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THE ROLE OF FOREIGN TRADE IN THE ECONOMIC DEVELOPMENT OF JORDAN

by

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ABSTRACT

Jordan is one of many political states which was created after the First World War and which achieved political independence after the Second World War. However, despite its similarities with other such states, Jordan has had, and continues to have, several features which set it apart. This case-study attempts to outline these features within the context of an examination of the trade pattern and development profile of the economy in its post-colonial period.

This study shows why the export sector made a strictly limited contribution to overall economic development and the growth of GDP. Analysis of the interactions, on the one hand, between imports, financed largely by foreign aid, and, somewhat unusually, a surplus on the invisible account, and, on the other hand, the creation of a service-oriented economy, demonstrates how the promotion of a persistent chronic trade deficit and certain structural industrial imbalances resulted within the economy and severely constrained its development potential. Moreover, particular attention is given to the importance and implications of emigrant flows and remittances, which have created further resource allocation biasses that are argued to be detrimental to the long-run interests of the economy.

A critical review is given of three main areas of domestic economic policy that, rather than correcting, have contributed to the above-mentioned imbalances - trade policy; foreign reserves policy and its excessive holdings; credit expansion policies and their adverse effect on resource allocation. Alternative policy solutions are suggested to correct both the trade imbalance and to break the structural development constraint outlined.

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CHAPTER ONE: THE INDUSTRIAL STRUCTURE AND THE ORIGINS OF THE TRADE PATTERN

As a political entity, Jordan did not achieve independent nation statehood until 1946.[1] Prior to that date, as a colony it experienced a succession of administrations subject to different centres of foreign control.[2] Such a hybrid colonial parentage inevitably conditioned the economy's achievements and development potential subsequent to the achievement of internal autonomous control over its economic system. Furthermore, its territorial integrity and resource base was thereafter subject to radical redefinition with, firstly, the annexation of the eastern part of Palestine after the Arab/Israeli war of 1948, and secondly, the loss of the same area to Israel following the June 1967 war. Thus, uncertainties arising from political conflict have additionally disturbed the momentum and direction of economic change during the period of this study.

This introductory chapter will attempt to outline the industrial structure of the country that has emerged since independence and up to the year 1976.[3] The central theme developed is that both the national characteristics of the country and the lack of an articulate development planning programme have resulted in the creation of a disproportionately large services sector in what is, after all, a small economy.

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1. The official proclamation of Jordan in its present form took place in April 1950 when the West Bank was annexed to Jordan.

2. From 1849 until the end of the First World War, Jordan formed a part of the Province of Syria, which was administered by the Turkish Empire. After the First World War, on March 2, 1921, the Emirate of Transjordan was established, and on May 25, 1923 Britain's formal recognition of the State was proclaimed. The new state was to exercise its authority in domestic affairs only, and it was not until May 25, 1946 that a kind of full political independence was officially proclaimed. See Kingdom of Jordan, Ministry of Culture and Information, Jordan (1973): A Brief Survey, Amman, p. 3.

3. Throughout this thesis the analysis covered the period up to 1975. However, it was carried further to include, when possible, data pertaining to 1976.

It will be argued that while the balance of payments problem was an inevitable consequence of this industrial bias, it has, in turn reinforced the services-orientation of the economy so that, despite positive real economic growth, the basic characteristic features of the economy at the time of independence have nevertheless remained substantially unchanged. Prior to this discussion, it is important to outline briefly some of the main natural and geo-political factors and parameters within which the economy has had to promote progress.

Jordan today consists of the small West Bank of the River Jordan, an area of 2,165 square miles at present occupied by Israel and a territory of 34,550 square miles on the East Bank of the Jordan. It is bordered to the north by Syria, to the east by Iraq, to the south by Saudi Arabia and to the west by Israel. It therefore occupies a central geo-political position in the Middle East (see Map 1). However, unlike those countries surrounding her which are generously endowed with both mineral and water resources,[1] Jordan has only phosphate deposits.

Within its borders extreme regional variations in aggregate annual rainfall occur, which crucially circumscribe the level and distribution of economic activity. Approximately 87% of the total area has less than 200 millimetres of rain per annum, decreasing to near zero in the eastern part of the country, whilst in the western hills the range is between

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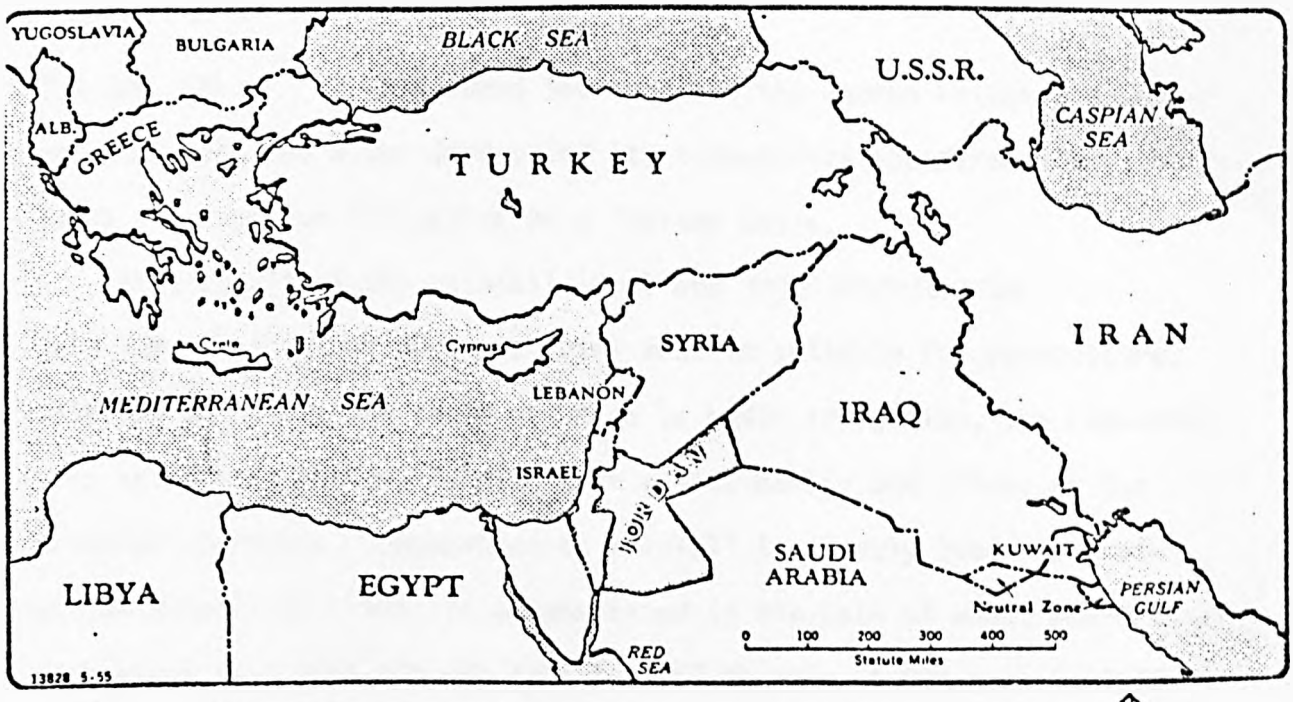
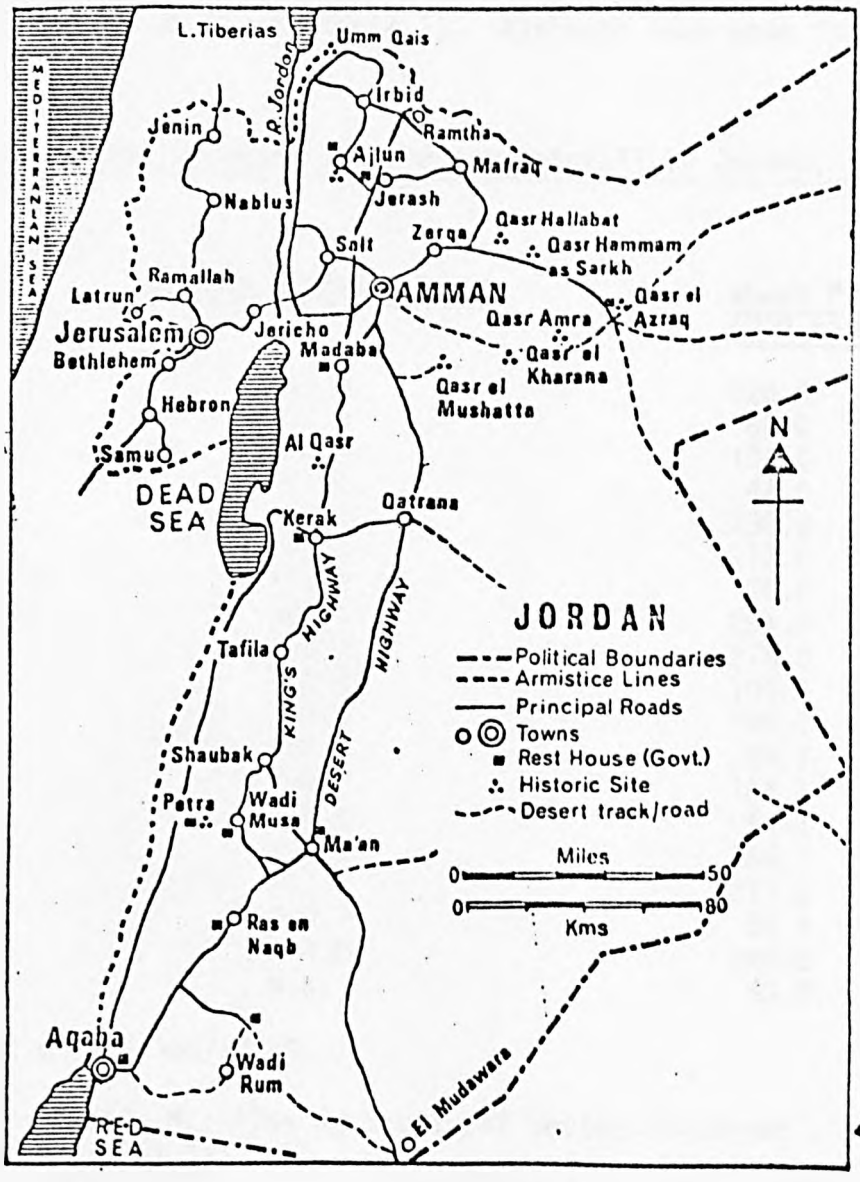
1. As is well known, Saudi Arabia has the largest oil reserves in the world, Iraq and Syria have in addition to water resources a large commercial amount of oil while Israel possesses the most fertile land in the Middle East.



Map 1



Map 2

Maps of Jordan

Source: Kingdom of Jordan, 'Jordan: Land and People' Ministry of Culture and Information, Amman (1974).

600 and 800 mm. The Dead Sea area and the Jordan valley are semi-tropical, and the River Jordan and its tributories the Yarmouk and the Zerka are used for irrigation on a limited basis.

As a result of the rainfall level and this distribution only some 8 to 10% of Jordan's total area is suitable for agriculture, only approximately one tenth of which is under irrigation, the remaining area being used for dry farming with wheat, barley and olives as the principal products. Dependence on rainfall inevitably leads to production volatility. This is demonstrated in the case of wheat where total production fell from 220,000 tons in 1957 to only 66,000 tons in 1958 and 104,000 tons in 1959 (see Table 1). Although such wide fluctuations

Table 1.1 Production of wheat and average rainfall in Jordan, 1957-1975

Year	Average Rainfall (mm.)	Wheat Production (000 tons)
1957	427.0	220.0
1958	322.0	66.0
1959	300.0	104.0
1960	193.0	44.0
1961	365.0	138.0
1962	353.0	112.0
1963	233.0	76.0
1964	461.0	295.0
1965	476.0	278.0
1966	293.0	101.0
1967	442.0	196.1
1968*	267.0	95.1
1969*	324.0	144.3
1970*	255.0	54.1
1971*	255.0	168.1
1972*	217.7	211.4
1973*	330.1	50.4
1974*	174.0	244.0
1975*	n.a.	50.0

* East Bank only - 1967-1975.

Source: (1) Hadad, M.: 'The Agricultural Sector in Jordan', R.S.S., Amman (1976) Table 10.
(2) Dept. of Statistics, Statistical Year Boo, Amman (1975).

in agricultural output are a fact of economic life for most under-developed countries, Jordan is quite exceptional in this respect as a U.N. study has shown.[1]

While lack of water has shaped the development of Jordan's agriculture, lack of mineral resources has also greatly affected Jordan's development potential. The International Bank for Reconstruction and Development noted in its report on the Jordanian economy for 1957 that

> 'up to the present no metallic minerals capable of economic exploitation have been discovered. The most important metallic mineral deposits are phosphates; which is being mined near Amman at a rapidly increasing rate. Potash and other salts contained in the water of the Dead Sea are not at present recovered.'[2]

However, building stones as well as marble are readily available and some of them are exported to neighbouring Arab centres. As for undiscovered resources, due to the fact that Jordan's borders have been arbitrarily drawn, and almost all the surrounding countries are oil producing ones, there is a widespread belief, and indeed hope, that oil deposits must exist in Jordan. However, all attempts so far to establish the existence of this important mineral in commercial quantities have been unsuccessful.[3] Nevertheless, the large quantities of iron ore,

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1. A study made by the United Nations of the year to year fluctuations in 72 countries, showed that Jordan had one of the widest variations. See U.N. World Economic Survey, 1954-1970 (1971) p. 118.

2. International Bank for Reconstruction and Development: The Economic Development of Jordan, Baltimore, Johns Hopkins, 1957 p. 44.

3. Up to 1975, oil and natural gas exploitation was almost totally dependent on foreign companies' finance, which resulted in a lack of continuity. The Five Year Plan, 1976-1981, allocated a certain sum for exploitation. See, National Planning Council, The Five Year Development Plan, 1976-1981, Amman, p. 177.

copper, and tin recently discovered in south Jordan have not so far been exploited,[1] but there is a good world supply of these minerals.

In addition to limited mineral and water resources economic development has been hindered by a restricted transport system. The 1948 war resulted in a change in Jordan's trade route from its traditional outlet, Palestine, to the Lebanon through Syria. Accordingly the transport cost of both imports and exports has increased sharply. This is in addition to requiring new investment in transport. Furthermore, while the majority of the population are settled in the northern part of the country (see Table 2), the only outlet to the sea is the port of Aqaba on the Red Sea, over 300 kilometres to the south of

Table 1.2 Estimated population of the East Bank in each Governorate as at the Census of population and housing, 18 November 1961 (in thousands)

Governorate	Total	Percentage share
North and Middle	788	87
Amman	435	48
Balga	79	9
Irbid	274	30
South	114	13
Karak	67	7
Maan	47	6
Grand Total	902	100

Source: Statistical Year Book, 1975, Dept. of Statistics, Amman, Table 1.

1. National Planning Council, The Five Year Development Plan, 1976-1981, Amman, n.d., p. 177.

the centre of population. In the early 'fifties Aqaba was a small fishing harbour, lacking all the basic facilities of a commercial port and not linked by modern transport systems to the rest of the country. With the help of German and British aid in the sixties, Aqaba was developed into a modern port with good communications. The development of this port is illustrated by the fact that by 1966 it was handling 1.2 million tons of goods, or about two-thirds of Jordan's exports and imports, compared with only 92,000 tons in 1954. This figure had increased further by 1976 to over 3.0 million tons.[1]

Lastly, further problems have been caused to Jordan's economy by population adjustments resulting from the aforementioned territorial changes. Alternate expansion and contraction has at times more than trebled the effective population of Jordan and then turned a majority of these inhabitants into dispossessed refugees.[2]

This unprecedented movement of population accentuated the young age bias usually found in less developed countries, indicated by the 1961 census.[3] The detailed breakdown of the age structure indicated that nearly one half of the population was under the age of 15 (see figure 1). This phenomenon has had an effect on the economic and social needs of the country as a result of the consequent requirements in

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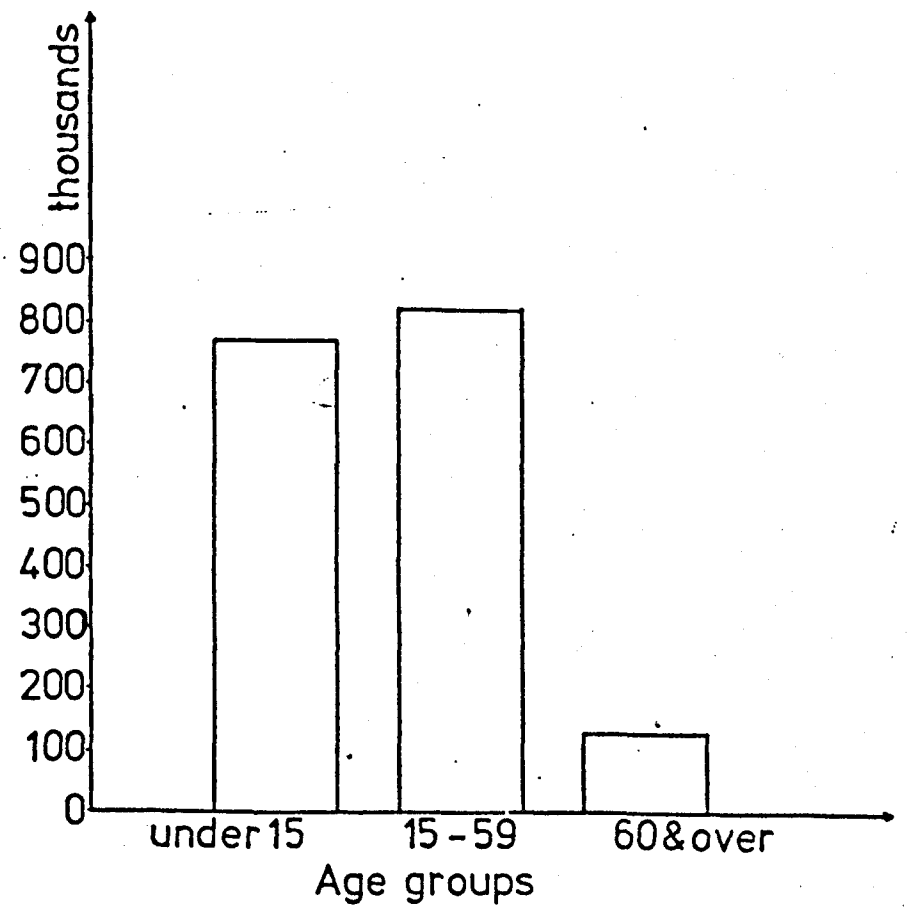
1. Department of Statistics, Statistical Year Book, 1968 and Central Bank Monthly Bulletin,(March 1977).
2. Analysis of Jordan's population is made difficult by the lack of consistent information and the absence of time series data. The last complete census was in 1961 and no correct information is available after that. However, at the end of 1977 the population of Jordan was approximately 375,000 (see IBRD: op. cit., 1957, p. 41) and the population of the West Bank was 460,000. This is in addition to 350,000 Palestinian refugees who entered Jordan after the 1948 war. Thus, total population in 1948 was about 1,165,000. In contrast the 1967 war has resulted in the loss of 950,000 inhabitants of the West Bank.
3. For a brief discussion on the youthfulness of the Middle East population see United Nationas Economic and Social Office in Beirut: Studies on Social Development in the Middle East, 1971, United Nations, New York, (1973), pp. 3-4.

Fig.1

AGE DISTRIBUTION IN JORDAN 1961



Source: Demographic Year Book U.N. 1970

education and welfare facilities.

As regards manpower use, the 1961 census indicated that only 23% of total population was gainfully employed. This low ratio may be explained by the fact that the census underestimated the female working population.[1] However, out of the total labour force, over one third was engaged in agriculture and only one tenth were employed in mining and industry. The rest were involved in various service industries. (See Table 3.)

Table 1.3 Labour force and employment by economic sector, 1961

Economic Sector	Males	Females	Total	Percentage
Agriculture	130,579	7,078	137,657	35
Mining	9,181	5	9,186	2
Manufacturing	27,567	5,179	34,746	8
Construction	40,123	36	40,159	10
Electricity	1,558	14	1,572	1
Commerce	30,960	396	31,356	8
Transport	11,763	136	11,891	3
Services	45,439	8,176	53,525	14
Other	70,746	1,031	71,778	19
All activities	367,926	22,052	389,978	100
Total population	867,597	838,629	1,706,226	
Labour Force Participation	42%	0.2%	23%	23%

Source: Department of Statistics, Some Economic Indicators Amman, December, (1968) p. 3.

1. For example, the census estimated the number of females working in agriculture as only 7,078. It is probable that actual figures were much higher.

Given that when Jordan was established as a separate independent political entity, its economy was considered to be one of the most backward in the Middle East, with limited mineral and natural resources and subsequently varying human resources, what industrial structure emerged once independence was established?

During the years 1954-1956 agriculture was the largest individual sector in the economy, although wholesale/retail trade, ownership and dwellings, public administration and other services combined accounted for over half of the GDP during this early period. On the other hand, as shown in Table 4, mining and manufacturing was only just over one tenth of the GDP.

Table 1.4 Industrial origin of gross domestic product, 1954/56 at factor cost, in JD million

	1954	1955	1956	Average	% Share
1 Agriculture and forestry	14.2	6.2	19.0	13.1	25.8
2 Mining, manufacturing and electricity	4.2	5.2	6.3	5.2	10.3
3 Construction	1.2	1.5	1.7	1.5	2.9
4 Transport	4.4	5.5	6.8	5.5	10.8
5 Trade and banking	9.3	9.3	10.5	9.7	19.2
6 Ownership and dwelling	2.3	2.3	2.9	2.5	5.0
7 Public administration and defence	9.1	9.7	11.5	10.1	20.0
8 Services	3.0	3.3	2.7	3.0	6.0
Total GDP	47.7	43.0	61.4	50.6	100.0

Source: R. S. Porter: Economic Trends in Jordan, 1954-1959, Middle East Development Division, Beirut, July (1961), p. 2.

This unusually oriented industrial structure, coupled with the aforementioned development constraints clearly limited the prospects for industrial growth and change. In fact, a visiting IBRD Mission remarked that despite the high rate of growth of 10 percent per annum during the 1952/1954 period a 4 percent annual increase would be very difficult to achieve even with a special effort.[1]

Despite this assessment, the following years showed a rate of growth of 10 percent per annum which has rarely been matched in the experience of either developing or developed countries. Furthermore, this high rate of growth was accompanied by an increase in real income. This is not easily quantifiable, as all published estimates of GDP have been produced on a current price basis. However, some indication of the direction of the price trend can be observed in Table 1.5 (on page 11), which reproduces the available published statistics for wholesale prices during this period.[2]

These trends, however, were interrupted by the June war of 1967 which imposed further difficulties on the Jordanian economy. The impact of

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1. IBRD: op. cit., (1957), p. 67.

2. See the following studies for a full discussion of this point:- United Nations, Industrial Development in the Arab countries, New York (1967), p. 83; National Planning Council: The Seven Year Program for Economic Development, p. 2; The Three Year Plan, p. 2.

Table 1.5 Indices of GDP and wholesale prices - 1954 = 100

	1954	1955	1956	1957	1958	1959	1960
GDP	100	91	127	131	149	162	170
Wholesale prices	100	114	108	106	113	116	126

	1961	1962	1963	1964	1965	1966
GDP	211	207	224	258	289	285
Wholesale prices	109	105	116	114	104	n.a.

Source: (1) See Appendices 1 and 2.
(2) Department of Statistics, Statistical Year Book, Amman, (1966).

this war is illustrated in Table 6 which compares certain key indicators in the last seven months of 1967 with the corresponding period of 1966. More important, however, is the fact that although the West Bank represented only 6 percent of Jordan's total territory, it had constituted some 25 percent of Jordan's cultivable land, including 80 percent of land planted with vegetables, 25 percent of the land planted with cereals and 35 percent of the live-stock. Therefore, the overall loss in terms of agricultural production was estimated to be over 30 percent of the GDP.[1] Further, the 1967 budget had to meet the cost of the war, and only a large inflow of Arab aid (JD 37 million annually) under the Khartoum Summit Conference Agreement, prevented an extremely difficult budgeting and balance of payments position from becoming critical. In this context many commentators argued after the war about the economic

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1. The Economist Intelligence Unit, Quarterly Economic Review (September 1967) p. 9.

Table 1.6 Impact of June 1967 war on the economy of Jordan (in JD million)

Sector		January - May			June - December		
		1966	1967	% Change	1966	1967	% Change
Domestic revenues	JD million	12.5	13.4	6.8	18.5	12.6	-32.0
Imports	"	26.1	29.0	11.0	42.1	26.4	-37.2
Income from tourism	"	4.5	5.0	12.3	6.8	1.6	-76.9
Remittances from abroad	"	3.2	3.8	20.3	7.4	2.7	-63.3
Cement	000 tons	140.0	137.0	-2.0	235.0	152.0	-35.3
Petroleum products	"	165.0	198.0	20.0	265.0	195.0	-26.4

Source: Central Bank of Jordan, Annual Report, Amman (1967).

viability of Jordan as an independent state if the loss of the West Bank became permanent.[1]

Another important consequence of the 1967 war was the emergence of the Palestinian Organization movements and their confrontation with the government in 1970. The resulting disturbances brought almost all economic activity to a sudden halt,[2] creating uncertainty and pessimistic business expectations. Exports and imports were further affected by the closure of the border with Syria during the second half of 1970 and the first half of 1971.

The economic performance of the East Bank after the 1967 war was, therefore, characterized by an immediate recession which continued until the end of 1968. This was followed by a period of recovery until the end of 1969, that was in turn followed by severe recession until signs of revival became apparent in 1972.

It is not surprising, therefore, that the GDP annual average rate of growth for the period 1967-1972 as a whole was only 4.2 percent, which when adjusted per capita for the influx of population and for the increase in prices which occurred for the first time in Jordan, was in fact a fall of 4 percent (see Table 7).

Table 1.7 GDP and cost of living indices, 1967-1972

	1967	1968	1969	1970	1971	1972
Cost of living	100	99.8	107.5	114.8	119.7	129.4
GDP	100	95.1	112.0	106.0	114.3	125.2

Source: (1) Central Bank of Jordan Monthly Bulletin, December 1972 (2). GDP based on National Account figures, Department of Statistics. See Appendix 2.

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1. The Economist Intelligince Unit, Quarterly Economic Review (Sept. 1967) p. 9.
2. Central Bank of Jordan, The Adverse Effect of Israeli Occupation of the West Bank on Jordan's economy, September, (1975) p. 14, (unpublished).

While political events were the main determinant of Jordan's economic performance during 1967-1972, fiscal and monetary expansion appears to be the most important factor that influenced growth and development during 1973-1975. These new developments can best be explained by the sharp increase in government expenditure and the consequent increase in money supply and prices which certainly absorbed all the increase in total GDP. Table 1.8 shows how these variables interacted on each other during the last period 1973-1975. Government expenditure which stood at an average of JD 81.30 million during the period 1967-1972, rose to an estimated JD 209.43 in 1975

Table 1.8 Government expenditure and money supply (in JD 000)

Year	Government expenditure	Money supply	Prices 1967=100	GDP
1967	68.15	83.50	100	177.11
1968	80.51	108.82	107	168.50
1969	88.50	118.83	115	198.30
1970	80.70	129.13	120	189.60
1971	83.14	135.71	129	202.60
1972	105.87	146.47	142	224.20
1973	119.52	176.07	148	239.31
1974	151.50	216.74	171	308.60
1975	209.43	277.74	192	239.31

Source: Central Bank of Jordan, Monthly Bulletins, December 1972, December 1975 and January 1978.

(or an annual average rate of increase of 21.6 percent). Consequently the average annual rate of growth of the money supply, broadly defined, accelerated from only 11.9 percent during 1967-1972 to over 25 percent during the period 1973-1975. This was directly reflected in prices which rose by 18.0 percent during the same period, compared with 7 percent during 1967-1972 and only 2 percent during the pre 1967 war period. Thus, the rate of decline in real income which began in the second period continued to accelerate after 1972.

The inflationary pressures of recent years, although not much higher than that experienced by other countries, made a big impact on the economy, following as they did a long period of relatively stable prices. This impact was intensified as prices of foodstuffs, between 1972 and 1976 rose by an annual average rate of 23% compared with the overall price increase of 18% (see Table 9).

Table 1.9 The Amman cost of living index, 1967-1976

Year	All items	Food	Housing	Clothing	Other	Percentage change
1967	100.0	100.0	100.0	100.0	100.0	--
1968	99.7	97.8	100.9	99.6	101.1	-0.3
1969	107.5	118.8	101.2	101.3	101.4	7.8
1970	114.8	128.1	107.3	107.2	108.5	6.7
1971	119.7	136.1	111.3	112.4	109.9	4.2
1972	129.4	151.2	120.3	119.5	112.3	8.1
1973	142.9	179.7	125.0	133.1	114.1	10.4
1974	171.5	242.3	135.0	150.4	120.7	20.1
1975	192.1	279.9	141.4	160.5	140.4	12.1
1976	220.9	341.4	151.4	172.9	153.1	15.0

Source: Central Bank of Jordan, Statistics Pertaining to some Aspects of the Jordanian Economy (October, 1974) and Central Bank of Jordan, Monthly Bulletin (January 1978).

These inflationary pressures may be regarded as both a cause and a consequence of Jordanian monetary expansion during this period, for when prices rise at a high rate, individuals tend to revise their cash holdings portfolio and substitute durable goods. There is clear evidence of this behaviour in Jordan between 1973 and 1976 when a tendency to build up stocks of inventories reflecting widespread speculation was witnessed. This created an excess demand for commodities and increased

credit and the money supply.

This condition of disequilibrium, both in the money market and in the commodity market, was accompanied by a new phenomenon - speculation in land. The peak of this form of speculation was reached in 1975 and 1976 when land prices increased rapidly and at a rate which far exceeded expectations.[1] The reason for this boom, however, dates back to 1971 when prices started to rise as a result of the large increase in government expenditure after the civil war of 1970. Further, the 1972 three years development plan gave priority to house building and by 1974 the Housing Bank was established. This, in addition to the increase in remittances of workers abroad which were mainly directed into this speculation. Economic and monetary consequences of this phenomenon are discussed in chapter 8.

Having outlined the main economic indicators during the period 1954-1975, and their underlying economic causes, attention must now be paid to the principal sectoral developments and how they were affected by Jordan's foreign trade movements during 1954-1975.

(a) Agriculture

While GDP increased at an annual rate of growth of 8% during 1952-1975, agriculture (including livestock) increased by only 3.1%. However, the agricultural sector, being dependent on rainfall, was subject to wide

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1. Figures for land prices are not readily available. Estimates for the increase during this period, however, range between 50% and 30%. Using the increase in flat rents as a proxy the rent of a 2 bedroomed flat increased from an average of JD 800 a year during 1973-1974 to at least JD 1800 in the summer of 1976. Bassam Asfour: Amman, Royal Scientific Society (March 1977) p. 16.

fluctuations in output which affected its GDP ratio.

For example, while agriculture constituted almost 30% of GDP in 1954 the harvest was particularly poor in the following year and the ratio dropped down to only 14%. In 1956, there was a bumper harvest and agriculture accounted for over 30% of GDP. The same cycle repeated itself in subsequent years. The general trend of this ratio, however, has been a declining one and as Table 10 shows, by 1975 the GDP/agriculture ratio declined to only 10.8%. This indicates, that Jordanian agriculture, unlike that of most other developing countries is no more the dominant sector of the economy. A fact which may be considered as an indicator of structural transformation during the course of development. However, the growth of this sector should be able to meet the growing domestic demand created by the overall increase in per capita income.

Jordanian agriculture has so far fallen short of satisfying domestic demand. This is shown in the continuous increase in imported agricultural and food products presented in figure 2. The graph shows clearly that it was only during the early sixties that the agricultural sector was able to meet domestic demand and food imports declined.

Despite the fact that this sector accounted for over 30% of the labour force and over 55% of the population, no identifiable agricultural policy in Jordan was brought to bear on the situation.

Although resource allocation within all economic sectors is essentially private enterprise oriented, government assistance nevertheless played a crucial role in the provision of an essential industrial infrastructure.

In the agricultural sector support and assistance is diffused

Table 1.10 Agriculture/GDP ratio in 1954-1976, value in JD million

Year	Value of agricultural output	GDP	Agriculture/GDP ratio
1954	14.20	47.70	29.7
1955	6.20	43.00	14.4
1956	19.00	61.40	30.9
1957	12.80	61.90	20.0
1958	12.90	69.10	18.6
1959	15.08	85.17	17.7
1960	14.62	89.44	16.4
1961	25.30	110.87	23.0
1962	20.90	108.62	19.3
1963	22.08	117.67	18.9
1964	34.14	135.52	25.3
1965	34.11	150.95	22.7
1966	27.65	149.74	18.5
1967	38.74	177.11	21.8
1968	27.53	168.49	16.4
1969	36.34	198.34	18.3
1970	28.66	189.56	15.16
1971	37.81	202.58	18.7
1972	42.45	224.16	18.5
1973	31.12	233.74	13.3
1974	54.48	308.60	17.7
1975	34.60	319.90	10.8
1976	33.45	331.95	10.1

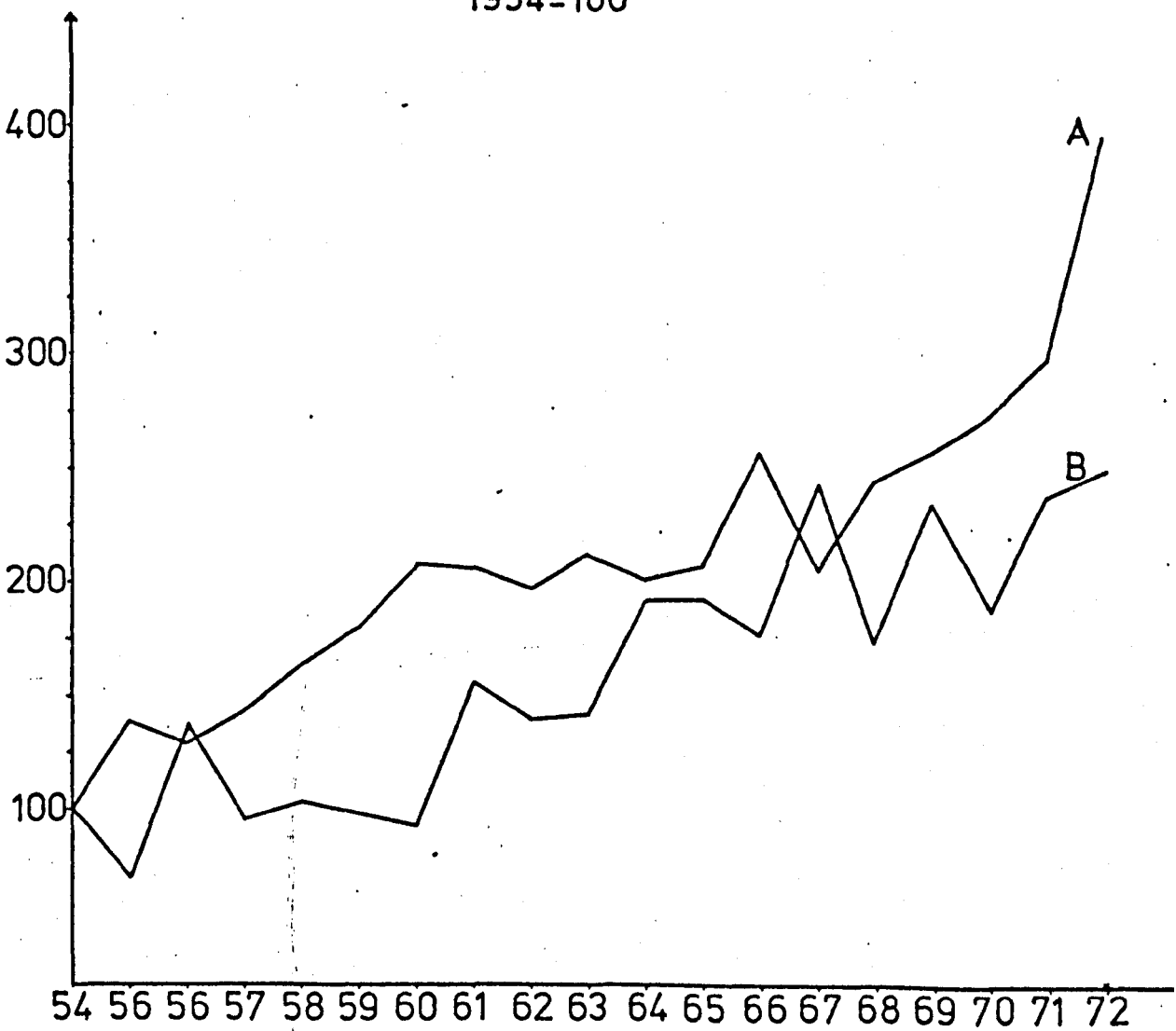
Source: See Central Bank of Jordan, Monthly Bulletin (January 1978) Tables 40-43. See also Appendices 1 and 2.

among several government agencies. In addition to the National Planning Council, which is responsible for overall national economic development including the agricultural sector, there is also the Ministry of

Fig.2

Indices of Agriculture GDP & Imports of Foodstuffs

1954=100



A-Imports of foodstuffs

B-Agriculture GDP

Source: Appendices 1, 2.

Agriculture which has its own budget and undertakes its own projects. This dual system of control has been extended to include several other agencies responsible for particular agriculture related projects, as for example, those administering irrigation, water resources and electricity.[1] However, lack of co-ordination between these various institutions has rendered government policy ineffective. In fact, it is argued here that, despite the attention given to this sector in successive development plans, there is still no clear agricultural policy for the country. This is reflected in the decreasing emphasis on the agricultural sector in successive development plans. As can be seen in Table 11, while agricultural investment accounted for 32.11% of total investment projected in the first Five Year Development Programme (1962-1967), the proportion allocated to this sector declined to 14.6% in the 1976-1981 Plan.

Table 1.11 The ratio of capital formation in agriculture to the overall planned investment in the various development plans in Jordan

Item	5 Year Program 1962-1971	7 Year Program 1964-1971	3 Year Plan 1973-1975	5 Year Plan 1976-1981
Public investment	43.08	41.53	23.16	23.5
Private investment	19.95	12.59	5.14	5.7
Total	32.11	27.15	15.45	14.6

Source: Computed from: (1) Jordan Development Board, The Five Year Program for Economic Development, n.d.; (2) Jordan Development Board, The Seven Year Program for Economic Development, n.d.; (3) National Planning Council, The Three Year Plan, n.d. & 5 Year Plan.

1. All agricultural area on both banks of the River Jordan is the responsibility of the Jordan River and Tributories Corporation. Further, the Jordan Electricity Authority is responsible for power problems related to the irrigation projects. More recently, in 1973, a new agricultural organization was created specially to undertake development in the Jordan valley.

In all agricultural development schemes, irrigation projects have accounted for a large proportion of the total investment. The East Ghor Canal Project in the Jordan valley can be singled out as the most important project.[1] The scheme diverted the Yarrmouk river into a 70 km canal running alongside the river Jordan and provided irrigation to over 120,000 donums.[2]

In addition, the National Resources Authority, established in the early sixties, tried to utilise flood water by building earth-filled dams across valleys, which though dry in summer are flooded during the rainy season. Table 12 shows some details about these dams.

Table 1.12 Dams constructed in Jordan

Dam	Capacity (m^3)
Kufrain	4.30
Shuieb	2.30
Ziglab	4.30
Sultani	1.25
Qutrani	4.20
Sama Sdud	1.70
King Tulal	52.00
Um Jimal	1.80
Total	71.85.

Source: Natural Resources Authority. Cited in M. Haddad: The Agricultural Sector of Jordan (July 1976) Table 12.

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1. This project is the first stage of an overall American project which is concerned with the development of water resources in the whole of the Jordan valley.

2. See M. Hadad: The Agricultural Sector of Jordan, Amman (July 1976), p. 12. See also Awwad, A. J.: Agricultural Production and Income in the East Ghor Project, Amman, UASAD/Jordan (1967), p. 36.

Despite the amount of investment in irrigation, over 84.5% of the cultivated land in Jordan remains solely dependent on rainfall As rainfall varies greatly from one year to another, arable land area also varies so that the amount of land available for agriculture is unpredictable from one year to another.[1] However, over and above the fluctuation of agricultural produce due to the unreliable water resources, the rapid increase in population and urbanization has resulted in a net decrease per person in the cultivated land area (see Table 13).

Table 1.13 Cultivated area (per capita)

	1954-1956	1964-1966	1971-1972
Cultivated area (donum per capita)	4.2	2.9	2.2

Source: M. Hadad: The Agricultural Sector of Jordan, Amman (July 1976).

In addition to the decrease of land utilisation, the agricultural sector has been continuously hampered by the low productivity of both land and labour. This can be attributed to soil deterioration and the lack of capital expenditure on fertilisers and machinery.[2] Early in 1972 the total consumption of fertiliser per hectare was on average about 9 kgs, compared with 208 kgs in the U.K., 343 kgs in West Germany and 575 kgs in the Netherlands.

