of 1994 was prompted largely by a massive infusion of fresh stocks, which, while weakening the market temporarily, provides depth which will contribute to its long-term stability and growth.

4.4 Investment Obstacles

Despite the tremendous efforts which has been done to improve the investment climate in Jordan, there is some remaining obstacles, which Jordan had to deal with such as:

I The Size of the Market

The size of the market, determine to a great extant, the size and type of the investment which takes place in any country, the market potential is the determinant factor in investment decisions taken by the global companies for the locations of their investments[10].

As for Jordan, and due to the small size of the country and its economy, this is a major obstacle, and the only way to overcome this obstacle, is to expand the local market. This can be done in several ways. The government of Jordan has moved this direction in two ways:

1- Jordan applied to the World Trade Organization WTO. This step will open the international markets, for Jordanian exports. Although this step will harm some Jordanian industries, which cannot stand for the international competition, the membership in WTO will benefit the Jordanian economy as a whole.

2- Jordan nowadays, is entering the partnership negotiations with the EU countries. A partnership agreement with the EU, will open European markets fore more Jordanian exports.

[10] Ernst & Young, Investment in Emerging Markets, 1994

When these agreements are achieved, the small size of the Jordanian economy, will not be considered as obstacle for investments any more. In addition, Jordan can reach regional agreements with the neighboring countries, (free trade area, common market, customs union .. etc.) in order to achieve the same purpose.

II Bureaucracy

Bureaucracy is one of the major investment obstacles in the third world countries. In order to overcome this obstacle, the government of Jordan had started legislation and regulation reforms. But, despite the efforts of the government, the mentality of the bureaucracy is still an obstacle. For example governed, the new investment promotion law is, considered as an advanced step toward providing legal environment, assisting local and foreign investments, but the executive instrument (the non-Jordanian investment promotion order) imposed many obstacles such as :

1- Foreign investors, are not allowed to invest in some sectors, like the media , information, schools, and universities, without the previous approvals of the Council of Ministers.

2- In others sectors such as, agricultural projects, services industry, consultancy, foreign investment must not to exceed 49% of the ownership.

In a country which is in need for foreign investment the former two conditions, can not be justified.

3- In addition, the new order, does not allow the foreign investments in local (Jordanian currency. The capital investment must be in foreign and convertible currencies, transferred to the country through licensed banks. That means that if Arabian or foreign investors, owned money in JD. They cant invest their JDs directly in Jordan. They have to convert them into others foreign currencies, then convert them back into JD through a Jordanian bank.

4.5 Investment Opportunities

Jordan's comparative advantage should be emphasized in this region. No doubt, that one of the several advantages that investors can clearly realize is the country's labor force. Jordan has a comparative advantage in the economic activities that require the services of low-skilled labor or highly-trained manpower or combined. In addition, the country has a good reserve of engineers, technicians, physicians, Businessmen ... etc. which investors can recruit at relatively reasonable competitive wage.

Furthermore, the country well established infrastructure, the essential elements for investment, can accommodate to a great extend the requirements of both local and foreign investors. Updating the existing infrastructure, can have dual advantages for investors. First, it can be a good potential for some to invest in, and secondly, to benefit from utilizing it. It's worth mentioning, that Jordan is providing a level of infrastructure services to households in excess of most other countries with similar income levels[11]

The Amman Economic Summit (see section 4.6.2) message was very clear that is, the Middle East is open for business, and Jordan in particular and the region in general are doing their utmost to attract private investments.

4-5-1 Privatization in Jordan

Privatization is a concept which has come to mean different things to different people reflecting the different objectives and ability of implement privatization measures. In the broad sense," privatization has been referred to as a process to increase the efficiency of the private sector or any policy move to foster private sector development"[12].

[11] The World Bank, 1994.

[12] Seiji Nayan , Private Sector Development and Enterprise Reform in Growing Asian Economies, International Center for Economic Growth , 1990 p 64 .

In Jordan and in consistent with the policies of the Economic Adjustment Program the Government has started to privatize some public establishment. For example, part of the governments shares in the Intercontinental Hotel have been sold to the private sector, as have all shares in the Marriot hotel. The Royal Jordanian (Airline) has entered the first stage of privatization. Its now a commercial entity and its shares will soon be sold to the private sector. Studies are underway to transform the management of the Telecommunications Corporation (TCC) and the Electricity Authority into commercial entities, in addition the oil and gas exploration operations in Jordan were privatized by the establishment of the national company for oil and gas .

The Kingdom is putting high hopes on the private sector to assume a leading role in investment project. Jordanian are estimated to hold more than $5 billion in accounts in foreign banks, and privatization can prove good opportunities to attract those funds back home.

Continued privatization in other areas will widen the role of the private sector and clearly strengthen the Government's commitment to improve the investment environment.

But it seems that the government's officials emphasize commercialization rather than privatization , which would enable State-dominated enterprises to continue to contribute to the exchequer. For example the profit of the Telecommunications Corporation covers some 10% of the government budget .

If Jordan is really serious in the privatization process, it will be necessary to take more steps including the establishment of a specialized department for privatization in order to cover all the aspects of that process, coordinate between the different ministries and state owned corporations and abolish some of them and carry out their responsibilities. The absence of such a Department will lead to useless competition within the state bureaucracy.

Privatization is required every where and in Jordan in particular in order to achieve the highest efficiency levels in the performance of the national economy. Therefore, its important to distinguish between privatization and monopoly. When implementing a privatization program it's essential to provide the legal frame to prevent the growing of the monopolistic power which have no incentive to enhance the efficiency and the quality of the products. This can be done by an anti-trust law or by the direct government supervision.

Other aspects of privatization in Jordan are the plans to open the infrastructure sector to private investment by introducing the (BOT, BOO, BOOT) concepts. In order to enhance the role of the private sector, The Government of Jordan must allow the private sector to invest in infrastructure projects and service industry especially implemented by the government due to the lack of financing.

4-5-2 Amman Economic Summit

The era of peace opened wide opportunities in the region and in Jordan. The Middle East/ North Africa Economic Summit which held in Amman from 29-31 October 1995 paved the path for a new beginning in the region, the aim of this Summit was to provide more incentives to increase private sector investments in the region and to establish a strong partnership between the private and public sectors .

As a result of the summit, four Regional Cooperation Institutions has been established:

- The Economic Cooperation Bank,
- The Regional Tourist Council, and the Tourist and Travel Agent Society for the Middle East and the Mediterranean.
- The Regional Business Council.
- The General Executive Secretary of the Economic Summit.

It's hoped by the establishment of these regional corporations, it could be possible to talk about a regional market, by removing the obstacles from the way of trade. This will open a wide range of opportunities for local, regional, and international investments.

As for Jordan and due to fact that the only way to solve its problems is by expanding domestic exports, it's an essential interest for Jordan to promote the development of a regional market. Therefore, and due to its geographic location in the middle of the region, and the new incentives provided by the new laws and reforms, Jordan became an attractive place for foreign investments .

In the Amman Summit Jordan presented about 27 projects in different field, mining, infrastructure (within BOT concepts) industry and trade etc., which represent good investment opportunities for local and foreign investors. According to the Economist magazine issue of November 4th, 1994, Amman Economic Summit in which plans for development were skillfully presented outclassed Casablanca Summit, in both expertise and public relation.

Summary

This chapter shows the great effort which have been done by the Government to improve the investment climate by: updating the related laws and regulation and by the good management of the macroeconomics policies within the structural adjustment program, in cooperation with the IMF

In addition, this chapter shows the growing needs of Jordanian economy for foreign investment to compensate for the insufficient traditional sources of finance.

Many steps has been taken to facilitate the entering and operating of the foreign investments in Jordan, but other steps are still required in this regard.

Chapter Five
BOT, BOOT, BOO
New Investment Schemes

Introduction

This chapter defines the BOT, BOOT, and BOO concepts, and highlights their merits and demerits, the constraints, and risks associated with, and reviews developing countries' as well as Jordan's experience with these concepts. And concludes with the sources of financing for investment.

5.1 Infrastructure Financing

Traditionally, infrastructure has been the preserve of the public sector, particularly in developing countries, mainly because of its strategic importance to the economy on one hand, and because of the large investment costs and long pay back period associated with such projects are not appetizing to private investors on the other.

Until 1994, developing countries have been spending around $200 billion a year on infrastructure investment, some (90% or more) of it derived from government tax revenues or intermediated by the government. Infrastructure investment rarely constitutes less than 30% and may reach up to 70% of total government investment, in addition to operating and maintenance expenditures. This has resulted in an enormous burden on public finances[1].

Governments have generally relied on foreign financing in the form of long term loans (soft loans) for infrastructure. However, recent trends in privatization of major utilities and telecommunication in various countries have shown that this no longer the case.

[1] World Development Report, 1994. Infrastructure For Development, World Bank.

Aggregate private investment in infrastructure in developing countries currently amounts to about $15 billion a year (7% of total $200 billion). Although this percent is small, but private investment in infrastructure has shown continuous increase over the past few years, and there is a strong likelihood that it will continue to grow, possibly doubling its share by the year 2000, since more and more countries are finding it difficult to finance large capital projects[2]. Middle East and North Africa (MENA) countries in particular, have been unsuccessful at attracting foreign investors mainly because of burdensome regulations and because their financial markets remain underdeveloped. However, Jordan has recently undergone many legislation and regulations reforms, in order to encourage and promote foreign investment in the country (see chapter 4 for more details).

Innovative and diverse project financing techniques are being employed to enhance the transition from public to private sector risk bearing infrastructure provisions in the sectors of water, energy, transportation, telecommunications, etc. Project financing enables the lending of money to a stand-alone business that is not yet in existence, but ultimately will produce a good or a service. The only collateral for the lenders will be the assets of the project. It is a non-recourse lending[3], so that the revenues of the project are insufficient to pay back the debt, the sponsors will not be liable. Lenders have no guarantee of repayment, direct or indirect, from any credit-worthy party. Therefore, lenders have to concern themselves closely with the feasibility of the project and its sensitivity to the impact of potentially adverse factors. In practice however, because certain risks may be shifted to the sponsors, it is better characterized as a limited recourse lending.

[2] World Development Report 1994. Infrastructure for Development, World Bank.

[3] Non-recourse lending : lenders are repaid only from the cash flow generated by the project or, in the event of complete failure, from the value of the project's assets.

5.2 The Origin of BOT Concept

The BOT (build-operate-transfer), BOO (build-own-operate) and BOOT (build-own-operate-transfer) are most suitable methods for infrastructure financing given that the government is unable to attain soft loans. The BOT concept was first thought about by Turgut Ozal the Ex-prime Minister of Turkey.

The use of the BOT model, originally proposed for the construction and operation of a nuclear power plant, was considered in 1986 by the government for the implementation of more than two projects including transport infrastructures, free trade zones & power plants.

"In 1987, the Turkish government set forth the principles governing the implementation of projects under the BOT mode. The principles of "Build-Own-Transfer" model are summarized below:

1- A Joint Venture Company (JVC) shall design, engineer, construct, finance, own, manage and maintain the project.

2- Debt/Equity ratio should not be less than 80/20.

3- The Republic through an appropriate entity will be willing to invest up to 30% of the equity in JVC to be formed to acquire and operate the project.

4- All financing of the project (other than the equity) will be arranged by the sponsors but will be the obligations of JVC.

5- JVC is obliged to complete the project under a turnkey fixed price contract. However the liability of the contractors for failure to complete the project will be joint and several towards JVC.

6- Construction cost overruns other than force major and Republic default events shall be borne by JVC.