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1. According to the Annual Report of the Ministry of Agriculture for the year 1964/65, the total agricultural land is about 2.5 million (Ministry of Agriculture Annual Report, Amman, 1965, p. 9). The agricultural sample survey for 1966 gives the figure of 1.75 million acres (see the Department of Statistics Report on the results of the agricultural sample survey, 1966, in arabic, p. 36).

2. National Planning Council, Three Year Development Plan, n.d., p. 61.

As far as machinery is concerned, although there was a considerable increase in the use of tractors during the period 1954-1975 the amount of cultivated land per tractor was very high, especially when compared with the advanced countries.[1]

Apart from the lack of technical knowledge concerning the use of fertilisers and of modern technology, lack of financial resources can be considered to be the most important factor impeding Jordan's utilisation of modern techniques. Further, the organisation of the land into small and scattered holdings makes the application of modern methods rather uneconomical for the individual farmers.

Thus, with the exception of a number of irrigation projects financed and promoted by the government, no clear agricultural policy has been pursued and Jordan continues to import an increasing proportion of its food requirements. Had more emphasis been given to this sector, most of the limitations which face the agricultural sector could have been overcome and Jordan would not only become agriculturally self-supporting but also gaining from the export of agricultural surplus.[2] Not all agricultural areas in Jordan are under cultivation; for example, only a small part of the most fertile land in Jordan (the Jordan Valley) is, at present utilised. The Jordan Valley and the Dead Sea area are part of the same

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1. The number of tractors in Jordan increased from only 305 in 1954 to over 2923 in 1975 (see Statistical Year Book, 1975). However, cultivated land per tractor is about 135 hectares compared with 11 hectares for the U.K. and 15 for the U.S.A. See M. Hadad: op. cit., p. 55.

2. For more detailed discussion regarding agricultural policy in Jordan see Jered E. Hazelton: A Wheat Policy for Jordan, Royal Scientific Society, Amman, (1973), pp. 50-51.

geological structure which straddles Western Asia and Africa. The importance of this area lies in the fact that on average it is between 250-300 metres below sea level, which gives it a sub-tropical climate in a region which is temperate and arid. The Valley itself is free from frost and is protected from winds by the hills bordering it. Thus, with proper planning and the building of an irrigation system, it could become a rich source of vegetables and fruit; not only for Jordan but also for surrounding countries. The government has made a start in this direction by building irrigation systems and providing agricultural extension services.[1]

(b) Industry

While the importance of the agricultural sector underwent a dramatic decline during the period 1954-1975, the industrial sector enjoyed the largest relative expansion in the economy. Gross Domestic Product increased at a rate of 8% per annum and the value added in manufacturing and mining increased by an annual average rate of 13.5%, so that by 1974 it had increased to ten times its 1954 level. This was reflected in the contribution of this sector to the GDP which almost doubled during the period under consideration, as Table 14 demonstrates.

The explanation for this unprecedented industrial development arises from Jordan's relatively small resource base. When the country was established, neither the East Bank nor the West Bank had a developed manufacturing industry. Both Banks were considered as agricultural

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1. Of these the most important projects are (a) The East Ghor Canal project, completed in 1966. The project provides an irrigation and drainage systems for a total area of 120,000 donums. (b) The two earth-filled dams completed in 1968 on the side wadis of Shuieb and Kafrain, providing irrigation systems for a total area of over 13,000 donums. See, Oddvar Aresvik: The Agricultural Development of Jordan, Praeger, New York, (1976) p. 117.

Table 1.14 Value added in manufacturing industry, 1954-1976 (in JD 000)

Year	Value added in industry	GDP	Industry/GDP
1954	4.2	47.7	8.8
1955	5.2	43.0	12.1
1956	6.3	61.4	10.4
1957	6.8	61.9	10.9
1958	7.6	69.1	10.9
1959	6.8	82.2	7.5
1960	6.8	89.4	7.5
1961	8.8	110.8	7.9
1962	8.1	108.6	7.4
1963	18.6	117.7	15.9
1964	12.5	135.5	9.2
1965	16.2	150.9	10.7
1966	17.2	149.7	9.7
1967	17.5	177.1	9.8
1968	20.1	168.5	11.9
1969	23.1	198.3	11.6
1970	19.8	189.5	7.8
1971	20.5	202.6	10.1
1972	25.2	224.2	11.3
1973	28.6	239.3	11.9
1974	49.1	308.6	15.9
1975*	48.8	269.5	18.0
1976*	61.0	331.95	18.3

* Figures for the East Bank only.

Source: Appendices 1 and 2. Dept. of Statistics, National Account Statistics and Central Bank of Jordan, Monthly Bulletin (January 1978) Tables 40-43.

centres, while the remaining part of Palestine was the centre for trade and industry. Thus, the economies of Palestine and Jordan were closely linked through interdependent trade, Jordan exporting its excess

agricultural produce to Palestine in return for imported manufactured goods. Furthermore, Palestine was not merely a source of manufactured goods, but by providing free access to its port of Haifa provided Jordan with a crucial sea link with the rest of the world. This free access had been guaranteed since the 1928 trade agreement with Palestine, there being neither import duties nor custom barriers between the two countries.[1] The existence of this important transportation facility and the free trade area itself reinforced the tendency for Jordan to specialise in agriculture and thereby minimised the importance of expanding the industrial sector.

Thus, the 1948 war and the loss of Palestine, deprived Jordan (East and West Bank) of its traditional source of manufactured godds. Two important consequences followed from this. First, transport became a new constraint on economic development and on the trade flow of commodities, and secondly, the establishment and expansion of a manufacturing capability that might otherwise have been met by Palestine became imperative. Moreover, this expansion was made easier by the influx of Palestinians, who brought with them both the capital and skills[2] that Jordan lacked. The immigrant entrepreneurs, encouraged by the high cost of imports, enabled the new situation to be exploited and industry to expand. At the same time, the domestic market was expanding not only because of the influx of 350,000 refugees from Palestine but also from the addition of the 460,000 West Bank inhabitants, which together more than trebled the

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1. International Bank for Reconstruction and Development: op. cit., (1957) p. 2.

2. The IBRD mission estimated that approximately 10 million Palestinian lira which was redeemed for Jordanian currency, represents the amount that was brought with the Palestinian refugees. Ibid., p. 46.

population of Jordan. This fact, together with the increase in per capita income, stimulated domestic demand for consumer goods which could only be met by imports as the domestic supply was inadequate.

The continuous increase in imported consumer goods has played, however, a creative role in the expansion of Jordan's industry. These imports increased in value from about JD 5 million in 1950-1951 to about JD 13 million in 1958.[1] This trend demonstrated that markets existed for such commodities and provided numerous opportunities for setting up import substitution industries.

Since these commodities were essential and therefore had to be either imported or domestically produced, and as Jordan suffered from a chronic trade deficit which limited its capacity to import, there was then a prima facie case for industrial protection to encourage import substitution. In the event the government provided protection and also participated in shareholding.

Government promotion of industrial development, which began in the mid 1950s, has sponsored the establishment of modern manufacturing projects. The most notable of these are petroleum refining, cement, leather tanning, pharmaceuticals and clothing. These industries were established and aided by the government on the basis of feasibility studies and contributions of capital.[2] Furthermore, the Encouragement and Guidance of Industry law no. 27, 1955 and the subsequent amendment to it provided financial incentives to industrial establishments by

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1. Department of Statistics: Foreign Trade in the Jordanian Economy, 1950-1966, Amman, (1967), Table 6.

2. Ministry of Trade and Industry Law of Encouragement and Guidance of Industry, Amman, Law no. 27 (1955).

exempting their imported machinery from import duties and additionally providing these industries with a crucial domestic monopoly.[1] Different types of protection were extended to industry. Petroleum refining, cement and tanning being given full protection from imports and the establishment of competing firms being prohibited. Other industries, such as clothing enjoyed the protection provided by the high import tariffs.

So far industrial development has been considered within the framework of domestic demand. Inevitably, however, industrial development has also made an impression on the role and structure of exports and imports, which in turn added a new stimulus to industrial development.

In the early stages of Jordan's economic life exports primarily consisted of agricultural products with industrial goods playing a relatively small role. In fact, olive oil was the only manufactured product to be exported in substantial amounts. Even the export of phosphate, which now constitutes the most important single item of total exported products, was at that time insignificant. On average, mining and industrial products constituted only 20% of total exports during the period 1951-1954. This contribution, however, increased to over 50% in the early sixties and almost reached 60% during 1967-1972 and 71% during 1973-1975, as Table 15 demonstrates.

With the exception of phsophates, all exports of industrial produce were directed to neighbouring Arab countries. The origin of this particular export market orientation can be understood from the fact that the period which saw the beginnings of the development of

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1. M. Mazur: 'Economic Development of Jordan' in Economic Development and Population Growth in the Middle East, Charles Cooper and S. Alexander (eds), Elsevier (1972), p. 27.

Table 1.15 Jordanian exports, 1954-1975 (in JD million)

Yearly Averages	Agricultural Products	Industrial Products				Total Exports
		Food	Phosphate	Other	Total	
1951-1954	1.38	0.45	0.04	-	0.49	1.87
1958-1960	1.70	0.21	1.10	0.23	1.54	3.24
1961-1966	3.09	0.41	2.18	0.68	3.28	6.37
1967-1972	4.45	0.61	3.20	2.54	6.35	10.80
1973-1975	8.14	-	14.38	7.82	22.20	31.17

Source: (1) Dept. of Statistics, Foreign Trade in the Jordanian Economy (1967). (2) For 1967-1972, Dept. of Statistics unpublished data. (3) For 1973-1975, Central Bank of Jordan, Monthly Bulletin (January 1978).

industrialisation in Jordan was also a period of transformation for a number of its neighbouring economies. The rapid growth of the oil industry in Iraq, Kuwait and Saudi Arabia led to a general and sharp rise in the level of income and consequently generated an increased demand for consumer goods. Eventually the increasing demand from these markets absorbed not only the products of export oriented industries, cigarettes, plastic and batteries, but also the products of some of the import substitution industries. Cement, for example, which was originally a major import substitution industry has been exported to Saudi Arabia and Iraq. In addition to its impact on the balance of payments, the long range impact of this new foreign demand was reflected in the capacity of production which has shown a continuous increase.[1] It should be noted, however, that this expansion in the export of manufactured

1. Production capacity for the cement industry increased from 200 tons per day in the 1950s to 1700 tons per day in 1968. See, The Arab Economist, Monthly Survey of Arab Economies, Beirut, Lebanon, no. 57, October 1973, p. 34.

goods, although high, was limited when compared with the huge increase in demand in the oil producing countries.

In contrast to manufactured goods, phosphates, the best known and most widely used of Jordan's mineral resources, are entirely directed to the non-Arab world (with the exception of a small amount exported to Lebanon), mainly to the Far East and Europe. Due to the importance of phosphate production to the Jordanian economy and strong competition from other countries on the international market, e.g. Morocco, the government played a particularly prominent role in the promotion of its exports and production. One example of this was the conclusion of bilateral trade agreements with India and Yugoslavia. It was also the government which carried through the plans for the expansion of production capacity and the improvement of quality, to meet the specifications required by the importing countries. In 1966 the government merged the two phosphate companies - Russifa and El Hassa - into one company, to be solely responsible for all mining and marketing of the product. This larger firm enabled production to increase and industrial costs to fall.[1] Stiff competition from Morocco and the U.S. in the fifties and the sixties stimulated the government to take further measures to reduce transport costs, the main problem of the Jordanian phosphate industry. Consequently, the construction of a new railway connecting the mining region in Allhusa with the port of Aqaba was started in 1973. This increased the haulage capacity and decreased the cost of inland transportation.[2]

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1. Jordan National Planning Council: The Three Year Development Plan, 1973-1975, Amman, n.d., p. 106.

2. Ibid., p. 160.

As a result of these factors, the period prior to 1966 saw a vigorous growth of industry. Phosphate production increased nearly five fold between 1956 and 1966 and cement showed only a slightly smaller expansion over the same period. The petroleum refinery which started production in 1960 had doubled its output by 1966. Further, vegetable and alcoholic beverages have also shown a rapid growth in production. Electricity production grew rapidly in order to meet the increased power demands and plans were prepared for the creation of a national grid system.

These favourable trends suffered severe disruption at the outbreak of the war with Israel in 1967. The disruption was not simply evident in the loss of the West Bank, which in itself made the 1967 war a catastrophic economic event for Jordan, but also in the loss of the market which the West Bank had constituted for East Bank industries.[1] Thus, the events of 1967 particularly affected those industries which were geared to the home market. Additionally, due to the closure of the Suez Canal, phosphate exports declined sharply causing another difficulty to Jordan's export industries. Output of the principal industries did not regain their 1966 level until late 1968 and early 1969. A post-war construction boom closely related to revitalised industrial production was further stimulated, especially in the Amman area, by the large influx of refugees from the West Bank, about half of whom

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1. The loss of the West Bank markets contributed to a sharp decline in production of 50% upper leather, 47% sole leather, 35% in cement and 26% in petroleum refining. See, Central Bank of Jordan, The effect of Israeli Occupation of the West Bank (September, 1975), p. 17.

settled there.[1] As a consequence, cement production in 1968 recovered to its 1966 level, and by 1969 had increased by over 20%.[2]

The rising trend was maintained until September 1970, when clashes between the government forces and the Palestinian movements broke out. Most of the industrial enterprises suffered direct physical damage, in consequence of which production of the principal industries declined considerably compared with 1969. Nevertheless, as Table 16 indicates the upward trend of industrial production before 1966 was re-established during 1972-1976, so that by 1976 the index for industrial production stood at 219.3 compared with 100 in 1966 and 96 in 1970. This notable performance was mainly due to the phosphate industry which during this period recorded the highest expansion, and also to the expansion of production in most of the essential products such as cigarettes, iron and petrol products. This expansion was a result of the increase in capacity utilisation in manufacturing.[3]

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1. During 1968 the number of building permits issued by the Amman municipality increased by 66% compared with 1967 (Central Bank of Jordan, Annual Report, 1968, Amman, p. 10).

2. The unexpectedly rapid recovery of Jordanian industry was a source of surprise even to the Jordanian economists, as can be seen in an extract from the Central Bank Report for the first quarter of 1969: 'The overall quarterly level of industrial production recorded a remarkable 27% increase when compared with the corresponding quarter 1968. Most of the industrial institutions have contributed in this impressive stride that brought industrial production fairly close to normal pre-war growth'. (Central Bank of Jordan, Quarterly Bulletin,(November 1969), p. 20.)

3. Capacity utilisation in Jordanian manufacturing industry increased remarkably during 1970-1975 as shown in the table below:

	Capacity utilisation
1970	70%
1971	78%
1973	88%
1974	90%
1975	95%
1976	n.a.

Source: IBRD, Review of the Five Year Plan (1976-1980), (unpublished), Washington DC (1976), Table 8.

Table 1.16 Industrial Production Index

Year	Index of principal industries
1966	100.0
1967	91.0
1968	92.2
1969	111.0
1970	96.0
1971	113.0
1972	139.1
1973	152.9
1974	163.0
1975	175.0
1976	219.3

Source: Central Bank of Jordan Monthly Bulletin (January, 1970) and (January 1978).

Despite the achievements of the Jordanian manufacturing and mining industries, the economy is still beset by problems which are familiar in most developing countries, particularly the fact that the typical industrial firm operates on a small scale and usually within a consumer industry.[1] The implication of this has been reflected in the high cost of production, the lack of inter-industry linkages and the high dependency on imported raw materials. With the exception of cement and phosphates the majority of the other industrial establishments rely almost exclusively on imported raw materials. As Table 17 indicates, 60% of the imported raw materials during 1961-1968 were consumed by manufacturing industry. One of the consequences of the high correlation between the two variables

1. Out of a total of 6,580 industrial establishments in the East Bank in 1975, only 8.8% employed five or more people. Jordan Development Council, The Five Year Development Plan, 1976-1980 (1976), p. 170.

Table 1.17 Imports of raw materials, 1961-1968 (in JD million)

Year	Total imported raw materials	Raw materials used by industry	Total value of output (industry)
1961	9.9	5.7	20.9
1963	14.9	9.0	25.7
1964	14.7	9.5	28.5
1965	17.7	10.5	34.9
1966	20.3	12.2	38.4
1967	20.0	11.5	36.1
1968	23.3	13.7	40.3

Source: Department of Statistics: Flow of Goods in the Jordanian Economy, Amman (April, 1970), Table II, p. 17.

($r = 0.97$) is that linkages between the manufacturing sector and other sectors are weak, so that heavy industrial investment can only result in a substantial increase in imports.

It is clear therefore, that despite the rapid expansion in manufacturing and mining, the services bias has remained essentially the same. This is seen in the continuously large share of the service sector in GDP. Table 18 shows that, although there has been an increase in the share of the industrial sector and a corresponding

Table 1.18 Percentage contribution in the Gross Domestic Product during 1954-1975

Year	Agriculture	Industry	Services
1954-1956	26.6	11.4	62.0
1957-1960	19.6	12.6	67.8
1961-1966	21.2	15.3	63.5
1967-1972	18.1	17.2	64.7
1973-1975	12.0	24.0	64.0

Source: Computed from Tables 1 and 2 in the Appendix.

decrease in the agricultural sector the contribution of services remained constant over the whole period of 1954-1975.

Given that Jordan is a small developing country with a relatively low per capita income, this predominant role of the service sector in the economy is rather unusual.[1]

When Jordan's industrial structure is compared with that of other developing countries, it appears to have the largest services sector. The United Nations survey of the growth in tangible producing sectors of selected developing countries ranked Jordan the lowest among the 34 countries discussed in the survey. Only the Lebanon and Israel had a similar proportionate share.[2]

While lack of natural resources may offer a reasonable explanation for the emergence of this services oriented structure, the development of Jordanian foreign trade provides the explanation for the continuously dominant role played by this sector. Further, it could be argued that this services orientation has, in turn, had the result of determining the pattern and magnitude of Jordan's international trade.

As will be demonstrated in chapter three, basic commodities constitute a high proportion of consumption expenditure in Jordan relative to the expenditure patterns of higher income countries, where luxuries account for a steadily higher share, in accordance with the level of per capita income. As per capita income increases the demand for basic, as

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1. M. P. Mazur, estimated a ratio of 42% for the share of the service sector in a less developed country, similar to Jordan. See, Mazur: op cit., (1972), p. 278.

2. UN, World Economic Survey 1968-70, Part II: The Developing Countries in the 1960s, New York, (1970), p. 18.

well as durable consumer goods, also increases. Given that the demand was increasing at a rate beyond that which could be met by domestic production, the inevitable result is an increase in imports. On the other hand, the continuous inflow of aid allows these imports to increase above the level they might have achieved otherwise. This has led in practice to an expansion of the tertiary activities in order to absorb this relatively large inflow of goods.

The impact of foreign aid on the expansion of the services sector was further magnified by the fact that this aid has been financing current government expenditure. Thus, it has allowed the government sector to expand above the level it would have reached, and thereby increase the share of the service sector in the economy. Therefore, the expected result would be an increase in money income and a consequent rise in the level of demand for imports, creating a further expansion in the services sector.

While the large inflow of imports financed by foreign aid seems to indicate one possible cause of concentration in the services sector, one should not ignore the fact that there was a positive invisible trade balance which contributed to the expansion of the services sector. The role of the invisible export surplus in the balance of payments will be discussed in chapter four, but it is mentioned here to emphasise its rôle in shaping the services orientation of the economy.

The growth of earnings from tourism and remittances from Jordanians working abroad was the cause of the increasing export surplus of invisibles. As can be seen in Table 19, between 1954 and 1967 net invisible exports not only increased six fold but their ratio to GDP nearly trebled, from an average of about 5% in 1954 to 14.3% in 1963. However, the services

surplus was eliminated during the 1967 war and showed a deficit for the following two years. By 1970, a surplus was again in evidence and since then, the trend has been one of the continuing growth so that by 1975 its contribution to GDP had reached 20.6%. This particular export surplus indicates another cause for the predominance of the service activities in the economy.

Table 1.19 Exports and imports of services during 1954-1976 (in JD million)

Year	Exports	Imports	Balance	Net balance to GDP - %
1954	4.51	1.85	2.66	5.0
1961	15.28	5.15	10.13	9.1
1962	17.97	7.24	10.73	9.8
1963	18.61	7.72	10.89	9.2
1964	23.90	7.70	16.20	11.9
1965	27.30	8.30	21.00	14.3
1966	31.20	9.80	21.40	14.1
1967	25.50	10.33	15.17	8.5
1968	22.90	24.30	-1.40	0.1
1969	31.30	42.10	-6.20	5.4
1970	31.30	25.10	5.50	2.7
1971	25.70	20.20	6.80	3.1
1972	30.00	23.20	6.80	3.1
1973	57.84	29.82	22.85	9.5
1974	64.61	42.48	22.13	7.2
1975	136.96	71.23	65.73	20.6
1976	163.63	92.81	70.82	21.3

Source: Appendix 3 and Central Bank of Jordan, Monthly Bulletin, Amman (January 1978).

To return to the central theme of the predominance of the services sector in the economy, this feature is reflected in both its share of national income and in total employment. In 1961, as mentioned earlier, over 55% of Jordan's labour force was employed in services,a ratio that had increased even further to 63% by 1975. An important question now remains, namely, has this bias been harmful to the long term economic development of an under-developed economy such as Jordan's?

The contention that, in general, manufacturing is preferable to services, or vice-versa, is a crude oversimplification as it ignores any special circumstances of the economy involved and the composition of services or manufacturing sectors.[1] In Jordan, the major components of the service sector are government activities (including the army), and the trade and finance sectors. As manufacturing industry and agricultural are in private hands, the government sector only produces non-tangibles: according to one estimate by the National Planning Council the government sector alone employs over 45% of the total employed labour force (73% of employment in the services sector). The second largest employer in the services sector is the trade sector, which in 1975 absorbed over 10% of the labour force employed in tertiary activities (see Table 20). Given this composition of the services sector in Jordan, it now becomes clear, at least in general terms, why it is not economically beneficial for the Jordanian economy to have such a large services sector.

Conventional wisdom assumes that an increase in services employment adds further pressure to the balance of payments and the production

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1. For discussion on this point, see R. Bacon and W. Eltis: 'How We Went Wrong,' The Sunday Times, (November 2, 1975), p. 16.

Table 1.20 Employment in the services industries in 1975

	Number	Ratio
Electricity and water	8,000	3.4
Construction	2,000	0.8
Trade	25,000	10.7
Transport	14,000	6.0
Finance	3,000	1.2
Government	171,000	73.7
Others	9,000	-3.8
Total	232,000	100.0

Source: M. Sowan et al.: The population and manpower and development in Jordan, unpublished report prepared for the National Planning Council, Amman (April 1977), Table 6.

sector, unless these services are net foreign exchange earners, due to the fact that the service sector like the manufacturing and agricultural sectors generates incomes, but unlike them, in the case of Jordan, does not directly generate export earnings. Therefore, expansion of the services sector increases both the demand for imported goods and demand for domestically produced goods which might otherwise be exported. In either case, such an expansion puts pressure on the balance of payments in Jordan; both manufacturing and agricultural industries are not well developed and thus their respective supply elasticities are low. Thus, in general terms, a large services sector has a built-in bias in favour of high imports and low exports.

How this came about in Jordan is not difficult to understand. Since the early years of independence the government found it necessary, for political reasons, to employ labour within government services including the army. Since there is no manufacturing industry in the public sector, government employment necessarily means employment in the services sector.

This expansion of the government sector of course was made economically possible by the large inflow of foreign aid which the government regarded as part of its revenues. This foreign aid has performed two functions: a) it enabled the government to finance its budget deficit, and b) it enabled the Jordanian economy to run a large balance of payments deficit. The relationships between aid, government expenditure and the balance of payments has been described earlier in this chapter as an important factor in the origin of the services sector. In recent years earnings repatriated by Jordanians working abroad were another important source of finance.

The argument against a large services sector in Jordan can be put in a slightly different way which is similar to the one used by Bacon and Eltis in their discussion of the British economy. Obviously the British economy differs from the Jordanian economy, but the argument used by them can as well be applied to the Jordanian economy. Bacon and Eltis[1] distinguish between 'marketed output' and 'non-marketed output'. The first is defined to include all manufacturing and services that are sold. Conversely in the case of non-marketed services their main argument is that 'The marketed output of industry and services taken together must supply the total private consumption, investment and exports needs of the whole nation'.[1] Thus, it is not important whether the economy is services oriented or manufacturing oriented, what is important is that the output should be marketed. As long as services can be sold and enable the economy to satisfy its need there is no harmful effect on economic growth.

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1. Bacon and Eltis, op. cit., p. 16.

Since independence, Jordan has been faced with a large trade deficit, resulting mainly from the continuous reduction of the country's labour force producing 'marketed output' in the agricultural and manufacturing industries. Even when the 'marketed services' in the form of the favourable invisible trade balance is taken into consideration, the argument still remains that the services orientation of the economy is harmful for economic development. First, although invisible earnings have been growing in recent years, they have never been sufficient to pay for the trade deficit so that the large volume of imports has been largely financed by foreign aid. Secondly, invisible earnings are not predictable because they consist mainly of remittances from Jordanians working abroad and net income from tourism, both vulnerable to changes in political and economic circumstances. Remittances have been shown to depend on income in the oil-producing countries and the general political situation in the area. This dependence became clear during the 1967 war and the civil disturbances of 1970, when remittances fell to their lowest level, and in 1973-1976 when they showed a large increase as a result of the rise in income of the oil-producing, and largely 'host' countries. Furthermore, assessment of the migration costs to the economic development of Jordan should not only include the opportunity cost resulting from the migration of the labour force, but also the lack of any guarantee that this source of income is going to continue in the future.

Similar arguments can be made about income from tourism. Chapter four will show how the role of tourist income in the economic development of Jordan has been over-estimated. Two additional points need to be mentioned here; first, that tourist expenditure in Jordan has a high import content and secondly, that tourist income is by nature, highly

volatile and particularly sensitive to political disturbances that have been endemic in the post 1948 period, in the Middle East in general and in Jordan in particular.

One further consideration regarding services orientation of the type developed in Jordan may be made in relation to Kaldor's[1] analysis of the U.K., where he argues that 'It is the rate of growth of manufacturing production which is likely to exert a dominating influence on the overall rate of economic growth'. Here the leading rôle of the manufacturing sector was due to the fact that the rate of labour productivity is one of the main determinants of the rate of growth in the long run. Since labour productivity in the manufacturing sector is higher than in the service sector, manufacturing is preferable from the long term economic development point of view. Further, increases in the manufacturing sector spill over into other economic sectors. In addition, Kaldor found that slow-growing countries tend to have largershares of their labour force employed in the tertiary sector than in the fast growing ones.[2] This may be explained by the low productivity in the services sector compared with manufacturing and its little secondary impact on other economic sectors.[3]

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1. N. Kaldor: Causes of the Slow Rate of Economic Growth of the U.K.. Cambridge University Press, 1966, p. 18.

2. Ibid., p. 18.

3. Ibid., p. 20.

Accordingly, in the long run, the rate of growth of per capita income in an economy depends on the rate of growth in labour productivity. Consequently from the point of view of growth potential, the larger the manufacturing sector, the higher the potential for increasing per capita income tends to be. This is important for Jordan because as the government is the largest employer in the country, the possibilities for increasing productivity are low.

Summary

Since the creation of Jordan in 1946, its economic development has been inhibited by political events. The 1948 war brought massive dislocation to the economic and social life of Jordan, as well as some unexpected benefits - the skill and capital made available by the inflow of refugees for example. Nineteen years later the economy was further disrupted by the 1967 war with Israel, and the subsequent confrontation with the Palestinian Liberation movements. Despite this, from 1954 onwards the economy achieved a high rate of growth which was maintained until the decline after the 1967 war. Throughout this period a transformation of the economy occurred, as the share of the agricultural sector in the GDP progressively declined and that of the manufacturing sector increased. Structural transformation is usually a sine qua non of development, with the share of the manufacturing sector growing faster than the other sectors in the economy. This chapter has shown clearly that structural change in this form has indeed occurred, but the share of the tertiary sector in GDP has maintained its high level throughout the period 1954-1976. Further, the high share of GDP is concentrated in services of the non-marketable type; chiefly in the government services including the army.

The sustained predominance of the services sector has been complimented by the pattern and structure of Jordan's international trade, which has concentrated on a high level of imports to satisfy demand generated in the services sector. The industrial structure thereby created has given rise to problems for the economy which have manifested themselves in a chronic trade deficit, coupled with a continued dependence on foreign aid to maintain the level of income and expenditure.

Having established the relationship between foreign trade and the industrial structure of the country, a detailed evaluation of the various aspects of foreign trade and its rôle in the economic development in Jordan, is necessary. For this purpose this study concentrates on two themes: the export and import of goods and services (chapter two to five); and the evaluation of Jordan's foreign reserve and monetary policies (chapters six and seven).

In chapter two, an examination will be made of the problem of exports, and how their small size and high level of concentration have prevented this sector from playing a leading role in Jordan's economic development. Economic development is further constrained by the high level of imports which is largely financed by aid and is biassed towards consumption rather than investment (chapter three). This will be followed by an analysis of invisible earnings, and their impact on the expansion of the services orientation of the economy will be emphasised (Chapter 4). Special attention will be given to remittances of Jordanians working abroad and to the question of the impact of labour migration in chapter five.

The discussion of the above-mentioned first theme will involve an outline of the salient characteristics of Jordan's trade problem, and

its bias towards imports. This will necessitate an analysis of the second theme, which relates to foreign reserves and monetary policies. In chapter six an attempt will be made to show how and why Jordan maintains a high level of foreign reserves. In addition, an estimate is made in this chapter of the economic and financial cost of holding excessive reserves. The money supply, and its relation to Jordan's trade problem is examined in chapter seven.

CHAPTER TWO: WHY VISIBLE EXPORTS HAVE BEEN OF LIMITED SIGNIFICANCE FOR THE DEVELOPMENT OF THE ECONOMY

Jordan shares a common characteristic with many other 'small' economies namely a high ratio of trade to GNP. However, a close examination of its trade accounts reveals that it is quite an atypical country both in the level of importance of trade and in the trade structure usually belonging to such economies. These features will now be given separate consideration, in the following sequence:

(a) The relative importance of trade for the Jordanian economy;

(b) The high visible export concentration problem;

(c) The export instability problem and its economic importance;

(d) The limited secondary impact of exports;

(e) Development plans and the role of exports; and

(f) The importance of phosphates.

(a) The relative importance of trade for the Jordanian economy

Over the period 1954-1975 the ratio of trade (as measured by exports plus imports of goods and services) to GDP averaged 90% (see Table 2.1). Within this figure a substantial proportion, 58%, is accounted for by visible trade. Invisible trade accounted for over 38.5% of total trade during this period, and reflects the growing importance to the Jordanian economy of tourism and remittances from Jordanians working aborad. These two factors have between them created an invisible surplus that is unique for a developing country, equivalent to 11.5% of GDP. (The significance of this invisible surplus will be dealt with fully in chapters four and five). A study of data for 62 other countries revealed only one similar high ratio.[1]

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1. U.N., United Nations Conference on Trade and Development, Contribution of Invisibles to the Foreign Exchange, paper prepared by the IBRD. TD/B/C Geneva, (January 1967), p. 10.

Table 2.1: Percentage of foreign trade to GDP, 1954-1975

	1954/60	1961/66	1967/72	1973/75	1954/75
Exports of goods	5.8	6.1	6.8	13.5	9.8
Exports of invisibles	10.2	17.5	14.8	29.9	22.0
Total exports	16.0	23.6	21.6	43.4	31.8
Imports of goods	43.3	40.4	36.3	57.2	48.5
Imports of invisibles	5.0	6.0	1.2	16.4	10.5
Total imports	38.3	46.4	37.8	73.7	59.0
Trade deficit	32.0	21.9	26.0	30.3	27.2
Total trade	64.3	70.0	59.1	117.1	90.8
Invisible trade	15.2	23.5	16.0	46.4	32.5
Commodity trade	49.1	46.5	43.1	70.7	58.3

Source: Based on Tables 1, 2 and 3 in the Appendix.

Visible imports however, remain Jordan's most important sector and play the dominant role in determining the pattern of the country's international trade. Table 2.2 compares commodity trade ratios in Jordan ($\frac{X + M}{GDP}$, $\frac{X}{GDP}$, $\frac{M}{GDP}$, $\frac{X - M}{GDP}$) with other developed and developing countries during the period 1954-1970. The table clearly reveals that in the context of under-development, no general relationship between trade and the stage of development can be established. There are both rich countries with low trade ratios (U.S.A.) and rich countries with high trade ratios (Switzerland and U.K.). On the other hand, there are poor countries with low foreign trade ratios (India, Pakistan) and those with high foreign trade ratios (Cyprus, Israel, Jordan). Nevertheless, as Table 2.2 reveals, it is clearly the case that the smaller the country, the more important the foreign trade sector is to its economy, as Kindleberger points out in Trade and the National Economy. Jordan is no exception to this rule. What is exceptional in Jordan's case, however, is the unique

Table 2.2: Trade ratio for various countries

Country	1954				1966				1970			
	Exports	Imports	Total	Trade Balance	Exports	Imports	Total	Trade Balance	Exports	Imports	Total	Trade Balance
Switzerland	21.0	23.0	45.0	-1.0	22.0	26.7	48.7	-4.7	25.0	52.2	75.2	-7.2
U.S.A.	4.2	3.1	6.3	+1.1	4.1	3.1	7.2	+1.0	4.5	4.4	8.9	+0.1
U.K.	15.8	19.2	35.0	-3.4	13.9	15.7	29.6	-1.8	16.1	18.0	34.1	-1.9
Brazil	12.2*	9.2	21.4	+3.0	13.5*	10.7	24.2	+2.8	15.4	12.2	27.6	+3.2
Cyprus	24.9	34.9	59.8	-10.0	19.8	38.4	58.2	-18.6	20.8	45.7	66.5	-24.4
Israel	8.7	28.3	37.0	-19.6	13.0	33.4	46.4	-20.4	14.5	30.9	45.4	-16.4
Egypt	na	na	na	na	11.0	16.9	27.9	-5.9	11.1	11.5	22.6	-0.4
India	4.2	8.0	12.2	-3.8	3.6**	6.6	10.2	-3.0	3.7	4.5	8.2	-0.8
Pakistan	5.7	8.0	13.7	-2.3	5.4**	10.3	15.7	-4.9	4.5	7.1	11.6	-4.5
Sudan	22.3	15.1	37.4	+7.2	14.2	15.6	45.4	-1.4	14.7	15.3	30.0	-0.6
Syria	na	na	na	na	14.1	23.5	37.6	-9.4	11.8	20.9	32.7	-11.8
Jordan	5.8	43.3	49.1	+37.5	6.1	40.0	46.1	-33.9	5.7	30.9	36.6	+25.2

Source: IMF (1972), IFS Supplement, n.d., Washington DC.
* 1959; ** 1960.

pattern of its visible trade transactions which can be seen clearly when comparing its $\frac{X - M}{GDP}$ with that of eleven other countries included in the study. Jordan has the highest trade deficit ratio among the countries presented, no other country of a similar size having such a high ratio.

Thus, despite the favourable balance in Jordan's invisible trade, the large visible trade deficit has resulted in a trade gap, which poses a fundamental financial problem - viz. a proclivity towards a high dependency on foreign aid for its solution in the short term, which becomes a continuing feature. Mazure in his study of Jordan's economic development[1] noted that the amount of foreign aid per capita received is above the average of other developing countries.

During the last twenty-five years, this aid inflow has accounted for more than 30% of GDP[2], implying that the trade deficit (27.2% of GDP) was more than offset and a surplus in the balance of payments created. Consequently it has been argued that without foreign aid, Jordan could neither have afforded nor achieved its relatively high rate of growth which was evident during this period.[3] Despite this, however, the trade ratio continued to increase. An analysis of the factors underlying this must now be attempted.

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1. M. Mazure: 'Economic Development of Jordan' in Economic Development and Population Growth in the Middle East, Cooper, Charles and Alexander Sydney, American Elsevier, New York (1972), p. 221.

2. B. Saket: Foreign Aid to Jordan, Ph.D. Thesis, University of Keele, (1976), p. 250.

3. Ibid., p. 261. See also, N. Falkhoury, An Analytical Study of Jordan's Balance of Payments, 1950-1968, Central Bank of Jordan, (October, 1974), p. 63.

Economic theory provides no simple conventional explanation of the forces that determine the trend of a country's trade ratio. There is some evidence to suppose that the spread of industrialisation tends to reduce the importance of foreign trade by narrowing the differences in comparative advantage which are themselves mainly determined by the availability of natural resources. In this respect, data presented by Deutsch and Eckstein indicate that foreign trade ratios have historically increased during the early stages of development, reached a plateau and subsequently declined.[1] Kuznets, on the other hand, found no clear pattern in the change of the ratio of foreign trade to national income over time.[2] However, the level of development of a country's industrial structure can be considered to be the factor which influences the rate of increase of foreign trade more than any other. In other words, the spread of industry at a faster rate than the services sector, together with a sharp increase in production and in the productivity of the agricultural sector may result in an increase in foreign trade relative to GDP. Thus, when an increasing share of GDP is moving into the services sector, the trade ratio may decline.

Neither the growth of manufacturing industry, indicated by Deutsch, nor the spread of the services suggested by Kuznets have had the expected negative impact on Jordan's trade ratio. As can be seen in Table 2.3 below, the increase in the share of manufacturing industry and in the share of services was accompanied by an increase and not a

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1. Karl W. Deutsch and Alexander Eckstein: 'National Industrialization and the Declining Share of the International Economic Sector', World Politics, Vol. 13, (1960/1961), p. 268.

2. Simon Kuznets: Modern Economic Growth, Yale University Press, New Haven and London (1966), p. 317.

Table 2.3: Ratio of services, manufacturing and trade to GDP

Year	Services	Manufacturing	Trade
1954	58.9	8.8	41
1955	70.0	12.1	61
1956	56.0	10.3	48
1957	65.0	11.0	51
1958	66.9	11.0	49
1959	70.0	8.1	51
1960	71.1	8.5	51
1961	64.6	8.6	41
1962	67.2	8.1	47
1963	66.2	9.8	48
1964	60.8	10.0	43
1965	60.3	11.5	41
1966	62.3	12.6	51
1967	62.3	10.4	38
1968	64.6	12.9	44
1969	63.5	13.0	41
1970	68.9	11.6	40
1971	66.2	11.4	53
1972	64.3	12.4	50
1973	73.0	13.4	57
1974	66.0	17.0	65
1975	71.5	18.2	74

Source: Based on Tables 1, 2 and 3 in the Appendix.

decrease in the foreign trade ratio. In the previous chapter, it was shown that the growth of the services sector in Jordan was the inevitable result of an increase in imports, financed by the inflow of foreign aid. Further, the growth in the manufacturing sector would not have been achieved without the import of necessary capital goods and raw materials, thus increasing the import ratio.

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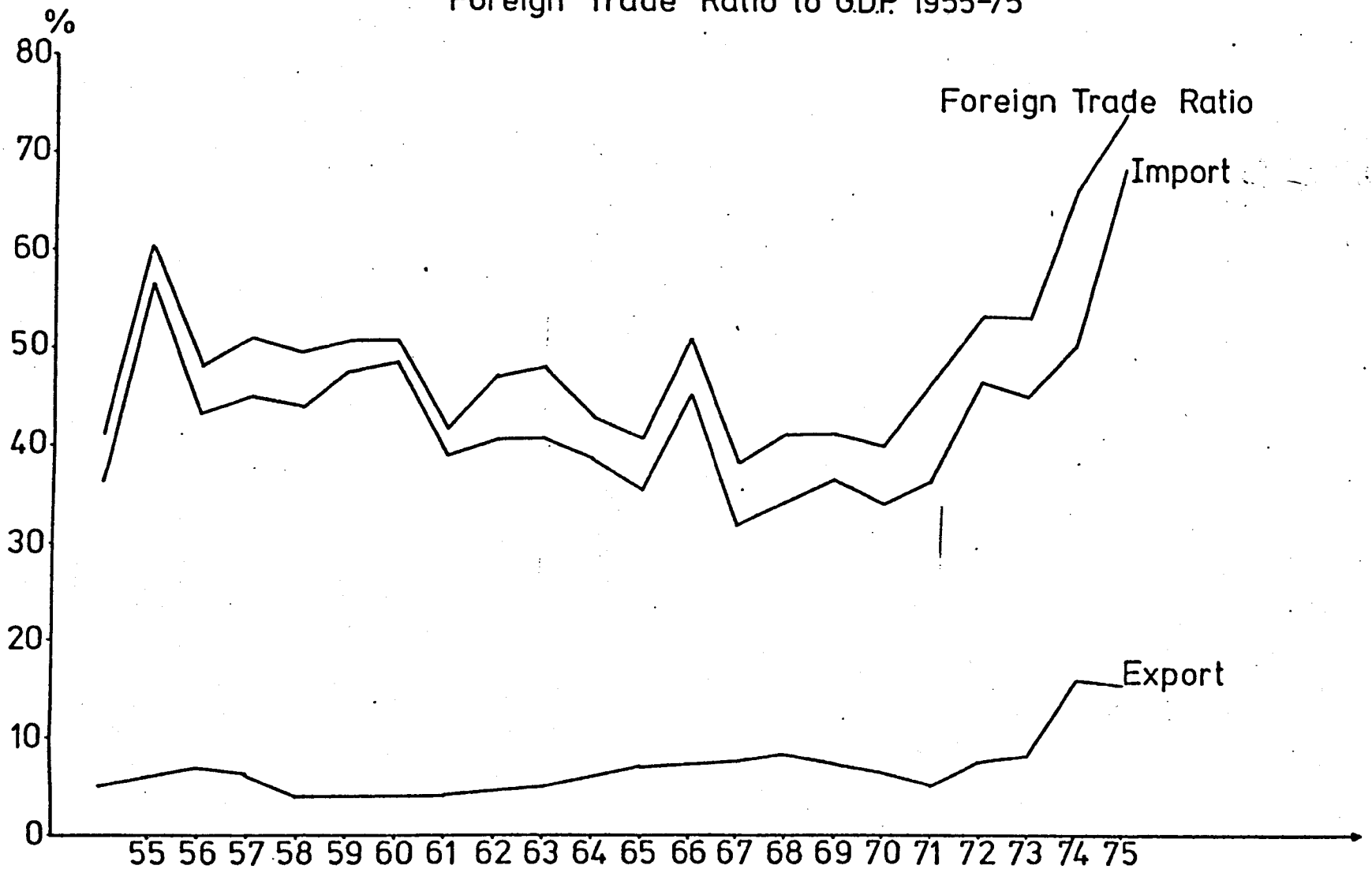
More important than this increase in the inflow of capital goods and raw materials, however, has been the increase in consumption resulting from the rise in money incomes. Given the high propensity to consume in Jordan coupled with a lack of domestic resources and a liberal trade policy, it is to be expected that a part of the increase in money income will be directed toward imports. The impact of the increase in the level of imports on the trade ratio was not matched, however, by a similar impact from the rising of the export ratio. This is evidenced in figure 2.1 which clearly reveals how the trend of the trade ratio paralleled the movement of imports.

In addition to the industrial structure, political events have had an important influence on the import and trade ratio trends. In 1967, for instance, the import ratio declined to its lowest level ever. Consequently the trade ratio declined also, despite an increase in the export ratio, which remained unaffected by the 1967 war and its consequences. Imports fell in that year for two main reasons. First, there was a massive inflow of aid in kind, which went unrecorded in Jordan's official trade statistics. Secondly, the war brought about a sharp decline in demand. Another political event which influenced the trade ratio was the internal disturbances of 1970, which were accompanied by the closing of Jordan's borders by Syria and Iraq. As a result, both export and import ratios declined. After 1972, however, the trade ratio continued to rise, reaching 74% of GDP in 1975 its highest ever level. This increase, which became apparent in the closing period of this study, may be attributed to a number of new factors, the most important of which was the high rate of inflation, which had the effect of increasing the import bill from the already high level of 45% in 1972 to 74% in 1975. Speculation in the land and commodity markets stimulated yet more imports. In the latter case, as land became the most profitable form of investment during this period, a class

Fig.2.1

Foreign Trade Ratio to G.D.P. 1955-75



Source: Appendices 1, 2 and 3.

of newly rich land owners was created whose wealth was directed to the acquisition of largely imported consumer durables, with a consequent demand-led increase in the nation's import bill. This effect was magnified by a large inflow of funds from Jordanians working abroad who, lost confidence in international currencies through repeated monetary crises, and who redirected their savings to land purchase at home.

The successive crises in international currencies had a somewhat different effect, however, on Jordan's exports by forcing up the international price of phosphates. Phosphate is Jordan's largest single export item, and proceeds increased from JD 4.02 million in 1973 to JD 19.53 million in 1974, causing the overall figure for Jordanian exports to rise from JD 14.01 million in 1973 to JD 39.437 in 1974. This increased the ratio of exports from 8% of the GDP in 1973 to over 16% in 1974, and added a new factor in the increase in Jordan's trade ratio.

Apart from the above increases in exports, the foreign trade ratio in Jordan was mainly influenced by the import ratio. The role of imports will be examined more fully in chapter three. Here, however, it is intended only to examine commodity exports. An attempt will be made to examine how the exports grew during the period under consideration and to determine the impact of their growth on Jordan's economic development.

Table 2.4 shows the value of Jordanian exports for the period 1954-1975. From the table it is evident that exports have shown a relatively high rate of growth (17.9% per annum) when compared with the rate of growth in both imports and GDP. Consequently the share of

Table 2.4: Exports and GDP during the period 1954-1975

Year	GDP		Exports	
	Value (JD million)	Percentage Change	Value (JD million)	Percentage Change
1954	51.3		2.4	
1955	47.3	7.8	2.6	0.8
1956	66.6	40.8	4.4	69.0
1957	67.4	1.2	4.3	-2.0
1958	75.2	11.5	3.2	-20.0
1959	93.5	24.3	3.1	-0.3
1960	98.3	5.1	3.4	9.6
1961	120.1	22.1	4.2	23.5
1962	118.9	-1.0	5.0	19.0
1963	129.1	8.5	5.5	11.0
1964	148.9	14.7	7.0	27.2
1965	167.6	12.8	7.7	11.0
1966	170.6	17.9	8.6	12.9
1967	194.7	14.1	9.9	13.7
1968	186.9	-4.1	12.2	23.2
1969	219.6	17.5	11.9	-3.2
1970	209.8	-5.0	9.3	-22.0
1971	223.4	6.4	8.8	-6.0
1972	249.0	11.7	12.6	43.0
1973	268.5	7.5	14.0	11.1
1974	341.9	27.3	39.4	181.4
1975	356.9	4.3	40.1	1.8

Source: Statistical Appendices 1, 2 and 3.

commodity exports in the GDP rose from only 5.8% in 1954 to 15% in 1975. Orthodox economic theory suggests that a high rate of growth in exports may lead to a high rate of growth in GDP.[1] This is evidenced

1. Robert F. Emery:'The Relation of Exports and Economic Growth', Kyklos, Vol. XX, 1967, pp. 470-84.

by the high correlation (0.76) between these two variables and by the regression coefficient which shows that between 1954 and 1975 an increase in exports of 17% increased GDP by 1%.

(b) The High Visible Export Concentration Problem

Exports have in fact played a relatively minor part in Jordan's economic development, and this may be seen from an examination of the composition of these exports and the way in which they grew.

Jordan's exports are concentrated in a small range of essentially primary commodities. Table 2.5 shows that despite the high rate of growth in exports, they are still concentrated in mining and in agricultural products. During the period 1958-1975, agricultural produce and mining accounted for more than 79% of all exports, while manufacturing exports accounted for less than 20%. Nevertheless, manufacturing exports witnessed a relatively large increase from the low level in the fifties (4.3%) to over 23% in 1975. The high concentration of Jordan's exports in a few commodities is mirrored in most developing countries. The problem however, is that in the Jordanian case, despite the large increase in manufacturing, there seems to be a tendency towards an even higher degree of concentration in the range of commodities exported. The share of total exports taken by mining, for example, increased to over 50% in 1975, compared with only 32.8% in 1958. This increase in the share of mining, however, which chiefly represents phosphate exports, reflects the increase in world commodity prices between 1973 and 1975.

A comparison of the distribution by commodities of Jordan's exports with those of other developing countries may be achieved using the

Table 2.5: Composition of Jordan's exports by group (in JD 000)

Year	Manufactured Food		Mining		Other Manufacturing		Agricultural		Total	
	Value	%	Value	%	Value	%	Value	%	Value	%
1958	223	7.1	1028	32.8	136	4.3	1752	55.8	3139	100.0
1959	228	7.4	1051	33.9	206	6.6	1613	52.8	3098	100.0
1960	193	5.5	1346	38.6	206	5.9	1736	52.1	3481	100.0
1961	237	5.6	1660	39.0	246	5.8	2109	49.6	4252	100.0
1962	320	6.5	1568	31.8	272	5.5	2769	56.2	4929	100.0
1963	580	10.7	1537	27.8	618	11.2	2778	41.3	5522	100.0
1964	395	5.6	2470	35.2	1022	14.6	3125	44.6	7012	100.0
1965	452	5.8	2547	32.9	982	12.7	3771	48.6	7752	100.0
1966	483	5.5	3258	37.2	1026	11.7	3991	45.6	8759	100.0
1967	557	5.6	3512	35.0	1547	15.7	4368	43.7	9984	100.0
1968	589	4.8	4258	35.1	2063	17.1	5262	43.0	12122	100.0
1969	755	6.3	4108	34.5	1910	16.1	5134	43.1	11907	100.0
1970	436	4.9	2580	27.6	1952	20.9	4352	46.6	9320	100.0
1971	799	9.1	2733	30.9	2045	23.2	3240	36.8	8817	100.0
1972	533	4.2	5443	43.2	2297	18.2	4330	35.0	12606	100.0
1973	266	1.8	5496	26.0	3340	23.0	4508	32.2	14010	100.0
1974	1115	2.8	23775	60.2	5532	14.0	9015	22.0	39433	100.0
1975	959	2.3	21453	53.3	8054	20.0	9609	23.0	40075	100.0

Source: 1. Department of Statistics, Flow of imports in Jordanian Economy, 1958-1968, Amman (April 1970).
2. Department of Statistics, Amman, unpublished data.

Gini-coefficient:[1]

$$R = \sqrt{\sum \left(\frac{X_1}{X}\right)^2}$$ where X_1 is the exports of 1, 2, 3

The higher the value of R, the greater the level of concentration in exports. The main deficiency of the measurement is that the value of R depends mainly on the way the classification of exports is made. The larger the number of categories, the smaller the coefficient. To avoid misleading results, two different kinds of classification were used for this study: i) the international trade classification (SITC); and ii) classification by commodities. Two years were chosen for the purposes of comparison, 1954 and 1966. In 1954 the main exports were still in their infancy and therefore, provide a good base-line for comparison. 1966 was a 'normal' year in which no political disturbances occurred which might have influenced the export of any item from Jordan. The results of this computation are presented in Table 2.6.

Table 2.6: Measure of export concentration in Jordan compared with some other developing countries

Country	1954	1966	1975
Ghana	0.835	0.677	na
Colombia	0.840	0.664	na
Burma	0.744	0.627	na
UAR	0.842	0.518	na
Thailand	0.683	0.372	na
Brazil	0.612	0.471	na
Tanganyika	0.446	0.358	na
Jordan (a)	0.504	0.626	0.574
Jordan (b)	0.424	0.448	-

Source: G. K. Helleiner, International Trade And Economic Development, Penguin (1972), p. 86.
(a) From SITC classification.
(b) From commodity classification.

1. B. F. Massell: 'Export Concentration and Fluctuations', American Economic Review, Vol. 54, (1964), pp. 47-63. See also Michaely, M, Contributions to Economic Analysis in International Trade, (1962), p. 8.

From the above table, it is evident that although the SITC classification shows a higher level of concentration than that of the commodity classification, both classifications show a high concentration coefficient. Further, the table indicates clearly that other developing countries reduced the degree of concentration of their exports, while Jordan was showing an upward trend in its concentration ratio.

Further, Jordan's high degree of commodity concentration was accompanied by a relatively high degree of geographical concentration. While phosphate is mainly exported to the Far East and the European countries, all other exports are concentrated in the neighbouring Arab countries. Except for the years 1973-1976 when phosphate prices created an imbalance in the usual pattern of export earnings, exports to Arab countries constituted on the average over 67% of the total (see Table 2.7). This relatively high degree of concentration in the destination of exports is exceptional, especially by Middle Eastern standards, where the degree of economic interdependence is still low and efforts towards economic integration are still in the early stages. It is however, Jordan's extremely favourable geographical location and the small size of its domestic market which has directed Jordan's exports, both manufactured and agricultural towards the neighbouring Arab countries. Among these are the Arab oil producing countries which have enjoyed a large increase in oil revenues and have consequently substantially increased their imports. The increase in demand in these countries played an important role in stimulating the export of fruit, vegetables and of other agricultural products. The increase in the demand for Jordanian exports was also stimulated by a subsidiary factor, namely the demand for Jordanian produce such as olive oil created by the

Table 2.7: Destination of Jordan's exports (In JD million)

	1959		1960/63		1964/68		1969		1970		1971		1972		1973		1974		1975	
	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%
Arab League States	2.03	16	3.03	67	5.51	66	8.5	71.3	7.17	76.9	6.68	75.8	9.16	72.6	10.07	72.1	18.43	46.7	16.89	41.
a) Arab Common Market	1.30	42	1.83	41	31.5	38	5.24	43.9	4.32	46.3	4.09	46.4	5.36	42.5	5.90	42	8.71	22	9.42	23.
b) Other Arab States	0.73	24	1.20	26	2.36	28	3.26	27.4	2.85	30.6	2.59	29.4	3.80	30.1	4.7	30.1	9.72	24.6	7.47	18.
EEC	0.03	1	0.03	1	0.45	5	6	-	-	-	-	-	0.05	0.4	0.02	2.1	0.06	-	1.98	4.
Communist Bloc	0.33	1	0.36	8	0.37	12	0.38	3.2	0.42	4.5	0.12	1.4	0.21	1.7	0.1	0.7	0.83	2.3	5.88	14.
Yugoslavia	0.63	20	0.64	14	0.68	8	1.02	8.6	0.79	8.4	0.46	5.2	0.2	1.2	0.2	1.4	1.2	3.0	0.5	12.
India	0.06	2	0.39	8.6	6.71	11.5	1.48	12.5	0.25	2.7	0.96	10.9	1.4	11.1	1.1	13.5	6.57	16.7	1.97	4.
Japan	-	-	0.04	0.4	0.08	0.5	0.03	0.3	0.02	0.2	0.17	1.9	0.62	4.9	0.7	0.4	3.79	9.6	1.91	4.
Other countries	0.02	-	0.04	1	0.31	4	0.48	4.1	0.67	7.2	0.43	4.8	0.96	7.6	1.8	11.4	8.54	21.6	10.92	27
Total exports	3.10	100	4.51	100	8.37	100	11.92	100	9.32	100	8.82	100	12.61	100	14.01	100	39.47	100	40.07	10

Source: (1) Department of Statistics, Statistical Year Book, Amman, (1966), n.d.
(2) Department of Statistics, External Trade Statistics, Amman (1968), n.d.
(3) Central Bank of Jordan, Monthly Statistical Bulletin, (March 1970) and (February 1978).

Table 2.7: Destination of Jordan's exports (In JD million)

	1959		1960/63		1964/68		1969		1970		1971		1972		1973		1974		1975	
	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%
Arab League States	2.03	16	3.03	67	5.51	66	8.5	71.3	7.17	76.9	6.68	75.8	9.16	72.6	10.07	72.1	18.43	46.7	16.89	41.5
a) Arab Common Market	1.30	42	1.83	41	31.5	38	5.24	43.9	4.32	46.3	4.09	46.4	5.36	42.5	5.90	42	8.71	22	9.42	23.1
b) Other Arab States	0.73	24	1.20	26	2.36	28	3.26	27.4	2.85	30.6	2.59	29.4	3.80	30.1	4.7	30.1	9.72	24.6	7.47	18.4
EEC	0.03	1	0.03	1	0.45	5	6	-	-	-	-	-	0.05	0.4	0.02	2.1	0.06	-	1.98	4.9
Communist Bloc	0.33	1	0.36	8	0.37	12	0.38	3.2	0.42	4.5	0.12	1.4	0.21	1.7	0.1	0.7	0.83	2.3	5.88	14.6
Yugoslavia	0.63	20	0.64	14	0.68	8	1.02	8.6	0.79	8.4	0.46	5.2	0.2	1.2	0.2	1.4	1.2	3.0	0.5	12.4
India	0.06	2	0.39	8.6	6.71	11.5	1.48	12.5	0.25	2.7	0.96	10.9	1.4	11.1	1.1	13.5	6.57	16.7	1.97	4.9
Japan	-	-	0.04	0.4	0.08	0.5	0.03	0.3	0.02	0.2	0.17	1.9	0.62	4.9	0.7	0.4	3.79	9.6	1.91	4.7
Other countries	0.02	-	0.04	1	0.31	4	0.48	4.1	0.67	7.2	0.43	4.8	0.96	7.6	1.8	11.4	8.54	21.6	10.92	27.2
Total exports	3.10	100	4.51	100	8.37	100	11.92	100	9.32	100	8.82	100	12.61	100	14.01	100	39.47	100	40.07	100

Source: (1) Department of Statistics, Statistical Year Book, Amman, (1966), n.d.
(2) Department of Statistics, External Trade Statistics, Amman (1968), n.d.
(3) Central Bank of Jordan, Monthly Statistical Bulletin, (March 1970) and (February 1978).

demand from Jordanians working in these countries.

Despite its exporting record to oil producing countries, Jordan's goods constitute only a small proportion of the total imports of these countries. Further, as Table 2.8 indicates this small proportion represents a declining share of the vastly increased demand that oil revenue has generated in these countries.

(c) The Export Instability Problem and Its Economic Importance

One of the consequences of the high commodity and geographical concentration in exports has been wide fluctuations both in price and value of goods, and consequently in export earnings. Total earnings from exports, despite their high rate of growth, have ranged from a decline of 25% (in 1958) to an increase of 181.1% (in 1974). (See Table 2.5). In general, however, export proceeds declined in the early period, followed by a fluctuating but generally rising trend in the early sixties, which again was in decline by the late sixties. From 1972 onwards, however, they show a continuous increase, so that the average rate of growth for 1972-1975 was 55% compared with only 2.5% for the period 1967-1971.

Although these fluctuations are high both in absolute and percentage terms, they are no higher than those prevailing in other developing countries. Data presented by Coppock's study of export instability in 89 developing countries ranksJordan among the first 20 countries, with a high export instability index.[1]

Changes and fluctuations in the trend of exports, in the absence of

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1. Joseph D. Coppock: International Economic Instability, McGraw Hill, New York and London, 1962, p. 65.

Table 2.8: Imports from Jordan compared with total imports of various oil producing countries (in $US million)

Country	1969			1970			1971			1972			1973		
	Total imports	Imports from Jordan	Ratio 2/1	Total imports	Imports from Jordan	Ratio 2/1	Total imports	Imports from Jordan	Ratio 2/1	Total imports	Imports from Jordan	Ratio 2/1	Total imports	Imports from Jordan	Ratio 2/1
S. Arabia	734	14	0.019	692	10	0.014	805	9	0.011	1125	12	0.01	1981	13	0.006
Iraq	493	3	0.006	508	2	0.004	694	4	0.006	713	4	0.005	898	3	0.003
Kuwait	554	5	0.009	626	5	0.008	651	5	0.008	797	7	0.008	1041	7	0.006
Total	1781	22	0.01	1826	17	0.009	2150	18	0.008	2638	23	0.008	3903	23	0.005

Source: (1) U.N., Year Book of International Trade Statistics, 1974, Vol. 1, New York (1975).
(2) U.N., Year Book of International Trade Statistics, 1976, Vol. 1, New York (1977).

stable political circumstances have been shaped by market forces. Seasonal fluctuations on the supply side may affect exports of agricultural produce which may be reflected in fluctuations in export trends. In the long run however, the fact that exports are concentrated in agriculture and raw materials determines overall trends and consequent fluctuations. As can be seen in Table 2.9, although exports of manufactured produce have shown a continuous and steady growth, their impact on overall export revenues has been very limited. Fluctuations in exports proceeds are mainly determined by fluctuations in the export of agricultural and mining goods.

In 1959, for example, although exports of manufactured goods showed an increase of 51.4%, the decline in agricultural exports of 8% resulted in a decline overall in export proceeds by 2.2% Further, in 1965, exports of manufactured goods show a decline while export earnings increased by 3.1%, indicating that phosphate and agricultural exports play the dominant role in determining the level of Jordan's exports.

The importance to the Jordanian economy as a whole of the fluctuations in export performance mentioned above, will of course depend on whether they occur in prices, or in the volume of goods exported. Although the main impact of fluctuations in prices and volume of exports can be clearly seen through its contribution to the instability of overall earnings, the distinction is important from the point of view of allocation of resources for investment. Excessive investment in the boom period may tend to involve high cost in the recession period.

Table 2.9: Annual percentage change in exports 1959-1975

Year	Manufacturing	Agriculture	Mining	Total exports
1959	51.4	-8.0	-0.3	2.2
1960	0.0	7.6	9.6	28.0
1961	19.4	21.4	23.5	23.3
1962	10.5	31.2	19.0	-6.0
1963	127.2	0.3	11.0	-2.0
1964	165.3	12.4	27.2	60.0
1965	-3.4	20.6	11.0	3.0
1966	4.4	5.8	12.9	27.9
1967	150.7	9.4	13.7	7.7
1968	33.3	20.4	23.2	21.2
1969	-8.2	-2.3	-3.2	-4.0
1970	2.1	-15.3	-22.0	-37.1
1971	4.7	-26.0	-6.0	5.9
1972	12.3	23.6	40.0	99.1
1973	62.0	4.1	11.0	6.0
1974	47.0	99.0	281.0	332.5
1975	45.0	6.5	1.6	10.0

Source: Based on Table 2.5

Export indices published by the Department of Statistics reveal a phenomenon which occurs in the export performance of most developing countries: that the increase in export earnings is the result of volume rather than of prices. Only in 1974 was the increase in volume matched by a similar proportionate increase in prices. The index of quantities shows large scale fluctuations from the 1961 base year, increasing in all these years except for a notable decline during 1969-1971. Although, it may be argued that political disturbances may have played an important role in influencing the trend of exports during 1969-1971, the fact

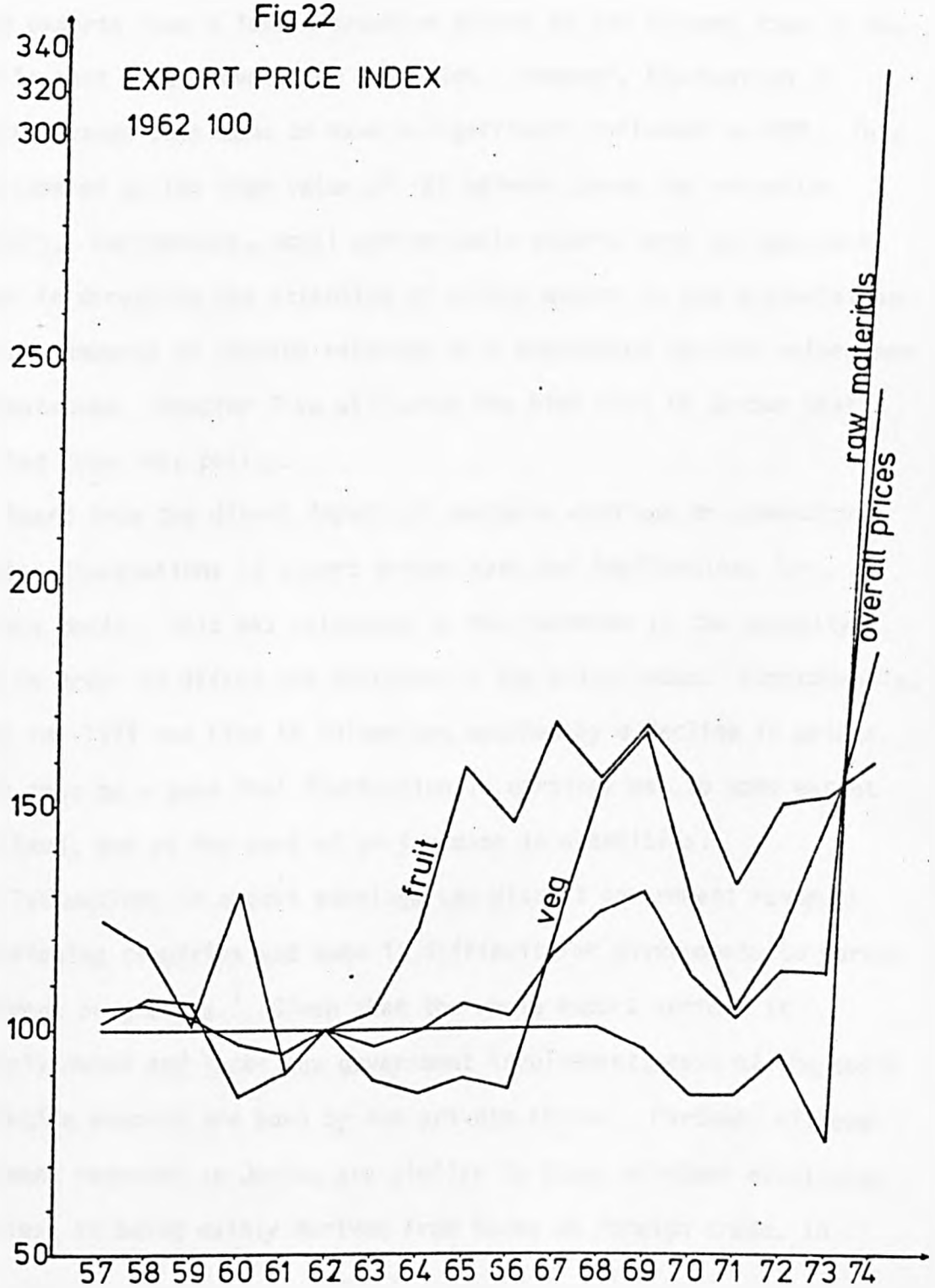
remains that it was mainly the decline in exports of phosphates and agricultural commodities which was behind the overall decline in index. In these two years, the quantity index number of chemicals, manufactured goods, transport equipment, showed a notable increase. Yet because of their insignificance in Jordan's overall export pattern they have had little impact on the overall index.

Similarly, the overall price index has had an unstable performance. Figure 2.2 shows these fluctuations clearly. Fruit and vegetables show a declining trend in the early period (1957-1961), yet they increased notably during 1962-1968. However, the impact of these high fluctuations on the overall index prices was reduced because of the almost fixed prices of phosphates, indicating that concentration in exports may influence the price index. The impact of concentration is demonstrated even more clearly in the figures for 1974 when the price of phosphate increased by more than 300%, causing an increase in the overall index from 113 in 1973 to 243 in 1974. However, it should be noted here that the inflationary pressure witnessed in Jordan during these two years was clearly reflected in the price index of almost every item in Jordan's exports, except for agricultural goods, which alone showed a decline.

The above discussion shows clearly how concentration on a few export commodities has affected the overall pattern of Jordan's export earnings, prices and quantities. It is now necessary to consider the extent to which this factor has influenced the overall development of the Jordanian economy.

Despite the fact that Jordan is a developing country and its exports are mainly confined to a small range of commodities, fluctuations in exports have not received much official attention in Jordan. This

Fig 22



Source: Department of Statistics, Statistical Year Book (1975).

may be due to the fact that commodity exports are not yet a major source of foreign exchange and thus fluctuations in the earnings of these exports have a less disruptive effect on the economy than is the case in most other developing countries. However, fluctuation in export revenue does seem to have a significant influence on GDP. This is evidenced by the high value of (R) between these two variables (0.8757). Furthermore, small and unstable exports were an important factor in directing the attention of policy makers to the accumulation of large amounts of foreign reserves as a precaution against unforeseen circumstances. Chapter five will show the high cost to Jordan that resulted from this policy.

Apart from the direct impact of unstable earnings on commodity exports, fluctuations in export prices have had implications for indirect costs. This was evidenced by the increase in the quantity index in order to offset the decrease in the price index. Consequently, except for 1974 the rise in volume was matched by a decline in prices. It can thus be argued that fluctuation in earnings was to some extent stabilized, but at the cost of an increase in quantities.

Fluctuations in export earnings can disrupt government revenues in developing countries and make it difficult for governments to pursue investment programmes.[1] Given that the whole export sector is privately owned and lacks any government involvement, most of the costs of volatile exports are born by the private sector. Further, although government revenues in Jordan are similar to those of other developing countries, in being mainly derived from taxes on foreign trade, in

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1. G. K. Helleiner: International Trade and Economic Development, Penguin, (1972), p. 87.

Jordan's case the revenue is almost exclusively derived from imports. This would seem to indicate that there is no direct impact from volatile exports on the government budget. There is, however, reason to believe that volatile exports have an indirect impact both on government revenues and expenditure.

On the revenue side, income tax may be affected by fluctuations in export revenues, although the effect of this may not appear in a statistical test because of the small proportion of income-tax to total revenue. There is evidence that any decline in exports results in a decline in profits and a consequent decline in income-tax collected by the government. One example of this can be seen in the income tax paid by the Jordan Phosphate Mines Company to the government during the period 1966-1975. Table 2.10 shows how these taxes were paralleling the fluctuations in export proceeds. Another indirect result of export instability on government revenues, are the fluctuations in profits from government investment in the export sector. As has been mentioned in chapter one, the Jordanian government in order to encourage the private sector to invest in manufacturing and mining, has provided capital investment in most of the manufacturing and mining industries. In 1972, out of a total of JD 27.982 million of paid up capital for 26 industries, the government share accounted for over 33%.[1] Apart from phosphate however, these industries were directed towards import substitution: cement, pharmaceuticals, tanning, etc. The impact of export fluctuations on the profit on capital invested by the government

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1. Ministry of Economy, Companies Division, unpublished reports, Amman, Jordan.

Table 2.10: Phosphate exports, income tax, and profits transferred to the government (in JD thousands)

Year	Phosphate Exports	Income Tax paid by Phosphate Company	Profits Transferred to Government
1966	3127	275	154
1967	3476	92	123
1968	4222	-	154
1969	3565	41	-
1970	2237	128	-
1971	2239	-	-
1972	3497	44	-
1973	4020	81	-
1974	19531	2122	9808
1975	19585	728	1068

Source: Jordan Phosphate Company, unpublished data, Amman.

was therefore relatively small. However, this impact may be seen clearly in the case of phosphate, where profits paid to the government have shown fluctuations similar to those of phosphate exports. See Table 2.10 above.

In addition to the disruption of investment, these fluctuations caused an increase in the government's expenditure through its financial support for some of the sectors severely affected. For example, in order to compensate for the losses resulting from the decline in exports of phosphate the government paid the phosphate company JD 0.27 million in 1971.

In the private sector, unstable exports involve high social and economic costs. These were particularly prevalent in the agricultural sector. The reasons for this can be summed up as follows: i) agricultural

exports account for about half of Jordan's exports; ii) agricultural exports have shown a high degree of fluctuation; and iii) given that exports are not the most important foreign exchange earners for Jordan, fluctuations in export earnings are not likely to affect the ability of manufacturing industry to import its necessary capital and raw materials. Over half of Jordan's agricultural holdings are in units of less than 30 dunams.[1] The agricultural survey of 1965 indicated that the average size of holdings in approximately 60 dunams. This simply means that agricultural production in Jordan is based on small farms, which operate within narrow economic margins. Consequently any fluctuation in agricultural exports has a significant impact on income and investments in this sector. This situation is aggravated by the fact that farmers, despite the existence of a government marketing body, tend to sell and export their produce through agents working on commission.[2] In addition, although these agents charge farmers excessive commission rates, they also provide farmers with seeds, fertilisers and more importantly, short term loans. Farmers are thus forced to direct their marketing through commission agents despite the excessive interest rates they charge. These factors, coupled with instability and uncertainty, may influence overall investment in agriculture and this is evidenced by the low and unstable level of production expenses in the industry. On average, these expenses amounted to 13.6% of total agricultural output during 1959-1974 (compared with about 77% in the U.S.A. and 68% in Canada (1967)).[3] Given the uncertain climate coupled

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1. Department of Statistics: 'Report on Agricultural Census, 1965', Amman, June, (1967), p. 85. One dunam = 0.1 hectare.

2. M. Hadad: The Agricultural Sector of Jordan, Royal Scientific Society, Amman, (1976), p. 78.

3. ibid., p. 51.

with unstable marketing conditions, as well as the low level of per capita income in a developing country like Jordan, this low ratio is not surprising. Further, the ratio fluctuated inversely with the level of exports and production (as Table 2.11 demonstrates).

Another interesting characteristic of Jordan's agriculture can be—seen in this table, namely that unpredictable levels of production may mean that in some years investment will be stimulated, whereas in others expectations of poor returns will reduce investment. In 1969 production and exports showed a notable increase, which led to a 28% increase in investment in agriculture, by the end of 1970. But political disturbances, slack production and low exports in that year forced farmers to reduce their investment for 1972. Needless to say, such investment allocation involves a high element of wastage of scarce capital.

The previous paragraphs have shown that instability in export performance has played an important role in influencing investment in both the public and private sectors. This was clear in the agricultural sector which is subject to wide fluctuations in both quantities and prices. In addition, there is evidence that these proceeds have also had some impact on the structure of production and employment in this sector. There has been a marked swing towards more reliable crops.[1] There has also been a notable decline in the agricultural labour force. In fact (as it will become clear in chapter five) this sector has recently experienced a shortage of labour. In terms of the theory of economic

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1. Although a high percentage of cultivated area is still field crops, the percentage of vegetables increased from 3% in 1956 to 10% in 1972 (see O. Aresvik, The Agricultural Development of Jordan, Praeger, London, (1976)).

Table 2.11: Main economic indicators in the agricultural sector, 1959-1974 (in JD million)

Item	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Gross income	17.59	17.15	28.32	24.09	25.37	37.86	38.72	32.66	45.07	31.32	41.47	35.26	43.95	48.46	40.50	64.91
Production expenses	2.51	2.53	3.02	3.19	3.29	3.72	4.61	5.01	6.33	3.79	5.13	6.60	6.14	6.01	8.58	10.43
Net income	15.08	14.62	25.30	20.90	22.80	34.14	34.11	27.65	38.74	27.53	36.34	28.66	37.81	42.45	31.92	54.48
Production expenses as percentage of gross income	14.37	14.87	10.77	13.27	13.07	9.17	11.97	15.37	12.27	12.17	12.47	15.87	14.07	13.17	21.17	16.00
Exports	1.70	1.80	2.30	2.80	3.40	3.80	4.30	4.40	5.40	6.20	6.40	5.20	4.30	5.40	5.50	10.80

Source: 1. Jordan Department of Statistics: The Statistics of National Accounts, 1959-1966, Amman, n.d.
2. Jordan Department of Statistics: The Statistics of National Accounts, 1967-1972, Amman, n.d.
3. Jordan Department of Statistics: The Statistics of National Accounts, 1974, Amman, n.d.

development, such decline is desirable on the grounds that it is part of the transformation process. In the particular case of Jordan, however, this decline does not reflect increases in productivity. The agricultural labour force did move to more secure jobs and incomes, but these were available within the service sector (namely the government sector) rather than manufacturing industry. In fact, latest employment figures indicate that the labour force in manufacturing industry is also declining, implying that this change favours the services sector. As can be seen from Table 2.12 below, the service industries' share of the total labour force increased from 44% in 1961 to 63% in 1975. Moreover, as this increase was mainly concentrated in Amman,[1] the socio-economic cost is very high indeed.

Table 2.12: Employment structure (percentages)

	1961	1975
Agriculture	35	18
Mining and manufacturing	21	19
Services	44	63
Total	100	100

Source: National Planning Council, Five Year Plan, 1976-1980, Amman, n.d., p. 25.

(d) The Limited Secondary Impact of Exports

While direct benefits from the high rate of growth in exports have bee disrupted by a high level of fluctuation in performance, the

1. In 1961 the population of Amman accounted for only 25% of the East Bank population, but this ratio had increased to over 40% by 1970.

indirect benefits have been limited by the small stimulus that these exports provide elsewhere in the economy. It is conventional economic wisdom that the extent to which export growth can be a stimulus for development depends largely on the degree of the secondary impact created by exports on domestic economy.

The greater the domestic input required by exporting industries, the higher the impact that is expected. Further increases in demand for the domestic inputs necessary for export expansion may stimulate more investment in exporting activities elsewhere in the economy.[1] The overall impact however, is to increase investment, consumption and the use of technology.

For Jordan's exports these backward linkages are very limited. Using the only input/output tables published for Jordan (1966), the conclusion may be drawn that in general imports are the main ingredient of the export production function. As can be seen in Table 2.13, about 50% of total inputs into the production of the three main export commodities is accounted for by imports. Although the manufacturing sector seems to use more import inputs than the other export sectors, its impact on the other two seems larger than those of phosphate and agriculture.

The table clearly reveals the limited impact of the phosphate industry on other economic sectors. While this suggests that exports do not play a central role in Jordan's economic development, it does support the view that exports stimulate the production necessary for

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1. R. F. Emery: 'The Relation of Exports to Economic Growth', Kyklos, Vol. 20, 2, (1967), pp. 470-86.

Table 2.13: Transactions in the main expanding sectors, 1966 (in JD 000)

	Agriculture	Phosphate	Manufacturing	Total intermediate
Agriculture	1.359	-	2.838	4.197
Phosphate	-	-	-	-
Manufacturing	1.563	0.052	3.211	4.826
Construction	-	0.788	-	0.788
Services	0.150	0.055	472	0.677
Imports	2.017	0.291	7.748	10.056
Total inputs	5.089	1.166	14.269	20.544

Source: Derived from input-output tables in National Accounts, 1959-1966. Department of Statistics, Amman, n.d.

growth.[1] Whatever the causes of the poor linkages, it is reasonable to conclude from the above that diversification of exports may produce more 'backward linkages', thus allowing for exports, to play an enlarged rôle in economic development.

It has already been demonstrated that concentration on phosphates and agricultural production has failed to stimulate more general development. This is not to deny their importance in export earnings but rather to emphasise the importance of the changes that occur in the economy over and above initial increases in export production.

Foreign trade, as well as all other economic activities in Jordan, rests in the hands of the private sector. In some ways, however, exports and imports in Jordan are subject to minor conditions laid down by the government. For instance, there are certain commodities whose export

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1. Gustav Ranis: 'Trade, Aid and What?', Kyklos, Vol. 17, (1964), p. 194.

is prohibited by the government at certain times of the year, when there is a shortage of domestic supply. Apart from this, however, and for certain managerial requirements, exports from Jordan are relatively free of government controls.

The government has rather directed its attention, with the balance of payments deficit in view, towards imports and much of the government policy was from the beginning focussed on finding the means to stimulate an import substitution industry. Their policies took the form of quantitative and tariff restrictions, together with various administrative measures. Although these measures will be discussed in detail in chapter three they are mentioned here to show that the import bill was given priority over export promotion. Further, while there exists a special committee to deal with problems related to imports, there is no corresponding committee to deal with exports.[1]

As Jordan is a small developing country, with an exceptionally high trade deficit and low level of exports, it is to be expected that in the early stages of development emphasis will be put on import substitution policies.[2] In fact, it is rare to find industrial development initially directed towards export marketing.[3]

Nevertheless, the small domestic market in Jordan means that it is difficult to ignore potential exports, especially to the neighbouring Arab oil-producing countries where the demand is rapidly increasing.

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1. This committee is established annually and headed by the Minister of Economy.

2. M. Daniel Schydlonsky: 'From Import Substitution to Export Promotion', The Journal of Development Studies, (July 1967), pp. 405-11.

3. Isiah Frank: The Role of Trade in Economic Development: in The Global Partnership, edited by Richard N. Gardner, Praeger, (1968), p. 53.

Several measures may be adopted to encourage exports. These include tariffs, direct subsidies and foreign exchange control. In Jordan, however, the government has specifically tried to promote exports by means of trade agreements. Historically, these have been of two sorts: those regarding phosphate exports, and those concluded for general exports. In addition to such bilateral trade agreements, there are multilateral trade agreements with the Arab Common Market countries. Most of Jordan's bilateral trade agreements have been concluded with Arab countries and cover, in addition to imports and exports, the transit trade, labour and capital movement and economic cooperation.[2] They stipulate the products to be exchanged, the exemptions from duty to be operated, and the licensing requirements.[3] Similar conditions of trade are stipulated in other agreements with non-Arab countries,[4] which cover more than 50% of export trade and over 25% of imports. However, experience has shown that apart from those concluded to promote the export of phosphates, these agreements have had little impact on the overall performance of Jordan's exports. Indeed, where an increase in goods exported has occurred, this has usually been due to a natural increase in demand in the target countries rather than the effect of a newly concluded agreement.

Table 2.14 shows how the trade deficit with these countries has

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1. K. A. Dasgupta: Economic Theory and the Developing Countries, Macmillan, (1974), p. 113.

2. This includes Saudi Arabia (1962) with Lebanon, Iraq and Syria (1965), Sudan (1966), U.A.R. (1967), Lybia and Qutar (1968).

3. Ministry of Economy, Jordan Trade Agreements, (1970).

4. This includes the agreement with Yugoslavia (1954), Ceylon and Ethiopia (1963), Pakistan (1965), India, Iran and Romania (1968).