7- In the event that the project has not been completed on schedule or any interruption during the operation, JVC shall utilize the following secondary funds for debt service obligations.

a) Standby financing obtained by JVC at least to cover 12 month debt service.

b) Any liquidated damages available from the contractors and/or suppliers.

c) Any available insurance proceeds.

d) Reserve fund during the operation at least to cover 12 month debt service.

e) Subordinated loans made by the Republic to cover 12 month debt service.

8. The Republic through an appropriate entity shall purchase products and/or services produced by JVC based upon annually agreed amount. Treasury will guarantee the Purchaser's payments under Sales Agreement.

9. The terms and conditions of purchase of products and/or services will be set in Sales Agreement.

10. The tariff will be calculated based upon the agreed annual amount of the products and/or services produced from the project.

11. The tariff will be composed of capital charge, operating charge and dividend and shall be payable in the particular currencies (in) which the project (was) financed:

a) The capital charge is the basis on which JVC's lenders will be providing the senior debt;

b) The operating charges will cover operation and administration costs including insurance costs and a maintenance reserve;

c) Dividend will be payments that include return on equity sufficient to provide an internal rate of return of the JVC's equity adequate to attract investors.

12. The equity shall be repatriated after all senior debt has been repaid[4]

13. When senior debt has been repaid and equity capital has been repatriated the plant may be transferred to the Republic or, if mutually agreed by the parties, JVC may operate the plant for another set period". "[5]

The proposed projects in Turkey included transport infrastructure, water supply, electricity supply, and coal-fired power stations.

There two approaches in implementing a BOT project:

a. The project proposal might come from the private sector after a request initiated by the government.

b. The proposal might be an unsolicited one that came from the private sector.

4 One may wonder whether the intent was not to write: the equity shall not be repatriated before all senior debt has been repaid.

5 The text between the quotation is a reproduction from BOT Approach to Infrastructure Projects in Developing Countries by Mark Augenblick & B. Scott Custer, Jr.

5.3 Definition of BOT, BOO & BOOT

BOT, is a form of concession[6] usually referring to a new project. Typically in a BOT, a private consortium agrees to finance, construct, operate and maintain a facility for a specified period, and then transfer the facility to a government or other public authority.

BOO, in this case, the concession accords the right to construct, operate and retains the ownership of the facility, which may relieve the parties of burdensome mechanisms and associated protection for transfer back to the government, as well as relieving price constraints, particularly where the period before the transfer is short. Transfer back can also be a disincentive to equity investors particularly on a public flotation. In situation where there is no transfer, the government will be primarily concerned with performance and quality without the need to consider the ultimate condition of the assets for transfer back.

BOOT, in this case, the project is constructed by the private sector, owned and operated by for a sufficient period so as to provide a satisfactory commercial return on investment. The project is eventually transferred back to the government or other public authority. In BOT and BOOT, the income from the project must pay its construction and operating costs.

It's worth mentioning that there is many approaches or terms such as: BO, Build, and operate, BT, Build, Transfer, etc. The variation are in the detail of individual projects, the principle remain the same. In all cases the developing consortium is responsible for raising finance and then takes the revenues once the project in up and running..

When first conceived by Prime Minster Ozal, and in the optimistic view of some host country governments even today, a major attraction of the BOT approach was supposed to be that a

6 Concession : an arrangement whereby a private party leases assets for service provision from public authority for an extended period and has responsibility for financing specified new fixed investments during the period; these new assets then revert to the public sector at expiration of the contract. (World Development Report, 1994, Infrastructure Development, World Bank).

BOT project would be entirely "privately" financed, without any financial commitment from the host government. In practice, however, there has been not yet one purely private BOT infrastructure project of any significant size in developing country. Extensive host government support, including a substantial financial commitment at one or more stages of the process, appears to be a central requirement.

Before the discussion of the Merits and Demerits of BOT it worth to briefly highlight some of the differences between BOT and BOO (Table 5.1).

Table 5. 1: BOO VS BOT

Item	BOT	BOO
Investment recoup	Specified period	Theoretically forever
Plant condition	Incentive to keep proper maintenance during the specified period only	More incentive to maintain and refurbish the plant
Training & transfer of technology	More benefits for host the country	Might be lacking for the host country
Privatization	Temporary privatization	Full privatization
Constraints	Less political controversial	Politically controversial
Attractiveness	Less attractive for investors	More attractive for investors

5.4 Merits of BOT

The question is often asked "what are the relative advantages from host's country's perspective?" BOT is attractive to government for several reasons :

1. It represents a new source of capital for large infrastructure projects compared with traditional funding sources, leaving scarce government and private sector resources of those projects that can not support project financing, "Additionality".

2. It increases the efficiency of project management by the private sector, which will benefit the host country.

3. In developing countries or countries where large scale investments are required for a short period of time, it is a vehicle through which to attract foreign capital.

4. Introduces competition, the introduction of the practices sector brings competitive working practices which is the long term interest of the consumers as prices tend to be driven down wards.

5. Credibility; the willingness of equity investors and lenders to take on the risks associated with BOT projects is an indication that the project is considered to be viable for success by knowledgeable experts. The BOT approach, therefore, should save developing countries from "white elephant" projects which might otherwise be carried out by the public sector. However, this benefit might be lost if the host government bears the real risk rather than the sponsors of the project.

6. Benchmark, BOT projects can be used by host governments to measure the efficiency of similar public sector projects in the same country.

7. Technology Transfer and Training; the continued direct involvement of the private sector sponsors in a BOT project over a long period of time promotes a more continuous

transfer of technology from the contractors equipment suppliers and operator to the project company, and hence to the host government. Also, a BOT project would normally include intensive training programs, so as to guarantee efficient operation of the project by local staff at the end of the concession period.

5.5 Demerits of BOT

From the host country's point of view, there are a number of disadvantages for choosing BOT approach. The case against BOT projects rests primarily on the following:

1. BOT projects are highly complex from both legal and financial point of view. They take potential sponsors to spend years and millions of dollars on project development, negotiation and bringing a project to fruition.

2. The BOT project overall cost to host governments is greater than a traditional public sector project. This is due to two main factors:

   a. Governments can generally borrow at cheaper rates than are available to large independent companies.

   b. Private developers expect a reasonable rate of return on their investment which might mean higher tariffs than similar public sector projects. However, this impact can be offset through greater efficiencies of operation that tend to be looked for by private sector.

3. Less direct control by Government since governments can only exercise limited control through the terms of the concession.

4. Potentially Politically Controversial.

5.6 Constraints & Risks

Primary constraint limiting private sector participation is the perception of risk by entrepreneurs, financiers and governments. Successful financing of private projects is dependent in part on the ability of host countries to ensure that the risk-return profile of a given project matches the demands of potential investors and financiers.

Major concerns that exist include the following:

- ◊ Sovereignty.
- ◊ Possibility of expropriations.
- ◊ Potential legislative regulating changes.
- ◊ Contractual failure on the part of the host government.
- ◊ Foreign currency exchange constraint: Most infrastructure projects generate revenues in local rather than foreign currency. for foreign investors two major problems result from this fact:

  a. Will the revenues be protected against depreciation of the local currency.
  b. Will project revenues be convertible to foreign currency in order to cover debt service and equity payments.

- ◊ Political unrest

Also, there are project related risks such as:

1. Construction or completion risk, this risk involves completing the project on schedule and within budget.

2. Operating performance risk: The risk that the project will not perform as expected (according to specifications) once it is.

3. Pricing risk, even though the project is based on a market study of the need for goods or services, a risk still remains that the demand may not be as anticipated, which in turn

will affect the cash flow of the project. The price may also be influenced by problems with quantity, quality and delivery of goods or services.

4. Credit risk: This risk involves suppliers and buyers that cannot stand up to their contracts. Guarantees of the parent company and the host country will mitigate against these risks.

5. Risks of nature: Risks of natural disasters-floods, earthquakes, fires, wars and plagues these risks are usually covered by commercial insurance.

The risk sharing issue is essential for the success of any BOT project, the sponsor insists that the host government must provide several guarantees like:

a. Repayment guarantees for the external debt.
b. Exchange rate or convertibility guarantees.
c. Guarantees against various events of force major or government action.
d. The government participation in the project.
e. The governmental commitment to purshare of fixed amount of the project output (specially electricity).

5.7 Developing Countries Experience with BOT

In many developing countries, the BOT, BOO, as a new financing schemes, have been used mainly in the energy sector. The following table presents some examples of a BOT or BOO, projects, in different developing countries:

Table 5. 2: Developing Countries Recorded Status with BOT Projects

Country	Project	Status
China	. Sharijo coal- fired power station . Hauneng power project . Superhighway project	. Operating . Unknown . Unknown
Costa Rica	. Road maintenance outside San Jose	. Unknown
Coted' Ivoire	. Water distribution	. Operating
Gabon	. Manganese ore Terminal	. Proposed
Indonesia	. Toll roads . Nuclear power plants	. Unknown . In negotiation
Malaysia	. North Kelang toll road . Kepong Interchange toll road . Labuan water supply pipeline & treatment plant. . Labuan-Beaufort submarine electric cable. . Kuala Lumpur Interchanges. . North South Highway.	. Operating . Operating . Operating . Under construction . Under construction . Under construction
Oman	. Manah gas turbine power plant	. proposed
Pakistan	. Hab River power plant . Fauji Foundation power plant . Haibullah-Siemens power plant	. Contract signed . Letter of Intent . Letter of Intent
Philippine	. Metro-Manila Power plant . International container terminal . Private commercial ports . 300 MW coal fired power plant	. Under construction . Proposed . Proposed . Request for proposal issued
Singapore	. Mass Rapid Transit	. Unknown
Thailand	. Bangkok Second stage Expressway . Bangkok Metro	. Under construction . In negotiation
Turkey	. Akkuyu nuclear power plant . 1000 MW coal fired power plant . Additional coal fired power plants . Hydro power plant . Bosphorus Second Bridge . Bosphorus Third Bridge . Bosphorous Tunnel . Istanbul Airport . High speed rail link, Istanbul-Ankara . Izmir water plant . Ankara Metro . Toll roads . Port facilities and free trade zones	. Abandoned . Contract signed . Proposed . Under construction . Under construction . Abandoned . Proposed . In negotiation . Proposed . Abandoned . Proposed . Proposed . Proposed

Source: Mark Augenblick and B. Scott custer, a world Bank working paper ps 498, 1990.

Table 5. 3: BOTs, BOOs and Concessions Projects

FY	Project & Country	Sector and Description	Structure/ Period
1989	Hopewell Navotas, Philippines	200 MW gas turbine peak load plant	BOT:12 years
1991	Aconcagua, Chile	73 MW hydro base load plant	BOO: various long term contracts
1993	Belize Electric Co., Belize	25 MW hydro base load plant	BOT: 40 years
	GOTM, Mexico	Liquid storage terminal at port	Concession: 12 years
1993	Hopewell Pagbilao, Philippines	700 MW coal-fired base load plant	BOT: 25 years
1993	Northern Mindanao, Philippines	108 MW diesel-fired base load plant	BOT: 10 and 12 years
1993	Puerto Quetzal, Guatemala	110 MW diesel-fired base load plant	BOO: 15 year purchase agreement
1993	Karachi Port Terminal, Pakistan	Container terminal at Karachi port	BOT/concession: 20 years
1993	FEPSA and Nuevo Central, Argentina	Management of two railway sections	Concessions: 30 years
1994	Terquimca, Venezuela	Port: liquid and bulk storage	Concession: 20 years
1994	Transconor, Argentina	Gas distribution	Concession: 35 years
1994	Edenor, Argentina	Electricity distribution	Concession: 15 years
1994	CTAPV, Mexico	Wastewater treatment	BOT: 15 years
1994	Aguas Argentina, Argentina	Water and sewerage	Concession: 30 years
1994	Fabrigas, Guatemala	Power generation	BOO: 15 year purchase agreement

Source: Gary Bond and Laurence Carter, Financing Private Infrastructure Projects, International Finance Corporation, the World Bank, Washington, D.C, 1994.

The following pages illustrate the development of this schemes, in several developing countries, the current status of the BOT, BOO, projects, and implementation problems:

China

China first BOT project, was a 700 MW coal fired power plant, at Sharjiao in Guangdong Province. This plant was started in 1984, and has operated successfully since 1987. The plant was built by a consortium led by Group from Hong Kong, and financed by a syndicate of commercial banks put together by Citicorp. The Chinese Government through its agencies agreed to supply coal at fixed price for the entire concession period, and purchase 60 % of the plant design capacity.

The success of this project due to the desire of the financing parties, and the foreign companies to establish economic relation with China, and to gain entry into the Chinese huge market.

Turkey

Turkey is one of the first countries to conceive of the BOT approach to traditional infrastructure investments. The first proposed project was a 1,000 MW nuclear plant at Akkuyu, after a years of negotiations between the Turkish Government, and several bidders, they were unable to reach an agreement, and the project was never implemented. The reason for failure was the Government unwillingness to provide a sovereign repayment guarantees for the external debt to be taken on by the project company, and a guarantee to purchase a minimum amount of electricity, or to provide exchange rate or convertibility guarantees. Although, this failure the Turkish government prepared and proposed a number of project as a BOT projects which include: coal fired power plants, building a tunnel under the Bosporas, port facilities, free trade zone projects, the expansion of the Istanbul airport....etc.

In 1984 the negotiation about a 960 MW power plant was started, during this negotiations, the government agreed to provide the necessary guarantees, the government agreed to pay for the electricity purchased in a basket of currencies in proportion to the currencies required for the debt services payments due to lenders, and the projected returns to investors. This process although it's complex in practiced, it helps in removing the investors worries about the foreign currency

convertibility, and the exchange rate risk. In addition, the government agreed to exempt the profit of the project company from the Turkish corporate income tax. The financing of the project was faced with the creditors demands for unconditional sovereign guarantees, for the large proposed loan to the project company from the Turkish government. Negotiations on this issue dragged on over 18 month, during that period, the government found another source of finance, and in 1987 a compromise was finally reached on the loan security issue, the government agreed that if the revenues of the project were not sufficient to serve the project's debt at any time until the project became fully operational (defined as three years of successful operation), the government would make subordinated loans to the project company to cover the shortfall.

Malaysia

In the case of Malaysia, the experience seems to have been positive, in 1994 Malaysia completed the construction of three BOT projects, and there is another three under construction. The projects were two toll roads, and a water treatment plant. Malaysia's projects were small projects in comparison with the Turkish projects. The government provided extensive security packages including: government loans, traffic volume guarantees, exchange rate guarantees, and guarantees against various events of force major or government action.

Thailand

In Thailand a 30 km toll road, is reported to be close to completion. This is a major BOT infrastructure project which costs $ 1 billion. The toll road concession is expected to run for 30 years.

In Thailand case, the negotiations have been fairly rapid, in comparison to the Turkish case, it took the government less than one year to approve the project.

The Thai Government facilitated the implementation of the project, by several steps:

- First the government agreed to share with the project company according to a revenue sharing formula, and it issued a decree enabling the project company to acquire the land necessary for building the new expressway,

- Furthermore, the government caused the concession to be placed on the eligible list for investment privileges (exemption from income tax for 8 years).

Thailand has also been negotiating with foreign consortium for the construction of the Bangkok metro, (phase one) at a BOT basis.

Pakistan

The BOT approach in Pakistan, was implemented in the power generation sector. The first Pakistani BOT project, was a 1,300 MW oil fired power plant situated near the Hab River, with a total cost of $ 1.1 billion. The basic contract for the project have been signed on December 1989.

The Pakistani approach toward BOT projects was flexible, Pakistan developed a methodology to deal with competitive bids in response to a request for proposal initiated by the government, and with the unsolicited proposals from the private sector.

In the first case, the competitive bids are invited after the feasibility study for the proposed project, have been conducted by the Pakistani responsible departments. So the site, type, size of the plant, are all determined and known, in addition to the cost of the plant. The government evaluated all bids submitted, upon the lowest proposed power tariff, taking into consideration the other factors, such as: the overall conformity of the bid to the specifications in the tenders documents, the overall capital cost, financing charge and cost of operation and maintenance, foreign exchange requirements and possible escalation in the power tariff.

After the evaluation stage, the government issued a letter of intent to the picked sponsor, which will have a certain period of

time to carry out it's own feasibility study, obtain the necessary financing, and finalize various contractual documents, leading to financial close and the start of construction.

In the case of unsolicited proposals, the private party carry out its own feasibility study, select its own site, and determine the type, size and fuel for the proposed plant.

Nonetheless initial permission to carry out a feasibility study, must be obtained from the government, which review the proposal and determine the appropriate tariff, based on the government understanding of the total cost of the project, and it's own cost in the others states plants, the tariff must projected 18% return on equity at a level of plant availability between 60% and 65% of designed capacity.

Philippine

Due to the rapid growth in energy demand, Philippine with the World Bank assistant, developed a new strategy for the energy sector, which include the encouragement of private sector participation, through joint venture and BOT schemes.

A number of BOT projects in the energy sector, have been proposed in the Philippine, all the electricity produced by the proposed plants, was to be sold to the National Power Corporation, NPC under a talk-or-pay terms. Several guarantees was provided by the government, include: the NPC commitment to pay a fixed monthly capacity fee, for a contracted capacity of 200 MW, regardless of usage. The total revenues had to be sufficient to pay the operating cost, taxes, debt service and dividends. In addition the NPC was to provide free fuel, and free use of the project site for the entire contract period.

On the issue of risk sharing, the Philippine's government was unwilling to provide more than a comfort letter assuring payment and foreign exchange convertibility, but in the end the government agreed on the sponsors conditions, which employ that part of the fees be paid in US dollars, into offshore account in Hongkong, and to provide a performance undertaking to back up the NPC's payments obligations.

In addition the government provided the potential sponsor with all the incentives and guarantees, given by the investment promotion law and regulations.

Latin America

The first BOT project to be approved in Latin America was a 25 MW hydroelectric project in Belize, costing $ 59 million, construction started in July 1992. The concession period was 40 years.

In march 1993 the International Finance Corporation IFC, financed a $92 m project in Guatemala, consisting of 20 barge - mounted diesel generators, on a BOO basis.

On 1989 a 73 MW hydro base load plant in Chile, starts on a BOO basis[7].

5.8 Jordan's Experience with BOT, BOOT, and BOO

Jordan has initiated a program to allow the private sector to participate in infrastructure activities. Presently, the private sector is operating by concession a cellular phone system to fulfill a local need. Furthermore, the Jordanian government is considering the possibility of allowing the private sector to build, operate and own some new infrastructure activities.

As for the Jordanian Investment Promotion Law No (16) for 1995 it expresses clearly that there are no obstacles that might confront foreign investors in perusing a BOT, BOOT, or BOO investment scheme in the Kingdom. Article (24) of the law No. (16) for 1995 reads as follows:

In conformity of what has been stated in any other law:

A) The Non-Jordanian investor shall have the right to invest in the Kingdom by whole ownership or by parternship or by sharing according to the provisions of a by-law to be

[7] Gary Bond & Laurence Carter, Financing Private Infrastructure Projects, INTERNATIONAL FINANCE CORPORATION ,The World Bank, Washington, DC. 1994

issued showing the projects, sectors and their branches and the percentage within its range the Non-Jordanian investor can share or participate and the minimum foreign capital which he invests.

B) In conformity of the paragraph (A) above, the Non-Jordanian investor in any project that is subject to the provisions of this law shall be treated the same way as the Jordanian investor.

C) The investor shall have the full right to manage his project in the way he sees and with the persons whom he chooses for this management where the concerned authorities shall offer the required facilities.

In Amman Economic Summit the concept of BOT as an alternative financing mechanisms was introduced by several Jordanians government officials. The brief introduction of these financing mechanisms was not sufficient enough for the audience to grasp the concept.

Jordan's is fully aware of the limitation and competition for foreign capital. By introducing some of the country's projects in the Summit to be financed through these mechanisms, Jordan's is sending a clear massage to both foreign and local private sector, that is the country is open for foreign investment. As we mentioned earlier the recorded experience with these financing mechanisms is relatively new and modest. In the case of Jordan only three projects were proposed to be financed through these financing mechanisms (Table 5.4).

Table 5. 4: Jordan's Proposed BOT Projects

Project	Status
Disi-Amman Water Project	Proposed
Aqaba Petroleum Refinery	Proposed
Development of Aqaba Coast for Tourism	Proposed

• Disi -Amman Water Supply

This project will supply Amman with fresh water via a 310 Km 1,400 MM pipeline from well fields at Disi in the south of the Kingdom. Presently, a study is being carried out by consultancy firm on this project, technical elements and a comparison of the merits of two possible implementation approaches. The study will compare the public sector financing and operation approach with the partnership approaches, build, operate and transfer (BOT), and Build, operate and Own (BOO). Furthermore, the study will take into consideration which of the following would most advantageous:

1. To proceed to a completely engineered project, including all designs and specifications, pipeline route included.

2. To take an engineer, furnish and install (EFI) approach, in which the BOO-BOT consortia would handle their own route selection and final design.

The estimated capital cost of this project is $450 million with recurrent costs of about US$ 15 million annually.

The average return on equity to a consortium that borrowed 90% of the required capital at 8% interest would be about 19% based on delivering 80 million cubic meter per year for 20 years ($0.75 M^3).

It's worth mentioning that prior to Amman Economic Summit, in February 1995, a British Consulting engineers firm "Scott, Wilson, Kirkpatric" prepared an intention of interest among several other companies on Disi-Amman water supply for the Ministry of Water and Irrigation.

The firm prepared a document to provide background technical information for carrying out the project under a BOT term. Since, Jordan's experience of BOT is modest, the firm tried to seek potential interested parties in this. The estimated revenue that would be generated to the BOT contractor would be based on a payment per cubic meter of water delivered to Amman. The current domestic water tariff, allow a payment of $\$0.46\text{-}0.50/m^3$.

If the BOT duration is less than 30 years then there will be a need to transfer payment from WAJ to the BOT contractor on takeover. According to calculation of Scott, Wilson, Kirkpartric the Internal rate of return of 80 MCM/yr varies according to the assumed charge to WAJ per cubic meter. It range from a minimum 4.02 ($0.40m and annual maintenance costs of 4% of capital cost) to a maximum of 11.57 ($0.60 m^3, and annual maintenance costs of 1% of capital cost). However, according to the firm representative in Amman the deal was not completed because the technical misunderstanding of the BOT concept on the part of Jordanian officials.

- **Aqaba Petroleum Refinery**

The Ministry of Energy is studying and evaluating an application for building a refinery on the Red Sea, with two foreign consortia which includes the USA, Japanese and Jordanian firms. The proposal for investment has been estimated at between $1.7-$2.5 billion. The construction of the refinery, which is to be built over three to four years and capable of processing between 150,000-250,000 barrels/day of crude oil.