Table 2.14: Foreign trade with countries under bilateral agreement (in JD million)

Year	Exports		Imports		Total Trade		Trade Balance	
	Value	%	Value	%	Value	%	Value	%
1959	2.3	67	8.4	21	10.7	25	-6.1	16.0
1963	4.3	67	12.7	25	17.0	30	-8.4	19.3
1965	5.8	58	12.9	23	17.7	29	-7.1	15.0
1968	8.8	61	14.8	25	23.6	34	-6.0	14.1
1975	27.0	66	65.4	27	92.4	23	-38.4	13.1

Source: (1) Department of Statistics, Jordan Foreign Trade, 1966, Amman, n.d.
(2) Department of Statistics, Statistical Year Book, Amman (1975).

increased despite a large increase in Jordan's exports. Further, imports from these countries increased from only 21% of total imports in 1959 to over 27% in 1975. This indicates that the trade agreements have not been properly implemented; especially those concluded with Arab countries. One example of this unsatisfactory implementation may be seen in the agreement with the United Arab Republic, concluded in 1967. This agreement aimed to export the equivalent of £0.5 million (sterling) in manufactured products, as well as an unlimited amount of agricultural products to the U.A.R. Jordan in turn undertook to import goods to the value of £1.25 millions. Figures for trade in 1968, however, show that total exports from Jordan equalled only £3,000, imports from Egypt amounted to £1.31 million. The limited impact of trade agreements on export performance may be related to the level of supply in Jordan. Nevertheless, the fact that most of the trade agreements come about as a result of political rather than economic efforts, may be the main factor behind the slow performance of export trade to these countries.

The Arab Common Market agreement (1964) aimed at full economic integration through the free movement of labour and capital, and the free movement of national and foreign products. This agreement, however, was not followed by the implementation of the proper measures needed to reach the objectives. Trade barriers still exist between the exports and imports of the Arab Common Market countries.[1] To date, although the total value of exports to the ACCs (Arab Common Market Countries) has increased to reach JD 9.42 million in 1975 compared with only JD 1.8 million in 1959, the share of these in Jordan's total exports has declined to 23.1% in 1975 compared with 42.0% in 1959. Although this decline may be explained by the phosphate exports which have increased considerably to non-Arab countries in 1974 and 1975, the conclusion remains that the ACC agreement did not actually promote Jordanian exports to this market. In fact exports to AAC countries accounted for the same share of total Jordanian exports being about 42%; in 1974 and 1975 although exports to the ACC increased, their ratio shows a decline to about 22% (see Table 2.7, page 60).

In 1975, a far-reaching bilateral agreement was concluded with Syria, aiming at economic integration between the two countries. The agreement involves the development of industrial coordination and co-operation in the areas of transport, communications, electricity and trade, by the removal of all restrictions and other taxes on imports and exports between the two countries. Although the agreement does not establish an overall target level for trade between the two countries, it was announced that the public sector in Syria would

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1. In practice each country has had a list of commodities which the tariff should be applied to.

import at least JD 2 million a year worth of products originating in Jordan. The 1976 figures for exports show that total exports to Syria amounted to JD 6.39 million, compared with 3.58 in 1975, and 2.87 in 1974. This success was largely due to the sudden increase in demand in Syria, which traditionally pursued a restrictionist trade policy.

(e) Development Plans and the Role of Exports

Successive development plans in Jordan have given a high priority to reducing the trade deficit. To achieve this objective, planners have, until recently, preferred to concentrate on import substitution rather than export promotion policies. This was true both for the Seven Year Programme for Economic Development, 1964-1970 and the Three Year Plan for 1973-1975. The Seven Year Plan was only implemented for three years prior to the disruption caused by the 1967 war. A comparison of the actual figures with the estimates for 1963-1966 reveals that this target was largely fulfilled. In practice this came about because manufactured goods far exceeded the planners' expectations, whereas agricultural and mining exports fell short of the expected figures (see Table 2.15). The Three Year Development Plan of 1973 did not distinguish between exports of different sectors. Although exports on the whole were expected to increase on average by 16.4% per annum up to 1975, the actual increase was as high as 65% per annum. This unexpectedly high increase arose mainly from the sharp increase in phosphate prices in 1975, rather than a general increase in the volume of exports.

Although the 1976 Five Year Plan still aimed at the reduction of the trade gap, there was a distinct shift of emphasis in the means by which it was to be achieved. The plan makes clear that:

Table 2.15: Visible exports comparison between projected figures of the Seven Year Plan and actual figures (in JD million)

	1964			1965			1966		
	Plan	Actual	Percentage	Plan	Actual	Percentage	Plan	Actual	Percentage
Agriculture	4.4	3.3	75	4.8	3.5	72	5.2	4.2	78
Phosphate	2.5	2.3	92	3.2	2.4	75	4.0	3.1	79
Manufacturing[1]	1.9	3.1	155	2.5	4.0	163	2.7	3.0	113
Total	8.8	8.7	99	10.5	9.9	95	11.9	10.3	88

1. Defined in the programme to include item nos. 1, 4, 10, 12, 14, 41, 53, 55 in Jordan external trade statistics.

Source: Jordan Development Board, The Seven Year Program, Table 6, p. 39. For actual amounts see
(1) Department of Statistics, External Trade Statistics 1964, Amman, n.d.
(2) Department of Statistics, External Trade Statistics 1965, Amman, n.d.
(3) Department of Statistics, External Trade Statistics 1966, Amman, n.d.

> 'To date, commodity exports have not played a major role in increasing the national product. The five year plan represents a conscious effort to effect a basic change in the structure of the national economy, whereby most of the investment in the mining and manufacturing sector will primarily lead to the production of export oriented goods.'[1]

Further, the planners project an increase in the export of manufacturing and mining from JD 40 million in 1975 to JD 159 million in 1980. To achieve these objectives the plan proposed several organizational and policy changes. On the organization side: an increased effort in market surveys, conclusion of more bilateral and multilateral trade agreements, and a simplification of export procedures. In addition it was suggested that a special fund be set up with the purpose of insuring exports against price fluctuations. Further, the plan requires the Central Bank to make the necessary arrangements with the commercial banks to facilitate credit and services for exporters.[2]

Although the first year of this plan did not achieve its objectives,[3] the plan is important because for the first time a policy of export promotion was mentioned. It must be noted, however, that the plan continues to place emphasis on natural resources instead of focussing on the manufactured exports. This is evident in the fact that most of the mining and manufacturing investment proposed in the plan are concentrated on mining exploration and extraction.[4] The plan allocates over 65% of the total investment programme in the industrial sector to

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1. National Planning Council, Five Year Plan, 1976-1980, p. 228.
2. Ibid., pp. 230-231.
3. The plan estimated exports in 1976 to reach JD 64 million. The actual figure indicated that total exports reached only JD 49 million.
4. Ibid., p. 189.

projects related to natural resources.. The extraction and export of phosphates and, as the plan proposes, copper and potash, is of course of great importance. The impact of these activities, however, may be confined as in the case of most natural resources, to the direct revenue from export proceeds. What is potentially more important are the indirect benefits which might accrue from backward linkages that the exports could create. In this connection exports like fertilisers would have a secondary effect on the economy and, apart from the fact that it is a capital intensive industry, have a direct and positive influence on export performance. Further, although there is an awareness of the need to increase manufactured exports in the plan, there is no recognition of potential export markets, or of policies that might be adopted to this end.

In this respect it is to be noted that over 80% of Jordan's exports (apart from phosphates) are directed to Arab countries. Given the fact that these countries are developing themselves, it is likely that they are producing for themselves similar manufactured products to those which Jordan is exporting. If this is the case, it is likely that exports to these countries will decline in the near future. Early warning of this can be seen from the decline of the share of overall exports to the Arab Common Market taken by basic manufactured goods. Table 2.7 shows how these declined from 72% in 1972 to reach 41% in 1975. This trend makes it necessary for trade policy to be directed towards finding new market potentials in the Arab world - especially among the oil producing countries. In these countries Jordan's manufactured exports are competing with those of both developed and other developing countries. Jordan, however, may have an advantage over

other countries because of its geographical location, close to most of the Arab oil producing countries, making transport costs less than for its competitors in the developed West.

Had there been a special trade policy to promote exports to the oil producing countries, Jordan's performance might have been more successful.

It has been mentioned that in the Five Year Development Plan the creation of a special fund for exportswas suggested. It was not clear, however, how such a fund would be financed. In this connection, given the high imports and the need to promote exports, the use of multiple exchange rates differentiating between essential and luxury imports on the one hand and manufactured exports on the other should be considered.

Before concluding this chapter, and in view of the relative importance of phosphates to exports, some detailed discussion is required of this industry.

(f) The Importance of Phosphates

Phosphate deposits are believed to lie under a large area of the country, especially in the east as far as the border with Syria and Iraq, as well as the southern part. 'In fact it is believed that these deposits occur beneath 60% of the total surface area.[1] Although these deposits may cover such a huge area, the exploitation carried out so far, since the birth of the country,has been mainly concentrated on the region of Hijaz Railway, particularly at Russifa, north of Amman

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1. British Sulphur, Phosphate and Potassium, No. 65 (May-June 1973), p. 26.

and at El hassa between Amman and Aqaba (see Map 3). The reason is that phosphate deposits are concentrated in these two regions and are relatively easy to extract and are of sufficiently high grade to be acceptable to the international market.

Within these areas total resources are estimated to be over 1,000 million tons. More recently, however, the United Nation Development Program (UNDP), in conjunction with the Natural Resources Authority in Jordan, initiated a project for the evaluation of the phosphate reserves between El hassa and Russifa. These investigations resulted in an estimated reserve value of 745 million tons, which in addition to those already identified raise the country's resources to over 1,000 million tons.[1] It is evident, however, that total national resources are considerably higher.

The difficulties in estimating Jordan's reserves creates a problem in assessing its share in the world reserves which are also difficult to estimate. Some sources estimate a world total of 150,000 million tons, while others are much lower, at 46,000 million tons.[2]

Of total world production, over half is accounted for by the U.S. and the U.S.S.R. The remaining half is produced by the developing countries, among which Morocco is the major producer, supplying almost one third of the world demand. However, Jordan's share, together with that of other developing countries such as Senegal, Togo, although still small, is growing in importance. As can be seen in Table 2.16, while

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1. Ibid., p. 27.

2. British Sulphur, Phosphate reserves and the ecologist, London, (March 1972), p. 3.

Map 3

Jordan's Phosphate Resources

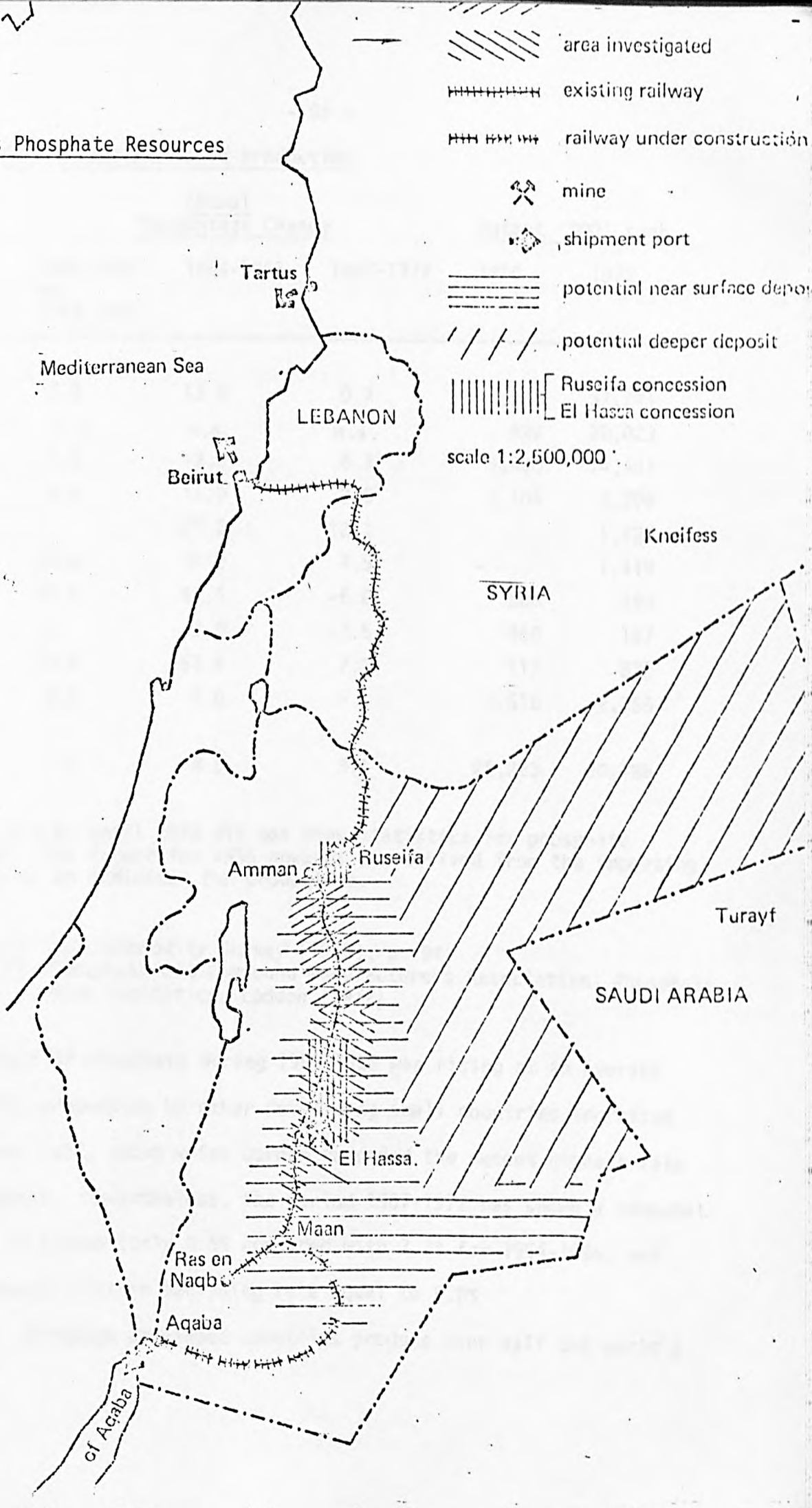

Table 2.16: Phosphate World Production

	Annual Percentage Change			Output '000' tons	
	1955-1957 to 1964-1966	1964-1965	1967-1972	1956	1972
U.S.	7.9	13.0	0.7	15,998	37,741
U.S.S.R.*	n.a.	n.a.	n.a.	422	20,023
Morocco	6.9	-3.0	8.3	5,400	14,461
Tunisia	4.0	11.0	2.5	2,104	3,296
Togo	-	27.0	12.1	-	1,928
Senegal	34.0	31.2	7.5	-	1,419
Jordan	16.1	47.5	-5.0	208	693
Egypt	0	-3.0	-7.5	460	197
Israel	13.9	61.6	7.5	117	872
Others	3.0	5.0	-	3,518	9,355
Total	7.3	8.0	3.5	28,223	90,185

* The U.S.S.R. until 1970 did not show statistics for phosphate production. The figure for 1956 onwards was derived from the importing countries as an indicator for production.

Source: (1) U.N. Commodity Survey (1968), p. 94.
(2) Phosphate and Compound Manufacturers Association, Phosphate Rock Statistics, London (1972).

world output of phosphate during 1955-1966 was rising at an average rate of 7%, production by other developing small countries increased by a higher rate, among which Jordan recorded the second highest rate after Senegal. Nevertheless, the period 1967-1972 has shown a somewhat low rate of growth (only 3.5% compared with 7.3% for 1954-1966) and Jordan showed a rather declining rate equal to 5.0%

Although developed countries produce over half the world's

phosphates, they consume over two thirds of the total world supply because of their high level of industrial development. Only 5% of total world fertilisers produced are manufactured in the developing countries.[1]

While phosphate exports are of crucial importance to the Jordanian economy, its share in the world market is relatively small. The shares and trends of the main exporters are presented in Table 2.17.

Table 2.17: Exports of phosphates (million tons)

Exporting Country	1956	1966	1972	Percentage change per annum 1956/66	1967/72
U.S.A.	2.7	8.4	12.5	11.2	7.0
U.S.S.R.	0.4	1.3	6.3	13.6	45.0
Morocco	5.6	9.2	13.5	5.7	5.1
Tunisia	1.8	2.3	2.3	2.5	-
Togo	-	1.1	1.8	n.a.	7.9
Senegal	-	1.0	1.5	31.0	6.2
Jordan	0.2	0.7	0.9	15.8	3.5 [2]
Egypt	-	0.3	0.2	0.7	-
Israel	0.2	0.4	0.6	-	6.0
Totals	14.0	26.1	43.5	7.7	9.2

Source: 1956-1966, U.N. Commodity Survey, 1968, p. 95.
1966-1972, The International Superphosphate and Compound Manufacturers Association, Phosphate Rock statistics.

From this table the growing importance of Jordan (despite the small share) is very clear, i.e., while world exports rose by nearly 8% between 1955-1966, its exports increased by almost 16%. Only Senegal

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1. Some 80-85% of phosphate is used in manufacturing of phosphatic fertilisers, the rest being used for other minor applications such as matches, ammunitions, fireworks, ceramics and in the photographic industry.

2. This occurred when there was a drop of output of 5% during the same period. This discrepancy is accounted for by stock changes.

exceeded this rate of increase. The period 1967-1970, however, shows a paradoxical trend; Jordanian exports increased by a low rate compared with the world exports. Only Tunisia did not show any increase in its exports. The deterioration in the relative positions of Jordan and Tunisia during the period 1967-1972 reflects the differences in the development strategy and the export-policy in the two countries. The decline in Tunisia's share was mainly due to the new development policy adopted by the Tunisian government in 1963.[1] The aim of this policy was to increase the export of manufactured phosphate fertilisers rather than the export of raw phosphate. The result of this policy was reflected in the increase of internal consumption of raw phosphate from 10% in 1956 to 30% in 1972.[2]

While the decline in the Tunisian world market share was due to planned development, the deterioration of Jordan's position was due to the failure of the phosphate company to expand its market. Since its inception, the objective of the company (JP) was to export its entire output. Thus to date[3] there has been no demand for this mineral internally beyond, a small tonnage which is mainly bagged for export. Data for volumes and destinations of phosphate exports are presented in Table 2.18. From the table it is clear that there were two groups of exports markets served by the Jordanian mines; these were a) the Mediterranean and Black Sea countries served by sea via Beirut (or Aqaba before 1967) or by direct land routes from the mines to Turkey, and other Curopean countries.

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1. See Commodity Survey, U.N. (1968), New York. United Nations publication No. E691105, p. 95.

2. The International Superphosphate and Compound Manufacturers Association Limited, London, (1972), Phosphate Rock Statistics, 1956-1972.

3. Although plans were prepared to establish a fertilisers industry in Jordan in 1973 and in 1976, up to the present the implementation of these plans has not taken place (Jordan Planning Council, The Five Year Plan, 1976-1980).

Table 2.18: Destination of Jordan's phosphate exports, 1959-1975 (in 000 tons)

Country	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Syria	-	-	-	-	-	-	-	2	1	1	1	1	1	-	-	-	-
Lebanon	18	10	9	13	14	21	42	38	4	124	91	141	101	90	122	128	49
Turkey	-	-	-	-	-	96	5	-	58	99	77	-	56	81	121	123	180
Romania	-	-	-	-	-	-	-	-	-	5	-	-	10	-	-	-	175
Italy	1	-	17	-	2	45	84	114	28	31	-	-	-	-	-	-	81
France	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	49
Czechoslovakia	46	47	64	81	61	78	69	59	60	36	43	47	31	51	41	49	71
Belgium	-	-	-	-	-	25	30	-	-	-	-	-	-	-	-	10	56
Yugoslavia	155	150	185	134	165	184	180	194	130	210	249	193	127	50	38	83	27
Poland	31	39	10	9	20	-	-	-	-	-	-	-	-	-	-	-	23
Spain	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greece	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Pakistan	-	-	-	-	-	8	6	-	12	24	-	29	-	21	22	43	-
India	15	71	107	129	96	119	139	303	353	479	368	62	249	392	343	599	111
Taiwan	-	-	-	-	-	-	-	-	-	-	-	13	-	48	81	98	125
China	-	-	-	-	-	-	-	32	27	55	67	10	-	-	-	-	-
Ceylon	-	-	2	-	11	9	7	12	12	22	2	2	8	3	6	2	16
Japan	-	-	-	5	-	39	52	-	8	25	9	5	49	180	195	258	90
Others	-	-	-	-	-	-	-	-	-	-	14	154	20	36	120	126	40
Total	266	327	395	371	369	627	604	754	881	1116	928	657	651	952	1089	1469	1111

Source: Jordanian Phosphate Mining Company, The Annual Reports (1965), (1970) and (1975), Amman.

b) Africa, Asia and the Far East served from Aqaba on the Red Sea.

Expansion in the Mediterranean and Black Sea countries was inhibited by increasing transportation costs and competition from Morocco and, to a lesser extent, from Israel. Jordan's relatively weak competitive position in this market is due to its lack of a port on the Mediterranean which has obliged the JPM to convey its phosphate by road across Syria and the Lebanon to the port of Beirut. This tenuous link was liable to disruption when Jordan was in political disagreement with Syria, as occurred in 1971 when the border was closed by the Syrians. Consequently deliveries to the Mediterranean were stopped altogether and as a result total export of phosphate to these markets were the lowest since 1965. Although the border was re-opened in May 1972, many of Jordan's traditional markets had by then committed themselves to supplies from elsewhere,[1] and exports to this area were to continue decreasing. These political factors together with the length of the road increased the cost of transportation to the extent that in some years it was more than the cost of production.[2] That limited expansion which did take place in the sixties was made possible by trade agreements with Yugoslavia in 1957 and with Czechoslovakia in 1962.

On the other hand, Jordan's competitive position is especially strong in countries bordering on the Indian Ocean, as the other Red Sea suppliers - Israel and Egypt - are unable to deliver significant tonnage into this area. The competitive position of Jordan is clearly revealed, when we compare the freight costs from Aqaba into these markets with other suppliers as can be seen in Table 2.19.

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1. Phosphates and potassium, No. 65,(May-June 1973), London, p. 26.

2. See the Jordan Phosphate Company Annual Report, Amman (1972).

Table 2.19: Average cost of freight per ton in 1970 ($ US)

	Japan	China	India
Kasser (Egypt)	--	62	65
Casablanca	86	145	140
Florida	120	--	146
Aqaba	84	89	53

Source: The International Superphosphate and Compound Manufacturers Association Limited, Freight Bulletin (1969/1970).

In spite of this relatively strong competitive position, exports to these markets have not been expanding to meet the full export potential[1] and the expansion that did take place was mainly due to the trade agreement with India. This agreement was concluded in 1965. As a result the exports to India increased from 15,000 tons in 1959 to 303,000 tons in 1966. In 1970, however, political considerations intervened when Jordan supported the exclusion of India from an Islamic Conference.[2] Consequently India cut trade relations with Jordan and reduced its import from 368,000 tons in 1969 to only 62,000 tons in 1970. Political factors were also to play a role in the exports to China.[3]

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1. Potential exports estimated by the Economist Intelligence Unit (for Jordan) was 3.4 M tons in 1970, while total export to these markets reached only 500 thousand tons in that year. Source: The expansion of phosphate industry in Jordan, Part II: Market and Marketing, The Economic Intelligence Unit, London (1965).

2. The Islamic Conference of 1970 was held in Saudi Arabia and Jordan supported Pakistan against India.

3. Exports to China, although they were small amounts, have grown since 1966. These exports stopped in 1960 when the trade was terminated by the Chinese as a gesture of protest against the Jordanian treatment of the Palestinian Movements in that year.

In addition to these political constraints, expansion was further limited by the absence of an efficient marketing system. This put the Jordanian phosphate industry at a considerable competitive disadvantage, both because of the general state of the world market over the past two decades, and particularly in 1972 when there was a slight excess of supply over demand. Furthermore, although there was a listed price for each country, actual sales went beyond this price as the price depended largely on the grade of the phosphate as well as the level of demand.[1] The determination of the price realised at each transaction depended, therefore, mainly on the efficiency of the marketing departments of the supplying countries.

In Jordan, this department was extremely inadequate. In 1970 it comprised only three marketing officers, none of whom specialised in this field Consequently the decision makers in JPM were not provided with details of current prices, freight charges and the changes in requirements of the importing countries. The inefficiency of this marketing machinery is clearly illustrated in Table 2.20, which shows the prices tendered by various suppliers to India, Morocco and Israel's prices were less than Jordan's price, despite the relatively low charges of freight from Aqaba to India compared with other suppliers.

Table 2.20: Phosphate Prices tendered to India, 1970 ($ US)

Exporting Country	Price - Fob	Price - Cif
Morocco	10.25	16.25
U.S.A.	6.00	23.75
Israel	9.60	16.10
Algeria	10.50	-
Jordan	10.20	16.45

Source: Phosphate Company, Jordan, unpublished data.

1. Phosphate and Potassium, No. 68 (Nov/Dec, 1973), pp. 3-5.

Summary

Although international trade has played an important part in Jordan's economic development, the nature of its role is materially different in a number of respects from the one that usually obtains in developed and most other developing countries. First, visible exports earnings represent only a small fraction of total foreign exchange earnings - whereas they tend typically to be the predominant source of foreign exchange in less-developed countries. Secondly, while both export and import duties are the predominant source of government revenues in most developing countries, Jordan is dependent on import duties alone. Thirdly, the effect of foreign trade has been merely to extend the range of commodities available domestically, yet with only a limited impact on the economic development.

The predominant importance of foreign trade in the Jordanian economy has been illustrated by the trend of the ratio of trade to GDP. This ratio increased from its already high level of 49.1% in 1954-1960 to over 70% during 1973-1975. Although imports have been the main factor determining this high and increasing level of foreign trade, exports have, especially in the recent years, shown a notable increase (17.1% per annum), which exceeds the rates of growth in imports and GDP. Indeed this remarkable rate of growth has had some impact on the growth of GDP, but in terms of development, the export impact has been very limited. The explanation lies in the phenomenon which has occurred in Jordan, as well as other developing countries; that is, despite the large increase in manufacturing exports, these are still confined to a very few commodities, i.e. phosphate and agricultural exports. In addition, concentration in exports has been shown to exist both in commodities and

in geographical distribution (over 60% of Jordan's exports are directed to Arab countries).

The impact of this concentration was shown to deter development through: i) large fluctuations in export prices, volume and overall earnings, and ii) lack or little secondary impact created by export performance. The cost of the high fluctuation in exports on a developing economy like Jordan's was seen to affect investment in both the government and private sectors. Exports are mainly in the hands of the private sector, but the instability of exports has had its impact on government revenues from income tax and its profit from investment in the export sector. Further, an additional burden was added to government expenditure by the increase in subsidies to certain exports such as phosphates. In the private sector, the main burden was borne by agriculture. Instability in exports was associated with fluctuating investment in this sector as well as movement from the productive sector to the services.

Because of the high concentration of Jordan's exports there has been very little secondary impact. This limited impact, as has been shown, is associated with concentration on phosphate and agricultural exports. Only manufacturing exports, despite their high dependence on imported inputs, manage to have a stimulus on other economic sectors.

One main reason for the limited impact of the export performance is that government policies have been so far concentrated on stimulating import substitution industries as the means for solving the chronic deficit in the balance of payments. Only recently, however, the Five Year Development Plan, 1976-1980, drew attention to the need for a shift in policy towards export promotion. Nevertheless, investment programmes proposed in the plan, continue to be concentrated on exploitation of

natural resources rather than creating manufacturing exports, with its high secondary impact.

In such circumstances and when a developing country fails to increase its exports in parallel with its developmental needs, there is a possibility that it will alter the import structure to suit this purpose. The following chapter will examine the role of imports in the process of development of a small developing country like Jordan.

CHAPTER THREE: THE PATTERN OF VISIBLE IMPORTS AND ITS ADVERSE CONSEQUENCES FOR ECONOMIC DEVELOPMENT

While visible exports had little impact on the economic development of Jordan during 1950-1975, despite their high rate of growth, visible imports played an important role in the economy through their effect on domestic production and consumption. Two aspects of the problem will be examineed within this chapter - the effect of Jordan's high growth rate on the volume and structure of imports; and the converse influence of changes in imports on the economic development process.

Orthodox theory of the inter-relationship between trade and development assumes a positive relationship between development and imports. The role which imports can play is basically related to the structural transformation of an economy. Through the enlargement of the range of commodities available, imports may help economic development by diversifying economic activities and increasing the share of manufacturing and/or processing industries. However, developing countries, in their efforts to catch up with advanced countries, are faced with balance of payments difficulties arising from structural constraints brought about by the development process itself. Given these constraints, it is essential for developing countries to import those goods which are necessary for the diversification of economic activities.

To achieve this end a heavy reliance on imported capital goods is required which in itself permits this structural change. Therefore, unless the developing country adopts proper measures to ensure this inflow of capital goods, it is possible that the largest proportion

of imports may consist of consumer goods. The effect of these on the level of investment will be quite different from that which may occur in a developed economy. In the developed economy the effect of this group of imports may be to direct additional domestic resources towards investment, given no serious negative effects on growth and development. In a small developing economy, on the other hand, limited physical resources and the disadvantages of the small size of the domestic market may mean that the inflow of a large proportion of consumer goods will further stimulate consumption, rather than the required investment. However, imported consumer goods may stimulate manufacturing industry by indicating the profit possibilities in the domestic markets for these particular types of goods. On the other hand, the impact of this inflow of goods might not be large enough to bring about the required expansion and diversification of economic activities. Furthermore, while this may be a tendency that would not be resisted in the case of heavily populated and relatively high per capita income countries, in the case of a small developing country such as Jordan it cannot be allowed to occur. This is not to suggest that imported consumer goods cannot play a role in economic development, in fact they may increase investment, provided that the majority of these imports consist of necessities which cannot be easily supplied domestically and without which development would be hindered.[1] Naturally, the demand for imports in general will always be related to the stage of industrialisation of the importing country. When economic activities are con-

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1. Ignacy Sachs: Foreign Trade and Economic Development of Underdeveloped Countries, Asia Publishing House, India (1965), p. 99.

centrated in traditional industries such as agriculture and handicrafts, the need for imports is low. As industrialisation increases and division of labour becomes more highly specialised the need for more sophisticated capital goods also increases. This need cannot be satisfied by domestic production alone and so the import level is likely to rise. However, the ability of a developing economy to import the needed capital goods may be influenced by increasing imports of consumer goods which results from growth and development. Industrialisation inevitably leads to a rise in real income for individual consumers, and the domestic supply constraint means that the demand gap can only be closed by increased importation. In theory, this situation should begin to rectify itself as industry develops and the domestic supply situation improves, causing a decline in the need to import consumer goods. In practice, however, the type of goods available through domestic production always lags behind the changing demand generated by the increased sophistication implicit in the development process. As a result the level of consumer imports to a developing economy can be expected to increase. This serious impact of 'consumption sophistication' is further intensified by the fact that with the increase in income the consumption patterns in the developing countries are to a large extent influenced by consumption patterns in the developed countries, through a 'demonstration effect'. There is a further impact on production. Increasing sophistication of producers may sometimes lead to the importation of needlessly advanced 'luxury' capital goods, such as prestigious goods that tend to have a high development opportunity cost. Given these arguments, imports of a developing country can only contribute to economic development if proper measures are taken to ensure that the pattern of this inflow is capital goods biassed, rather than consumer goods biassed. This

general point will be illustrated in a statistical analysis of imports into Jordan. In this particular case the main effect of imports has been to cause an increase in the supply of consumption goods. This role in bridging the gap between supply and demand is clearly demonstrated in Table 3.1, which demonstrates the increasing importance of imports as a supplementary factor in enlarging supply. The table illustrates a number of points about the structure of supply and demand. Firstly, despite the high growth of GNP (from 116.4 JD million in 1960/61 to over 346.2 JD million in 1973/75) its share in the total available resources declined, resulting in a consequent increase in the percentage share of imports which rose from 28.7% to about 38% in the same period.

The second important phenomenon revealed in the table is that spending on consumption alone was greater than GNP, while expenditure on investment remained stable and relatively small. In fact, the level of consumption in Jordan is exceptionally high, especially when compared with other countries with a similar per capita income (see Table 3.2)

The lesson of the Jordanian experience over the past twenty-five years or so is clear. Jordan has depended heavily on an import surplus as the primary source for development, with a concomittant liberal trade policy ensuring a continuous inflow of goods into the economy. Little effort was made to depress domestic demand through fiscal and monetary measures. Yet Jordan has reaped little structural long term benefit from its continuous dependence on this import surplus. This is clear from the continuous predominance of the consumption sector, a feature that will be further illustrated when an examination of the composition of imports is made. It may be argued that in some developing countries such as Jordan, where for historical and social

Table 3.1: Available Jordanian resources and their uses (values in JD million)

Sector	1960/1961		1965/1966		1967/1968		1971/1972		1973/1975	
	Value	%	Value	%	Value	%	Value	%	Value	%
GNP at market prices	116.4	71.3	183.1	72.3	202.4	71.8	244.4	71.0	346.2	62.0
Import of goods and services	46.8	28.6	70.1	27.7	76.5	28.2	47.0	29.0	208.5	38.0
Total available resources	163.2	100.0	253.2	100.0	278.9	100.0	341.4	100.0	554.7	100.0
Expenditure on consumption	123.1	75.4	181.8	71.8	208.4	74.7	253.8	77.0	353.0	69.0
Gross Domestic capital formation	18.0	11.0	27.0	10.7	31.7	11.4	47.2	15.0	75.8	14.0
Exports of goods and services	22.1	13.6	44.4	17.5	38.8	13.9	27.4	8.0	88.4	17.0
Total	163.2	100.0	253.2	100.0	278.9	100.0	327.4	100.0	517.2	100.0

Source: (1) Department of Statistics, National Accounts Statistics 1954-1966, Amman, n.d.
(2) Department of Statistics, National Accounts Statistics 1967-1972, Amman, n.d.
(3) Central Bank of Jordan, Monthly Bulletin (January 1978), Amman.

Table 3.2: The importance of consumption and imports in various developing countries, 1970

Country	Per capita income in U.S. $	Ratio of consumption to GNP	Import % GDP
Jordan	258	108	44
Honduras	276	85	34
Syria	269	88	24
El Salvador	291	86	25
Paraguay	249	86	16
Tunisia	270	82	27
Ecuador	269	87	22
Philippines	259	88	19
Morocco	216	87	20

Source: United Nations Year Book National Account Statistics, Vol. iii, (1972) p. 3, 17.

reasons the propensity to emulate developed countries consumption standard is likely to be high, then free trade policies tend to lead to low imports of investment goods compared with consumption goods. In the absence of interventionist policy to correct this tendency, development tends to be hindered so that the gap between demand and supply is likely to remain large. It is clear that before this situation can change, the problem of the structural deficit in the balance of payments arising from a lack of control over imports, must be faced.

Before going into a detailed examination of the factors determining the level of composition of Jordan's imports one important question needs to be posed and answered. Given that an import surplus is usually a short term policy expedient to fill the demand/supply gap, how did the Jordanian economy manage to achieve this import surplus, and to run it for such a long period of time?

The ways and means which may enable a country to run an import

surplus depend on the particular industrial structure of the country and the nature of the gap, and whether it is likely to be a temporary or permanent phenomenon. In the case of a short term import surplus, the country involved may borrow from abroad, attract foreign investment, rely on short term credit from the money market, or run down its foreign reserve assets. In the long run, however, no country can afford to run an import surplus unless its capacity to import is supplemented by a continuous inflow of foreign grants (free imports). Jordan provides a perfect case study of the latter situation.

Aid has been the main source of the Jordanian capacity to import. This is made clear in Table 3.3 where two import capacity measures are applied. The first is the indigenous import capacity which is defined so as to include domestic exports plus net income from invisible trade. The second is the actual import capacity, which includes in addition to exports the inflow of aid and this provides a crucial constraint from the economic development point of view. However, in the Jordanian case, while her import capacity has grown it has not been sufficient to match the increasing volume of imports, as is demonstrated in fig. 3.1. Indigenous import capacity accounts for only one third of the total volume imports. The difference has always been offset by grants, and long-term foreign capital. Actual import capacity derived from these sources as well as from indigenous sources has, in most years of the period, exceeded the volume of imports, thus allowing the government to accumulate some foreign reserves. It could be concluded, therefore, that Jordan has never actually experienced a severe problem in its actual import capacity because of the continuous inflow of aid and long term loans. In this connection a recent study of imports in Jordan shows that Jordan is

Table 3.3: Import Capacity in relation to total imports (in JD million)

Average for years	Import Capacity			Actual Imports (4)	% 3/4
	Derived from exports (1)	Derived from aid (2)	Total import capacity (3)		
1950/1954	5.40	17.00	22.40	23.60	94
1960/1961	14.00	27.66	41.16	41.20	101
1963/1964	21.22	30.10	51.32	51.51	99
1965/1966	30.30	35.75	66.05	61.50	107
1967/1968	19.65	57.65	77.30	55.75	138
1971/1972	23.01	59.86	82.96	85.50	97
1973/1975	76.10	125.50	201.60	165.47	121
Average for years 1950-1972	13.50	31.20	44.75	43.65	102

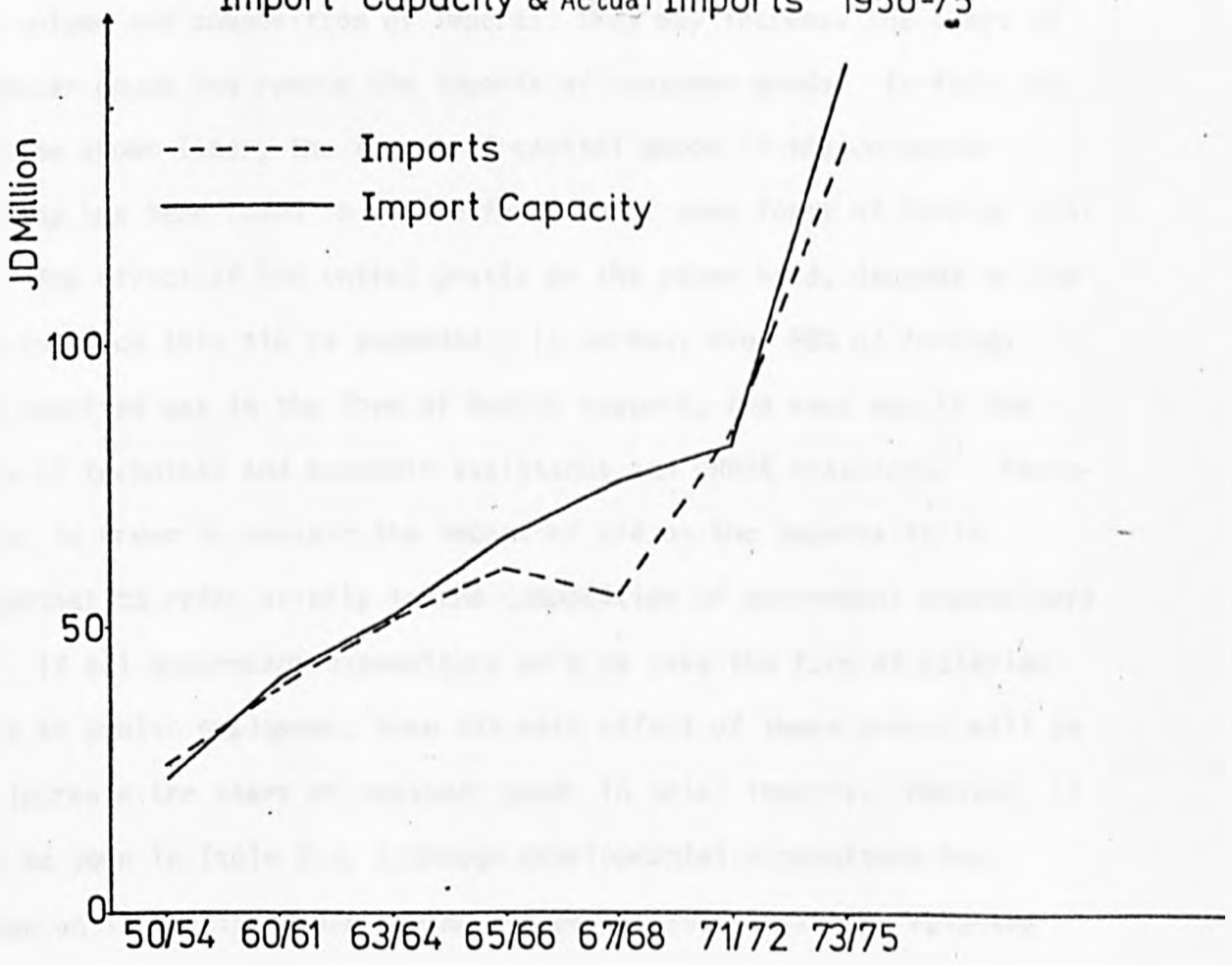
Source: Based on Statistical Appendix 3, p. 363.

better off than most other developing countries in the sense that import capacity has never been a constraint on the inflow of imports.[1]

Most of the incoming capital to Jordan has taken the form of foreign aid and loans on concessional terms and grants. Loan repayments necessitate a surplus in the current account, unless of course loans are repaid by more borrowing from abroad. However, up to the present, loans have accounted for a very small proportion of foreign aid, unlike most other countries when the converse is true. What is of interest here is the effect of grants, and the form they take, on the balance of payments in general and the import sector in particular.

1. C. Millham:Rationalisation of imports in Jordan, Royal Scientific Society, Amman (December 1977), p. 31.

Fig.3.1
Import Capacity & Actual Imports 1950-75



Source: Computed from Appendix 3.

So far as the recording and accounting of the balance of payments is concerned, grants have only one entry in the accounts as they do not generate an outflow of capital. This is a simple fact about balance of payments recording. However, it is their indirect and direct impact on the balance of payments that is of importance here. Grants tied to particular development projects have an immediate effect on the volume and composition of imports: they may increase the share of producer goods and reduce the imports of consumer goods. In fact, as will be shown later, the import of capital goods in the Jordanian economy has been found to be the function of some forms of foreign aid.