The refinery would be funded by private foreign and local investments and would be operated by the private consortium under a Build, Operate and Transfer (BOT) basis, and pass into local ownership after agreed period of time. The government will

supply the land and give tax breaks, and give privileged access to the port of Aqaba in return for a proportion of the profits. Also, it is believed that the investors will fix their prices, and priority of supply of petroleum will be for the government. This refinery will assist in meeting the increasingly local demand for petroleum, and the remaining output will be exported to Palestinian National Authority and other potential markets.

- **Development of Aqaba Coast for Tourism**

Recognizing the growth Potential in Tourism, the Aqaba Regional Authority, has prepared a Master Plan for the south Coast Tourism Zone on the Red Sea, located few Kilometers from the city of Aqaba. A complete detailed infrastructure design for this area was finalized. The Aqaba Regional Authority goal is to create a major international destination resort of this six kilometers coast over the next 10 years. The coast will consist of a Tourist Village, Golf course and Resort, and Disney-style Amusement park.

The Aqaba Regional Authority in Amman Economic Summit expressed its interest for private sector involvement in the development of the Coast for tourism. Also, the Secretary General of the Aqaba Regional Authority stated in his presentation at the Summit that they are interested in funding and operating this project on build, operate and transfer (BOT) term.

5.9 Sources of Financing

A number of International and regional agencies can normally participate in project financing, depending on their criteria there include:

1. **World Bank** through its ***"Expanded Co-financing Operation (ECO)"*** where lenders receive a guarantee from the World Bank covering political risks only. The World Bank in turn requires a counter indemnity from the host government to cover its liability under the guarantee. The ECO program facilitate BOT projects in infrastructure

rather than export earning projects in credit worthy countries. The size of ECO is theoretically unlimited.

2. **IFC, International Finance Corporation** (a World Bank affiliate) supports BOT projects at three different levels.

    a. Invest equity, provide direct loans and underline or syndicate commercial bank loans.

    b. Perform studies for host governments on the need for various projects.

    c. Act as a paid financial advisor to host guarantees.

3. The **Overseas Private Investment Corporation (OPIC)** of the US. It can issue unconditional guarantees and for 100% political risk insurance cover for loans made by US financial institutions to private sector projects.

4. The **Multi Lateral Investment Guarantee Agency (MIGA)** which was established on April 12, 1988 and a member of the World Bank Group. Its purpose is to encourage foreign investment in developing countries by providing.

    ◊ Investment guarantees against risks of currency transfer, expropriation, war and civil disturbance, and breach of contract by the host government.

    ◊ Advisory services to developing member countries on means of improving their attractiveness to foreign investment.

It is worth noting that Jordan is a member country in MIGA.

There are other development agencies that may be able to offer project financing such as:

- Commonwealth Development Corporation.
- European Investment Bank.

- European Development Fund.
- European Bank for Reconstruction and Development.
- African Development Bank.
- Asian Development Bank.
- Inter-American Development Bank.
- Gulf Investment Corporation.
- Islamic Development Bank.
- Arab Fund for Economic and Social Development.
- Apicorp.
- The Arab Investment Company.
- Abu Dhabi Fund.
- Kuwait Fund for External Development.
- Saudi Fund for Development.

Their criteria for participation will depend upon the project having some or all of the following features:

- A development priority.
- Export orientation or import substitution.
- Acceptable security package and equity commitments.
- Competitive bidding.
- Host government commitment to project implementation.
- Reasonable prospect of divestment once the project is sufficiently developed.

In addition to the previous sources the International Commercial Banks usually participate in financing BOT projects.

Chapter Six
Public and Financial Institutions Knowledge of BOT, BOOT and BOO

Introduction

One of the main objectives of the study is to identify which of the Jordanian financial institutions and public authorities know about and/or are familiar with BOT, BOOT and BOO investment schemes. The project survey sample was selected in such a way to include all those that are concerned with projects' investment. The sample included all financial institutions and a number of public authorities which are mainly concerned with infrastructure projects. However, only the following responded:

A. Financial Institutions

1- Industrial Development Bank.
2- Arab Jordanian Investment Bank.
3- Jordan Bank.
4- British / Middle East Bank.
5- Cities & Villages Development Bank.
6- Jordan National Bank.
7- Housing Bank.
8- United for Saving & Investment Bank.
9- Amman Investment Bank.

B. Public Authorities

1- Ministry of Transport.
2- Ministry of Public Works & Housing.
3- Telecommunications Corporation.
4- Aqaba Port Corporation.
5- Jordan Electric Authority.
6- Water Authority.
7- Jordan Valley Authority.
8- Aqaba Railway Authority.
9- Aqaba Region Authority.

10- Jordan Hijaz Railway Authority.
11- Greater Amman Municipality.

The rest of the chapter contains a comprehensive analysis of the output of the field survey. The analysis is divided into two main sections. One section deals with the financial institutions, and the other tackles the public authorities.

6.1 Financial Institutions Survey

The following sections illustrate the output of the field survey on the Jordanian financial institutions.

6-1-1 Financial Institutions Willingness to Adopt BOT concept

1. About 89% of Jordanian financial institutions participate in the infrastructure financing, (through the traditional methods) and only 11% of the sample surveyed do not provide financing to infrastructure projects....Table 6.1

Table 6. 1: Percent of Financial Institutions which Finance Infrastructure Projects in Jordan

	%
Finance	89
Don't finance	11
No Answer	0

2. The construction sector share from total financing was the largest with more than 20%, followed by industry 18%, and transport 12.5%, and the remaining is distributed between the other sectors.....Table 6.2.

Table 6. 2: Distribution of Infrastructure Projects Financed by Financial Institutions Among Sectors

Sector	Total Value (Million JD)
Industry	18.16
Construction	20.37
Tourism	1.15
Transport	
Land	5.24
Air	4.86
Water	1.69
Transport total	**12.64**
Electricity	1.52
Water	0.75
Telecommunications	2.2
Education	6.86
Health (hospitals)	11
Others	34.52
Total	**111.17**
Unspecified values	22%

3. Table 6.3 illustrates the criteria used by the Jordanian financial institutions for project financing approval. The Economic feasibility and the project cash flow, were the main criteria. Other criteria are listed in Table 6.3.

Table 6. 3: Criteria Used by Financial Institutions for Approving Project Financing

Criteria
Economic feasibility of the project & cash flow of the project
Projects in industrial or tourism sectors
Analysis of source of income of the project
Type of guarantees
Guarantees of proper project operation
Financial status of borrowers
Cosigners
Importance of the project to Jordan's development

4. An estimated 67% of the Banks surveyed were willing to finance infrastructure projects using BOT, BOO, BOOT schemes, and only 11% were unwilling, and 22% gave no answer.....Table 6.4

Table 6. 4: Response of Financial Institutions on their Willingness to Finance Projects Using BOT/BOOT or BOO

	%
Yes	67
No	11
No Answer	22

5. The main reasons for the Financial Institutions willingness to adopt BOT, BOO, BOOT, schemes are presented in table 6.5 were: Privatization, Technology transfer, Flexibility in financing, good return for banks & national economy, and good project management. On the other hand, the high cost of investment in infrastructure projects and low rate of return were the reason for some financial institution refusal to finance through BOT, BOOT and BOO.

Table 6. 5: Main Reasons for Wanting or Refusing to Adopt BOT/BOOT/BOO Financing Schemes by Financial Institutions

Reasons for	
Agreeing Reasons for	**Refusal**
Privatization	Overall cost of investment in infrastructure projects is high and the rate of return is low
Technology transfer	
Flexibility in financing	
Good investment return for bank & national economy in general	
Good project management	

6-1-2 Merits & Demerits

It was not surprising to find out that financial institutions response to the merits of BOT, BOO and BOOT was highly positive. More than 78% of the financial institutions agreed with the merits listed in Table 6.6.

Table 6. 6: Response of Financial Institutions on the Merits of BOT/BOOT/BOO

(%)

Merit	Agree	Disagree	No Answer
Additionally for infrastructure projects	78	11	11
Additionally	78	11	11
Credibility	89		11
Technology transfer & training	89		11
Bench Mark	78	11	11
Privatization	89		11

2. As for the demerits 89% of the financial institutions refused to consider these concepts as a reason for political controversial, and 56% disagreed that the overall cost is higher than traditional public sector projects. And 67% agreed that these concepts are associated with complicated negotiations.... Table 6.7

Table 6. 7: Response of Financial Institutions on the Demerits of BOT/BOOT/BOO

(%)

Demerit	Agree	Disagree	No Answer
Requires time & patience	44	44	12
Complications in negotiation	67	22	11
Overall cost is higher than traditional public sector projects	33	56	11
Less direct control by government	44	44	12
Potentially politically controversial		89	11
Exhaustion of natural resources	11	67	22

6-1-3 The Role of The Private Sector

1. The majority (89%) of the financial institutions surveyed, agreed that the private sector is capable of providing infrastructure services in Jordan.....Table 6.8.

Table 6. 8: Response of Financial Institution on Whether the Public Sector is Capable of Providing Infrastructure Services in Jordan

	%
Agree	89
Disagree	11
No Answer	0

2. Table 6.9 shows the major reasons for agreeing or disagreeing, that the private sector can finance infrastructure projects in Jordan:

Table 6. 9: Main Reasons for Agreeing or Disagreeing that Private Sector Can Finance Infrastructure Services in Jordan

Agree	Disagree
Available financial resources	Long project life
Flexibility in money management	High financial guarantees
Efficiency in administration & operation	Low rate of return
Simpler administrative procedures compared to the public sector	

6-1-4 Constraints

1. In regard to constraints facing the adoption of these concept in Jordan, the survey found out that 67% put the financial constraints (subsidies, and pricing policy) as number one, followed by the administrative constraints 56%....Table 6.10.

Table 6. 10: Response of Financial Institutions on the Constraints which Face the Adoption of BOT/BOOT/BOO in Jordan

(%)

Constraint	Agree	Disagree	No Answer
Political	44	44	12
Legal	44	44	12
Administrative	56	33	12
Financial (subsidies, pricing policies)	67	22	11
Social	33	56	12
None	22	67	11

2. The high cost of investment in infrastructure projects, and the low rate of return were the main reasons for the Banks refusal to finance these projects.

6-1-5 Guarantees

1. The type of guarantees requested by the financial institutions, in Jordan to finance a BOT, BOO, BOOT project are presented in table 6.11, the economic feasibility of the project and the expected cash flow were the main guarantees requested from the investors, in addition to several normal guarantees.

2. As for the Government guarantees, the financial institutions request several guarantees such as:
   - The government commitment not to nationalize or confiscate the project.
   - The government participation in the project.
   - The commitment not to establish similar projects.

3. Other guarantees like: loans guarantees, participation in the project administration, were also requested.

Table 6.11: Guarantees Requested by Financial Institutions from, Investors, Host Government, and Others to Finance a Project

Investor	Host Government	Others
The Economic feasibility of the project, & the expected cash flow	The preservation of the financial systems rights.	To guarantee a specific percent of the overall financing through the Jordanian loans guarantee company
Personal cosigner	The Government's commitment not to nationalize or confiscate the project.	Partnership in administration.
Cash margins	The Government's partnership in the project.	
Banking cosigner	The Government's commitment not to establish similar competitive projects.	
General guarantees: Real estates, shares, equipment's, etc.	Insurance policies	

6.2 Public Institution Survey

This section is comprised of three main parts in accordance with the questionnaire as follows :

Part I : Project Implementation.
Part II : Project Operation.
Part III : Project Financing.