The effect of the untied grants on the other hand, depends on the way in which this aid is expended. In Jordan, over 60% of foreign aid received was in the form of budget support, the rest was in the form of technical and economic assistance and UNRWA transfers.[1] Therefore, in order to analyse the impact of aid on the imports it is important to refer briefly to the composition of government expenditure.

If all government expenditure were to take the form of salaries paid to public employees, then the main effect of these grants will be to increase the share of consumer goods in total imports. However, as can be seen in Table 3.4, although developmental expenditure has shown an increasing share during the period 1950-1972, the relative importance of current expenditure has not altered appreciably, and it still accounts for over two-thirds of total government expenditure. Furthermore, it is important to point out that not all recorded developmental expenditure is in actual fact of a developmental nature. Debt services,

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1. See B. Saket, Foreign Aid to Jordan, unpublished Ph.D Thesis, Keele University (1976), p. 70.

Table 3.4: Government expenditure (in JD million)

Year	Recurring		Developmental		Total
	Value	%	Value	%	
1950-1956	10.99	82	2.28	18	13.28
1957-1960	21.84	82	4.49	18	26.33
1961-1964	29.50	82	6.16	18	35.66
1964-1966	35.13	77	10.17	23	45.30
1967	44.66	65	23.50	35	68.15
1968	57.18	71	23.33	29	80.51
1969	65.23	73	23.17	27	88.50
1970	59.02	73	21.68	27	80.70
1971	60.73	73	22.41	27	83.14
1972	70.31	66	35.56	34	105.87
1973	78.61	65	40.90	35	119.51
1974	103.61*	71	43.01	29	146.62
1975	136.25*	65	73.18	35	209.43
1976	144.53*	65	78.39	35	222.92

* preliminary.

Source: Central Bank of Jordan: Jordan Fiscal Policy, (1970), Table 3. 1968-1972, Statistics pertaining to some aspects of the Jordanian economy, Central Bank of Jordan (October 1974), Table 20. For 1973-1976 see Central Bank of Jordan, Monthly Bulletin, Amman (January 1978).

emergency expenditure, for instance, although they are of a recurring nature, nevertheless, are classified under capital expenditure.[1] Given that current expenditure is mainly directed towards defence and takes the form of wages and salaries, it is likely that it will not have a positive effect on production.[2] Therefore, the increase in personal income resulting from this expenditure will undoubtedly be directed again towards imports of consumer goods. Another important

1. Fiscal Policy in Jordan, Central Bank of Jordan, 1970, Amman, p. 71.

2. Defence expenditure accounts on average for over 20% of the government's budget. However, there was a sharp increase after the 1967 war and the 1970 civil war, so that the share of defence increased to reach 30% in 1970.

implication of the budgetary aid is that grants become a substitute for taxes. Now it can be justifiably assumed that a fair proportion of government expenditure will be undertaken regardless of the availability of aid. Once this assumption is accepted, it is clear that the effect of budgetry aid is to lower taxes. Low taxes necessarily imply low savings, since the former is the main determinant of the latter. It is well known that in underdeveloped countries most of the tax revenue is collected in the form of indirect taxes. The tax base of indirect taxes is usually narrow and it is not possible, for political and economic reasons to increase indirect taxes beyond certain limits, consequently the enlargement of the tax base tends to necessitate the development of a system of direct taxes. The main barrier to the development of a comprehensive system of direct taxes is political rather than economic. In underdeveloped countries those who happen to lose from the introduction of direct taxes are also the ones who hold a certain level of political power. It is also necessary to point out that there are some economic obstacles. The idea of income being measurable is appropriate in industrial societies whose economic activities occur in the market, but in many cases in developing countries, expecially in the agricultural sector, it is not clear what income is since no accounts are kept and exchange often takes place on a barter rather than a monetary basis. Nevertheless, political rather than economic obstacles are the main concern. In the Jordanian case the easy availability of grants has led to a lack of momentum for the reform of the fiscal system. There has been no great pressure to lower the level of consumption or to boost the savings ratio. Clear evidence of this lies in the fact that in nearly all of these years

under review, total consumption has exceeded the GDP. Given the low export ratio, the guaranteed result is the large import surplus which has characterised the Jordanian economy since it was created. The consequences of the large import surplus and the way it is financed was clearly shown to be reflected in the industrial structure of the economy. Chapter one has already outlined how the import surplus was one of the main causes in creating the services oriented economy. Thus, it follows that a sudden reduction in the level of imports would severely retard the national income through the decline of imported capital and raw materials. Therefore, it is fair to argue that from an economic development point of view, import surplus can be used as a supplement or replacement for domestic resources for a short period of time only. In the long run it is essential that certain adjusting measures should be taken to reach a reasonable balance in international transactions.

The continuous dependence on the 'free imports' foreign support in the case of Jordan is best explained by political factors rather than economic. Briefly, the answer lies in the establishment of Jordan as a political entity whose resources were unable to meet the existing demand,[1] and whose foundation came as 'an attempt to find the best solution of war time pacts and pledges'.[2] Great Britain thus found itself in a position where it had to finance the government it had created and over 50% of total government revenues between 1924 and 1943 were in the form of grants, mainly representing a British treaty contribution.[3]

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1. See chapter one, p. 1 to 3.
2. A. Konikoff: Transjordan, An Economic Survey, Jerusalem (1946).
3. Ibid., p. 100.

Given the lack of economic resources for exploitation, the motive for British aid to Jordan during that period can be seen to have been political.[1] Furthermore, the country continued to depend on British aid even when the part of Palestine which had remained in Arab hands after the 1948 war was annexed to Jordan. The need for aid increased, as a result of this war with the flood of refugees into the country.

What was true for British aid was equally so for that from the United States, which replaced it after the termination of the Anglo-Jordanian treaty in 1957. U.S. government support is given for foreign countries either making large military efforts of which the U.S. approves or for those requiring funds for political reasons. Hamilton Armstrong pointed out that American aid to Arab countries was aimed at securing political stability in the Middle East.[2] These political motives cannot be examined in this study, but are mentioned here only to show that without these motives, the economy could not have maintained the continuous flow of foreign aid, without which its capacity to import would have been reduced to one third its present level.

The continuous inflow of aid, therefore, has enabled the economy to maintain a high level of imports surplus. Between 1950 and 1975 imports showed a continuous increase which averaged 12.7% per annum. There was a decline in only three years, 1961, 1967 and 1970. The decline of 1961 was mainly due to the large increase in GDP, resulting from the agriculture sector, and the consequent decline in the demand for imported consumer goods. The 1967 fall was mainly due to the large inflow of imports which went unrecorded, because it came in the form

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1. For detailed information on the motives behind foreign aid to Jordan see B. Saket: Ph.D. Thesis, Keele University, (1976), chapter 4.

2. Hamilton F. Armstrong: Lebanon, Jordan and Iraq, Report on U.S. Foreign Assistance Programs, Washington, U.S. Press Office (February 1957), pp. 1-7. See also H. J. P. Arnold, 'Aid for Development', Apolitical and Economic Studies, London, (1966), p. 81.

of aid in kind to support the flood of refugees of that year. The fall of 1970, however, unlike those of 1961 and 1967 was accompanied by a general decline in economic activities and GDP actually fell by 5% compared with 1969. Naturally the civil war in that year was the main reason behind this decline in economic activity. However, the drop of 1970 was followed by a rapid increase and imports in 1970 exceeded the pre 1970 level, recording the highest ever rate of increase.

To explain the movements and seemingly permanent increase in the import sector in relation to economic development it is important to break down these imports into groupings, without which it is difficult to draw general conclusions about their behaviour in a small developing country like Jordan.

They can be classified into three major groups: imports of consumer goods - defined here to include all imported goods which are consumed by households or the government; imports of capital goods - including all imported machinery and equipment for the use of capital formation; and raw materials or intermediate goods defined to include all imported goods for use in productive activities.

Data on import composition is available for most years in the period 1950-1975. The figures which are presented in Table 3.5 and figure 3.2 show how consumer goods constitute the major part of total imports. During the above period they accounted for almost two-thirds of total imports. The remaining one third is mainly intermediate goods with capital goods accounting for the smallest portion. The latter, however, despite their small share have shown the highest rate of growth, as their share increased from only 4% in 1950 to reach 11% in 1975.

Table 3.5: Imports according to final use (in JDmillion)

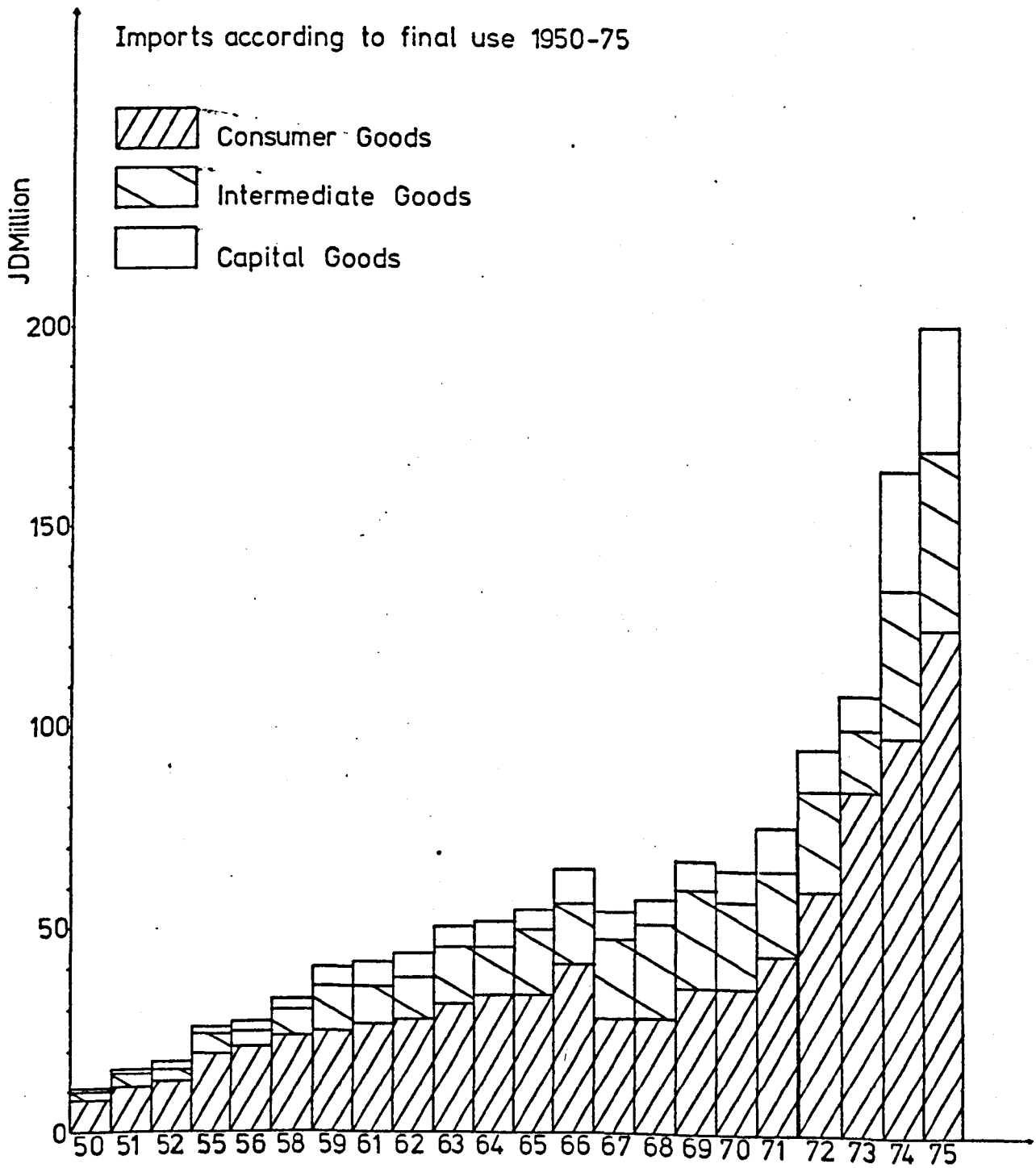
Year	Consumer goods		Capital goods		Intermediate goods		Total
	Value	%	Value	%	Value	%	
1950	8.4	78	0.4	4	2.0	18	10.8
1951	12.5	80	0.5	3	2.7	17	15.7
1952	13.0	75	1.2	7	3.1	18	17.3
1955	20.6	76	2.5	10	3.9	14	27.1
1956	21.2	76	2.9	11	3.7	13	27.8
1958	24.7	73	4.2	12	5.1	15	34.0
1959	25.2	63	4.5	11	10.3	26	40.0
1961	27.5	66	4.4	10	9.4	24	41.9
1962	27.9	61	5.0	11	12.7	28	45.6
1963	32.9	65	3.1	6	14.9	29	50.9
1964	34.8	65	4.2	8	14.6	27	53.6
1965	34.6	62	3.9	7	17.6	31	56.1
1966	42.2	62	5.7	8	20.3	30	68.2
1967	29.6	54	5.4	9	20.0	36	55.0
1968	29.4	51	4.8	8	23.3	41	57.5
1969	36.6	54	7.5	11	33.6	35	67.7
1970	36.2	55	5.4	8	24.3	36	65.9
1971	44.4	58	10.9	15	21.3	26	76.6
1972	60.8	63	10.2	11	24.3	25	95.3
1973	85.3	78	5.9	5	17.5	16	108.7
1974	97.7	62	23.3	15	35.4	22	156.4
1975	135.0	67	23.0	11	45.0	22	203.0

Source: (1) Department of Statistics, Flow of Goods in the Jordanian Economy, Amman, (April 1970).
(2) Jordan Development Board, The Five Year Development Plan, 1976-1981.
(3) Department of Statistics, unpublished data.

In contrast to this, consumer goods, despite an increase in their absolute value, have shown no consistent trend in their relative share. As can be seen in the table, between 1950 and 1968 they showed a slow but declining trend. From 1969 until 1975 however, this share of imports has been continuously increasing.

On the other hand, raw materials have shown a continuous rise so that by 1968 the share of this group increased to 41% compared with only 18% on 1950. From 1969 onwards imports of raw materials declined while imports of consumer goods were rising.

Fig.32



Source: Table 3.5.

The factors behind these changes can best be understood by examining each group of imports and its corresponding demand. Generally, however, changes in the range of imported goods correspond to structural shifts in the economy. The dominant role played by import of consumer goods demonstrates the sectoral disproportions connected with failure of agriculture and lack of diversification in manufacturing output. The expansion in locally produced goods has affected imports in two directions. On the one hand, the increase in income resulting from an increase in production has led to an increase in demand, part of which has to be satisfied from abroad. On the other hand the increase in production has had the effect of eliminating certain items of imports but has increased the imported inputs needed for production purposes.

The large increase in imports was real and not merely the result of increases in prices. This is not to deny the increase in import prices and its impact on the demand for imports, but simply to evaluate the increase in import policies. Until 1966, the price level in Jordan was relatively stable and there was no pressure on domestic prices. Given that imported goods constituted a large proportion of the total supply, it would be plausible to assume that import prices were stable during the period 1950-1966. From 1967 onwards domestic prices started to show an increase and accelerated in the post 1973 period. Furthermore, during the fifties and early sixties, world prices were also stable. By 1971, however, they had increased by 20% from the 1962 level and by 1972 they had recorded a 37% rise from the same base year. The 1973-1974 period witnessed the highest increase ever in world prices.[1]

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1. Bank for International Settlements, June 1977, Annual Report, pp. 31-2.

These indicators of the movement of prices in Jordan and the rest of the world are confirmed by the price index of imports. According to these indices, between 1957-1966 the price of imports showed an increase of only 2% per annum. From 1967 to 1972 they increased by an average of 4.7%. The highest increase, however, was witnessed in 1973 and 1974 when the price of imports increased by 10% and 22% respectively.[1] Here it should be re-emphasised that the relatively slight changes in domestic prices and imports in the pre-1967 period should not lead to the conclusion that the price elasticity of demand for imports is low.

The most important point from the long term point of view is to differentiate between the factors affecting imports, and the more precise question of the right composition of imports. Naturally total imports are sensitive to overall economic conditions rather than domestic or international prices. In the following paragraphs, the trend and the factors affecting each group of imports will be shown in discussing the structure of imports. It is intended here to examine the trend of this group and to examine whether it can be substituted by domestic production and to what extent.

The striking feature about imports of consumer goods is that despite the decline in their share of the imports, their share in total consumption has shown an increasing trend. The ratio between these two variables increased from an average of 20% during 1959-1966 to over 33% in 1973-1975. The only period where a decline was witnessed is the period 1967-1968. This, however, in actual fact does represent

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1. Central Bank of Jordan, Monthly Bulletin (October 1976).

a miscalculation of the imports rather than a decline. In these years a large inflow of aid in the form of commodities went unrecorded and underestimated in the level of consumer imports. It can be argued, therefore, that Jordan is becoming more dependent on imports to satisfy its consumption requirements (see Table 3.6).

Table 3.6: Consumption in relation to imports of consumer goods (in JD million)

Year	Consumption (1)	Imports of consumer goods (2)	Ratio 1/2 (%)
1959	112.5	25.2	22.4
1961	130.9	26.6	21.1
1962	131.5	26.9	21.2
1963	141.8	32.9	21.1
1964	155.7	34.8	22.3
1965	174.8	34.5	20.0
1966	187.1	42.2	22.6
1967	204.9	29.6	14.5
1968	211.9	29.4	13.9
1970	226.9	36.2	15.0
1971	245.9	44.4	18.0
1972	261.7	60.8	23.3
1973	303.5	85.3	28.1
1974	357.6	97.7	27.3
1975	394.4	135.0	34.2

Source: (1) Appendix 4.
(2) Table 3.5.

While this pattern was taking place in Jordan's imports, other developing countries in the Middle East and the rest of the world [1]

1. See J. Bhagwati and C. Wibulswasde, A Statistical Analysis of Shifts in Import Structure in LDCs, Bulletin of the Oxford University, Institute of Statistics, vol. 34 (1972), p. 229.

have managed to reduce this rate of dependency on imported consumer goods. In fact the share and the value of consumer goods imported in most of these countries has declined.[1]

A breakdown of consumer goods imported into 'food' and 'non-food' items may outline the reasons behind the predominant consumer imports. As is to be expected, and can be seen clearly in Table 3.7, about 50% of consumer imports consist of foodstuff and mainly raw food.

Table 3.7: Main compounds of imported consumer goods (in JD million)

Annual average	Food Imports						Other consumer imports		Total
	unprocessed		processed		total				
	value	%	value	%	value	%	value	%	
1951/56	5.5	33	1.9	11	7.4	44	9.1	56	16.5
1958/61	9.5	26	3.2	9	12.7	35	13.0	65	35.7
1962/66	8.4	24	5.3	15	14.1	39	20.3	61	34.4
1967/72	12.0	29	8.1	20	20.1	49	20.7	51	40.8

Source: Department of Statistics, Flow of Goods in the Jordanian Economy, Amman, (April 1970). For 1967-1972, Dept. of Statistics, unpublished data.

The continuous deficit in the domestic supply of food can be explained not only by the shortage of agricultural supply but also by the following reasons. Firstly, Jordan has experienced a relatively high rate of natural increase in population. Secondly, the increase in population and its impact on overall demand was boosted by the large influx of refugees after the 1948 and 1967 wars. Thirdly, the increase in percapita income has played an important role in increasing the

1. Ibid., p. 229.

demand for consumption.[1] While the above mentioned reasons may be considered as a natural cause for the increase in consumption and imported consumer goods, the lack of proper import restriction and the liberal trade policy adopted by the government is to be considered the main source of increasing consumption and the demand for imports.

Domestic agricultural production has never been sufficient to meet the domestic demand for foodstuffs,[2] and Jordan is completely dependent on imports of food such as sugar, rice, tea, coffee and all sorts of beverages and spices. Wheat, which is the staple food of the people, is also imported, although the amount of imports depends on weather conditions. This is in addition to the shortage of domestic supply of animal products which has been another important factor in increasing the imports of foodstuffs.

In Jordan as well as other Middle Eastern countries, efforts to increase agricultural production have been made. Nevertheless, the deficit in food supply remains the main problem of production in all these countries. The problem of Jordan, however, is that its capacity to import is subject to the availability of aid rather than to the level of its domestic exports. Obviously other oil producing countries, due to the vast amounts of oil reserves, can afford to continue importing needed foodstuffs, while Jordan needs to increase its own production to meet the growing demand. Here it could be argued that this continuous flow of imported food was mainly due to the lack of a

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1. Between 1938 and 1948 the annual rate of increase in population was about 2.5%. In 1973 the population of the East Bank reached 1.83 million, partly through natural increase at 3.2% and partly through the refugees from the West Bank.

2. See chapter one, page 17.

clear food policy and the failure in development strategy in the agricultural sector. The under-utilisation of agricultural potential is widely recognised. For example:

> 'Although few, if any, countries can claim to make the best use of their resources, in the Middle East it is only too evident that low increases are largely due to failure (a) to make the best use of the limited natural resources of land and water (b) to apply scientific knowledge and (c) to invest sufficient capital'.[1]

Jordan is no exception to this general case. Several studies have indicated that it is possible for Jordan to increase its agricultural production to meet its domestic demand.[2] Clowson, for example, estimated potential productivity for rain fed wheat of 3 ton per hectare compared with the present level of only 0.7.[3] Table 3.8 illustrates this case clearly. Further, Aresvik has concluded in his

Table 3.8: Present and potential average yields (metric tons/hectare)

	Present	Potential
Wheat (rainfed)	0.7	1.8
Wheat (irrigated)	1.5	5.0
Barley (rainfed)	0.7	1.5
Tomatoes (irrigated)	19.0	50.0
Tomatoes (rainfed)	8.0	20.0
Egg plant (irrigated)	19.0	40.0
Olive (rainfed)	1.8	3.0
Grapes (rainfed)	4.6	7.5
Banana (irrigated)	20.0	33.0

Source: Oddvar Aresvik: The Agricultural Development of Jordan, (1976), p. 337.

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1. M. T. Marto, 'Food production in the Middle East', Royal Scientific Society, Amman (1974), p. 12.
2. Oddvar Aresvik: The Agricultural Development of Jordan, Praeger, London, (1976), p. 335.
3. Ibid., p. 335.

book on agriculture in Jordan that

> 'average yields remained, however, on a relatively low level, even for the best irrigated areas in the Jordan Valley, compared with similar areas in other countries, such as the Nile Valley'.[1]

However, two important points regarding development policy should be emphasised here. First, although agricultural development has been of some importance in development planning, the fact remains that real reform and rationalisation policies have not been pursued. This is rather surprising especially when food imports are the main component of the import bill. Agricultural investment has shown a relative decline in successive development plans.[2] Second, lack of specific recommendations for policy measures is one important phenomenon which characterises development plans in the agricultural sector. All recommendations are normally put in general terms and this creates difficulties in implementing the recommendations. This is clear in the Three Year Development Plan, 1973-1975 and the Five Year Plan, 1976-1980. It could be concluded here, therefore, that the increase in imported foodstuffswas mainly due to the failure to increase agricultural production to meet the demand. Potentially the agricultural sector is able to meet the domestic demand, provided a proper policy is implemented. In this respect Aresvik noted that

> 'through optimal programmes to exploit the agricultural possibilities . . . Jordan could in future, supply a major part of its domestic food requirement and at the same time, increase its agricultural exports'.[3]

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1. Ibid., p. 35.

2. The ratio of agricultural investment declined from 32% in the Five Year Plan 1962-1967, to 27% in 1964-1970 plan, 15.5% in the 1973-1975 plan and to 14.6% in the 1976-1980 plan.

3. Aresvik: op. cit., p. 33.

Non-food imports such as clothing, furniture and other durables have shown a continuous increase during the period 1954-1975, their relative share remaining at the high level of over 50% of total consumer goods. It is an over-simplification to consider all these items as luxury items as they include important consumer goods. Nevertheless, it could be argued with justification that a large proportion of these imports consist of unnecessary luxury goods.

Indicators of luxury items can be seen in Table 3.9 which shows how the value of imported TV sets, road motor vehicles and perfume increased during the years 1965-1975.

Table 3.9: Imports of TVs, road motor vehicles and perfume (in JD thousands)

Year	TVs	Road motor vehicles	Perfume
1965	-	2,588	400
1966	-	4,445	510
1970	1,161	9,996	n.a.
1971	748	9,967	n.a.
1972	1,161	10,028	2,026
1973	1,373	15,577	2,506
1974	2,437	25,299	4,310
1975	4,931	62,368	5,658

Source: (1) U.N. Year Book of International Trade Statistics, 1964-1970, New York (1973).
(2) U.N. Year Book of International Trade Statistics, 1972-1973, New York, (1974).
(3) U.N. Year Book of International Trade Statistics, 1976, vol. 1, New York (1977).

Further, consumer luxury imports can be seen in the increase of private cars registered in Jordan from 16,101 in 1974 to 21,306 in 1975.[1]

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1. Department of Statistics, Statistical Year Book, 1975, Amman n.d.

Income is the first factor usually examined in explaining this trend in consumer behaviour in relation to luxury goods. Most studies have confirmed the income hypothesis advanced by Keynes: the immediate effect of an increase in income is an increase in consumption. Further, as income increases, the demand for manufacturing and non-food imports increases, while the demand for food increases only very little. This has been confirmed in Jordan by the decline in the share of food consumption in the total expenditure of the private sector. Consequently the demand for the luxury items increased, which of course will affect imports.

Therefore, income distribution can be considered as an important factor in determining the level of demand for consumer durables. In Jordan a lack of income distribution statistics inhibits any assessment of the impact of the high income group on these imports. Nevertheless there are indicators to suggest that as income increases the demand for certain luxury imports increases. In this connection a study made by the Royal Scientific Society indicates that the higher income groups are the main consumers of these luxury items.[1] As can be seen in Table 3.10, which is based on the study, the higher the level of income the lower the level of elasticity of demand for luxury items. In the low income group, income elasticity of demand is more than one except for food and clothing. This indicates that the higher income groups in

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1. The study is based on a cross-sectional sample survey conducted by the Department of Statistics in 1968. It is limited, however, by the fact that it was selected by a stratified random sampling procedure from eight income strata relating to government employees in Amman. Therefore, results represent the average consumption behaviour of a limited group rather than the whole economy. See Dept. of Statistics, Family Expenditure and Cost of Living Index for Civil Servants, Amman, (September 1968), p. 1-6.

Table 3.10: Income elasticity of different items at five income levels

Items	Income levels in JD per year				
	301-450	451-600	601-750	751-900	901-1050
Health	1.211	0.369	0.900	1.690	0.459
Transport	2.181	5.484	1.484	2.191	1.187
Furniture	2.753	1.129	2.923	1.424	0.283
Recreation	1.536	0.797	1.386	1.875	0.759
Education	2.682	1.906	0.671	0.732	1.332
Clothing	0.440	1.035	0.858	0.727	0.538
Tobacco	1.247	0.951	0.504	0.518	1.145
Food	0.903	0.620	0.544	0.507	0.480
Total	1.414	1.152	1.079	0.761	0.797

Source: A. Steitih, Consumption Patterns of Wage Earners in Jordan, Royal Scientific Society, Amman (1974), p. 15.

Jordan are the major consumers of these luxury items.

A further factor contributing to the emphasis on luxury items, may be found in the pattern of consumption. The change in the traditional domestic forms of conspicuous consumption[1] from land ownership to the luxury durable goods may explain the increase of imported luxuries. This demonstration through imitation effect is made worse by the continuous appearance of new consumer commodities, (colour television for example) from the industrialised west, which sustain the general propensity to consume and, in turn import.

Reducing the share of such luxury imports could be possible, not only through governmental decree but mainly through long term economic

1. See R. Nurkse: Problems of Capital Formation in Underdeveloped Countries, Blackwell, Oxford, (1953), p. 58.

and social planning. I.e. in addition to import controls the government can employ other policies which would adjust the level and composition of demand and supply and would indirectly affect the composition of imports.

Although all imports are subject to import and exchange licences, Jordan adheres to a basically liberal policy in its trade and payment relationships. Import and exchange licences are granted freely for most items, although certain of these are subject to scrutiny by the Ministry of National Economy, whose prior approval is also required for imports of industrial machinery and of all material needed for the establishment or expansion of industrial firms. Apart from this no administrative restrictions are made on the import of consumer goods.[1]

Import policy is, however, supposed to be formulated by a Special Import Committee. This committee includes a number of administrative officials in the Ministry of National Economy and representatives from other corresponding government departments. This committee, however, has so far shown no evidence of any attempt to formulate a clear policy for the restriction of imports of luxury goods. The sole function which is visibly served by this committee is the resolution of disputes between the Ministry of Economy and private traders.

The only operative restriction imposed upon the import of luxury goods is through tariff rates. The Royal Financial Committee[2] stated that tariffs were to be used as a method of pursuing economic and social

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1. I.M.F. 23rd Annual Report on Exchange Restriction, IMF, Washington DC, (1972), p. 248.

2. Royal Financial Committee, Report on Jordan's financial structure, Amman (1961).

objectives as well as procuring revenues for the government. This is not surprising as direct taxation makes only a small contribution to the government revenue in Jordan and the government has to rely on indirect taxation. Although the major objective of import duties is to levy taxes for the budget, the tariff tries to distinguish between two main categories of goods, basic necessities and manufactured consumer goods. Necessities such as cheese, milk and canned goods are subject to low tax rates (2-6%), while goods in the second category such as beer, wine and cars are subject to tax rates as high as 200%.

Although import planning has taken place in Jordan, implementation has been far from effective. A policy of deliberate development planning was initiated in 1952 with the creation of the Jordan Development Board, which however has always been more an agency for administration of foreign aid than a research, planning and policy making body. Apart from a number of projects which have been undertaken, its main activities have been in negotiation with the donors of aid.[1] The Development Board, however, did produce the Five Year Plan for 1962-1967, which was replaced soon after publication by the Seven Year Plan, covering the years 1964-1970. The first objective of this later plan was to reduce dependence on foreign aid, and to increase the rate of domestic growth. Apart from a general recommendation to increase exports and curb imports of luxury items,[2] foreign trade planning in the

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1. Loven Fesdill:'Planning for Technical Assistance: Iraq and Jordan', Middle East Journal, Autumn, (1961), pp. 389-902.

2. Jordan Development Board, Seven Year Program for Economic Development, 1964-1970, Jerusalem (1964), p. 325.

formal sense (which includes among other things, foreign exchange budgets, and identification of key sectors) was not embodied in the Seven Year Programme. In short, the Seven Year Programme was only a set of projects and the numerous economic projections did not appear to be the result of a very extensive economic analysis.

The implementation of the plan under normal conditions lasted about two years, until the June war broke out. The war and its aftermath had drastic consequences on the plan, several projects being indefinitely suspended. Others were re-examined but the situation of political instability had a generally negative effect on Jordan's planning. This situation necessitated a reassessment of priorities which, however, was not systematically carried out, most of the readjustments being made on an ad hoc basis, under the aegis of the Economic Security Committee,[1] which was created after the war in 1967. Thus, during the years 1967-1972, the government was trying to manage the economy on a year-to-year basis rather than pursuing a clear development policy embodied in a detailed documented plan. Hence, a critical analysis of the planning development and foreign trade sector in particular during 1960-1970 could, in practice, be of little value. One example of the failure of the development plan in Jordan can be seen by comparing the objectives of the plan with its actual results. In the two normal years of the implementation of the plan, the plan failed to achieve its objectives both in the level of imports and in altering the components of these imports, as can be seen in Table 3.11.

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1. The Economic Security Committee is composed of the Ministers of Finance, Economy, Justice, Transport and the Governor of the Central Bank. The council operates under the terms of the Martial Law for Financial and Economic Affairs, No.2 of 1967.

Table 3.11: Imports: Planned and actual (in JD million)

Item	1964			1965			1966		
	planned	actual	%	planned	actual	%	planned	actual	%
Private consumption	26.6	26.6	--	27.0	27.1	--	27.5	31.9	+22
Capital formation	9.9	4.2	-57	13.2	3.9	-70	17.6	5.7	-76
Intermediate and government consumption	12.9	22.8	+77	13.5	25.1	+85	14.5	30.6	+111
Total	49.4	53.6	+8	53.7	56.1	+41	59.6	68.2	+14.4

Source: (1) Jordan Development Board, Seven Year Programme for Economic Development, Jerusalem, (1964).
(2) Table 3.5, p. 112 of this thesis.

Imports of Intermediate Goods

The second important item in Jordan's imports is intermediate goods, which have shown a steady increase since the fifties. This is not surprising, given that one of the main features of the Jordanian economy is the absence of local raw materials in general, so that manufacturing industry has to rely, to a substantial extent, on the importation of these items from abroad. In the early fifties imported intermediate goods varied in value between 13% and 18% of total imports. Manufacturing activities during this period were both very limited and of predominantly traditional character, relying on whatever local raw materials were available. The reliance on Palestinian manufacturing industry under the mandate, and the restricted nature of the domestic market were the basic factors responsible for the extremely limited manufacturing activities. In the late fifties, with the setting up of modern import substitution industries, there occurred shifts from the import of manufactured produce to the import of raw materials or intermediate goods that go into the manufacture of finished goods. Industries such as vegetable canning, oil refining and pharmaceuticals rely heavily upon imported inputs. The establishment and expansion of these and other manufacturing industries since the late fifties has accordingly led to a rapid growth in imported raw materials. They increased over three times from JD 5.1 million in 1958 to JD 17.6 million in 1963, thus doubling their relative share to nearly one third of total imports. The result is a heavy dependence by the Jordanian economy on imported inputs. This can be seen clearly from the data in Table 3.12, which shows that during 1963-1966 about 40% of total intermediate inputs were imported.

Table 3.12: Local and imported inputs, 1963-1966 in JD million

	1963		1964		1965		1966	
	value	%	value	%	value	%	value	%
Local inputs	18.7	55	24.4	62	25.7	59	27.7	58
Imported inputs	14.9	45	14.7	38	17.6	41	20.3	42
Total	33.6	100	39.1	100	43.3	100	48.0	100

Source: Department of Statistics, Flow of Goods into the Jordanian Economy, Amman (April 1970), p. 85.

While the economy as a whole relies upon imported intermediate inputs to this extent, the largest proportion (about 60%) is absorbed by the manufacturing sector, as can be seen clearly in Table 3.13. This shows the close relationship between the import of intermediate goods and activity in the manufacturing sector. In this respect, these trends must undoubtedly have had an effect on consumer goods. Although the expansion of import substitution industries and the resultant increase in imported intermediate goods have reduced the reliance on imported manufactured goods, the latter category of imports, however, continued to increase at a very high rate especially during 1973-1975. This indicates the relatively limited extent to which import substitution has occurred. Such heavy reliance on imported raw materials for industry has weakened the linkages between these industries and other sectors, so heavy investment can only mean a substantial increase in imports.[1]

1. Regression analysis for imports of raw materials and manufacturing industry during 1963-1972 showed that the production of manufactured goods of the value of JD 2.6 million requires the import of raw materials of value JD 1.0 million.

Table 3.13: Import of intermediate goods (1961-1972) in JD million

Using sector	1961-62	1963-64	1965-66	1967-68	1969-70	1971-72
Agriculture	0.5	1.1	1.4	0.8	0.9	0.9
Mining and industry	5.9	9.6	11.7	13.1	12.6	12.2
Construction	1.4	1.5	2.3	3.3	3.1	2.9
Electricity	0.1	0.1	0.3	0.7	0.4	0.4
Transport	1.7	1.9	2.3	3.1	2.7	2.7
Trade	0.3	0.5	0.9	0.6	0.7	0.4
Total	9.9	14.8	18.9	21.6	20.1	19.5

Source: (1) Department of Statistics, Flow of Goods into the Jordanian Economy (April 1970).
(2) Department of Statistics, unpublished data.

Imports of Capital Goods

The development of home production, dependent largely on imported raw materials and imports of consumer goods, was undertaken mainly because of the unavoidable need to fill the gap which the domestic producing sector failed to meet. In the complete absence of capital goods industries, it was expected that the foreign trade sector and, in particular, imported capital goods, would be of special significance for the growth of investment. It is through these capital goods that economic development is related to imports. [1]

It has already been shown that this group of imports have registered the highest rate of growth among other components of imports. Furthermore, their share rose from only 4% of total 1950 imports to more than 10% in 1961. Since 1961, however, they have shown a fluctuating trend, their share varying between 5 and 10%. In 1971, however, they exceeded the 1961 level and increased to 15%. Nevertheless they declined again in 1973 to 5%. This fluctuating trend is shown by the share of these imports in total fixed capital formation. As can be seen in figure 3.3 the total of these imports has declined during the later periods of the study and the marginal propensity to import capital goods declined from 0.306 during 1959-1966 to 0.222 during the period 1959-1968. This decline in the marginal propensity to import capital goods is rather surprising when the capital goods imports should be expected to play a crucial role in future development.

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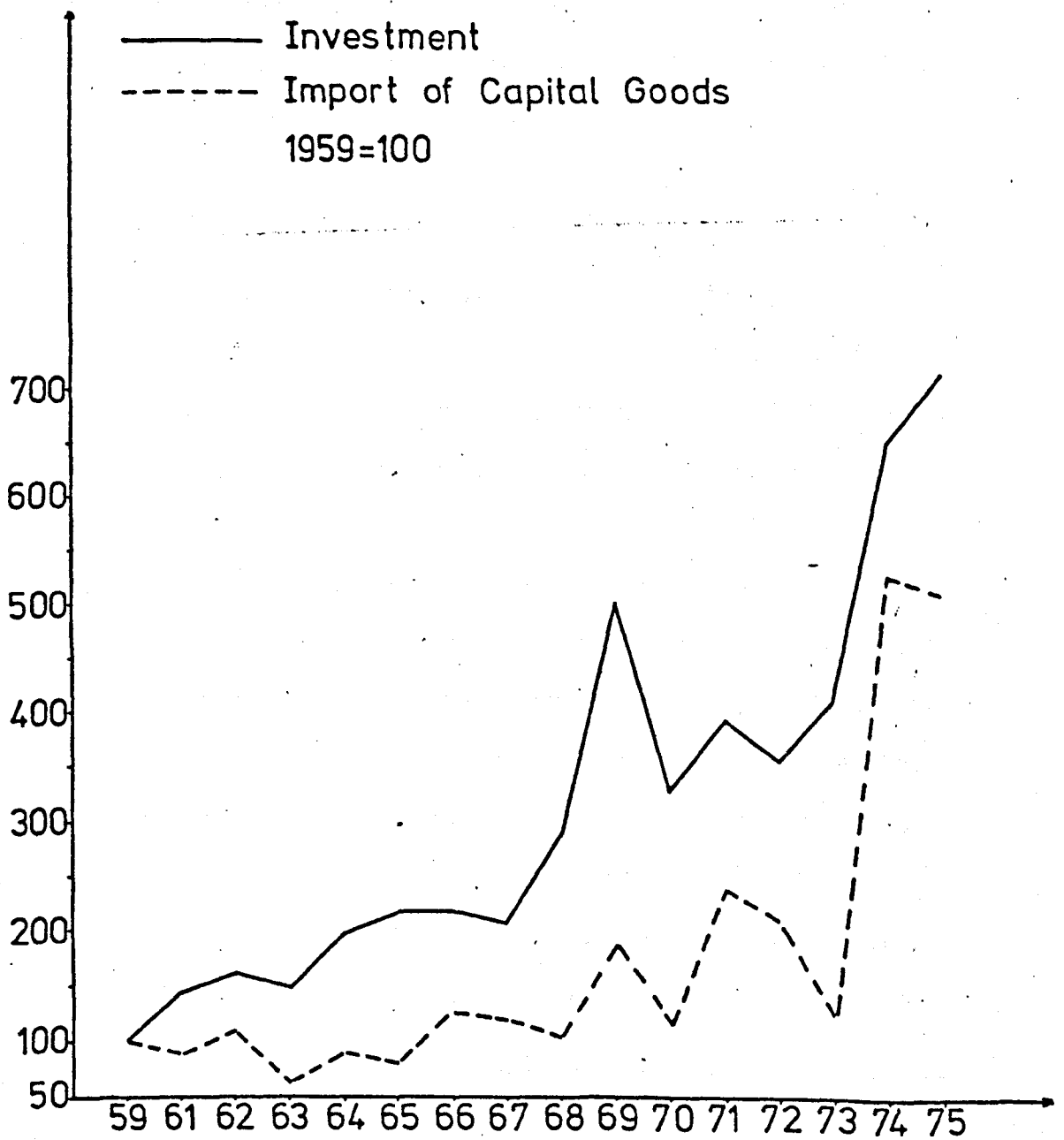
1. Ignacy Sachs: Foreign Trade and Economic Development of an Underdeveloped country, Asia Publishing House, India (1965), p. 5.

Fig. 3.3



Source: Appendix 1 and Table 3.5.

An immediate explanation for such tendencies, can probably be found in the rising domestic production of certain capital goods. Statistical information in this connection indicates that domestic production has always been generally small in relation to total requirements.[1] Although the small increase in the home manufacture of capital goods may well have permitted a greater increase in domestic investment than would otherwise have taken place, it has generally not been sufficient to cause any relaxation in dependence on imported goods.

The fact that most of Jordan's investment has gone into'social overhead capital' in sectors such as transportation and housing may suggest some explanation for the small share of capital goods imported. During the period 1954-1959 while the total GDP was rising by 10%, transportation and construction grew at an annual rate of 22% and 15% respectively. This high concentration in such investment depends mainly on locally produced raw materials rather than on capital goods. The peak of capital goods imported during the period 1959-1962 was connected with the peak expenditure on manufacturing and transportation which occurred during the late fifties and in the early sixties (as has been demonstrated before). Most of these modern industries such as petroleum refining, vegetable oil processing and tanning were set up over a relatively short period, causing imports of capital goods to show an increase in their absolute value and their relative share of total imports (from 7% in 1952 to 11% in 1958-1959). Subsequently from

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1. Total value of the home manufacture of capital goods amounted to only JD 0.54 million in 1966. Only 1% of total manufactured production and only 0.42% of total fixed capital formation. In 1972 they amounted to JD 3.18 million, only 1.6% of total manufacturing industry and only 7% of total investment. Source: National Account Statistics- 1959-1966 and 1969-1972.

1962 until 1970 these imports showed, in their relative share, a declining trend; in some years the decline being in both absolute value and in relative share. During the same period, however, expansion in industrial production was continuing. The explanation of such contradictory trends can be found in the fact that, whatever expansion had taken place during the period 1961-1970, was mainly an expansion within the already established industries, probably through fuller utilisation of the existing capacity or through expansion of capacity. The sudden rise in 1971-1972 however, is due to imports of aircraft by the Jordanian Airline (Alia). In a developing country, such imports should be considered as conspicuous consumption rather than as imports of capital goods.

In most developing countries imports of capital goods have been dependent on three main factors; the trend of domestic demand, output of consumer goods and raw materials and the trend in the total import capacity.[1] If the increase in import capacity was greater than the increase in domestic consumption, the proportion of capital goods in total imports would rise. This explanation might be applicable for those countries whose import capacity was mainly derived from indigenous sources, but in Jordan, where most of the capacity to import has been derived from foreign aid,[2] the data available provides a different explanation. As can be seen from Table 3.14, while total import capacity, was growing faster than total consumption, the import content of this consumption was growing more slowly than the import

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1. U.N., World Economic Survey (1968), p. 69.

2. See page 104 of this thesis.

Table 3.14: Import of capital goods in relation to import capacity and consumption

Year	Import capacity 1959 = 100	Consumption 1959 = 100	Import of consumption goods as % of total consumption	Import of capital goods as % of total imports
1959	100	100	31.5	11
1961	133	116	28.5	10
1962	149	117	30.8	11
1963	133	133	31.9	6
1964	185	138	32.9	8
1965	189	155	33.5	7
1966	221	167	33.1	8
1967	256	182	24.2	9
1968	225	188	25.0	8
1969	174	205	26.0	11
1970	189	200	26.7	8
1971	194	217	26.7	15
1972	221	232	32.5	10

Source: (1) Appendix 3.
(2) Appendix 4.
(3) Table 3.5.

capacity, implying that themargin of foreign exchange available for imported capital goods was increasing.

The preceding analysis suggests that total import capacity does not appear to have had a direct effect on the trends of imported capital goods, it must be noted, however, that most development projects were carried out by the government and financed mainly by foreign loans. Projects like the Aqaba Port development, and the Hittieh Railway and

several other projects which required capital machinery were financed mainly by loans contracted with Germany. On the other hand, most of the transportation and irrigation projects were financed by American and I.D.A. loans. Thus, the capacity to supply these projects with foreign machinery was derived from the amount of capital inflow in the form of loans contracted.

One indicator of this relationship can be drawn from trends of net inflow of long term capital in relation to trends in total imports of capital goods. As can be seen in Table 3.15, the trends in both variables showed a strong relationship; the increase in capital inflow was expressed as an increase in imported capital goods. In 1971, for example, import of capital goods almost reached double the value of 1970. This peak was mainly due to the import of two American aircraft at a cost of around JD 64 million, financed by loans from the Export-Import Bank. Therefore, we can suggest that import capacity in the form of loans rather than grants, was the main factor in determining the trend of the import of capital goods.

Source of imports

In contrast to the exports which were directed mainly to the neighbouring Arab countries, imports came mainly from the developed countries. This is to be expected, since the economic structure in all the Arab neighbouring countries is similar to that in Jordan; the share of industrial sectors is still very small in all these countries. Thus most of Jordan's needs of manufactured goods (50% of total imports) have to come from the industrialised west, while imported agricultural products have to be imported from the Arab countries.

Table 3.15: Import of capital goods in relation to net capital inflow, 1959-1975 (in JD million)

	1959	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Net capital inflow	0.61	1.25	6.0	1.4	6.2	2.6	5.2	2.0	4.8	5.3	0.3	6.7	6.3	6.4	10.8	44.1
Import of capital goods	4.5	4.4	5.0	3.1	4.2	3.9	5.7	5.4	4.8	7.5	5.4	10.9	10.2	5.9	23.3	23.0
Ratio of imported capital goods to total imports	11	10	11	6	8	7	8	9	8	11	8	15	10	5	15	11

Source: (1) Appendix 3.
(2) Table 3.5 of this thesis.

Table 3.16: Source of Imports, 1954-1975 (in JD million)

	1954-1956		1959-1967		1970		1971		1972		1973		1974		1975	
	value	%	value	%	value	%	value	%	value	%	value	%	value	%	value	%
Arab countries	5.39	21	9.87	19.0	13.1	19.0	16.76	21.0	16.38	17.1	16.76	15.5	26.44	16.9	46.33	19.7
a. Arab Common Market	3.29	13	4.71	9	5.96	9	7.06	9.2	7.9	8.2	7.06	8.7	14.4	9.2	14.11	6
b. Other	2.1	8	5.16	10	7.14	10	9.7	11.8	8.48	8.9	7.06	6.6	12.04	7.1	32.22	13.7
Western Countries	11.8	47	25.78	50	29.54	44.8	37.11	48.0	43.88	46.0	41.78	38.6	63.21	40.61	101.1	43.2
a. EEC	5.07	20	10.76	20	13.34	20.2	12.20	15.9	18.35	19.3	21.49	19.8	33.59	21.5	55.09	23.5
b. UK	4.55	19	7.08	13	8.82	13.5	6.78	8.3	8.64	9.1	9.03	8.3	12.04	7.8	21.87	9.3
c. USA	2.19	8	7.94	17	7.38	11.2	18.13	23.3	16.89	17.6	11.26	10.5	17.5	11.3	24.18	10.4
India	0.23	1.1	0.72	1.3	1.63	2.5	1.07	1.3	1.39	1.4	1.41	1.3	2.97	1.9	4.4	1.8
Japan	0.68	3.1	1.09	2.1	3.87	5.8	4.19	5.4	4.59	4.8	5.35	4.9	7.38	4.6	17.1	7.4
Communist Bloc	1.44	6	5.24	10.1	9.19	13.9	5.2	6.7	8.24	8.6	7.73	7.2	14.3	9.1	18.75	8.6
Others	4.81	20	9.15	17.5	8.55	13.0	12.29	16.4	20.83	22.1	35.17	32.5	42.21	26.9	32.18	13.8
Total	24.90	100	51.85	100	65.88	100	76.62	100	95.31	100	108.2	100	156.5	100	234.01	100

Source: (1) Department of Statistics, Statistical Year Book, 1960, Amman, n.d.
(2) Department of Statistics, Statistical Year Book, 1966, Amman, n.d.
(3) Department of Statistics, External Trade Statistics, 1968, Amman, n.d.
(4) Central Bank of Jordan, Monthly Bulletin (March 1970) and (February 1978).

Although more than half of Jordan's imports are still coming from developed countries, during the last two decades there have been changes in the sources of supply from the western countries.

Given that Jordan's import capacity is substantially derived from foreign aid, inevitably this aid was determinant of the supply source of imports. Being politically tied to the UK during the mandate period, Britain provided Jordan with the financial grants necessary to run the army. This relationship continued after political independence was granted until 1957, when a breakdown in Jordanian/British relations occurred. Thereafter imports from Britain, which had been the sole source of industrial goods, and had accounted for more than 20% of Jordan's total imports, fell to 12% in 1959. Given that Jordanian trade policy is relatively liberal, how did this change happen?

Since Jordan belongs to the sterling area, it has given certain priorities to imports from the United Kingdom[1] over those from other western countries, particularly the United States. Thus it was common practice not to grant import licences for imports from other countries when similar products could be obtained from the British market. After the termination of the Anglo-Jordanian treaty in 1956, although Jordan nominally remained in the sterling area, in practice no priority was given to British goods.

While the share in UK's total Jordanian imports was showing a declining trend, imports from the United States showed a continuous increase, indicating a change in the emphasis of Jordanian imports.

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1. IMF, 23rd Annual Report on Exchange Restrictions, Washington D.C. (1972), p. 248.

increase of imports from the US started when the USA emerged as a major source of budget support and remained so in the following years. Expectedly then, aid was somewhat contingent on imports from the American market. In addition to the fact that, part of this aid was in the form of direct import under PL480, furthermore, it was reported in 1962 that 'the United States conveyed its desire to Jordan that not less than 50% of US budget support should be utilised in the US market'.[1] This 'proposal' has since been reflected in the share of imports from the US in total Jordanian imports. These imports have increased from only 10% in 1958 to 22% in 1971, almost the same share of imports as from the UK in the early fifties. The increase in imports from America is rather confirmed by the switch from British military equipment for the army to American. Furthermore, since most of the American aid for economic purposes was spent on transportation projects,[2] American road making machinery dominates the Jordanian market.[3]

While the Western countries dominate the Jordanian market, imports from Eastern communist countries, despite the increase they have shown in recent years, are still small compared to those from the West. One important factor behind this relatively small share, is the fact that the Jordanian government is considered to be strongly Western and anti-communist. Therefore, political and economic relations with those countries are not as strong as with the West. Diplomatic

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1. From a report prepared by the Middle Eastern Dept. and the exchange restrictions dept. in the IMF, Washington D.C., March 28, 1962.

2. Out of the total US technical and economic assistance during 1955/66 almost one fourth was spent on transportation projects, and one third on agricultural projects. See A. A. Malki: Foreign aid and its role in the economic Development of Jordan, Kuwait Institute for Economic and Social Planning in the Middle East, Kuwait (June 1969).

3. London Chamber of Commerce, Trade Mission to Jordan (1967), p. 2.

Relations with most communist countries were not established until the mid-sixties. Accordingly it is to be expected that imports from these countries are small. Another contributing factor is that both Jordanian consumers and importers have a preference for Western rather than Eastern European manufactured goods on the grounds of familiarity and understanding procedures.

Summary

The role of imports in the Jordanian economy has been to enlarge the commodities available in the economy. Emphasis has been given to imports as an equilibriating factor, fluctuations in each category of imports was considered a reflection of changes in aggregate demand. In the analysis of imports the usual classification into consumption goods and producer goods was adopted. The main reason for this adoption is to point out the relationship between the development requirement and imports.

The artificially high level of consumption, expressed by the fact that throughout the period under study total consumption exceeded GNP, has necessary consequences for the level and composition of imports. The high level of consumption shows in high ratios of consumption goods in total imports. Some of the consumption goods imported were classified as necessities while others were classed as luxuries. The division of necessities and luxuries is a relative one. However, the division is not theoretically ambiguous: income-elasticity of demand was used as the basis of the division. Obviously, the term luxuries carries with it normative implications, the whole point of

distinguishing luxuries from necessities is to support the argument that import of consumption goods can be cut down without any serious effect on the average consumption. The import of necessities, especially food, cannot be curtailed without serious consequences. But it can be argued that the way in which the Jordanian imports have been financed has played a major role in the structure of imports. It has been shown that a large proportion of imports has been financed by foreign aid. Most of the grants received by Jordan have taken the form of budgetary support. Given that the government expenditure has taken the form of salaries and wages, then the main effect has been to increase personal incomes. This in turn has increased consumption, part of which has been directed towards imports. The short term effect of grants, therefore, has been to increase the level of imports and the share of consumer goods in these imports. In the long run, it can be argued that the easy access to grants, reduces the pressure on the government to help increase the production of necessities or reduce the import of luxuries. There is very little doubt that the Jordanian economy can adequately feed its population. The food deficit in Jordan does not necessarily mean that the country lacks comparative advantages in production of food, but it certainly represents the under-utilisation of the productive potential of agriculture.

CHAPTER FOUR: THE ECONOMIC IMPLICATIONS OF THE INVISIBLE SURPLUS

Whereas the two previous chapters have outlined and examined the origins and causes of Jordan's adverse visible balance of trade, this chapter and the next will deal with the invisible account, which, in contrast, has been in surplus for all but two of the past twenty-five years.

Clearly the most important aspect of Jordan's invisible trade surplus is the impact it has had on the overall balance of payments position and upon the economy's import capacity and development potential. Prior to a discussion of these macro-economic issues, a sectoral analysis of particular invisible transactions is attempted, together with an evaluation of the economic forces giving rise to the invisible surplus.

Theoretically, an invisible trade balance can for most purposes be defined as 'income from services rendered to non-residents, less payments to non-residents for services rendered by them, together with income from assets abroad'.[1] (This includes the receipts and payments for services such as shipping, tourism, and investment income.) In practice, however, no universally accepted definition of this area of trade is at present in general use. British balance of payments statistics, for example, include private and governmental transfers as part of the invisible accounts, whereas IMF statistics exclude these items on the grounds that they are not strictly commercial transactions. In this chapter, the IMF definition will be used because it is identical

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1. A. F. Hollman: 'Invisible Earnings', Scottish Journal of Political Economy, vol. 13, (1966), pp. 42-46.

to that employed by the Jordanian balance of payments compiler, and so makes comparisons more meaningful.

In addition to the definition problem, however, invisible trade poses a further difficulty to the analyst because of the lack of detailed information available about invisible transactions. The literature in general pays little attention to the analysis of this sector of foreign trade, tending to concentrate on visible rather than invisible trade for three basic reasons:

1. The unavailability of detailed information as mentioned by the IBRD Invisible Committee.[1]

2. The fact that for most economies invisible trade accounts for a relatively small proportion of total trade transactions.[2]

3. The assumption that the pattern of invisible trade is similar to that of visible trade.[3]

These points need to be commented upon in the particular case of Jordan.

With reference to point 1. a full assessment of this sector's contribution to the economic development of the country must await the introduction of certain reforms in the collection in data, although currently available data is nevertheless sufficient to indicate its

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1. UN CTAD . Contribution of invisibles to the foreign exchange market, (January, 1967), p. 10.

2. H. Peter Gray: 'On Measuring the Price Sensitivity of Invisible International Trade', Bulletin of the Oxford University Institute of Economics and Statistics, vol. 33, (1971), pp. 207-15.

3. Ibid., p. 205 and see also Ely Devons: 'World Trade in Invisibles', Lloyds Bank Review, (April 1961), No. 50, p. 37.

importance to the economy. This is a technical matter, the main essence of which is outlined in the Appendix at the end of this chapter. (P. 172.)

With reference to point 2, Jordan, quite unlike most other developing countries, has a high ratio of invisible trade to total trade and this is of great importance for its economic development. Thus, the British committee on invisible exports included Jordan among the first thirty-one countries in invisible transactions with the highest ratio of receipts over payments.[1] Further, the UNCTAD report on world invisible trade shows Jordan to have the highest proportion of invisibles in its exports among the 111 countries included in the survey.

The importance of invisibles is clearly revealed in Table 4.1, which shows that invisible exports accounted for over ~~74.1%~~ 66.3 of total

Table 4.1: Relation between invisibles transactions and merchandise trade (in JD million)

Average	Invisible exports	Total export value	Invisible exports as % of total exports	Invisible imports	Total import value	Invisible impo as % of total imports
1950/54	2.9	5.3	54.0	1.6	18.3	8.0
1955/60	7.6	11.7	64.0	3.5	35.9	10.0
1961/66	22.9	30.2	74.0	7.6	59.9	12.0
1967/72	29.3	42.7	68.0	26.2	93.9	28.0
1973/74	58.6	95.6	61.0	36.1	167.9	22.0
1975/76	200.3	259.1	77.3	82.2	367.8	22.0
Average 1950/74	53.5	74.1	66.3	26.2	124.2	21.0

Source: See Appendix 3.

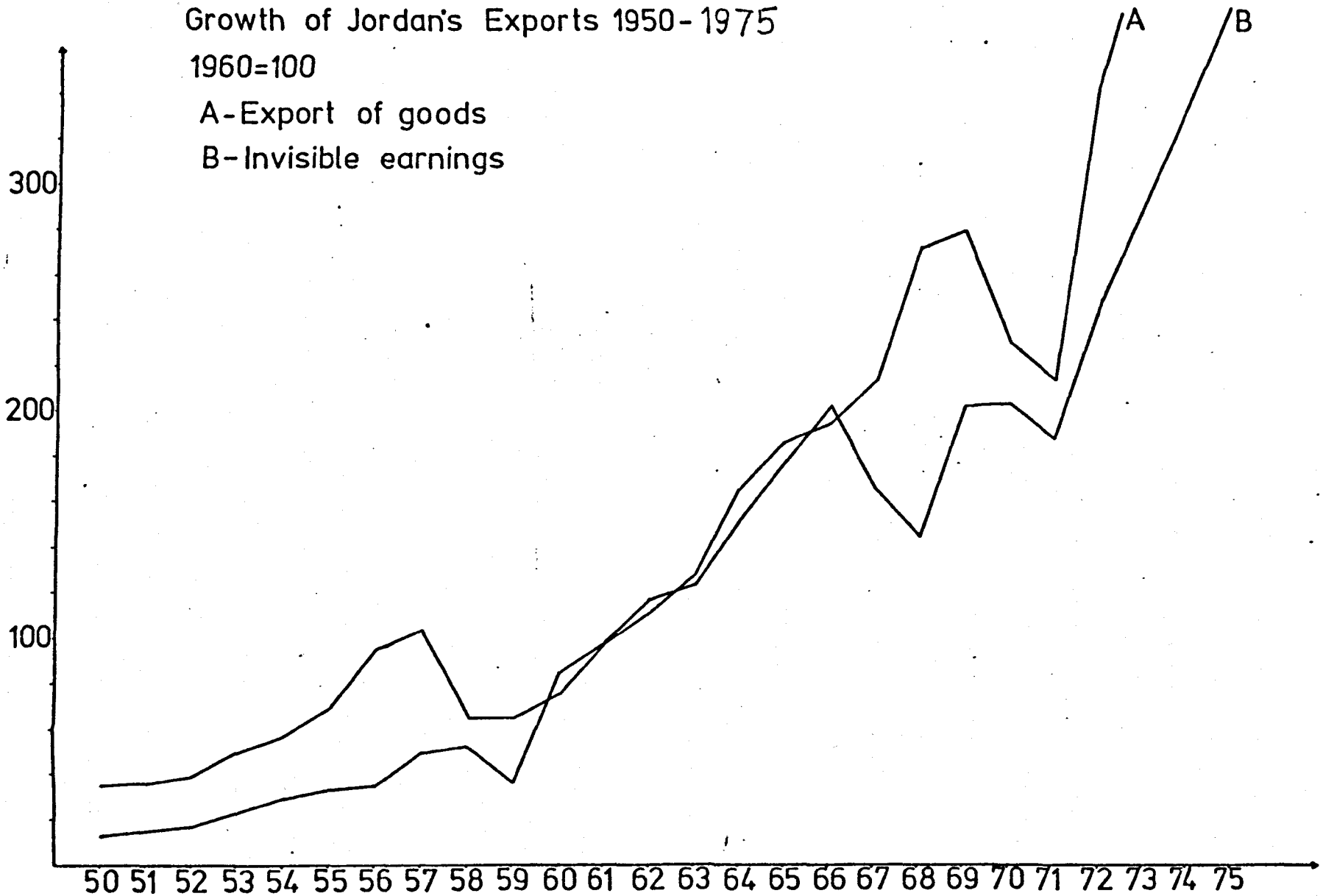
1. Report of the Committee on Invisible Exports, Britain's Invisible Earnings, Director of the study Claric, W. M., Thomas Skinner & Co. Ltd., London (1968), p. 126.

exports of goods and services during the period 1950-1976. On the other hand, total payments represented only 21% of total imports of goods and services indicating a large invisible surplus. The importance of invisible trade was intensified by its high rate of increase during the period under consideration, an increase far in excess of the growth in visible exports. While visible exports rose by 12.9% per annum during 1950-1974, invisibles recorded an average rate of 16.9%. The large increase in earnings during 1975-1976 (averaging 12.5%) is yet another indicator of the growing importance of invisible trade to the Jordanian economy. This importance is tempered by the fact that invisible trade tends to be more sensitive to political instability than visible trade, especially in the Arab countries of the Middle East. This greater volatility was clearly demonstrated when the ratio of invisibles to total exports declined from the high level of 74% during 1961-1966 to 68% in 1967 and to 61% during 1973-1974. In 1975-1976 invisible earnings increased by over 102%, forming more than 77% of total exports.

As far as point 3. is concerned, the abovementioned fluctuations confirm that the growth pattern in invisible trade does not vary precisely with that of visible trade. This is further demonstrated in figure 4.1, which shows that, although the general trend of invisible earnings has been of a similar nature to that of the visible earnings, in years of political instability invisibles showed a higher degree of sensitivity to events.

A detailed examination of the main sources of the invisible surplus will demonstrate inter alia the impact of these fluctuations on Jordan's economic development. As shown in Table 4.2, all invisible items with

Fig.4.1
Growth of Jordan's Exports 1950-1975
1960=100
A-Export of goods
B-Invisible earnings



Source: Appendix 3.

the exception of the 'government account' have been in surplus. By far the most significant item has been remittances from Jordanians working abroad which contributed about 80% of the net balance. Since this item is of over-riding importance as a source of invisible earnings it will be dealt with separately in chapter five. The two other important sources are tourism and investment income, as Table 4.2 indicates, which will now be given detailed examination. The remaining sources include freight and insurance, transportation and other invisibles accounting respectively for 5%, 1% and 7%of the invisible surplus.

Since imports are recorded on a CIF basis, 'freight' does not include freight and insurance on all foreign trade, but does include payments for reinsurance of exports. Receipts from transit duties from Saudi Arabia on the oil pipelines which pass through Jordan to Syria and the Lebanon, are the most important component of this account. However, between October 1973 and 1976 Saudi Arabia suspended half of their payments, pending negotiations between the two countries.

Other items under the transportation account primarily include the net international transactions of Alia, the Jordanian Airlines Company. The account was in deficit until 1974, but subsequently there has been an increase in revenue resulting in a surplus of JD 3.39 million on average for the period 1975-1976.

The government invisible account has generally been in net deficit. Generally the government's payments and receipts for diplomatic missions are the only services which are usually considered in this account. However, in Jordan all government payments for imports of arms are included under this item, and this, with the increase in government purchase of arms, caused a net deficit in the account averaging about 19% of the surplus.[1]

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1. For a further examination of this account, see page 169 of this chapter.

Table 4.2: The source of Jordan's invisible surplus, 1950-1976 (in JD million)

	1950/54	1955/59	1960/66	1967/72	1973/74	1975/76	Averages 1960/76	%
Freight and insurance	n.a.	n.a.	1.15	1.45	1.87	0.43	1.26	5
Other transport	n.a.	n.a.	-0.41	-0.39	-0.69	3.39	0.21	1
Travel	0.30	0.39	3.33	-2.45	-0.43	19.34	2.72	11
Investment income	-0.06	0.33	1.44	4.79	5.89	8.24	3.94	16
Government	0.61	0.48	-0.23	-4.68	-9.43	-15.33	-4.72	-19
Remittances from Jordanians working abroad	n.a.	n.a.	7.55	5.90	19.41	94.83	18.63	78
Other invisibles	0.57	1.39	1.02	-0.04	5.79	7.36	1.83	7
Invisible Balance	1.42	2.59	13.85	4.58	22.41	118.26	23.87	100

Source: See Appendix 3.

Tourism

The Christian as well as Moslem holy places in the cities of Jerusalem, Bethlehem, Hebron and Jericho, combined with their natural beauty and the Red Sea coastline, have provided Jordan with a real potential for a growing tourist industry as real income levels have risen considerably in the developed world. It is not surprising therefore, that tourist travel into the country has shown a considerable growth in recent years. Jordanian planners have consistently emphasised the fact that Jordan is endowed with resources for tourism which, if properly developed could become a major area of economic growth - a fact realised before the 1967 war and powerfully reiterated at the Arab/European Economic Symposium held in Montreaux, Switzerland in 1976.[1]

1. Galeb Barakat: 'Tourism in Jordan', a speech delivered in the Arab European Economic Symposium, (1976), p. 10.

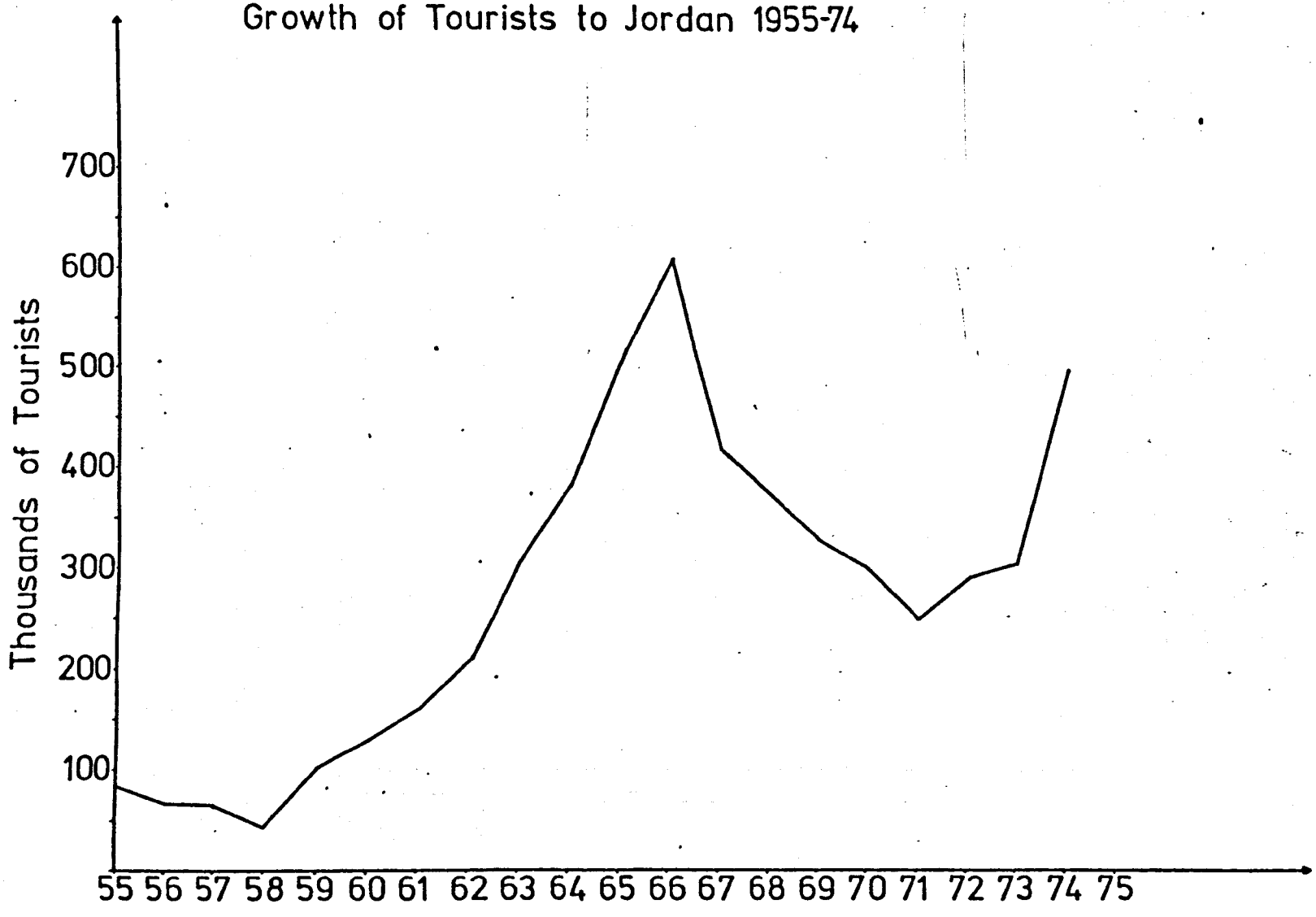
Tourism has flourished in Jordan ever since the 1950s and the number of foreign tourists visiting the country has increased dramatically. Between 1954 and 1955 the figure rose from 30,000 to about 80,000, whilst the 1956-1958 period of the Suez conflict and general political unrest depressed the figure to a level of 48,000 by 1958. The period of relative stability thereafter and up to 1966 led to a level of 616,875 by the latter date (an overall rate of increase of 30%). However, the 1967 war and its aftermath brought about another decline to 425,633 and a continuous decline until 1971. From 1972 onwards the numbers show an increase in each successive year, reaching a level of one million by 1976 (see figure 4.2, overleaf).

Income from tourism, as estimated in the balance of payments, has predictably followed the same trend. It can be seen from Table 4.3 that it declined from a peak of JD 2.4 million in 1955 to 1.2 million in 1958, revived in 1964 and resumed its steady upward trend to reach a new peak in 1966. The period from 1967 to 1971 was characterised by a continuous decline, which turned the balance of tourist income into a net deficit. This source of net foreign exchange earnings again became significant during the years 1973-1976.

Underlying these swings in earnings is the fact that the industry is highly sensitive to changing political as well as economic conditions. It was depressed during times of disturbance, such as 1956 (Suez), 1958 and 1967, and expanded in periods of peace and stability. Moreover,

Fig.4.2

Growth of Tourists to Jordan 1955-74



Source: (1) Ministry of Tourism, Tourism in Jordan (1973).
(2) Central Bank of Jordan, Monthly Bulletin (January 1978).

Table 4.3: Receipts from tourism - growth and significance, 1954-1974 (in JD million)

Year	Receipts of Tourism	GDP	Ratio of Tourism Receipts to:			
			GDP	Total invisibles	Exports of commodity	Deficit on visible trade
1954	2.2	47.7	4.5	49	72	1
1955	2.4	43.0	5.0	59	71	1
1956	1.5	61.4	2.4	29	29	1
1957	1.2	61.9	1.9	15	22	2
1958	1.2	69.1	1.7	14	35	4
1959	2.6	79.3	3.8	41	85	2
1960	3.2	85.1	3.7	24	81	2
1961	4.3	89.4	4.8	28	82	3
1962	5.0	110.2	4.5	28	84	4
1963	6.0	108.5	5.5	33	91	2
1964	8.0	117.2	6.8	33	90	4
1965	9.8	135.5	7.2	36	98	6
1966	11.3	150.9	7.4	36	108	7
1967	6.8	149.6	4.5	26	66	10
1968	4.6	168.4	2.7	20	32	13
1969	4.5	198.3	2.2	16	30	8
1970	4.8	189.6	2.5	15	39	9
1971	6.3	202.6	3.1	21	55	9.7
1972	8.3	224.2	3.7	23	48	10.6
1973	10.7	239.7	4.5	20	44	12.7
1974	17.3	300.9	5.7	26	35	16.4
1975	35.7	319.9	11.2	26	73	19.3

Source: Statistical Appendices 1, 2 and 3 on pages 361, 362 and 363, respectively.

the 1967 war not only depressed the traffic flow and income generally,[1] but one of the specific outcomes of the war - the loss of the West Bank territory - severely reduced the tourist attraction of Jordan, thus bringing about an important structural alteration in its potential foreign exchange earnings. A study made by the Ministry of Tourism in 1967 revealed that the Holy places on the West Bank had in the past attracted 51% of the total number of visitors. Archaeological sites had attracted a further 30% of the total,[2] with the East Bank probably taking only a share of the remainder.

Further, as a consequence of the war, Jordan was left without proper facilities to accommodate tourists, for these too had been concentrated on the West Bank, as Table 4.4 reveals.

Table 4.4: Distribution of tourist facilities between the East Bank and the West Bank

	West Bank	East Bank	Total
Hotels	55	12	67
Beds	3999	810	4809
Rest Houses	1	6	7
Travel Agents	70	17	87
Antiquities Shops	240	10	250
Tourist Guides	200	12	212

Source: Ministry of Tourism, Tourism Industry, (June 1974), p. 7.

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1. Apart from income and number, the war affected the quality and origins of tourists. The number of Arab tourists declined steadily after the war. For example, the number of American tourists, who constituted 13% of the total during 1954/66, dropped to only 6% in 1967 and only 1% in 1968. The European tourists fell from 19% to 12% in 1967 and only 7% in 1968. (See Tourism in Jordan, Ministry of Tourism, 1974.) This decline was compensated by an increase in the share of Arab visitors.
2. See, Ministry of Tourism Report on Tourism Industry, (June 1974), p. 7.

As a result of this situation, governments have, since 1967, stressed the need for new investment to create more facilities on the East Bank, and have tried to emphasise the potential of the East Bank as a major tourist attraction, as was stressed in the Three Year Development Plan (1973-1976), which was designed to reactivate the economy after the 1967 war. One of the main objectives of this plan was 'To diversify tourist activities and develop tourist sites in the East Bank'.[1] Consequently, certain projects were initiated to attract tourists to Aqaba and Petra. Thus the number of classified hotels was increased from 12 in 1967 to over 22 in 1975.[2] This, together with the aforementioned increase in tourist traffic during 1975 and 1976[3] has gone some way to confirm the belief that tourism should be considered as one of the country's 'four top productive sectors'. The question now remains as to the particular impact of this growth on the economic development of Jordan as a whole.

In general the impact of tourism on economic development is widely recognised among economists and international development organisations.[4]

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1. Jordan Planning Council, The Three Year Development Plan, p. 91.

2. Tourism in Jordan, Ministry of Tourism, (1974). See also Statistical Year Book, Department of Statistics, Table no. 1, Amman, n.d.

3. It is important to point out that the large increase in the number of and income from tourists in 1976 should not be considered as an indicator of the general trend because of the following:
a. the temporary inflow of Lebanese who came to Jordan to avoid the civil war in Lebanon. Further a large number of Arab visitors who used to go to summer resorts in Lebanon redirected their routes and came to Jordan instead.
b. The main reason for the spectacular increase of income although it was partly due to the increase in tourist traffic lies in the new method adopted to estimate the income of 1976. In this year and for the first time all the expenditure of Jordanians working abroad visiting Jordan was considered as part of the tourist income. Given that the previous years their expenditures were not included as part of such income, it is therefore difficult to draw conclusions about the trend.

4. See Michael Peters: International Tourism, Hutchinson, 1964, p. 10. Also, J. M. Bryben: Tourism and Development: A Case Study of the Commonwealth Caribbean, Cambridge University Press (1973), p. 57.

They argue that as well as being a source of foreign exchange, tourist industries influence all aspects of the economic life of a country. The UN Economic and Social Council commented in its report on international travel and tourism in August 1963 on 'the influence of tourism as a tertiary industry, creating prosperity through the development of communications, transportation, accommodation and other consumer services'.[1] This report further states that: 'in some cases, the development of tourism may be the only means of promoting the economic development of less developed areas lacking in other resources'.[2]

What then has been the effect on aggregate income, and the possible creation of strong backward and forward linkages with other economic sectors?

The contribution of tourist income to GDP is clearly shown in Table 4.3 on page 152, where it is evident that despite a high rate of growth, the contribution to GDP remains small. Moreover there are weak linkages with other economic sectors due to the highly service-oriented nature of the industry. Thus the secondary effects on the agricultural and manufacturing sectors which are important to an import surplus country like Jordan, tend to be small.

Statistical evidence for the relationship between a country's growth rate and the increase of its revenue from tourism has not been established even in countries where the contribution of tourism to GDP is high. Young, in his test for this relationship in ten countries, found no conclusive answer to this question. Young's analysis has further shown that development of a country's tourist industry tends

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1. *United Nations, Economic and Social Council* Recommendation on International Travel and Tourism, (21 August 1963), p. 22.
2. Ibid., p. 22.

to lower the standard of living of its population.[1] Domestic inputs required by the tourist industry are mostly derived from the construction, transport and other allied services, activities which are not necessarily desirable from the economic development point of view. Thus, the construction sector is already large in Jordan, absorbing almost half of the aggregate capital formation between 1959 and 1973, and in 1974 the ratio increased to about 58% of total investment. Indeed far from wishing to have the construction sector stimulated, it is the present policy of the Jordanian government to reduce the sector in size. Moreover the important backward linkages of this industry, are import oriented. While this dependency may be justified in the case of most developing nations, in Jordan's case it is difficult to find a similar justification. It is often argued that a country always earns more than its outlay on tourist imports. It has been noted that 'Even when goods need to be imported for use by tourists, a country would earn considerable foreign exchange for their resale to tourists through services and profitable sales'.[2] Indeed, the flourishing tourist industry in Jordan has naturally provided growth and prosperity for the consumer trades and for other similar services. It is possible that in developmental terms, the very success of the tourist industry acts as a disincentive to the growth of domestic producing sectors, and in the long term will have the effect of encouraging the development of an import-oriented service economy.

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1. George Young, Tourism - Blessing or Blight, Penguin (1973), p. 142.

2. See U.N. Economic and Social Council: 'Recommendation on international tourism', (August 1963), p. 22.

There is no direct statistical evidence to support the above argument. However, tourism in Jordan is largely geographically concentrated in a limited number of urban areas, and it will be demonstrated later that its impact on regional development in Jordan as a whole, has been minimal. It appears likely therefore that the effect of tourism is to yield short term benefits for the balance of payments at the cost of long term disbenefits in terms of the location and concentration of labour and of economic effort.

The tourist industry thus provides a good example of the dilemma facing Jordanian economic planners. The two policy objectives for the economy are the elimination of the balance of payments deficit and the reduction of the economy's service orientation. Tourism is a positive aid to the first of these objectives and a positive obstacle to the second, provided that the import content of tourism expenditure (in the form of substantial raw materials required for building the industry and consumer goods) is not overlooked. This aspect is particularly important in Jordan due to the exceptionally high dependence of the economy on imports.

Tourism's forward linkages are not easy to assess for, in contrast to manufacturing and agricultural industries, it provides neither new material inputs nor intermediate products. However, the socio-economic impact of tourism can be seen in its influence on internal social values and on the morale of the people,[1] and insofar as servicing and other activities are generated to create facilities for tourists, may check internal migration flows. The implications for values

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1. See Young: op. cit., p. 143.

depends on the type of tourist industry, and the evaluation of this goes beyond the scope of this thesis.

As far as regional development is concerned, since the development of the tourist industry is diffused over many areas of the country, it should help in reducing migration from rural to urban areas. However, in the case of Jordan, tourism has had little impact on internal migration or on population distribution. There are no regional GDP statistics to provide evidence for the impact of tourism on the various regions of Jordan, but the distribution of population in each Governorate[1] can be used as evidence for the extent to which regional development in Jordan has taken place. As may be seen in Table 4.5, Amman accounted for more than half of the population of Jordan in 1975. The share of each Governorate declined from 1961 onwards, indicating migration from rural areas to cities.

Table 4.5: Estimated population of the East Bank in 1975 and 1961

Governorate	Number 1961	%	Number 1975	%
Amman	433,618	48	1,098,477	56
Balga	79,059	9	129,867	7
Irbid	273,976	30	563,990	28
Karak	67,211	8	108,037	6
Maon	46,914	5	51,597	3
Total	900,776	100	1,951,968	100

Source: Department of Statistics, Statistical Year Book, 1975, no. 26 Amman, Table 1.

1. An administrative name equivalent to county in England.

One possible explanation for the argument that the tourist industry should be given priority in a country with tourist potential like Jordan is that investment in this sector has a relatively short gestation period, and therefore the development of tourist income can be accomplished in a comparatively short period of time. In addition to the fact that the Jordanian economy lacks the most necessary factors for the development of manufacturing, such as skills, capital and natural resources,[1] tourism may be considered superior to any other economic sector because of the high multiplier effect of tourist expenditure. Several studies of tourism in Jordan have outlined this as a major reason for promoting this sector. P. S. Sargant estimated a tourism multiplier for Jordan of 3.3 compared with an average of 2.4 for the economy as a whole.[2]

While statistics tend to support this argument, it should be noted that the higher multiplier in an import surplus country like Jordan also means a large impact on imports, and the consequences may be to further the trade deficit.

The above discussion of tourism confirms that the positive impact

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1. See George S. Korash: A Tourism Plan of Action for Jordan, USOM, produced by Communication Media Centre, Lebanon (1959).

2. P. Sargant: Ford Foundation, The tourist trade in Jordan, Jordan Development Board, (1971), p. 43.

of the industry on the economic development of Jordan has been exaggerated by policy makers and sometimes by the Jordanian economists themselves.[1] Being mainly a service industry with very weak linkages with Jordan's small productive sectors, tourism has reinforced the service orientation of the economy. Further, the implications for the balance of payments cannot be simply assessed on the basis of the increase in income. It is the industry's impact on import levels, serving in the long run to further widen the trade gap, which is of greatest importance.