6-2-1 Project Implementation

Most of the projects that are implemented by the interviewed public authorities are infrastructure projects in various sectors. Table (6.12) indicates the type of proposed projects implemented by each authority. However, due to limited financial resources, these authorities are unable to implement all proposed projects. Project priorities and criteria for project selection and implementation have to be identified and set by each authority management in order to fulfill its responsibilities. Tables (6.13) and (6.14) indicate the priorities set by public authorities for selecting a project, and criteria for project implementation respectively.

Table 6.12 : Public Authorities and Implemented Projects

Authority	Project
Telecommunications Corporation	Telecommunications services (phone, Telex. etc.)
Jordan Electric Authority	Power generation and distribution
Jordan Hijaz Railway	No Answer
Ministry of Transport	Studies in the field of transport & traffic management. Define vehicle specifications and tariffs. Define transport routes.
Aqaba Port Authority	Projects related to jetties, warehouses & storage grounds. Services for transport (land, water) sector.
Aqaba Railway Authority	Maintenance and construction of railways. Maintenance of equipment.
Aqaba Region Authority	Urban and rural planning. Infrastructure projects.
Greater Amman Municipality	Solid waste disposal. Infrastructure projects. Slaughter house.
Water Authority	Water drilling, transport & distribution. Water treatment plants & redistribution of the outflow for agricultural use. Sewerage.
Jordan Valley Authority	Projects in water sector. Infrastructure projects in the valley area. Social projects.
Ministry of Public Works & Housing	Roads & buildings

Table 6.1 3 : Priorities Set by Authorities for Selecting a Project

Priority	% of Total
Need	64
Economic feasibility of the project	36
International & regional importance	18
Efficient project management & operation	27
Availability of financial resources	18
Cost (capital & operation)	9
Social Impact	9
Environmental Impact	9

* Plural Answer

Table 6.14 : Criteria for Implementation of a Project

Criteria	% of Total
Economic importance	55
Social importance	9
Environmental impact	9
International & regional importance	18
Volume of beneficiaries	18
Available financial resources	18
Specifications	46
Cost (capital & operation)	18

* Plural Answer

From tables (6.13) & (6.14), one can conclude that:

1- The need of a project is the top priority for project selection (64% of total responses), whilst few authorities (9% of total responses) consider social or environmental impact on society.

2- It is surprising that only 36% of the respondents indicated the importance of the economic feasibility of a project as a priority for selecting a project.

3- Project economic importance to Jordan and project technical specifications mainly determine whether a project will be implanted or not (55% & 46% of total responses respectively).

4- Few public authorities consider the cost including capital investment and operation (9% of total responses), social

(9% of total responses) or environmental (9% of total responses) impacts when it comes to implementing a project.

6-2-2 Project Ownership

Since privatization of public sector projects is still new in Jordan, up to the end of 1995, the public sector owned all infrastructure projects with the exception of Islamic Waqif.

Table 6.15 : Project Ownership

	%
Public sector	82
Private sector	0
Both (public & private)	0
Others	18

Others responses included:
1. Islamic Waqif
2. Projects are mainly planning and feasibility studies.

6-2-3 Project Initiation

Once a project is thought of by management of a public authority, a techno-economic feasibility study is prepared. According to respondents, these studies are mainly conducted by local consultants (82% of total responses). Also, it is evident that the authorities have their own staff which is capable of conducting these studies since 46% of them indicated that the studies are carried out by their own staff as shown in table (6.16).

Table 6.16 : Feasibility Studies and Technical design Conducted by:

	% of Total
Local consultant	82
Foreign consultant	46
Joint venture	55
Others	46

* Plural Answer
All others' responses (100%) was own staff.

When the project is approved by top management, project construction starts. Most construction work is carried out by local contractors (82% of total responses) and/or by joint venture between local & foreign contractor (64% of total responses). It is very seldom that the authorities own staff to carry out construction work (18% of total responses). Also, a local firm is usually chosen to supervise construction work (64% of total responses).

Table 6.17 : Construction Work is Carried by

	% of Total
Local contractor	82
Foreign contractor	36
Joint venture	64
Others	18

* Plural Answer
All others' responses (100%) was own staff.

Table 6.18 : Supervision of Construction Work of the Project

	% of Total
Local firm	64
Foreign firm	36
Joint venture	36
Others	36

* Plural Answer
All others' responses (100%) was own staff.

6-2-4 Project Operation

According to respondents, public authorities own staff tend to operate (82% of total responses) and administrate (82% of total responses) their own projects. Projects are centrally or not centrally administrated depending on the type of the project as shown in Tables (6.21) & (6.22).

Table 6.19 : Staff Operation Project

	% of Total
Own staff	82
Local company	0
Others	0
No Answer	18

Table 6.20 : Projects Administration Staff

	% of Total
Own staff	82
Others	0
No Answer	18

Table 6.21 : Type of Administration

	% of Total
Central administration	36
Non central administration	27
Others	46
No Answer	18

* Plural answer

Table 6.22 : Project Administration

	Own staff	Others	No Answer
Central Administration	36	0	
Non-central administration	27	0	
Others	27	0	
No Answer			18

6.2.4.1 Staffing

The number of employees depends to a large extent on the responsibilities allocated to public authority. There was a large variation in the number of employees among interviewed authorities. The total number ranges between (78) for Ministry of transport and (7000) for Greater Amman Municipality (Table (6.23)). It is worth noting that operational staff constituted about (60-81%) of total employees, in the exception for Aqaba Region Authority where ***Operation to Administration ratio was 1 to 2.***

Table 6.23 : No of Employees

Authority	Administration	%	Operation	%	Total
Telecommunications Corporation	1514	40	2245	60	3759
Jordan Electric Authority	653	30	1528	70	2181
Jordan Hijaz Railway Authority	35	23	119	77	154
Ministry of Transport	-	-	-	-	78
Port of Aqaba Corporation	990	19	4150	81	5140
Aqaba Railway Authority	320	27	856	73	1176
Aqaba Region Authority	80	67	40	33	120
Greater Amman Municipality	1400	20	5600	80	7000
Water Authority	1665	24	5207	76	6872
Jordan Valley Authority	1210	-	1400	-	2610
Ministry of Public Works & Housing	-	-	-	-	-

- Unknown

6.2.4.2 Foreign Experts

The majority of interviewed public authorities favor foreign expert assistance in project operation (82% of total responses). However, only 36% of them indicated that they do have foreign expert assisting in project operation and for a short duration as shown in Tables (6.25) & (6.26).

The majority (82% of total responses) have local counter part working along with foreign experts to obtain good training and attain maximum technology and know-how transfer in order to be able to operate and maintain the project on their own once the expert leaves. Table (6.28) sheds light on the benefits obtained from foreign experts.

Table 6.24 :Preference of the Assistance of Foreign Expert in Project Operation

	%
Strongly favor	0
Favor	82
Not in favor	18

Table 6.25 : Foreign Experts Assistance in Project Operation

	%
Yes	36
No	46
No Answer	18

Table 6.26 : Foreign Experts Assistance Duration

	%
Long term expert	9
Short term expert	36
No Answer	55

Table 6.27 : Local Counter Part Along with Foreign Experts

	%
Yes	82
No	0
No Answer	18

Table 6.28 : Benefits Obtained from Foreign Experts

Benefit	% of Total
Training mainly in the field of operation and maintenance	64
Technology & know-how transfer	55
High quality techno-economic studies	9

* Plural Answer

6.2.4.3 Project Operational Cost

Operational cost is usually comprised of salaries & wages, raw material (input), maintenance & spare parts and other items. The response of the responding public authorities on operational cost varied widely as shown in Table (6.29).

Table 6.29 : Percentage Distribution of Total Operating Cost Components According to Authority

Authority	Salaries	Raw Materials Input	Maintenance Spare parts	Other
Telecommunications Corporation	5		4	91
Jordan Electric Authority	7	58	4	31
Jordan Hijaz Railway Authority	75	-	12	13
Ministry of Transport	-	-	-	-
Port of Aqaba Corporation	60	5	10	25
Aqaba Railway Authority	25		50	25
Aqaba Region Authority	13	2	23	62
Greater Amman Municipality	20	30	30	20
Water Authority	39	30	30	1
Jordan Valley Authority	-	-	-	-
Ministry of Public Works & Housing	-	-	-	-

\- Unknown

Table (6.30) shows the percentage distribution of public authorities according to the percent contribution of salaries, raw Materials, maintenance & others to total operating cost. From the table , one can state that 36% of the responding public authorities indicated that salaries contribute only (5-20%) to total operating cost, whilst raw materials contribute up to 30%. Also, 63% of total respondents stated that maintenance constitute up to 30% of total operating cost.

Table 6.30 : Percentage Distribution of Public Authorities According to The Percent Contribution of Salaries, Raw Materials, Maintenance & Others to Total Operating Cost

% of Total

% Range	Salaries	Raw Material Input	Maintenance & Spare parts	Others
Zero		27		
1-10	18	18	27	9
11-20	18		9	18
21-30	9	18	27	18
31-40	9			9
41-50			9	
51-60	9	9		
61-70				9
71-80	9			
81-90				
91-100				9
No Answer	28	28	28	28

Affordability and willingness to pay the full cost of service provided to the beneficiary is an important issue to deal with prior to any investment decision. Private sector views subsidies as an obstacle for investment. According to the response of

responding public institutions, operational cost is covered solely by tariffs in the exception for few authorities as shown in Table (6.31). And, 64% of the authorities stated that the generated income covers operational cost.

55% of respondents think that their services can be offered by the private sector and at a lower operating cost due to the efficient management. Table (6.34) describes the main reasons for the ability of the private sector to offer services provided by public sector as thought by the responding public authorities.

Table 6.31 : Percentage of Operating Cost that are Covered by the Tariff, Subsidies, Loans, Grants & Others

%

Authority	Tariff	Subsidies	Loans	Wants	Other
Telecommunications Corporation	100				
Jordan Electric Authority	100				
Jordan Hijaz Railway Authority	100				
Ministry of Transport	-	-	-	-	-
Port of Aqaba Corporation	100				
Aqaba Railway Authority	60		20		20
Aqaba Region Authority				95	5
Greater Amman Municipality					100*
Water Authority	72	10			18
Jordan Valley Authority	-	-	-	-	-
Ministry of Public Works & Housing	-	-	-	-	-

- Unknown
Municipality's fees & charges

Table 6.32 : Response of Respondents on Whether the Income Covers Operating Cost

	%
Yes	64
No	18
No Answer	18

Table 6.33 : Response of Respondents on Whether their Service Can be Offered by Private Sector

	%
Yes	55
No	36
No Answer	9

Table 6.34 : Main Reason for the Ability of the Private Sector to Offer Services Provided by Public Sector

Benefit	% of Total
Availability of financial resources	18
Know-how	18
Efficient management & operation (Lower operating cost)	27
Profitability	9

* Plural Answer

6.2.4.4 Major Obstacles Encountered During Project Operation

Table (6.35) describes the major obstacles that face interviewed public authorities during project operation. It is evident from the results that the two determinant factors that obstruct project operation are the in availability of machinery & equipment, spare parts, etc.(46% of total responses), and absence of skilled labor (36% of total responses). Also, the complexity in government regulations have a significant effect on project operation as was indicated by respondents (18% of total responses). It is worth mentioning here that Jordan is now undergoing many legislation and regulations reforms especially those concerned with investment and projects' enhancement.

Table 6.35: Major obstacles that Face Public Authorities During Project Operation

Obstacle	% of Total
Availability of spare parts, equipment, etc..	46
After sale service	9
Availability of qualified experienced labor force	36
High maintenance rate	9
Old facilities & equipment	9
Low salaries (can't hire specialized personnel)	9
Bad client	9
Complexity of government regulations	18
Availability of financial resources	9
Training	9
Labor force performance	9

* Plural Answer.

6-2-5 Project Financing Phase

According to the response of the responding public institution, about JD 829 million was invested in infrastructure projects during the period 1980-1994. Of which 19.3% was invested by the Ministry of Public Works and Housing. As for the expected investment for the next five years (95-2000) the figure is twice that of 1980-1984 with an estimate of JD 1795 million. The

Water Sector expected investment between 1995-2000 is about JD 850 million which is more than the total investment of the pervious period. Table (6.36) shed the lights on pervious and expected investment.

Table 6.36 : Approximate Capital Investment During the Years (1980-1994) & the Next Five Years

Authority	Capital Investment (Millions JD) 80-94	95-2000
Telecommunications Corporation	209	244
Jordan Electric Authority	310	370
Jordan Hijaz Railway Authority	0.435	0.961
Ministry of Transport	-	-
Port of Aqaba Corporation	85	80
Aqaba Railway Authority	-	-
Aqaba Region Authority	7.7	-
Greater Amman Municipality	-	-
Water Authority	57	850
Jordan Valley Authority	-	-
Ministry of Public Works & Housing	160	250
Total	**829.13**	**1794.96**

- Unknown

Table (6.37) describe the main projects to be implemented in the next five years. And as mentioned earlier the lion share for the expected investment between 1995-2000 is in the water sector.

The conveyance of water from Disi to Amman is expected to cost JD 375 million of 44% of the total investment in the sector. To iterate this project was proposed by the government to Amman Economic Summit as potential BOT project.

Table 6.37 : Main Projects to be Implemented in (1995-2000)

Authority	Project	Cost (M. JD)
Telecommunications Corporation	National Telecommunication project.	128
	Replacement of electronic switch boards.	56
	Mafraq project.	15
	Jordan valley project	10
Jordan Electric Authority	Power generation Units (steam) in Aqaba (260 MW)	134.3
	Electric network between Jordan & Egypt	75.03
	Power generation Unit (steam) in Aqaba (130 MW)	62.4
	Main power stations	53.5
	Electric network between Syria & Jordan	23.1
	Power generation unit (gas/100 MW) Rehab	27.8
Jordan Hijaz Railway Authority	Development of the railway between Amman & Jizeh as a touristic attraction	0.426
	Construction of Stores for rent	0.535
Ministry of Transport	Study on local transport	0.548
	Feasibility study on the construction of railway between Amman & the Syrian border	0.253
Port of Aqaba Corporation	Multipurpose Jetty development	60
	Material handling equipment purchase	20
Aqaba Railway Authority	Construction of railway between Sidiyeh mines and the main railway	52

Table 6.37 : Continuous

Aqaba Region Authority	Infrastructure projects for the southern coast (for tourism)	15
	Construction of 5 stars hotel (quantity 3)	120
	Golf course	60
	Amusement Park	130
	Conference complex	150
Water Authority	Water transport from Disi to Amman	325
	Deir Alah, Amman project	75
	Sewerage, Southern Amman	75
	Sewerage, Irbid	75
	Adasieh, Deir Alah project	40
Jordan Valley Authority	Southern Jordan Valley project	200
	Dams along river Jordan	200
Ministry of Public Works & Housing	King Hussein bridge	10
	King Abdullah bridge	10
	Sheikh Hussein bridge	6.7
	North-South Shoneh highway	75
	Kafer-Huda Arda highway	21.5
	Aqaba coast road	18.5
	Irbid northern Shoneh highway	14
	Prince Mohammad bridge	7.5

It's ironic and encouraging to know that 64% of the interviewed public institutions indicated that self-finance is one of the major available source of financing. Only, 9% of the responding institutions stated loans as a source of available fund. This may be attributed to the fact that the country debt problem is still a major constraint toward receiving loans for future investment. As for the relatively high response of the institutions to grants with 55% as the second available source of financing, this may be attributed to the optimistic atmosphere resulted from the peace

process, which implicitly implies that more grants will be available for this region. Table (6.38) highlights the response of the available financing sources for investment.

Table 6.38 : Available Financing Sources

Source	% of Total
Loans	9
Grants	55
Self finance	64
Government budget	55
Others[1]	82

* Plural Answer

1. Others include:
   - Foreign assistance
   - Private sector investors
   - Bonds

When public institution were asked about the major financing obstacles facing their projects, about 18% indicated that politics, government procedures and regulations, and feasibility studies which are not accepted by international financing bodies as the major obstacles. For more details see Table (6.39).

Table 6.39 : Major Obstacles that Face Public Authorities in Financing their Project

Obstacle	% of Total
None	9
Obtaining loans	9
Government procedures & regulations	18
Low government budget share	9
Political	18
Obligatory government payments	9
Irregularity in client payments	9
Feasibility studies are nct accepted by international financing bodies	18
Long duration between applying for financing & the receival of the money	9
Dependence on foreign aid to a large extent	9
No Answer	9

* Plural Answer

The public institution survey reemphasized the fact that these investment schemes namely, BOT, BOOT and BOO are relatively new to the country and only few individuals are familiar with these concepts. Only, 18% of the public institutions officials showed familiarity and knowledge with BOT concept and 9% with BOOT. As for BOO none of the institutions has any knowledge or familiar with this concept (Table 6.40).

Table 6.40 : Familiarity with BOT/BOOT & BOO Financing Schemes

%

	Yes	No	No Answer
BOT	18	64	18
BOOT	9	73	18
BOO	0	82	18

Those who indicated familiarity with the BOT and BOOT concept stated that privatization process of these financing schemes is on the top of BOT merits with 64% of the response. Second in rank in the priority list, with 55% each are, Additionality for infrastructure projects, and technology transfer and training. About 37% disagree compare to 27% agree with the fact that BOT and BOOT projects can be a bench mark (measure the performance of other similar public projects in the same country (Table 6.41).

Table 6.41 : Response of Public Authorities on the Merits of BOT/BOOT/BOO

%

Merit	Agree	Disagree	No Answer
Additionality for infrastructure projects	55	9	36
Credibility	46	18	36
Technology transfer & training	55	9	36
Bench Mark	27	37	36
Privatization	64	0	36

Complication in negotiation with 55% of the response was ranked as number one of the public institutions demerit with BOT and BOOT. As for the debated issue of government control on BOT and BOOT projects, about 9% agree that these concepts entails less direct control by government, and a stunning response of 55% disagree with this fact. From Table (6.42) its clear that those who are familiar with BOT and BOOT in Jordan view the widely established demerits of these financing schemes as false to a large extent.

Table 6.42 : Response of Public Authorities on the Demerits of BOT/BOOT/BOO

%

Demerit	Agree	Disagree	No Answer
Requires time & patience	27	37	36
Complications in negotiation	55	9	36
Overall cost is higher than traditional public sector projects	37	27	36
Less direct control by government	9	55	36
Potentially politically controversial	18	46	36
Exhaustion of natural resources	18	46	36

It is interesting to compare between the responses of the financial & public institutions on the merits and demerits of BOT/BOOT/BOO. A higher percentage of financial institutions agreed with the suggested merits, whilst there wasn't an apparent indication on the general opinion on the demerits. Table (6.43), (6.44).

Table 6.43 : Percentage of Financial and Public Institutions Agreeing with the Following Merits of BOT/BOOT/BOO

%

Merit	Agree	
	Public	Financial
Additionally for infrastructure projects	55	78
Credibility	46	89
Technology transfer & training	55	89
Bench Mark	27	78
Privatization	64	89

Table 6.44 : Percentage of Financial and Public Institutions Agreeing with the following Demerits of BOT/BOOT/BOO

%

Demerit	Agree	
	Public	Financial
Requires time & patience	27	44
Complications in negotiation	55	67
Overall cost is higher than traditional public sector projects	37	33
Less direct control by government	9	44
Potentially politically controversial	18	0
Exhaustion of natural resources	18	11

Chapter Seven
Conclusions and Recommendations

This chapter is divided into two sections. The first section highlights the main conclusions of this study and the second section provide some general and specific recommendations.

7.1 Conclusions

7-1-1 Economic Performance and Investment

1. The decline in the price of oil, and in turn the reduction of the workers remittance and foreign assistance had a negative impact on the Jordanian economy.

2. In the late 1980s, Jordan's economy registered negative rates of growth. But since, the Government of Jordan has adopted, the economic reform program economy have shown continuous growth, in 1993 the rate of growth reached 5.8%.

3. Jordan's GDP rose from JD 2428 million in 1990 to JD 4134 million in 1994. Also, exports increased from JD 612.3 million to JD 793.9 million in the same period. On the other hand, total external debt dropped from $7276 million to $5550 million between 1990 and 1994.

4. The service sector is still dominating the Jordanian economy with 60% contribution to GDP and employing 20% to the labor force.

5. Phosphate, Potassium and Medicament constituted 35.6% of the Kingdom total exports. On the other hand, machinery and transport equipment, manufactured goods, and crude Oil mounted to 53.4% of the country's total imports (1994).

6. The main market for Jordanian products are Iraq, India, Saudi Arabia, and UAE. And the main exporters to Jordan are Iraq, USA, Germany, and Italy.

7. The Economic Adjustment program assisted the Central Government in increasing its revenues from JD 938 million in 1990 to more than JD 1492 million in 1994.

8. Negative domestic saving (one of the traditional problems of the Jordanian economy) forced the country to depend to a large extent upon external resources to finance its development schemes.

9. The Kingdom has a well established financial system that can play a vital role in raising syndicated loans to finance large scale projects.

10. During the last five years the average interest rates in Jordan ranged from 5.29%-4.94% on saving, and between 10.13%-10.48% on loans.

11. Comparing the average interest rate in Jordan with that in Israel and Egypt, the average discount rate and lending rate in Jordan is less than that in both Egypt and Israel.

12. Jordan's labor force increased from 520,000 in 1988 and exceeded 860,000 in 1994. More than 50% of country's labor force is in the social, personal and public administration services.

13. Unemployment in Jordan increased from 8.9% in 1988 to more than 15% in 1994.

14. Jordan does not impose the minimum wage principle on employers, and the average monthly wage for skilled labor ranges from $150-400.

7-1-2 Potential Investment

1. Despite the fact that water resource is scarce in Jordan, the Government has been able to stride in the development of water resources through loans and grants. Between 1993-1997 the government is planning to invest more than $1 billion in this vital sector. The government is envisaging the possibilities of engaging the private sector in this sector development option.

2. Tourism is Jordan's renewable natural resources. Presently, tourism is contributing about 20% to GNP and employing 10% of the country labor force.

3. The peace process will significantly increase the number of tourists arrivals to the Kingdom. In 1996, the projected number of tourists arrivals to Jordan is 1.2 million. However, the sector has not attained its potential and more investment is required in this sector.

4. The industrial sector is the backbone of Jordan's national economy. The value added of this sector is about 14% of 1994 GDP.

5. Phosphate and Potash are the Kingdom's natural resource wealth. The country is the fifth largest producer of Phosphate rock. Potential investment in the Dead Sea for Potash processing is widely open.

6. Only 5% of Jordan's energy needs is locally produced and the remaining is imported. Jordan's demand for primary energy amounted to 4318 thousand tons of oil equivalent and projected to reach 5234 thousand tons of oil equivalent in 2000. The government is giving private investment priority in the both supplying energy and future production of energy.