Investment Income

Another main contribution to the invisible surplus has been net investment income, which includes payments and receipts of profits, dividends and interest. The net balances during the period 1950-1976 are presented in Table 4.6 and show a continual increase. A large

Table 4.6: Investment account (in JD million)

Average	Investment Account			Ratio of income to:	
	receipts	payments	balance	total invisible receipts	deficit on visible trade
1950/56	0.16	0.21	-0.05	3	2
1957/59	0.77	0.17	0.60	10	4
1960/66	1.75	0.31	1.44	9	4
1967/72	5.66	0.87	4.79	16	7
1973/74	7.57	1.68	5.98	12	8
1975	11.33	3.10	8.13	6	4
1976	12.99	4.74	8.25	5	3

Source: Statistical Appendix 3, p. 363.

1. See M. H. Zaglhuel: 'Tourism in Jordan', unpublished M.A. Thesis, American University of Beirut, (August 1967), p. 63.

investment income surplus may sometimes be an indicator of a strong economy and 'net credit' position. However, the importance of this surplus in the economic development of a country depends on how this surplus was achieved, and where it is spent. The first point is important because it explains whether the income was mainly due to the expansion of exports over imports - resulting in an increase in foreign exchange assets with a consequent increase in the interest paid on these assets - or whether it was the result of large-scale investment abroad. The second point is also important because the impact of a surplus on development depends on whether surpluses are directed towards financing consumption or towards investment and development. The following paragraphs will attempt to demonstrate how the surplus accumulated in this account, represents an indicator of Jordan's economic problems. Furthermore it will show how these surpluses have been directed towards an expansion in consumption, which increased the balance of payments problem.

From the accounting point of view, the origin of the surplus results from a substantial difference between receipts and payments. It can be seen from Table 4.7 below that the chief source of investment income is the net interest received on Jordanian foreign assets abroad. During 1960-1966, these were mainly the foreign assets of commercial banks and of the Currency Board. Since 1966, however, almost all foreign assets have been invested by the Central Bank of Jordan. It is important to note that these assets are not the result of trade transactions. As is demonstrated in Chapter Five the main source of these assets is the large inflow of aid. In this sense Jordan cannot be described as a net creditor - a term which can only be accurately applied to developed countries with large investments abroad. This raises the question as to

Table 4.7: Investment Income (in JD million)

Averages	Interest on Jordanian foreign assets abroad	%	Total income
1960-1966	1.41	80	1.75
1967-1972	4.40	77	5.66
1973-1974	6.66	88	7.57
1975	10.92	96	11.33
1976	10.29	79	12.99

Source: Central Bank of Jordan, Report on the accomplishment of the Central Bank during 1964-1974 (1974), and Central Bank of Jordan, Annual Reports, Amman (1975, 1976).

whether Jordan's foreign reserve policy has been consistent with its development needs. As is outlined in Chapter Five, the level of foreign exchange reserves in Jordan far exceeds that of its transactions, as well as of precautionary requirements.

As far as the allocation of income is concerned, most of it is used for government consumption. In accordance with rules of the Central Bank Law of 1966, 80% of Central Bank profits must be transferred to the government, which means that only the remaining 20% may be added to the capital of the Bank. Lately, however, the law has been amended so that all Central Bank profits must be transferred to the government.[1] Given that most government expenditure is directed towards consumption, usually in the form of salaries and wages, the expansionary effect of this policy cannot be underestimated.

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1. In practice, however, the government not only used the full amount but also obtained credit from the Central Bank during the year on the anticipated profits

While the majority of the receipts from the investment income account constitutes interest on Jordanian foreign assets abroad, the outflow has been mainly in the form of interest on foreign loans received by Jordan. As can be seen in Table 4.8, during 1967-1974 over 71% of the payments were of this form. The table further indicates that large increases in interest payments occurred during periods in which profits and dividend payments for long term investment remained small and stable. This structure of investment payments indicates two important phenomena: first, the small size of private long-term foreign investment and second, the increase in the burden of government loans.

Table 4.8: Payments for investment income, 1967-1974 (in thousand JD)

	1967	1968	1969	1970	1971	1972	1973	1974
Interest	0.25	0.32	0.41	0.36	0.76	0.84	0.77	1.50
Profits and dividends	0.57	0.58	0.46	0.29	0.22	0.21	0.49	0.61
Totals	0.82	0.90	0.81	0.65	0.98	1.05	1.26	2.11

Source: Royal Scientific Society, Economic Development of Jordan, 1967-1974, Amman (1974), p. 33 (arabic).

Information on the level and composition of foreign investment in Jordan is not available. The low level of profit payments however, is evidence of the limited role which direct foreign investment has played in the Jordanian economy. This is not due to the lack of policy measures to encourage private foreign investors, but mainly to the lack of attractive investment opportunities. Apart from its general adherence to a liberal trade and economic policy, the government did offer generous

privileges in its 1955 legislation and subsequently in 1967 and 1972, in order to attract private foreign investment.[1] Despite these privileges the inflow of foreign investment has been very small indeed. Table 4.9 shows that the inflow of long term investment was tiny until 1975 and 1976, when a large increase occurred.

Table 4.9: The inflow of private foreign investment, 1964-1976 (in JD million)

Year	Value	Year	Value
1964	0.79	1971	0.05
1965	0.25	1972	0.00
1966	0.31	1973	0.16
1967	0.10	1974	0.96
1968	0.06	1975	7.37
1969	0.80	1976	5.19
1970	0.00		

Source: 1. Central Bank of Jordan, Some Statistics Pertaining to the Jordanian Economy (1974).
2. Central Bank of Jordan, Monthly Bulletin (January 1978).

The recent increase, however, does not reflect a change in the general trend. First, it is the result of the Lebanese civil war, which damaged Beirut as a regional commercial and banking centre.[2] Secondly, it is mostly concentrated in the financial and commercial sector, thus serving to increase the already over-large services sector in the economy. Thirdly, the increase is likely to disappear given relatively stable political conditions in Beirut, and is not likely to repeat itself.

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1. Y. Shekuara, The Importance of Economic Incentives in Jordan, Royal Scientific Scoeity, Amman (July 1976), pp. 26-53 (arabic). These privileges have taken the form of tax free imports, income tax allowances and full rights to transfer the capital and profits.
2. In the first six months of 1976 about 50 companies registered offices in Amman.

Apart from a lack of current investment opportunities, the reason for the small inflow of direct investment may be found in the nature of international private investment in the post-war period.[1] Direct foreign investors have been shown to be interested in investment in the developing countries chiefly when there are opportunities to exploit natural or human resources.[2] In addition to the degree of profitability, they tend to be influenced by the degree of political stability of the countries concerned. Given the lack of natural resources, coupled with the general political instability in the Middle East area, the inflow of private foreign investment may be expected to be small despite the prevailing liberal trade policy and the attractive benefits provided by successive government laws.

While the small share of profits and dividends can be explained by the low level of private direct investment, the increase in interest payments is the result of an increase in the humber of governmental loans contracted. The extent to which these payments can be described as a burden on the economy, depends on the way in which the original contractual loans were spent.

Although foreign aid has played an important role in determining the level and pattern of development in Jordan, foreign loans, being a small proportion of the overall aid, made only a limited contribution.

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1. Over 75% of American investment abroad in 1975 was concentrated in the developed countries. Further, out of the 25% invested in the developing countries, 57% was in the oil producing countries. See R.David Bellil: 'Capital expenditures by majority owned affiliates of U.S. companies', Survey of Current Business, March 1977. British foreign investment has shown the same pattern. In 1975 out of £10,117,800 outward investment, only 23% was directed to the developing countries and the major amount was concentrated in western Europe and North America. See Trade and Industry, February 1977, p. 528.

2. See Xenophon Zolotas: Monetary Equilibrium and Economic Development, Princeton University Press (1965), p. 132. See also P. Barran and P. Sweezy: Monopoly Capital, Penguin, (1970), p. 110.

However, the value of contracted loans increased from JD 10.8 million in 1960 to more than JD 64.5 million in 1972 and to JD 100.5 million in 1976. For political and economic reasons however, most of these loans have been used to finance transportation, communication and other service industries. Sakit's[1] study of foreign loans in Jordan has shown that over 60% of the inflow of loans was absorbed by these services, while agriculture and manufacturing industries obtained only a very small share (5.3% and 1.8% respectively). Needless to say, such a distribution of foreign loans has not improved the country's trade deficit, for these loans were neither directed towards import substitution nor towards export promotion. Thus, despite the notable rôle they have played in improving Jordan's infrastructure, the net impact of loans on the economy has been to further the balance of payments burden.

Economists often measure this burden by relating the amortization and interest payments to the total exports of a country. Using this measure, Jordan's burden of debt does not seem to be high, especially in comparison with other developing countries. Despite an increase from one percent in 1965 to over 5.8% in 1974, this burden is still small when compared with (for example) Israel (17), Syria (11.2) or Egypt (25.1).[2] Although this ratio is useful as a convenient indicator of the actual pressure imposed on the balance of payments by contracted foreign loans, in the Jordanian case it does underestimate the actual and potential pressures of foreign debt on the economy. The reasons for

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1. Bassam Saket: 'Foreign Aid to Jordan', unpublished Ph.D Thesis, University of Keele, 1976, p. 173.

2. IBRD Annual Report, Washington DC (1972), p. 82.

Table 4.10: Debt service as percentage of exports of goods and services, in Jordan, 1965-1976

Year	1965	1966	1967	1968	1969	1970
Debt service to total exports	1.0	1.4	1.5	1.8	3.0	3.5

Year	1971	1972	1973	1974
Debt service to total exports	7.8	7.3	6.3	5.8

Source: (1) World Bank, Annual Report, 1972, Washington DC (1972), p. 82.
(2) World Bank, Annual Report, 1976, Washington DC (1976), p. 105.

this belief are that most of Jordan's foreign loans were contracted in the 1960s with an average maturity then of 26.7 years. Payments are therefore not yet due and this depressed the potential burden on the balance of payments as indicated by the present debt service level. Thus, although the problem of debt servicing has not arisen in the past, in the near future most of the contracted loans will fall due and foreign exchange will be required for repayments.

The second important point about the foreign loans figure is that they exclude foreign loans obtained from private enterprise in the form of purchase of government bonds, and loans contracted by the Ministry of Defence. The classification of government bonds does not allow for any segregation of the figures between foreign owners and Jordanians. However, almost 40% of these bonds and securities are owned by foreign commercial banks and insurance companies. This debt is regarded as domestic debt, although foreign banks are allowed to transfer their profits to their point of origin and hence the bonds held by these banks represent foreign liabilities on the balance of payments. It is therefore necessary to include these payments for amortization and interest on bonds held by non-residents in Jordan, as part of the debt services. Once again the impact of this on the

economic development of the country and on the balance of payments, depends on the way in which they are utilised. It will become apparent in Chapter Seven that government bonds and securities are used as a source of finance for current government expenditure rather than as a monetary instrument for open market operations. The expansionary impact of such a process is further magnified by the fact that they represent a source of finance for consumption rather than for productive investment.

As for military loans: for obvious reasons data is not available. However, it is believed that these have increased considerably, especially after 1967. This is evidenced by the increase in government payments abroad which are included in the item 'Government n.i.e.' in the balance of payments. This item usually includes government payments for its diplomatic missions abroad. In practice, however, payments for defence loans are included in this item and have inflated the figure from an average of JD 1.8 million in the period 1964-1967 to over JD 13.8 million in 1968. Obviously this increase is larger than the normal payments for diplomatic missions abroad could account for and can only be explained as an increase in payments of military short and medium term loans.[1]

Although the above information does not provide an alternative real indicator, it does indicate that the debt service ratio underestimates the debt burden on the economy. In fact it could be argued that given the small level of Jordanian exports, coupled with the consumption-encouraging nature of these loans, the debt burden on the

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1. Vide Table 4.11 on page 169.

Table 4.11: Government transactions as shown in the balance of payments 1964-197[illegible] (in JD million)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Payments	1.49	1.62	2.06	1.80	13.81	29.24	11.29	5.12	5.28	10.26
Receipts	1.11	1.94	1.74	4.50	6.34	10.00	11.86	3.67	1.40	2.03

	1974	1975	1976
Payments	12.65	14.68	27.57
Receipts	2.02	5.91	5.67

Source: Central Bank of Jordan, Statistics pertaining to some aspects of the Jordanian economy (October 1974), and Central Bank of Jordan, Monthly Bulletin (August 1977), Table 14.

economy is very high indeed, even when compared with other developing countries. Exports of agricultural commodities and phosphates are likely to fluctuate while debit payment obligations remain contractually fixed. Theoretically, the implication of this condition is that the country must either reduce its imports, or use its foreign exchange resources, or continue to borrow in order to finance the balance of payments deficit and the debt payments.

In Jordan the burden of debt servicing is furthered by the large inflow of imports, especially as industry and agriculture still constitute only a small proportion of production. Import requirements such as food, fuel (or energy sources) and machinery cannot be drastically curtailed, but they can be decreased if optimal methods of production are adopted.

Summary

Analysis of Jordan's invisible surplus has so far shown that despite the short term positive effect of invisibles on the balance of payments, their overall long term impact on economic development has been minimal. It is evident that there is an incompatibility between the impact of the surplus on economic development and the overall objectives of Jordanian planning. On the one hand, as planners have made clear, in successive development plans, Jordan's economic problem lies in the imbalanced structure of its industrial and trade patterns; on the other hand, the invisible surpluses essentially created by the tourist industry, investment income and spectacularly by remittances from Jordanians working abroad (to be discussed in Chapter Five), have indirectly reinforced this imbalanced structure and helped to further widen the trade gap.

In the tourist sector, despite the notable increase of foreign exchange earnings, the positive impact was reduced by the increase in imports generated by the industry itself. The widespread belief that tourism could be the leading economic sector and the answer to Jordan's economic problems has been discussed and rejected on the grounds of very weak sectoral linkages and the consequent negative impact on regional development. Despite the increase in money income from tourism, it has been shown that nevertheless the population continues to move from rural to urban centres.

Investment income, although less volatile, has also grown markedly to represent an important part of total earnings. Orthodox analysis consideres that a surplus of investment income has a beneficial influence on economic development and is a favourable indicator of economic

performance. Nevertheless this chapter has shown that, although this may apply in the case of developed countries, it need not be the case for a small developing country like Jordan. Examination of the sources of this income, and the ways in which it has been used has shown how it has contributed to, and reinforced, serious weaknesses in the Jordanian economy in the following ways:-

a) The investment surplus originated in the high level of interest receipts on Jordanian foreign assets. These, however, were the result of the aid inflow rather than domestic economic performance.

b) The low dividends paid on foreign investments simply represents the absence of long term private foreign investment in the country's economic development.

c) The debt burden in Jordan has been seriously under-estimated and the analysis clearly demonstrates that the actual debt burden is much higher than the balance of payments figures tend to indicate.

To complete the analysis of causes of the invisible surplus, remittances of Jordanians working abroad must now be fully examined.

Appendix

Reliability of the Information on Invisible Trade in Jordan

Up to the present there are no accurate estimates for the remittances of Jordanians working abroad, or for income from tourism. The reason for the shortage of information on these important items of invisible trade lies in the methods used in compiling the balance of payments. As is the case in most countries, the Central Bank is responsible for the balance of payments calculation. However, the Bank depends for all its information on sources other than its own. While visible trade figures are obtained from the Department of Statistics, other items such as invisibles and long term capital are estimated from the foreign exchange record of the Central Bank. The latter, however, provides information only on those transactions which occur within the official financial system. Given that a large proportion of transactions are contracted outside the official market (i.e. through sarraffeen),[1] certain adjustments to the foreign exchange records are necessary before including them in the balance of payments. In practice, however, these adjustments are subject to the value judgements of the balance of payments compilers rather than to a systematic estimate. The table overleaf shows how the figures presented in the foreign exchange record underestimate transactions in the visible and invisible trade. This table also reveals how balance of payments figures are not consistent when compared with foreign exchange records, so reflecting the lack of coherence in the methods of estimation. In some years the remittances figure is the same as in the foreign exchange record while in other years the balance of payments compilers have adjusted the figure. This problem of reliability of data as shown above, creates numerous difficulties in any assessment of the precise contribution of invisibles to the overall balance of payments.

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1. Private foreign exchange dealers in Jordan, see Chapters 6 and 7.

Table - Appendix : Receipts of foreign exchange as shown in the balance of payments and the foreign exchange record (in JD Million)

Source	1970		1971		1972		1973		1974	
	B	E	B	E	B	E	B	E	B	E
Visible exports	12.2	5.9	11.4	3.0	17.1	4.9	18.9	9.6	49.7	29.4
Travel	4.8	2.4	6.3	0.6	88.3	0.2	10.6	0.5	17.2	0.5
Oil transit dues	0.9	0.9	3.4	3.4	3.1	3.1	5.5	3.4	1.3	1.2
Investment income	6.8	6.8	5.7	5.7	4.4	4.4	6.3	6.3	8.8	8.8
Remittances from Jordanians working abroad	5.5	4.7	4.9	4.5	10.9	7.4	14.7	14.7	24.2	19.7
Government	11.8	11.8	3.6	3.6	1.4	1.4	2.0	1.5	2.0	2.0
Others	2.1	2.1	5.1	2.3	6.7	10.9	33.4	19.4	11.1	25.1
Totals	44.1	34.6	40.4	23.1	51.9	32.2	76.8	61.7	114.4	86.7

B = Balance of payments E = Foreign exchange record

Source: Central Bank of Jordan, Monthly Bulletin (January 1973 and January 1976).

CHAPTER FIVE: THE ECONOMIC SIGNIFICANCE OF MIGRANTS' REMITTANCES

As has already been indicated in Chapter Four, the inflow of funds through repatriated earnings from Jordanian nationals working abroad is the most significant of all Jordan's invisible exports. While Kindleberger[1] argued that this source of export earnings is superior to ordinary exports on the grounds that there are no precedent payments to spill over to imports, the following analysis will show that remittances from Jordanians working abroad have recently been a phenomenon with serious domestic implications for both imports and economic development as a whole.

Between 1960 and 1976, as Table 5.1 reveals, remittances accounted for more than one third of invisible exports. Moreover, despite the decline which occurred during the political disturbances of 1967-1971, the rate of growth for the period 1961-1976 exceeded 21% per annum. Although this overall figure was influenced by the greater inflow during the closing period 1973-1976, when the per annum percentages were successively 98, 69, 120 and 115% this was due to the new economic and political conditions in Jordan, the host oil producing countries and in the international economy. After the political disturbances of 1967 and 1971, Jordan enjoyed a relatively stable economic and political climate. In the oil producing countries, the increase in oil prices after 1973, reflected an increase in the revenues of these states and resulted in an economic boom. At the international level,

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1. Kindleberger:'Emigration and Economic Growth', Banca Nazionale del Lavoro, Rome, September 1965, p. 247.

Table 5.1: Remittances of Jordanians working abroad (in JD million)

Year	Value	Percentage change	Ratio to: Exports	Ratio to: Invisibles
1960[1]	6.24	-	158	47
1961	5.25	-16	100	34
1962	6.20	18	105	34
1963	6.17	-1	94	33
1964	9.30	49	106	38
1965	9.10	-2	99	38
1966	10.61	16	102	53
1967	6.60	-38	58	26
1968	4.10	-38	29	17
1969	6.90	78	47	22
1970	5.50	-20	45	17
1971	4.90	-11	42	17
1972	7.40	51	43	22
1973	14.70	98	61	28
1974	24.90	69	50	38
1975	53.25	120	110	31
1976	114.41	115	172	50

Source: See Statistical Appendix 3 on p. 363.

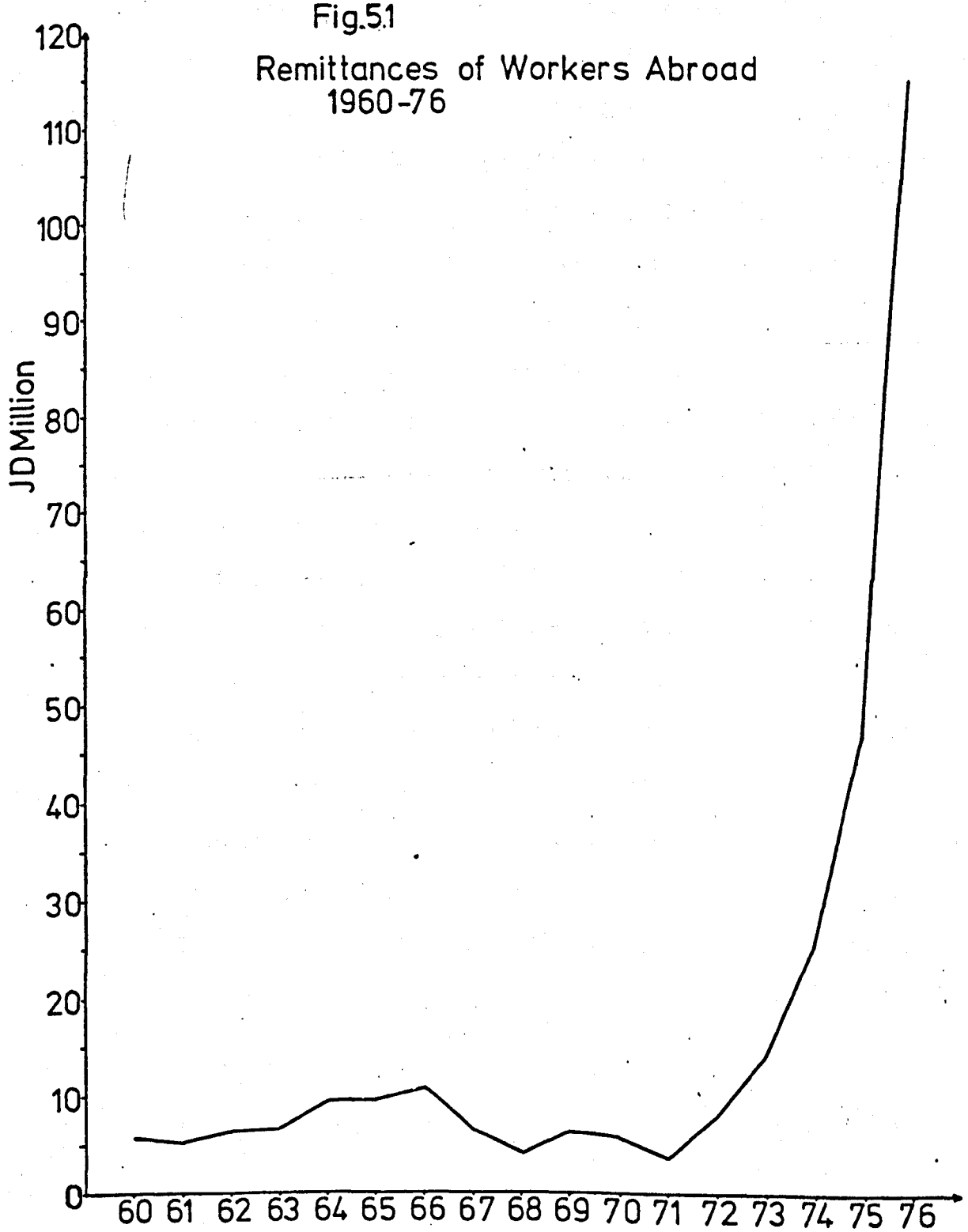
inflation, reflected in unstable monetary conditions, resulted in a decline in the value of the main convertible currencies. All these factors interacted to produce a particularly high increase in the remittances of Jordanians working abroad during 1973-1976 (see Figure 5.1).

The new conditions coupled with the above mentioned large increase in the remittances, have raised the possibility of this source of

1. No detailed information is available for the years before 1960.

Fig.5.1

Remittances of Workers Abroad
1960-76



Source: Appendix 3.

income being a substitute for foreign aid.[1] As Clark remarked in her report on migration 'economically Jordan has relied heavily upon external support in the past . . . This pattern too, has radically changed since the volume of workers' remittances from abroad has become a new and major support for government financial stability'.[2] However, the balance of payments figures for 1976 show for the first time that in that year there was a remittance outflow of JD 4.8 million from non-Jordanian nationals who work in Jordan. This phenomenon clearly necessitates a more detailed analysis of the remittances of Jordanians working abroad, together with an analysis of migration patterns and their domestic economic impact.

It is important to note at the outset that although the widespread migration of labour has been one of the outstanding characteristics of Middle Eastern economic development, it has not yet been subjected to rigorous economic analysis, whereas elsewhere its importance is widely recognized.[3] In fact neither the host nor the labour exporting countries have given this subject the attention it deserves.

So far as Jordan is concerned, accurate assessment of the impact of migration on domestic economic development is hindered by lack of information. Information on who migrates, to which countries and their occupations both before and after departure is not known. Such data would throw light upon the effect of migration on demographic structure and the labour force - its effect on the distribution of skills and

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1. Balance of payments statistics in 1976 have shown that the amount of remittances (136.41 million) has exceeded total inflow of aid (127.85 million). See Central Bank of Jordan, Monthly Bulletin (January 1978).

2. Joan Clark: Jordan a Labor Receiver - A Labor Supplier, Dept. of State Agency for International Development, Washington DC (Sept. 1977), p. 1.

3. C. Sinclair and J. S. Birks: Towards Planned Migration in the Middle East, International Migration Project, Dept. of Economics, University of Durham, n.d., p. 3.

upon patterns of production and consumption. It would also indicate earnings levels of emigrants and their relation to repatriated earnings. In general, however, the wage level of the migrants' country of origin is lower than that of the country to which migrants go. The destination of migrants is also important in determining whether migration is likely to be permanent or transitory, as the effects on the country of origin are different in each case. The jobs they go to and have come from are likely to be crucial information, as it indicates whether migrants are acquiring new training or are just unskilled workers abroad.

As direct information on these matters is not available, the following paragraphs will attempt to briefly outline the costs and the benefits of migration to the economic development of Jordan, using indirect data.

Emigration and immigration have been more or less a permanent feature of the Jordanian economy since the second world war. The creation of Israel in 1948 led to the influx of a large number of refugees creating a situation of both underemployment and unemployment. The incoming refugees created a reservoir of foot-loose labour, a significant proportion of which were educated and skilled. With the increase in the wealth of the neighbouring oil producing Arab countries Jordan became a supplier of labour, both skilled and unskilled, to these countries. Historically during the course of economic development it is the agricultural sector which has served as the reservoir of labour for the non-agricultural sector - a process which has been discussed by Lewis. However, all of the Arab oil-producing countries, with the exception of Iraq, are heavily under-populated. Iraq too is under-populated in relation to its resources. As a result, Jordan and

other countries such as India, Pakistan and Egypt, are performing the same function vis-a-vis oil-producing countries which the agricultural sector did in other economies. There is, however, an important difference: labour exporting countries not only export unskilled labour like the agricultural sector but also skilled labour.

No comprehensive statistical information on this movement of labour is at present available. Nonetheless, there is some information which enables us to make statements about the pattern and the effect of the migration of labour.

The importance of migrant labour in the recipient countries varies from one country to another. One can, however- detect general features by looking at specific cases. In Kuwait for example, in 1975 over 52% of the population of Kuwait were non-Kuwaitis, compared with 45% in 1957. As can be seen in Table 5.2, the population during the period 1957-1975 increased at an annual average rate of 20.1%, the largest proportion of which was accounted for by non-Kuwaitis.

Table 5.2: Population of Kuwait by nationality

Year	Kuwaitis		Non-Kuwaitis		Total
	Thousands	%	Thousands	%	Thousands
1957	114	55	92	45	206
1961	162	51	160	49	321
1965	220	47	247	53	467
1970	346	47	387	53	733
1975	472	47	523	53	995
Annual rate of growth 1957-1975	(16.5)		(24.6)		(20.1)

Source: (1) Mullakh, R., Economic Development and Regional Co-operation in Kuwait, Centre for Middle Eastern Studies, Chicago (1968) Table 13.
(2) Birkes, S. and Sinclair, Country Case Study: Kuwait, Part 1, International Migration Project, Dept. of Economics, University of Durham (July 1977), p. 3.

The rate of increase in Kuwaiti citizens is clearly higher than can be accounted for by natural increase alone. This difference is explained by the fact that some migrants remained in Kuwait and obtained Kuwaiti citizenship. This pattern is similar to that in all oil producing countries, and in some cases the weight of immigrant labour is even greater. In Abu Dhabi, for example, the total population reached 70,000 in 1972 compared with only 17,000 in 1961. Naturally, a very large part of this increase camefrom the inflow of migrants.[1]

In fact the figures which are given here underestimate the economic importance of immigrant labour in recipient countries. The reason is that the native population includes both those who participate in the labour market and those who do not or alternatively those who are economically active and those who are not. In contrast, the immigrant population, at least in the first instance, largely consists of the economically active. As a result, one would expect the ratio of economically active immigrant population to total economically active population to be significantly higher than the ratio of immigrants to total population.

What these figures indicate is that oil-producing Arab countries will remain dependent on immigrant labour. The reason being that the weight of immigrant labour is so great that it would be impossible for the native labour to ever replace immigrant labour. Furthermore, the present pace of economic activities in those countries makes it likely that their dependence on immigrant labour will tend to increase rather than decrease. In fact, development plans in these countries indicate an expansion of the demand for foreign labour. Saudi Arabian economic

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1. Fred Halliday: Arabia Without Sultans, Pelican, London (1975), p. 452.

planners, for example, have predicted a need for half a million foreign workers during the implementation of the Saudi Five Year Plan (1976-1980). This is, of course, in addition to the national plans of other oil producing countries.[1] However, the attitude of labour importing countries towards immigrant labour remains ambiguous. By and large the import of labour is on an ad hoc basis and subject to conflicting factors rather than an organised and comprehensive policy. To some extent importing countries unrealistically regard the use of immigrant labour as a temporary and transitory phenomenon, as is indicated by their reluctance to grant citizenship to immigrants. In fact, a number of countries, e.g. Kuwait, have in recent years made it even more difficult for immigrants to acquire citizenship.

Not all Jordanians abroad are workers in the oil-producing Arab countries. The Multipurpose Household Survey conducted in 1975 shows that only about 34.5% of Jordanians abroad are working in oil producing countries, the remainder being either migrants undergoing further education in Egypt, Syria, England and Eastern Europe, or migrants in countries like West Germany, Italy and the United States, where it is possible to combine work and study.[2] The respective impact on the Jordanian economy of these two groups is of course different. Those who migrate for education purposes represent a long term investment with uncertain returns and may be, under certain assumptions, evaluated in terms of the economics of education. The most important group as

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1. C. Sinclair and J. S. Birks: An evaluation of patterns and process of labour movement, International Migration Project, Dept. of Economics, University of Durham, n.d., p. 6.
2. Department of Statistics, Household Multipurpose Survey, Amman (1976), p. 5, (arabic).

far as this thesis is concerned are those who are working in the oil producing countries, since it is this group which is and which will continue to be the main source of remittances.

The number of Jordanians working abroad is as yet unknown, and speculative estimates vary widely. The Jordanian Ministry of Labour estimated the number at between 200-250 thousands. The Department of Statistics has also published an estimate for net outward emigration for the period of 1965-1975 - 402,000.[1] Other estimates go as high as 800,000. These figures reflect the lack of proper information about the outflow of migrants and indicate the need for care in drawing any specific and quantitative conclusion. The most recent estimate, however, is the one which was presented by Prince Hassan at the International Labour Conference, which put the number as equal to one third of Jordan's labour force.[2] This would make the number of workers abroad only 114,000 at the end of 1975.[3] The direct effect of migration in 1975 alone has been to lower the labour force from 19 percent of the total population to 13.3 percent. Despite their diversity, what is significant about these figures is the magnitude of migration from Jordan. Thus, emigration is not just one of the factors which has some effect on the structure and the development in the Jordanian economy, indeed it is arguably the most important factor.

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1. Clark: op. cit.,(September 1977), p. 10.
2. International Labour Conference Provisional Record, ILO, Geneva, 63rd session (1977), p. 14.
3. The figure can be reached from the labour force of Jordan which was estimated in 1975 to be 384,000 out of 1.9 million total population.

In order to analyse the effect of the export of labour on the economy, one should distinguish between two kinds of effects, namely, i)the effect on the composition of the labour force and population and ii) the 'income effects' of the earnings of the exported labour on the exporting country. It is only the second set of effects which are registered in the balance of payment accounts and even that is restricted to registering the effects of repatriated earnings on foreign exchange reserves.

As far as the first set of effects is concerned the important point is that since international migration consists of the migration of the economically active, the immediate implication is that the export of labour decreases the ratio of economically active to total population in the exporting country and conversely it increases the ratio in the importing country. Apart from its impact on consumption (as will be seen later) migration not only effects the relative and absolute size of the labour force but also the composition of the labour force, because it is not evenly spread over the various categories of labour. To start with, importing countries discriminate in favour of certain categories of labour, in particular skilled labour, and secondly skilled labour due to a number of factors, e.g. urbanisation, attitude towards migration, is relatively more mobile than unskilled labour. In general, one may argue that migration changes the composition of the labour force by increasing the relative weight of unskilled labour. This is borne out by the Multipurpose Household Survey of 1977 which revealed that over 50% of the Jordanians working abroad are highly skilled (see Table 5.3 below).

The educational level of workers abroad is another indicator for

Table 5.3: Occupational distribution of Jordanians working abroad

	%
Engineers	2.3
Doctors	1.1
Chemists	0.9
Medical nurses	0.9
Accountants	3.8
Teachers	10.8
Administrators	2.9
Tailors	1.5
Blacksmiths and metal workers	3.9
Workers with mechanical skills	14.5
Construction workers	2.4
Drivers	1.9
Other occupations	47.8
	100.0

Source: Department of Statistics, The Multipurpose Household Survey, Amman, (1976).

the degree of migrants' skills. As shown in Table 5.4, most Jordanians working abroad have had some sort of high school education and a good proportion of them hold university degrees. The table reveals very interesting and important phenomena, namely that while the proportion of educated Jordanians abroad to the total number of workers abroad is very high, the proportion of educated people to the total population inside Jordan is very low indeed. This phenomenon not only indicates that Jordanians working abroad are mainly skilled labour but also indicates the nature of the educational system in Jordan. This subject goes beyond the scope of this thesis, but it is mentioned here because of its importance to the migration process. It raises the question of whether the education system in Jordan has been established to serve the

Table 5.4: Percentage distribution, in and outside Jordan, according to educational qualifications

Level of Education	% of Jordanians abroad	% of Jordanians inside Jordan
Less than elementary	8.3	70.2
Less than preparatory	15.1	17.9
Less than high school	7.1	6.1
High school	55.4	11.0
Diploma	3.7	0.7
BA, BSc	7.8	1.0
MA, MSc	1.6	0.01
Postgraduate diploma	0.2	0.05
Doctorate	0.1	0.02

Source: Household Survey, op. cit., (1976), p. 9.

needs of the oil-producing countries or to meet the requirements of the development of Jordan itself.

Economists argue that migration may in the long run increase the labour force of the developing countries. The justification for this is that new attitudes to employment will be created and the rate of participation of female labour may increase to compensate for the reduction of migrated labour.[1] There is no evidence for such a trend in Jordan. In fact it is possible that the ratio of participation has declined because some of the previously employed wives either stopped working and became dependent upon the remittances of their husbands, or joined them abroad after a period of time. In this connection the 1976 survey estimated the participation rate as being 4.1% compared with 2.8% in 1961. Although the percentage has increased, in absolute terms the increase is a fraction compared with the loss through migration.

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1. S. Paine: Exporting Workers, The Turkish Case, Occasional Paper 41, Cambridge University Press (1974), p. 39.

It would seem that, given the present level of socio-economic development in Jordan, cultural rather than economic factors govern the participation of women in the labour force. In fact if it can be assumed that female labour participation is inversely related to the level of family income, then the export of labour from Jordan to the countries where wages are higher should lead to a decrease in the level of female participation. The level of female participation especially in urban areas will gradually increase over time, not because of the export of labour but due to an increase in the education of women and changes in attitudes towards the employment of women.

The extent to which migration has created bottlenecks in the labour market is not precisely known. However, it is the case that in the pre-1973 period there was little shortage of skilled labour and labour in general in Jordan. Migration was blessed by the government on the grounds that it would solve the unemployment problem and that remittances from workers abroad would help to finance development and reduce the balance of payments deficit.

The situation changed drastically after 1973 and migration's negative impact on the labour market was severely felt. The reasons for this can be summarised as follows:

(a) A large increase in government expenditure inside Jordan, aimed at reducing the rate of unemployment.

(b) The increase in the oil revenues of the oil producing countries at this time produced accelerated economic expansion in these countries and furthered the demand for skilled and unskilled labour.

(c) The period 1973-1976 witnessed a high rate of inflation in Jordan. Of the causes of this inflation, as it will be shown later, remittances stand as one important factor.

(d) As a result of the above factors, the rate of migration increased during this period and according to the Department of Statistics the number of people who left the country increased from 460,000 in 1973 to reach 715,000 in 1976.

Jordan thus witnessed a severe shortage of labour from 1973 onwards. This was made clear by the Jordanian planners when they stated in the Five Year Development Plan (1976-1981) that 'the demand for skilled labour has become more pressing in the last few years'.[1] Evidence for this shortage can be seen also from the increasing number of advertised jobs.[2] Advertisements for jobs are an important index of labour shortages as labour tends usually to be recruited on a casual and informal basis.

Indeed, the shortage of domestic labour has altered labour conditions to the level that Jordan has in turn become one of the labour importing countries. Information on the inflow of labour is no easier to obtain that its outflow counterpart, and is when obtained 'particularly unreliable'.[3] However, Ministry of Labour figures show that there were about 25,000 foreign workers employed in Jordan in 1975 and the figure rose to 60,000 in 1976. It is believed that about 60% of these workers are employed in the construction sector, 30% in agriculture and 10% in industry.[4] It is clear from the above information that immigrant labour in Jordan is restricted to a few sectors. Their concentration in

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1. National Planning Council, Five Year Plan (1976-1981), Amman, n.d. p. 341.

2. A study made recently by the National Planning Council shows that the number of advertised jobs increased from 2,953 in 1974 to 4,930 in 1975. Further over 80% of these advertised jobs can be classified as advertisements for skilled jobs. See National Planning Council unpublished survey of advertised jobs (1976), arabic.

3. Joan Clark: op. cit., p. 9, some extreme and overestimated figures ranged between half a million and a million workers.

4. J. Annani, Recent development in Jordan, Arab report, 'Middle East Money' Memo, Vol. 24, London and Paris (October 3, 1977), p. 13.

the construction sector, however, can be connected with the emigration of labour in the sense that it is the repatriated earnings which were partially responsible for the construction boom in Jordan. The extent to which this inflow of foreign workers satisfied the demand for labour is not clear. However, it is the case that Jordan still has a severe shortage of labour. This shortage of labour, however, is not evenly spread over different sectors. As far as manufacturing industry is concerned certain key 'industries are experiencing difficulties in obtaining sufficient workers despite the inflow of foreign labour. They have provided training and increased pay scales . . . but they have not overcome the problem'.[1]

In the agricultural sector, despite the high level of under-employment, a labour shortage nevertheless occurs during the harvest season. These shortages were caused not solely by emigration abroad, but also by internal migration from rural to urban areas. However, it would be wrong to under-estimate the indirect impact of external emigration. In practice farmers may migrate to the cities as a first stage before they migrate to the oil producing countries. Nevertheless, the agricultural sector suffered less than manufacturing due to the under-employment of farmers. Joan Clark's study noted that 'In the agricultural sector, the government projections show shortages but these, given the availability of foreign labour, may be overcome more readily'.[2] Further the Five Year Plan predicted that this sector would

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1. Ibid., p. 13

2. Joan Clark: op. cit., p. 5.

take care of itself in the future because most of the demand is concentrated in the 'semi or unskilled jobs'.[1]

Thus, despite the new inflow of foreign workers, the Jordanian economy experienced a severemanpower shortage up to 1976. The main reason for this was the fact that substitution was not compatible. Jordanian migrants were mainly skilled labour while the inflow of foreign workers was mainly of unskilled labour. Apart from the implications of this trend which may be reflected in a loss in output, there may be a waste of resources in providing training to these foreign immigrants. In practice, foreign migrants go to Jordan as a transitory stage before they remigrate to the oil producing countries. They obtain training in Jordan and wait for better opportunities in those countries. This is to be expected. Firstly due to the fact that wages in Jordan are much lower than wages in the oil-producing countries. Secondly, foreign labourers in Jordan in general receive much lower wages than their Jordanian counterparts. It has been estimated that the average level of wages for foreign labourers is half the average level of their Jordanian counterparts. This is not only due to the fact that they are unskilled, but also to the fact that a foreign worker receives a lower wage than a Jordanian for the same kind of work.

In analysing the effect on economic development of this continuous shortage of labour resulting from emigration, one may distinguish between short-term and long-term effects. The short-term effects are clear enough at least in qualitative terms; higher wage rates, shortages of skilled labour, migration from rural to urban areas, particularly to Amman. The long-term effects will depend upon a number of

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1. National Planning Council, Jordan Development Conference: 'Labour forces in Jordan', No. JDC 76/5 (1976), p. 15.

other factors. In particular long-term effects will depend on how employers react to the shortage of labour in the sense of adopting more labour saving techniques and secondly, whether the emigration is permanent or transitory.