7. Jordan is located in the heart of the Middle East transit routes. A large share of the national investment in the infrastructure originates from transportation. The peace process opened the horizon for investment in this vital sector.

8. Reliable and modern telecommunication facilities are important requirements for attracting investment. Investment potential in this sector will not reduce the cost but it will lead to better efficiency.

7-1-3 Investment Climate

1. Jordan is giving the private sector a greater role in future development scheme, according to 1993-1997 Economic and Social Development plan, the private sector expected share in infrastructure investments is more than 60%.

2. In order to advent in attracting foreign and local private investment, Jordan updated the investment related laws and regulations (the Investment Promotion Law, Income Tax Law, Custom Law, etc.). In 1995, more than 70 approved economics projects with total capital of JD 139 million and 48 economics projects with JD 21 million, has took advantage of the investment promotion law.

3. The Kingdom enjoyed a long period of political stability. The Middle East Peace process provided an additional dimension of both local and regional stability.

4. As mentioned in Chapter Two, the Kingdom overcame the mid 1980s economic crisis with the adoption of the Adjustment Economic program, and stable economic growth was witnessed.

5. Despite the fact that Jordanian currency was devaluated several times since 1989, presently, the monetary policy is to maintain the stability of the exchange rate of the JD. However, since 1990, the JD exchange rate against major currencies has been stable.

6. Despite the fact that Jordan is a small country, its location in the heart of the Middle East, gives it a great importance.

7. Geopolitical importance of the Kingdom is swiftly being replaced by the potential economic role.

8. Being fully aware of the need for improving the investment climate and facilities in the Kingdom to attract foreign and local private investors, Jordan established specialized investment entity "Jordan Investment Corporation", the Industrial Estates, and the Free Zones.

9. However, obstacles and constraints still exist despite the tremendous efforts exerted by the government to improve the investment climate. The size of the Jordanian Market and bureaucracy are two of the majors constraints confronting investors.

10. Jordan labor force and well established infrastructure are one of the comparative advantage of the Kingdom. Presently, the Kingdom labor force has more than 30,000 engineers. As for the infrastructure, the World Bank indicated that the Kingdom provides a level of infrastructure services to households in excess of most other countries with similar income levels.

11. Amman Economic Summit paved the path for a new economic beginning in the region.

7-1-4 New Investment Schemes (BOT, BOOT and BOO)

1. Of the World $200 billion infrastructure investment in 1994, more than 90% were derived from government tax revenues. This indicates an enormous burden on public financing.

2. Long term soft loans for infrastructure investment have been the general trend, however, aggregate private investment in infrastructure (about $15 billion of the $200 billion) is growing.

3. Middle East and North Africa countries, have been unsuccessful of attracting foreign investment. This is due mainly to the burdensome regulations and underdeveloped financial market.

4. In order to attract foreign investment, Jordan adopted many legislation and regulations reforms.

5. Presently, innovative and diverse project financing techniques are being envisaged to speed the pace of transition from public to private sector.

6. The BOT, BOOT, and BOO concepts which were first thought about by Mr. T. Ozal of Turkey are most suitable methods for infrastructure financing given that the government is unable to attain soft loans.

7. BOT is attractive for government because it represents new source of capital, increases the efficiency of project management, can be a sign of project credibility, or used as a benchmark where the project can be used to measure the efficiency of similar public sector projects, and technology transfer and training.

8. On the other hand, the case against BOT projects are: BOT is highly complex from both legal and financial aspects, the overall cost to host country is greater than a traditional project, less direct control by the government, and potentially politically controversial.

9. Several developing countries experience with BOT, BOO, and BOOT have been mainly in the energy sector. Up to this date there is not any BOT project that reached the transfer stage.

10. In 1994, Malaysia succeeded to complete the construction of three BOT projects, and there are three more projects under construction.

11. Most of the BOT and BOO projects are concentrated in South East Asia and Latin America.

12. Recognizing the limitation of the importance of private sector involvement in infrastructure investment, the limitation of borrowing, the decrease in worker remittances, and foreign assistance, Jordan is considering the possibility of allowing the private sector to build, operate and own some new infrastructure activities.

13. Jordan's investment law guarantee the investors the right to invest by whole ownership or by partnership, and investor shall have the full right to operate his project in any way he sees.

14. In Amman Economic Summit, several officials introduced the BOT concept as a new alternative financing mechanism in Jordan. However, Jordan's experience and knowledge about BOT is modest and relatively new.

15. It's worth mentioning that a primitive BOT like process has been in place in the Jordan Valley farming system for some times. Presently, it has been recorded that several landowners has given their land to farmers for a period of 10 years or more. The landowner provides the land and the farmer plants the land with perennial trees and maintains it. Over the concession period all the income generated from the farm is diverted to the farmer.

16. Today, there are three proposed BOT projects in Jordan, namely; Disi-Amman water project; Aqaba Petroleum Refinery; and Development of Aqaba Coast for Tourism.

17. In 1995, a British Consulting engineering firm presented an intention of interest among several other companies for the supply of Disi Water to Amman on a BOT basis. According to the firm the estimated cost of water delivered to Amman ranged between $\$0.4m^3$-$\$0.6\ m^3$.

18. There are several international and regional financial agencies that can finance BOT projects.

7-1-5 Public and Financial Institutions Knowledge of these Schemes

Financial Institutions

1. The financial system in Jordan is already participating in the infrastructure financing through traditional methods of financing.

2. The main sectors of this financing were in: Construction, Transport, Electricity, Telecommunications, Education, Health.....etc.

3. The Main criteria used by the financing institutions for projects approvals were:
   - The economic feasibility of the project.
   - The sector in which the project will take place.
   - Type of guarantees, Cosigners.
   - The importance of the project for the development of Jordan.

4. The majority of the financial institutions surveyed were willing to provide financing through BOT, BOO, BOOT, schemes.

5. The Main reasons for this willingness were:
   - Privatization.
   - Technology transfer.
   - Flexibility in financing.
   - The good project management.
   - The good return for the Banks, and the national economy.

6. The majority of the financial institutions surveyed agreed that these concepts provide the following merits:
   - Additionally.
   - Credibility.
   - Technology transfer & training.
   - Bench mark.
   - Privatization.

7. As for the demerits, the financial institutions surveyed agreed that these concepts required complex negotiations, and time, on the other hand they disagreed that the BOT concepts can generate political controversial.

8. The majority of the financial institutions surveyed agreed that the private sector can provide the infrastructure services in Jordan. the Main reasons for that were:
   - Available financing resources.
   - Flexibility in money management.
   - Efficiency in administration and operation.
   - Simple administration procedures.

9. The Main constraints for the adoption of BOT concept in Jordan were:
   - Financial constraints (subsidies, pricing policies).
   - Administrative constraints.
   - Political and legal constraints.

10. The Main guarantees requested by the financial institutions in Jordan in order to finance a BOT projects were:
    - The government commitment not to nationalize or confiscate the project.
    - The government participation in the project.
    - The commitment not to establish a similar projects.

Public Authorities

1. Most projects that are implemented by the responding public authorities are infrastructure projects in various sectors.

2. The need of a project is in the top priority for project selection (64% of total responses), whilst few authorities (9% of total responses)consider social or environmental impact on society as a priority.

3. Only 36% of the respondents indicated the importance of the economic feasibility of a project as a priority for selecting a project.

4. Project economic importance to Jordan and project technical specifications determine whether a project will be implemented or not (55% & 46% of total responses).

5. Few public authorities consider the cost including capital investment and operation (9% of total responses) social (9% of total responses) or environmental (9% of total responses) impacts as a criteria for project implementation.

6. Up to the end of year 1995, the public sector and Islamic Waqif owned all infrastructure projects.

7. A techno-economic feasibility study always precedes project implementation. The studies are mostly (82% of total responses) conducted by local consultants. And, once a project is approved by top management, construction work will be carried out, also, mostly by local contractors (82% of total

responses) and supervised by a local firm (64% of total responses).

8. Public authorities' own staff operates and administrates their own projects (82% of total responses). Projects are either centrally (36% of total responses) or not centrally administrated (27% of total responses) depending on the type of project.

9. There was a large variation in the number of employees among responding public authorities. The total number ranged from (78) for Ministry of Transport to (7000) for Greater Amman Municipality.

10. Operation to Administration ratio was about 2:1 for most authorities with few exceptions.

11. The majority of responding public authorities favor foreign expert assistance in project operation (82% of total responses). However, only 36% of them indicated that do have foreign experts assisting in project operation and for a short duration.

12. The majority of responding public authorities (82% of total responses) have local counter part working along with foreign experts to obtain good training and attain maximum technology and know-how transfer in order to be able to operate and maintain the project once the expert leaves.

13. Sixty-four percent and 55% of respondents indicated that foreign experts are mostly beneficial in giving training to local staff, and technology & know-how transfer respectively.

14. Operational cost varied widely from one authority to another. 36% of them indicated that salaries and raw materials contribute (5-20%), (30%) to total operating cost respectively. Also, 63% of total respondents stated that maintenance constitute up to 30% of total operating cost

15. According to responding authorities, operational cost is covered solely by tariffs in the exception of few authorities,

and 64% of them stated that the generated income covers operational cost.

16. Fifty-five percent of respondents think that their services can be offered by the private sector , and at a lower cost due to efficient project management.

17. The two determinant factors that obstruct project operation are the in availability of machinery, equipment and spare parts (46% of total responses), and absence of skilled labor (36% of total responses). Also, the complexity of government regulations and procedures have a significant effect on project operation (18% of total responses).

18. According to the response of the responding public institution, about JD 829 million was invested in infrastructure projects during the period 1980-1994, of which 19.3% was invested by the Ministry of Public Works and Housing.

19. The expected investment for the next five years (95-2000) is twice that of 1980-1984 with an estimate of JD 1795 million.

20. The Water Sector has the lion share of expected investment between 1995-2000. the expected investment is about JD 850 million which is more than to the total investment of the pervious period. The conveyance of water from Disi to Amman is expected to cost JD 375 million or 44% of the total investment in the sector. This project was proposed by the government to Amman Economic Summit as a BOT potential project.

21. It's ironic and encouraging to know that 64% of the interviewed public institutions indicated that self-finance is one of the major available source of financing. Only, 9% of the responding institutions stated loan as a source of available fund. This may be attributed to the fact that the country debt problem is still a major constraint toward receiving loans for future investment. As for the relatively high response of the institutions to grants as the second available source of financing. Also, this may be attributed to the optimistic

atmosphere resulted from the peace process, which explicitly will be translated as more grants for this region.

22. Eighteen percent of responding authorities indicated that politics, government procedures and regulations, and feasibility studies which are not accepted by international financing bodies as major obstacles to obtain financing for their projects.

23. The public institution survey reemphasized the fact that BOT, BOOT and BOO investment schemes, are relatively new to the country and only few individuals are familiar with these concept. Only, 18% of the public institutions showed familiarly and knowledge with BOT concept and half of them with BOOT. As for BOO none of the institutions has a knowledge or familiar with this concept

24. Those who indicated familiarity with the BOT and BOOT concept stated that privatization process of these financing schemes is on the top of BOT merits with 64% of the response. Second in rank in the priority list with 55% each are, Additionality for infrastructure projects, and technology transfer and training. About 37% compare to 27%, disagree with the fact that BOT and BOOT projects can be a bench mark (measure the performance of other similar public projects in the same country .

25. Those who indicated familiarity with the BOT and BOOT concept, view the widely established demerits of these financing schemes as false to a large extent.

26. Complication in negotiation with 55% of the response was ranked as number one of the public institutions demerit with BOT and BOOT. As for the debated issue of government control on BOT and BOOT projects, about 9% agree that these concepts entails less direct control by government, and a stunning response of 55% disagree with this fact.

7.2 Recommendations

Although there is still too little experience with BOT projects to draw definite conclusions, the BOT approach appears to offer one possible method for developing and financing infrastructure projects in third world countries, provided those countries are sophisticated enough to deal with the technical, financial and legal complexities and are willing to provide necessary government support.

Based on our study, we recommend the following:

1. The Government of Jordan (GOJ) should consider integration with regional and international economy to expand its small domestic market. (Note that GOJ has already requested to become a member in the WTO).

2. The GOJ should make extensive effort to enhance regional co-operation.

3. The GOJ should introduce new techniques and methodologies for proposals, feasibility studies and projects evaluation. The government should consider obtaining expert counseling and advice on technical issues when necessary.

4. The GOJ should establish a new body responsible for all the aspects involved in project financing from project proposal preparation to legal negotiations. This will eliminate existing duality and overlapping of responsibilities among governmental bodies and concerned authorities.

5. Spread awareness on BOT/BOOT/BOO concepts and other new financing schemes in Jordan in general and among decision makers in the public sector in specific through seminars and workshops. Legal negotiation should be emphasized in these seminars due to their importance.

6. Obtain expert counseling and advice on the technical, financial and legal issues involved, once a BOT is considered by the GOJ.

7. Establish a committee from different sectors to select and study projects liable for BOT/BOOT or BOO financing and set priorities for implementation. Encourage projects that will generate employment opportunities.

8. The GOJ should encourage the establishment of "Investment Banking" because of there importance as the appropriate instrument for raising funds for BOT projects.

9. Continue with procedures, regulations and legislation reforms especially those concerned with investments.

10. Amend the new Investment Promotion order since the present one doesn't really reflect the objectives and spirit, of the new investment promotion law, by removing the conditions imposed upon the foreign owner ship in certain sectors.

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ANNEXES

Annex (1)

No. of the Questionnaire

ROYAL SCIENTIFIC SOCIETY
Computer Technology, Training and Industrial Studies Center

Questionnaire
Public Institutions

Governorate

Name of Numerator:	Date:
Name of Proof Reader:	Date:

In Accordance with the Statistics Law No. (24) of 1950 and its Amendments all Information in this Questionnaire are Only for Statistical Purposes and are Confidential

I General Information

- Name of institution: ----------
- Scope of work: ----------
- Name of interviewed person: ----------
- Position: ----------
- Date: ----------

II Project Implementation Phase

1. Type of projects implemented by your institution

   - ----------
   - ----------
   - ----------
   - ----------

2. What are the priorities set by your institution for selecting a project?

   - ----------
   - ----------
   - ----------
   - ----------

3. What are the criteria for implementation of a projects?

   - ----------
   - ----------
   - ----------
   - ----------

4. Who conducts the feasibility study and technical design of a project?

   - Local consultant
   - Foreign consultant
   - Joint venture between local and foreign consultants
   - Others (specify)----------

5. Who carries out the construction work of the project?

- Local contractor
- Foreign contractor
- Joint venture between local and foreign contractors
- Others (specify) ----------

6. Who supervises the construction work of the project?

- Local firm
- Foreign firm
- Joint venture firms
- Others (specify) ----------

7. Who owns the project?

- Public sector
- Private sector
- A combination of both public & private sectors
- Others (specify) ----------

III Project Operation Phase

1. Project are operated by

- Own staff
- Local company
- Others (specify) ----------

2. Do you administrate your own projects

Yes ☐ No ☐

If yes, is it

- Centrally administrated
- Noncentral administration

- Others (specify) ---------- ☐

If no, who does?

- ----------

3. No. of employees in your institution

- Administration ☐ Employee
- Operation ☐ Employee
- Total ☐ Employee

4. Do you usually have foreign experts assisting you in operating your projects?

Yes ☐ No ☐

If yes:

- Long-term experts ☐
- Short-term experts ☐

5. Do you have a local counterpart working along with foreign experts?

Yes ☐ No ☐

If yes:

What are the benefits obtained by the local counterpart

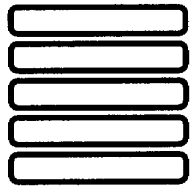
- ----------
- ----------
- ----------
- ----------

6. Do you favor having a foreign expert assisting your staff in operating your projects?

- Strongly favor
- Favor
- Not infavor

7. What percentages of your operating cost are covered by the following?

- Tariff
- Subsidies
- Loans
- Grants
- thers (specify) ----------



8. Do you cover your operating cost?

Yes  No 

9. Do you believe that the service provided by your institution can be offered by private sector?

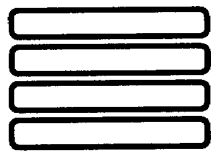
Yes  Why? ----------
No  Why? ----------

10. What are the major obstacles that you face during operation?

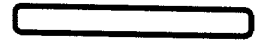
- ----------
- ----------
- ----------
- ----------

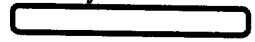
11. What percentage of total operating cost the following constitute?

- Wages & salaries
- Raw materials/input
- Maintenance & spare parts
- Others (specify) ----------



V *Project Financing Phase*

1. What was the approximate capital investment in your sector during the years 1980-1994 ? Dinar 

2. What is the estimated capital investment in your sector for the next five years? Dinar 

3. What are the main projects that you plan to implement within the next five years?

Project	Cost (Dinar)
• ----------	• ----------
• ----------	• ----------
• ----------	• ----------
• ----------	• ----------
• ----------	• ----------

4. What are the available financing sources

- Loans
- Grants
- Self-finance
- Government budget
- Others (specify) ----------

5. What are the major obstacles facing you in financing your projects

- ----------
- ----------
- ----------
- ----------

6. Are you familiar with the following financing schemes? Please explain breifly.

- Build-operate-transfer BOT ▭
- ----------
- ----------
- ----------
- Build-own-operate BOO ▭
- ----------
- ----------
- ----------
- Build-own-operate-transfer BOOT ▭
- ----------
- ----------
- ----------
- Others (specify) ---------- ▭

7. In your opinion what are the merits & demerits of BOT* BOO**, BOOT***?

	BOT	BOOT	BOO
Merits	1) Additionality 2) Credibility 3) Technology transfer and training 4) Bench mark 5) Privatization (project cost moved "off Balance Sheet for government"		
Demerits	1) Complication • Time • Money • Patience 2) Overall cost is higher than a traditional public sector project 3) Less direct control by government 4) Potentially politically controversial		

* Additionality : adds to local resources available for investment.
* Credibility : a project is viable for success.
* Benchmark : project can be used as a comparison standard to similar public sector projects.

* BOT: Build Operate Transfer
** BOO: Build Own Operate Transfer
*** BOOT: Build Own Operate Transfer

Annex (2)

No. of the Questionnaire

ROYAL SCIENTIFIC SOCIETY
Computer Technology, Training and Industrial Studies Center

Questionnaire
Financial Institutions

Governorate

Name of Numerator:	Date:
Name of Proof Reader:	Date:

In Accordance with the Statistics Law No. (24) of 1950 and its Amendments all Information in this Questionnaire are Only for Statistical Purposes and are Confidential

1- Name of Institution: ----------

2- Name of interviewed person: ----------

3- Position: ----------

4- Date: ----------

5- Bank Capital Investment: ---------- (Jordanian Dinar)

6- Total equity value 1994:---------- (Jordanian Dinar)

7- Does your institution finance infrastructure projects in Jordan?
Yes ☐ No ☐

If the answer to the previous question is yes,

a) In which sector — Financing volume (JD)

- ---------- ☐
- ---------- ☐
- ---------- ☐
- ---------- ☐
- ---------- ☐

b) What are the criteria for approving financing?

- ----------
- ----------
- ----------
- ----------
- ----------

8- In your opinion, do you think that the public sector is capable of providing infrastructure services in Jordan?
Yes ☐ Why? ----------
No ☐ Why? ----------

9- Is your institution willing to finance Jordanian projects using the following financing techniques?

Build-operate-transfer BOT
Build-own-operate BOO
Build own operate transfer BOOT

Yes ☐ Why? ----------
No ☐ Why? ----------

10- What type of guarantees are requested by your institution to finance projects using the techniques mentioned in question 9?

a) From the investor

- ----------
- ----------
- ----------
- ----------
- ----------

b) From the Jordanian Government

- ----------
- ----------
- ----------
- ----------
- ----------

c) Others

- ----------
- ----------
- ----------
- ----------
- ----------

11- In your opinion what are the merits and demerits of BOT, BOOT, BOO.

a) Merits

1) Additionality (adds to local resources available for investment) ☐
2) Credibility (a project is viable for success) ☐
3) Technology transfer and training ☐
4) Bench mark (project can be used as a comparison standard to similar public sector projects) ☐
5) Privatization (project cost moved "off Balance Sheet for government) ☐
6) Others ☐

b) Demerits

1) Complication ☐
   - Time & Patience ☐
   - Money & Negotiation ☐
2) Overall cost is higher than a traditional public sector project ☐
3) Less direct control by government ☐
4) Potentially politically controversial ☐
5) Exhaustion of natural resources ☐
6) Others ☐

12- In your opinion what are the constraints facing the adoption of BOT, BOO, BOOT concepts in Jordan?

- Political ☐
- Legal ☐
- dministrative ☐
- Financial (subsidies, pricing policies) ☐
- Social ☐
- one ☐

Annex (3)

Workshop on BOT
RSS, March, 13/1996
Participations List

Ali Ajlouni	Royal Scientific Society
Dr. Jaser Tadros	Free Zones, Corporation
Eng. Ibrahim Qundes	Ministry of Industry Strades
Eng. Khalid Hendauri	Ministry of Water & Irrigation
Imad Badr	Ministry of Finance
Mohammad Al-Hazaimeh	Central Bauk of Jordan
Kays El-Kaysi	NRA
Ajlouni Abdel-Karim	NRA
Fawzi Khartal	JEA
A. Bdullah Hamdan	JEA
Dr. Nawaf Obeidat	JEA
Ziad Al Baha	BBME
Samer Sounuqrat	Jordan National Bank (JNB)
Khalid F. Shridah	MEMER
Azmi Alsaid Khresat	Jordan Electricty Authority
Awad K. Tell	Ministry of Transport
M. Muhaisin	Aqaba Region Authorty
Dr. Ali Abandai	Ministry of Transport
Eng. Ali Al Zubi	
Kamal H. Farsouni	Amman Chamber of Commerce
Eng. Bassam Newarran	Dir. of Invesmtne (MOT)
Dr. Rizik Abu Allan	RSS
Muhareb Muhareb	Amman Chamber of Industry
Khalil Najjav	The Housing Bank
Jamal Al Jabri	The Housing Bank
Dr. Khaled El Shraydeh	HCST
Eng. Maysoun Al-Zonbi	WAJ
Dalia Husseini	Bank of Jordan

Bassam Elghuff	Bank of Jordan
Laro Sami Khomosh	Bank of Jordan
Zaidan A. Younes	Industrial Development Bank
Dr. Hazim El-Naser	Water Authority of Jordan
Akram Al Juneidi	Water Authority of Jordan
Eng. Shawkat Al-Momk, Housing Corporation	
Eng. F. Takrouri	RSS
Dr. Naseem Haddan	RSS-MDSTC
Ali Ghezawi	RSS
Nabih Nabhani	RSS
Abeoul Salam Naimat	RSS
Ibrahim Al-Hassan	RSS
Eng. Hashem Arabiat	RSS