Whether emigration is permanent or transitory depends on two distinct sets of factors; socio-economic changes in Jordan and those in the countries which import labour. As far as the labour importing countries are concerned, it has already been mentioned that their attitudes towards foreign labour is far from clear. This is demonstrated by the fact that it is still difficult for foreign labour to acquire the nationality of the host countries even after a very long stay. Further, in recent years oil-producing Arab countries have made it even more difficult for foreign workers to acquire nationality. This means that Jordanians working abroad maintain strong emotional and family links with Jordan. It is the latter which is ultimately responsible for repatriation of earnings to Jordan. The unwillingness of the importing countries to socially and economically absorb foreign labour also implies that if wages in Jordan were comparable to those in the oil countries, a large number of Jordanians working abroad would return to the country. One may, therefore, argue that emigration remains transitory because labour importing countries have not so far been willing to absorb foreign labour as inhabitants of the country. Obviously, this situation may change in the future and a permanent migration substitute the previously transitory one.

Although Jordanians working abroad benefit individually, emigration results in a distinct disadvantage to the economy as a whole. This is because emigrants may ultimately sever their links with Jordan and there will be no reason for them to send part of their earnings back

to Jordan. In that case repatriation of earnings will be no more than a short term phenomenon. The experience of migration from Europe to the U.S. is a good example. Migrants from Western European countries were fairly quickly absorbed into the U.S. and as a result, immigrants into the U.S. severed their economic and social links with their mother countries. There is, however, an important difference between the U.S. and the Arab oil producing countries. The socio-economic climate in the former favoured the absorption of immigrants while no such climate exists in the latter.

~~In~~ the case where emigration is transitory, the long term effects not only depend on the volume of repatriation but also on the skills and experience which migrants abroad may acquire. Obviously, such skills and experience are only relevant if emigrants are going to return during the course of their working life. It is of primary importance, however, to ask whether the new training or skills which may be acquired by migrants are indeed relevant to the economic development of their home country. This is especially important in analysing the impact of migration from a developing country like Jordan to another developing oil-producing country such as Saudi Arabia or Kuwait.

To start with, it is important to point out that Jordanians do indeed hold relatively skilled jobs in these countries and therefore they might be better placed than other migrants or local citizens in the host countries. As can be seen clearly from Table 5.5 about 80% of Jordanians employed in Kuwait were in skilled jobs in 1975. This may be compared with only 35% for the non-Kuwaitis and 65% for the Kuwaitis.

Table 5.5: Employment by occupational groups in Kuwait, 1975

Occupational group	Kuwaiti			Non-Kuwaiti			Jordanians			Total	
	Number	% of all	Share of total	Number	% of all	Share of total	Number	% of all	Share of total	Number	%
A Professional jobs requiring a science degree	1,050	1.2	10.4	9,001	4.3	89.6	2,545	6.0	25.2	10,061	3.4
B Professional jobs requiring an arts degree	5,114	5.4	53.9	4,371	2.1	46.1	1,083	3.0	11.4	9,485	3.2
C Technicians requiring three years of post secondary education	10,234	11.8	28.6	25,522	12.1	71.4	6,838	17.5	19.1	35,761	12.0
D Skilled and semi skilled office and clerical occupations	21,204	24.5	35.6	38,284	18.1	64.4	10,154	26.5	17.0	59,488	20.0
E Skilled and semi skilled manual workers	10,412	12.0	14.3	62,027	29.4	85.7	10,051	25.8	13.8	72,439	24.3
F Unskilled occupations	38,602	44.6	35.0	71,694	34.0	65.0	8,204	21.2	7.4	110,296	37.1
Totals	86,621	100.0	29.1	210,909	100.0	70.9	38,935	100.0	13.0	297,530	100.

Source: Based on Table 29 in, Birks and Sinclair, Country Case Study: Kuwait, International Migration Project, Dept. of Economics, University of Durham (July 1977).

The economic importance of these skills to the Jordanian economy, however, depends on the type of economic activities that the migrants are engaged in in the host countries.

The economic activities which migrants may undertake stem from the economic conditions of their home country and those of the host country. In general, however, there is a tendency for the proportion of migrants involved in services activities to be higher than those involved in the primary sector.[1] This is also supported by the employment pattern of migrants in the oil-producing countries.

The sectoral distribution of GDP and the employment structure in a country like Kuwait reveals the type of economic expansion that has taken place in the oil-producing countries. As may be seen from Table 5.6, the oil industry, which accounted for almost 70% of GDP in 1975 absorbs only 1.6% of total employment. On the other hand the share of agriculture and manufacturing is still small in relation to the GDP and total employment. The largest employer among the economic sectors is the services sector. Although there is no reliable information on the industrial structure of other oil producing countries, it is likely that they are not much different from Kuwait.

If the patterns of employment of Jordanian workers in these countries were similar to the general employment structure in these countries, then their newly acquired skills may well be irrelevant to Jordan's economic development needs. Indeed, it is more likely that because of their high level of education and training, Jordanians working abroad are providing new skills for the citizens of their host

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1. See Stilman Bradfield: 'Some occupational aspects of migration', Economic Development and Cultural Change, (October 1965), vol. XIV, pp. 61-70.

Table 5.6 Sectoral distribution of GDP and employment in Kuwait

	GDP - 1975		Employment Total - 1975		Non-Kuwaitis - 1975	
	KD million	%	number	share	number	share
Agriculture	4	0.2	7,514	2.1	3,531	1.7
Oil and other mining	1,447	68.6	4,859	1.6	3,080	1.5
Manufacturing	75	3.5	24,467	8.2	22,209	10.5
Construction	21	1.0	32,256	10.9	30,500	14.4
Services	664	26.7	229,319	76.8	152,124	71.9
Totals	2,111	100.0	298,415	100.0	211,444	100.0

Source: Based on Table 11, Birks and Sinclair: op. cit., Case Study: Kuwait.

countries, rather than acquiring new ones. Apart from the small proportion who are engaged in manufacturing industry and in the oil industry, the vast majority of Jordanians work in the services sector. The over-enlargement of the services sector is, as has been demonstrated, the main problem facing Jordan's economic development and the economic planners aim to reduce the share of this sector in the GDP of Jordan. Furthermore, the very small proportion who are engaged in the oil industry are acquiring skills which at present are not relevant to a non-oil producing country like Jordan, and even these are likely to be not directly engaged in the oil industry itself, but within the administration aspect of this industry. Indeed it has been noted that for political reasons most of the skilled jobs throughout the oil industry have been confined to those migrants who come from the Western countries rather than to Arab migrants.[1]

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1. Fred Halliday: Arabia Without Sultans, Pelican, (1975), p. 421.

In respect of the question of skills, it is important also to note that the governments of the oil countries provide very little training for foreign immigrants. A study of the vocational training programmes in the Gulf area has shown that in general, access to the training centres is restricted to citizens of the Gulf states. In 1975 only two out of the 55 training centres in the area accepted non-citizens, the rest having laid down conditions of citizenship as one of their entry qualifications (see Table 5.7).

Table 5.7: Training institutions in the Gulf area, 1975

State	No. of institutions	No. of institutions which accept migrants
Kuwait	25	2
U.A.F.	7	-
Oman	3	-
Bahrain	12	-
Qutar	8	-
Totals	55	2

Source: Based on James A. Suckmit, Human Resources Development in the Gulf Area, Bahrain (February 1975).

So far it has been shown that althougha few Jordanians working abroad may acquire new skills, the jobs they hold are not particularly relevant to the Jordanian economy, and that the governments of the host countries provide no official training schemes for migrants.

Although there is no statistical evidence to show the incidence of Jordanian workers returning to their home country, the general belief is that their number is small. In this connection Joan Clark noted

that 'the Government of Jordan is also looking at the possibility of re-absorbing returning Jordanian workers into the domestic labour force . . . A small number have returned after saving enough money to build a house or open a business, but large scale return is a hope more than an expectation'.[1] For social and economic reasons, emigrants to the oil producing countries tend to return home but only when they reach retirement age.

Furthermore, Sinclair and Birks describe migration in the Middle Eastern countries as follows:

> 'Migration often begins with single men of prime working age seeking jobs outside their home environment. After about a year's work, a return visit is made home before another period of work is embarked upon. After a time, the duration of stay at the place of work tends to lengthen and a reunion between husband and wife begins to take place, not in the home country, but in the nation which he works - and the transition from migrant to emigrant may follow.'[2]

The above pattern of migration is typical in most cases of Jordanian migrants and the implication for the economy of the home country is not confined to a shortage of labour and a consequent effect on output. Migrants' remittances and the way they are spent inside Jordan has to some extent accelerated the rate of expansion in consumption of imports and more recently of inflation. The following paragraphs will attempt to examine the income effect associated with migration.

For the reasons discussed in the preceding pages, remittances of Jordanians working abroad increased during the period 1960-1976. However,

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1. Joan Clark: Op. cit., p. 4.

2. C. Sinclair and J. Birks: 'An evaluation of patterns and processes of labour movement. Towards a planned migration in the Middle East', Dept. of Economics, University of Durham, undated, p. 6.

it is important to note that the impact of those remittances on economic development depends on whether they are used for production or for consumption purposes. While lack of information again inhibits empirical verification, there is agreement among students of Jordanian economics and also recently among senior Jordanian officials, that the use of these remittances has been largely for consumption rather than investment purposes.[1]

Given that one third of the labour force (or 6% of the population) lives outside Jordan, it is to be expected that migration has the effect of a direct reduction in domestic consumption in a proportion similar to the proportion of migrants abroad, However, those who are left behind increase their consumption because of the remittances of migrant workers; also taking into account the fact that the wage levels of migrants is higher than those employed in Jordan. Although there is no statistical evidence to support the existence of this pattern in Jordan, the experience of other countries has shown that the marginal propensity to consume from remittances, tends to be higher than that from domestically earned income,[2] and it is very likely that this trend holds for Jordan. This is because migrants are mainly from among those who can be classified as 'low income' group and for them the main purpose of migration is to save some money and repatriate home these savings to help in raising the standard of living of their families.[3]

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1. Sinclair: 'Remittances are poor return for brain drain losses', The Times, 11 August, 1977.

2. Paine: op. cit., p. 43. See also Samir Amin: Modern Migration in Western Africa, International African Seminar, Dakar, (April 1972), p. 103.

3. It should be noted that the concept of family in the Arab countries includes father, mother, brothers, and sisters as well as husband and wife with children.

It is therefore, to be expected that the remittances will be directed chiefly towards consumption. Furthermore, it is demonstrated later in this chapter that a large proportion of remittances in recent years have been directed towards speculation in land and commodities.

As Jordan's production of consumer goods is far below domestic demand, most of the newly generated demand will be met through imports. Furthermore, it may be argued that the marginal propensity to import consumer goods out of remittances is higher than from indigenous income. This assertion is supported by the fact that recepient families have more contact with foreign goods in the oil-producing countries; where most imports are almost tax free. Migrants, therefore, tend to send their families certain special commodities, specifically those which can be classified as luxuries. This point was made clear by Elmallak in his assessment of the Kuwaiti economy and its impact on the migrants. He mentioned that 'The Arabs in turn transmit to their countries of origin their recently acquired and diversified tastes, encouraged by Kuwait's international outlook and liberal trade policy'.[1] While the 'newly acquired tastes' are blessed in Elmallak's assessment, they represent a serious problem to a labour exporting country like Jordan, where a large balance of payments deficit makes such tastes rather

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1. Mullakh, op. cit., (1978), p. 174.

expensive to satisfy. In fact, it could be argued that the increase in luxury consumer imports to Jordan has been in part stimulated by the migrants' pattern of consumption.

In practice, these newly acquired tastes have transmitted the emigrants savings into durable consumption goods such as radios, televisions, watches, etc. Since these goods are bought abroad and brought into the country, they do not have a direct effect on the balance of payments. However, they do have an indirect effect in the sense that these savings would have increased the invisible earnings had there not been this transformation described above. Nevertheless remittances may have the impact of increasing the overall level of consumption. Apart from the consumption pattern of families living on repatriated earnings, remittances have a more general effect on the pattern of consumption through what is termed a 'demonstration effect'. This effect is very important, especially in a small developing country like Jordan. Migrants, during their annual visit to their home, tend to show their newly acquired taste in clothing, or a new type of car they own. They thus introduce new consumption habits to the native population. Ironically, this situation is promoted by legislation which was intended to encourage Jordanians working abroad to return home with their savings. Under this scheme, the government allows the importation of certain consumer goods, without previous import permission free of custom's duties. The fact that household imported commodities in these countries are much cheaper than in Jordan,[1] encourages workers abroad to bring back with them as much as possible. It is not surprising, therefore, that imports from

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1. This is because they pay low custom's duties in the oil countries. In Kuwait it is only 4%.

Kuwait for example have shown a large increase, especially during the period 1974-1975 (see Table 5.8), which is not obviously attributable to the number of returning workers, but rather to additional commodities which workers brought with them during their annual visits.[1]

Table 5.8: Imports from Kuwait (in JD thousand)

	1963	1970	1971	1972	1973	1974	1975
Imports	5	19	122	198	187	446	698

Source: Department of Statistics, Statistical Year Book, 1975, Amman, n.d.

In addition to the above described impact on consumption and imports, the role of migration in accelerating the recent phenomenon of inflation in Jordan cannot be ignored. Indeed it may be argued here that Jordan's experience demonstrates a relationship between migration and inflation. On one hand, shortage of labour resulting from migration as has already been explained, leads to increases in wages and this increase was not accompanied by an increase in productivity. On the other hand, the increase in remittances, has resulted in an increase in overall demand for consumption. Thus repatriated earnings have affected both the cost of production and accelerated demand.

The sources of inflationary pressure in Jordan are fully described in Chapter Six. It is important, however, to mention here that migration is one single factor among many others. While migration has been one

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1. One indirect result of the differences in prices of luxury goods is the growing importance of smuggling trade from the oil countries to Jordan. A subject on which there is no information available.

of Jordan's economic characteristics since its creation, inflation is only a recent phenomenon in the economy. It was only from 1973 onwards that the rate of inflation accelerated at a very rapid pace which exceeded 18% per annum.[1] How then has migration contributed to this recent inflationary pressure? So far as migration and overseas remittances create no bottleneck in the labour, commodity and money markets, their inflationary impact might be expected to be minimal. Jordan's experience has shown that migration has contributed to a disequilibrium in each of these three factors. The remittances have had two effects: a) by contributing to the increase in liquidity and the expansion of domestic credit and money supply, at levels beyond the increase in national output; and b) by increasing the overall demand for consumer goods beyond their already high level and therefore further widening the gap in the goods market.

The shortage of labour simply means that full employment conditions exist in the economy and in these circumstances there is usually a tendency towards an increase in prices. Higher wages are inevitable in these conditions. In Jordan's case this tendency towards wage increases has been evident since 1973. The Under-Secretary of Labour mentioned in a recent article that 'there are certain key industries in Jordan which are experiencing difficulties obtaining sufficient workers. They have provided training and increased pay scales to their upper tolerable limits and even imported workers but they have not

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1. The causes can be summed up as, the high increase in money supply, resulting from increase in foreign exchange and government expenditure. The increase in liquidity of commercial routes and the now defunct financing policy. This is in addition to the increase in world prices. See Chapter Six. This is compared with only 2% during 1954-1966 and 7% during 1967-1972.

overcome the problem'.[1] In fact some manufacturing establishments increased their average wages during 1974-1975 by twice as much as in the pre-1973 period.[2] Table 5.9 indicates clearly how wages for all sectors have risen from an annual increase of 2.7% during 1967-1972 to an average increase of 5.5% during 1967-1976. Obviously the major part of this rise occurred during 1973-1976. Further, the increase in wages of manual workers was twice as much as that for white collar workers, indicating the magnitude of the shortage of labour in the skilled manual jobs. Although this may be explained by the boom in the construction sector during this period, shortage of labour resulting from migration has played an important role.

Table 5.9: Average percentage changes in money wages in Jordan, 1967-1976

Sector	White collar		Manual work		Total	
	1967/72	1967/76	1967/72	1967/76	1967/72	1967/76
Public sector	1.9	3.7	2.8	6.9	2.0	4.3
Public institutions	2.3	5.3	4.2	6.7	2.6	5.6
Private sector	2.7	5.2	4.8	10.1	3.4	6.7
Totals	2.3	4.7	3.9	7.9	2.7	5.5

Source: Royal Scientific Society, unpublished study on wages in Jordan, 1977. Table 19, p. 44, Amman, Jordan.

The wide gap between the standard of living of Jordanians working abroad and the general standard inside Jordan has aggravated the reaction

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1. Anani: op. cit., Memo (October 1977), p. 12.
2. a) The Jordan Refinery Company, Annual Report, Amman (1976).
   b) Arab Pharmaceutical Manufacturing Company, Annual Report, Salt, Jordan (1976), p. 10 (arabic).

of the trade unions. As a consequence, in the period 1973-1976 the labour unions in Jordan were involved in collective bargaining and in most cases they gained what they claimed.[1]

The extent to which the increase in wages and salaries described above contributed to the money supply in Jordan is not clear. There are, however, indicators that the increase in money income exceeded the output and productivity of the economy. The adverse effect of the resulting cost inflation on economic development and the competitiveness of the economy will be discussed in the following paragraphs.

While the migration may have stimulated an increase in salaries and wages, thereby accelerating the rate of inflation, the continuous increase in prices resulted in a further decline in the standard of living, and this in turn increased the migration rate. The decline in real wages strengthened the feeling of discontent among workers in Jordan, to the extent that they became more aware of the comparatively high wages in the oil-producing countries. As may be seen in Table 5.10 despite an annual average increase of 5.5% in money wages for the period 1967-1976, real wages declined by over 3.5% Obviously unless and until the wage differences are reduced, the rational expected behaviour of Jordanian workers is migration. This in turn, will further aggravate inflationary pressures and their consequences for the economic development of the country.

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1. There were in 1976 about 17 trade unions in Jordan. However, the Labour Movement is restricted to the manufacturing industry and there are no unions for government employees or workers in the private small enterprise. Yet civil service salaries have increased notably for the period 1973-1976, and salary incentive schemes were adopted. As for the professional workers like doctors and engineers, who were working on their own enterprise or employed by other companies, they have gained higher increases than any of the other sectors. As one commentator noted in 1976 'Today an experienced engineer in Jordan can command $1500 a month, by Jordanian income levels, extremely high; a top level can command at least $3000'. See Clarke, op. cit. (1977), p. 4.

Table 5.10: % changes in money and real wages in Jordan during 1967-1976

Sector	Money wages	Real wages
Government employees	4.3	-4.7
Other public sectors	5.6	-3.4
Private sector	6.7	-2.3
Total	5.5	-3.5

Source: Jordan Scientific Society. Unpublished study on wages in Jordan.

The other way in which migration contributes to inflationary pressure is through its impact on the demand for consumption. In theory this demand is desirable on the grounds that it stimulates output in agriculture and in manufacturing and thus contributes to the economic development of labour exporting countries.[1] However, the Jordanian case demonstrates how low supply elasticity prevented such a favourable impact.

This positive impact, if it has occurred in Jordan at all, has been on a very limited scale, owing to the acute shortage of skilled labour in agriculture and industry created by the migration process itself. Furthermore, because of the limited capacity of the economy, the majority of the extra demand that is generated is either directed towards imports or fuels inflation, or both. In addition to the already described impact on imports and consumption, remittances have accelerated the rise in prices of land and housing, especially during 1975-1976. The Central Bank

1. See Kindleberger: 'Emigration and economic growth', Banca Nazionale del Lavoro, (September 1965) p. 235.

of Jordan has related the boom in land speculation witnessed during this period to migrant remittances.[1]

Apart from having a negative impact on the availability of land for agriculture and upon migration from the rural areas to the urban centres,[2] speculation created a wealthy section in the population with a new demand for consumer goods. It further increased inflationary pressure, and brought about yet another increase in the level of imports.

The monetary implications of the above trend are described in Chapter Six. It is important to explain here, however, how remittances have contributed to the large increase in money supply during recent years. The increase in money supply which was experienced during 1973-1976 was the chief cause of Jordan's inflation during these years, and therefore deserves further examination. The contribution of remittances to money supply expansion came directly, through their contribution to foreign exchange assets; and indirectly, through their impact on credit expansion. As the Jordanian monetary system is still based on the 1:1 system, the direct impact of remittances is simply a corresponding increase in liabilities; that is in money supply. Table 5.11 shows how the importance of remittances to money supply increased from an average of only 5.2% during 1967-1972 to 8% in 1973 and continued to increase in the following years to reach about 38% in 1976. It is evident from the table that this increase in the magnitude and share of remittances was accompanied by a similar increase in the money supply. This effect raises the question of the importance of remittances as a factor which determines money supply. Conventionally this rôle is allocated to the

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1. Central Bank of Jordan, Annual Report, (1975), p. 63.

2. International Labour Conference, provisional record 14, 63rd session, Geneva (1977), p. 14.

Table 5.11: Money supply and remittances, 1961-1976 (in JD million)

Year	M2 (1)	Remittances (2)	Ratio	Annual percentage change (1)	(2)
1961	35.60	5.25	14.7	15.0	16.5
1962	43.04	6.20	14.4	20.0	18.0
1963	48.03	6.17	13.0	11.5	-
1964	53.57	9.30	17.4	11.5	50.7
1965	69.26	9.10	13.2	29.2	-2.0
1966	75.82	10.60	13.9	8.6	16.5
1967	83.50	6.60	7.9	10.1	-37.7
1968	108.82	4.10	5.8	30.3	37.8
1969	118.83	6.90	5.8	9.2	68.3
1970	129.13	5.50	4.2	4.4	-20.2
1971	135.71	4.90	3.0	5.0	-10.9
1972	146.47	7.40	5.0	7.9	51.0
1973	176.07	14.70	8.3	20.2	98.0
1974	216.74	24.90	11.5	23.0	69.4
1975	277.74	53.25	19.2	28.1	113.8
1976	358.92	136.41	38.0	29.2	156.2

M2 = Money supply

Source: Central Bank of Jordan, Monthly Bulletin, several issues.

aid programmes. The relative importance of remittances will depend upon whether or not the 1973-1976 pattern continues.

Remittances have also contributed to the increase in domestic credit expansion, which in turn serves as an important factor in the increase in money supply and in prices. The contribution of remittances to these phenomena occurs through both demand and supply. On the demand side, concentration of the remittances on consumer expenditure in the way described above, stimulates traders to increase their demand

for credit to enable them to import the needed consumer commodities. Furthermore, (although there is no statistical evidence to show this) in practice credit has increased for land purchases. In some cases speculators borrow from the commercial banks to buy certain pieces of land in the hope of reselling the land at a large profit, a practice encouraged by the establishment of the Housing Bank. The role of remittances in increasing the demand for consumer credit in Jordan was magnified by the high liquidity of the banking system itself. Remittances have increased this liquidity,[1] and have thus financed the consumer credit created by it.

It is not the intention here to relate inflation in Jordan during 1973-1976 solely to migration; only to emphasise its importance in accentuating the inflationary process. It may indeed be argued that migration and remittances have been important characteristics of the Jordanian economy ever since its creation. Yet inflationary pressure began to appear only from 1973 onwards, and the magnitude of migration and of migrants' remittances after 1973 far exceeds the pattern before 1973.

The negative impact of migration on output and consumption and inflation in the way described above has only recently created awareness among Jordanian officials of the cost and the benefits of migration. Before 1973, the process of migration was blessed and encouraged by the government and the outflow of labour was not regulated or planned in any way. A change in the official attitude is apparent in the speech of Prince Hassan to the 1977 ILO 63rd Annual Conference. 'The time has

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1. For a detailed discussion of the liquidity problem, see Chapter Seven.

come to give labour exports the same attention and consideration traditionally accorded to capital transfers.'[1] He went on to describe the consequences of migration and labour shortage on the economy as ' . . . not confined to higher wages . . . they are causing a massive internal migration movement from rural to urban countries'.[2]

However, despite this awareness of the problem, up to the present, no serious measures have been taken to regulate or organise the outflow of Jordanian migrants to oil-producing countries. Despite the notable increase in money wages and salaries, described earlier, the high rate of inflation in Jordan coupled with a wide gap between the level of wages in Jordan and the level outside, stimulated further migration outside the country.[3] Further, the agreements made by the Ministry of Education and its counterparts in some of the oil producing countries is aimed not at repressing the outflow of labour but rather at ensuring that the Jordanian education system would provide the proper training needed by these countries.[4]

The problem of attempting to limit the outflow of workers poses major difficulties for Jordanian policy makers. Most migrants go to neighbouring oil producing countries with which Jordan must keep friendly relations for many reasons - not least the financial aid she receives from them. Moreover, in its general economic policy the

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1. International Labour Conference, Provisional Record, op. cit., p. 14.

2. Ibid., p. 3.

3. For professional civil servants, the salaries offered in the Gulf States and Saudi Arabia are about four times higher than the average wages in Jordan.

4. Agreements were made between the Ministry of Education in Jordan and that of Saudi Arabia, Kuwait, Abu Dabi during 1973-1976. Under these agreements those countries would not employ Jordanian teachers without the prior approval of the Jordanian Ministry of Education.

government of Jordan adheres to the principle of free trade and free movement of labour. Under these circumstances, and given the continuous high demand for labour in the oil-producing countries, the opportunities for reducing the rate of migration seem to be very limited. Some of those involved in policy-making in the labour field in Jordan have abandoned any hope of reducing migration and this is reflected in the words of the Minister of Labour, who took this pessimistic view: 'There is no way to stop this labour haemorrhage'.[1] However, attempts are being made to find a solution to the problem, both on the international level as well as the domestic one.

At the international level, the government asked for help and understanding from the labour importing countries. The Jordanian delegation to the ILO meetings in 1977 proposed the creation of a compensation fund, similar to the compensatory financing facilities provided by the IMF. This proposal of a fund was to channel resources from labour importing countries to labour exporting countries, on the basis of the estimated costs incurred by the loss of labour.[2]

This proposal, although justified by the fact that migration has proved to have a net negative effect on economic development, may be cirticised from the practical point of view. The difficulty arises from the problem of quantifying the social and economic cost of migration in general. Given the limited information available about migration in both exporting as well as importing countries, monitoring the cost is a difficult process. In addition, if the proposed fund is to follow the

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1. Annani, op. cit., Memo (October 3, 1977), p. 4.
2. ILO Conference Provisional Record, op. cit., no. 14 (1977).

example of the IMF facilities, it could be argued that it is only of short term value and can hardly compensate for the long term economic and social loss. In this connection Sinclair has said of the proposed fund: 'While such a facility would bring redress to some extent for losses incurred by exporting countries, it would scarcely ever be able to substitute for forgone economic development.'[1]

Although economists have considered direct contributions by labour importing countries to the less developed countries as a form of compensation for the loss of migrant labour,[2] more emphasis has been placed on the introduction of a 'Brain Drain Tax'. The proposed tax is based on past experience of the emigration of skilled labour from less developed countries to developed countries. However, Jordan's experience is as a developing country exporting labour to other developing but rich countries, and is different in many respects. Nevertheless, the proposed tax could still be used to compensate her for the loss of labour, and to control the level of emigration.

The proposal of taxing the export of labour was first put forward on moral grounds by Bhagwati in 1972, and the implications discussed by Bhagwati and Delfare in 1973. In 1974, however, the proposal was given a more comprehensive economic, political and social evaluation by Hamada.[3]

1. The Proposal

Bhagwati suggested the following:-

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1. Sinclair: 'Remittances are poor return for brain drain losses', The Times, 11 August (1977).

2. A committee was established in 1977 to study the ways and means that could reduce the migration rate.

3. Koichi Hamada: 'Taxing the Brain Drain', in J. Bhagwati (ed.): The New International Order, The MIT Bicentennial Studies (1977), p. 125.

a) A supplementary income tax should be levied on the income of skilled workers who migrate from the LDC to the DC.

b) The authorities of the labour-receiving countries should collect the proposed tax and route it to the developing countries via U.N. agencies.

c) The tax is levied on the actual income of emigrants after leaving their home country and commencing work elsewhere.

d) It is based on the net earned income in the form of a surtax.

Hamada developed this proposal from being only a surtax into an extension of the income tax system of the labour exporting countries to include all income of its citizens, wherever they are. To avoid double taxation, a relief scheme was proposed whereby migrants of LDC pay tax to their home countries at a rate equal to the excess of the effective LDC rate over the effective DC rate.

2. The Rationale

a) In extending 'tax jurisdiction' over income of its non-resident citizens, developing countries can influence the distribution of income, especially the gap between the migrants and those who are left behind. Furthermore the revenues from this tax might contribute to the development of the labour exporting country.

b) Given that the emigration of skilled labour is believed to result in foregone economic development for the LDC, the tax is a moral obligation on migrants to compensate for the loss ensuring from their departure.

c) The economic argument developed by Hamada is based on the income gains of the DC and the loss to the LDC; and the potential of such a tax in optimising the level of migration.

i) Unlike the Welfare Effect of the movement of capital between DC and LDC, which is distributed between the two, the welfare effect

of the migration of labour was found to be concentrated in the developed countries. Furthermore, using a global system under full employment conditions, developing countries were found to suffer a net loss as a result of this migration.

ii) While some authorities imply that a Brain Drain Tax might disrupt the efficient distribution of labour, Hamada's analysis has demonstrated that the introduction of this tax would help in promoting an optimal level of migration, thus making a more efficient use of labour resources. Post-tax income abroad would then be considered by potential migrants and would be compared with post-tax income at home. When post-tax income abroad is higher, the rate of migration might increase, and vice-versa.

3. Problems

Although Hamada's analysis has succeeded in providing an outline of the economic benefits of the proposed tax, the introduction of such a tax might well face constitutional as well as social problems. For example, the constitution of the United States clearly specifies the equal treatment of all U.S. citizens; it might violate concepts of human rights laid down in U.N. documents; its implementation might be considered racially discriminating in Britain.

4. The Brain Drain Tax and Jordan

Despite these problems, adopting a Brain Drain Tax in Jordan might reduce the degree of the negative impact resulting from migration.

Income, it has been clearly demonstrated, is the major factor behind the large outflow of migrants from Jordan to the oil rich countries. The main assumption made in Hamada's analysis is that potential migrants consider post-tax income at home and abroad before

they decide to migrate. Thus, a Brain Drain Tax, apart from its impact on the balance of payments and on the government budget, may indirectly influence individual decisions regarding migration.

Although income tax rates in Jordan are progressive (ranging from 5 to 50%) the effective rate is low as enforcement is lax. Nevertheless, lack of any income tax in the oil countries makes the effective rate in Jordan relatively high. This fulfills an important assumption in Hamada's analysis. Additionally, the extension of Jordan's tax jurisdiction beyond the political borders to include its citizens abroad, might stimulate further measures to improve the method of collection and raise the effective rate.

The novelty of the proposed tax, is that it is based on the mutual benefits of all parties concerned; the labour-exporting and the labour-importing countries, the migrants and those who are left behind. The sympathy, generosity and understanding of the labour-importing countries, although important, is no longer adequate compensation for migration. The basic problem which may face the implementation of this tax on Jordanians working in the oil countries is lack of 'tax legislation' in some of these countries like Saudi Arabia. However, such problems may be solved through bilateral agreements between Jordan and these countries.

At the domestic level, a newly established committee studying the problem has made some recommendations as to how to improve labour conditions in Jordan, but they are still in the form of recommendations and are not yet approved. In addition, the Five Year Plan although recognising the problem of migration, makes no clear proposals for the reduction of the level of migration or for the redirection of remittances to the productive sector; confining its remarks simply to the need to

improve labour conditions in Jordan. The only way in which the government has actively tried to attract remittances towards development has been through encouraging Jordanians to invest their savings in government bonds. These, as described in Chapter Six, are mainly directed to the financing of recurring expenditure in the budget with all the impact on consumption and overall expansion that this implies.

In the long run the solution of the Jordanian migration problem lies in a faster rate of economic development within Jordan. It may be expected that the fruits of economic progress will be in the form of more stable domestic conditions for labour, better housing conditions and a higher standard of living. This would reduce the attraction of migration. However, the continuous outflow of labour will continue to hinder the achievement of a higher rate of economic development and it is therefore essential that serious short term measures to contain the outflow be adopted, so that the negative impact of migration on the economic development process is reduced to a minimum. Obviously, given the prevailing economic policy of free movement of labour coupled with higher wages in the oil-producing Arab countries, it has to be accepted that, in the short term, Jordan can do very little to physically stop migration of labour. Indirect inducements, such as the introduction of social security laws, improvements in housing conditions, proper industrial relations, are indeed necessary but they are not alternatives to the necessary long term policy. If it is accepted that the principal reason for migration is the higher wages in the oil countries, then the long term policy should be designed to raise the level of wages in Jordan, through increases in productivity. Although the ways and means by which this could be achieved go beyond the scope of this study, some relevant

points should be mentioned here. In general it could be argued that Jordan's resources are under-utilised. For example, at present only 10 to 15% of the fertile land of the Jordan Valley is cultivated. Thus, improving agricultural production, through increasing irrigation and a judicious choice of crops, may raise agricultural output per head of the labour employed in agriculture.[1] In the manufacturing sector, reference may be made to different policies: i) concentrating on traditional industries like textile and consumer goods manufacturing; ii) concentrating on industries where the value added per head is high, such as fertiliser and chemical manufacturing. Given the high level of income in the oil producing countries, the export potential for both types of products is very high. However, given the fact, outlined in the analysis, that Jordan is no longer a low wage country, it may be more appropriate to concentrate on the second type of manufacturing. Fertiliser and chemical industries are a case in point. With large amounts of potash and phosphate reserves, Jordan has a strong basis for the establishment of these industries.

Summary

The most important source of the invisible surplus has been remittances from Jordanians working abroad. These remittances are significant in providing an example of a new type of trade relationship which has grown up among developing countries. The Arab oil producing developing countries are enjoying economic expansion resulting from oil revenues. The Arab non oil-producing countries on the other hand,

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1. Aresvik: The Agricultural Development of Jordan, Praeger, New York (1976).

are facing serious economic problems resulting from the migration of educated and skilled labour to the oil countries, thus contributing to the development of the latter.

This phenomenon has so far received little attention and this analysis has clearly shown that further research is needed to evaluate precisely the impact of labour migration on the economic development of Jordan. In fact, migration represents a vicious circle to Jordanian economic planners. The chain starts with the 'push factor' inside Jordan that leads to the emigration of its labour. This, coupled with high wages in the oil countries, stimulates the outflow. Given the direct loss of labour and production resulting from emigration, coupled with an increased demand for consumption created by remittances, pressure on the economy results in an increase in prices and in imports, and this leads to further emigration.

Traditional experience leads to the expectation that emigration will have some positive impact on the economic development of the labour-exporting country, but Jordanian emigration, as it has been outlined in this chapter, has tended to hinder economic development of the economy. The European experience has been that migrant workers often obtain additional skills as well as accumulating savings which may be directed towards investment and production, both of which may go towards helping the economic development of their home country. Jordan has experienced the converse; emigrants have been providing skills to oil exporting countries rather than obtaining new ones. The small number who are engaged in the oil industry are in fact learning skills which are irrelevant to their own country's development. More important, however, is the fact that the probability of workers returning home while still of working age is low. Indeed they tend to return home only to retire;

becoming then consumers rather than producers. The negative impact of emigration has also been demonstrated in the labour shortage witnessed during 1973-1976. This led to Jordan becoming at once a labour importing country as well as an exporting one. However, the fact that the new migrants into the country have been mostly unskilled workers means that they cannot be considered a substitute for the skilled Jordanian emigrants.

This chain of cause and effect raises a further series of issues that suggest the following generalisations. Firstly, migration is inevitable in a poor developing country, once relatively higher wages are available in accessible rich developing countries. Consequently, governments of the poorer countries should take short term measures, within the long term policy aiming at increasing wages through increases in productivity. Secondly, unless and until measures are taken, the export of labour, although it results in foreign exchanges, may still cause a negative impact on economic development. In addition to consumption and price effects, migration may accentuate income inequality between those who migrate or recieve remittances and those who do not. Thirdly, emigration involves a high risk of making the labour exporting country too dependent on foreign exchange received from the labour importing country, which may delay the utilisation of available domestic resources necessary for economic development.

Having examined foreign trade transactions, the monetary aspects will now be considered together with the foreign reserve policy.

CHAPTER SIX: THE PROBLEM OF EXCESS FOREIGN RESERVES

To complete the analysis of foreign trade, monetary aspects will now be considered. This chapter will deal with foreign reserves and their inter-relationship with Jordan's balance of payments. It will be devoted to answering three main inter-related questions. Firstly, what are the factors that determine the demand for foreign reserves in Jordan, secondly, why does Jordan tend to hold a relatively high level of reserves, and thirdly, what are the implications of such a policy for the Jordanian economy in general and for the balance of payments in particular. Within the context of these central issues a model will be constructed to measure the adequate level of foreign reserves in Jordan and to determine the cost, whether implicit or explicit, to Jordan's economic development, of maintaining its high foreign reserves holdings.

Before proceeding to point out what is meant by reserves as far as Jordan is concerned, it is worth examining the various definitions of reserves. Since its establishment, the IMF has been pre-occupied with the question of reserves particularly in the context of official determination of the level of foreign reserves adequacy: that is, the determination of the level of foreign reserves holdings which is needed to facilitate world trade. However, this problem cannot be divorced from the related question of formulating a definition of what reserves are, since a solution to the former problem depends on a solution to the latter.

Although there is no unique definition of international reserves which is satisfactory for all purposes and for all countries, the IMF offers this definition:

> 'International liquidity in the broad sense consists of reserves available to monetary authorities for the purpose of financing balance of payments deficits. Such liquidity ranges from assets that are readily available and freely usable to reserves potentially available subject to reconstitution and in the case of fund resources in the credit tranch also subject to conditions relating to the policies of drawing countries'.[1]

From an accounting point of view, international reserves include official holdings of foreign exchange, gold and gold tranch position with the IMF. As of 1969 the IMF introduced special drawing rights (SDRS), which are not a direct payments medium, but they may, for the purpose of financing balance of payments deficits, be considered as part of an individual country's reserves. Furthermore, reserves may also include any other offical assets that can be liquidified and used to finance international payments. Other economists use a wider concept for reserves and include the capacity to borrow from abroad, as one of the components of countries' reserves.[2]

Reierson offers a general definition which is reasonably compatible with that of the IMF:

> 'the international liquidity of a country may be broadly defined as all those assets of monetary authorities that can be used, directly or through assured convertibility into other assets, to support its rate of exchange when its external payments are in deficit.'[3]

Although there is no consensus on the definition of this term, for the purposes of this thesis, international reserves will be defined as official reserves reported by the Jordan Currency Board before 1964

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1. IMF, Annual Report, International Monetary Fund, Washington DC (1964).
2. R. N. Cooper: Liquidity and payment adjustment, International Reserves Need and Availability, Seminar at IMF, Washington DC, (1970) p. 125.
3. R. L. Reierson: The Question of International Liquidity, New York, Barkers Trust Co. (1965), p. 9.

and by the Jordan Central Bank thereafter. These include government holdings of gold and foreign exchange, gold tranch and SDRs. The volume of these reserves and their distribution among the different components are shown in Table 6.1.

Table 6.1: Jordan's foreign reserves (in JD million)

Year	Gold	Foreign exchange	SDRS	Total
1964	-	26.43	-	26.43
1965	1.22	17.74	-	48.96
1966	1.22	57.62	-	48.84
1967	2.34	92.13	-	94.53
1968	12.00	97.44	-	109.44
1969	12.00	87.48	-	99.48
1970	12.01	85.14	0.96	98.11
1971	12.01	79.04	1.83	92.88
1972	13.04	84.91	2.93	100.88
1973	13.04	91.41	2.92	107.37
1974	13.04	102.49	2.86	118.39
1975	13.04	159.06	2.86	174.90
1976	28.44	180.73	2.86	212.03

Source: 1) Central Bank of Jordan,'Statistics pertaining to certain aspects of the Jordanian economy', Central Bank publications, Amman (1967).
2) Central Bank of Jordan, Monthly Bulletin (January 1978).

Although the above definition of reserves in Jordan is helpful, it has two important shortcomings. Firstly,it is very general, and thus can be interpreted in many ways, and secondly, and probably more importantly, it is too rigid in the sense that it is confined only to official foreign reserves and ignores private sector holdings. In other words, it is flexible in defining the components of reserves, but it is restrictivein determining the holders of these reserves. Private

sector holdings of foreign reserves in Jordan are believed to be high, and the exclusion of this component may well be a serious limitation of the definition. This is because a good proportion of Jordan's foreign trade is financed outside the banking system, i.e. through the private sector. Therefore, an examination of the relationship between the level of reserves on one side and the balance of payments on the other, will clearly explain the implications of this phenomenon for Jordan's reserves problem. Analytical clarity requires that at this juncture the empirical relationship between recording of real and monetary transactions in Jordan's balance of payments be elucidated.

Given double-entry balance of payments accounting, above-the-line and below-the-line balances should reflect the same value and either can be used as an indicator of the balance of payments position. However, the value of these balances may not be equal and the difference is usually accounted for under 'net errors and omissions'.[1] In the case of Jordan this latter item is relatively small when compared with other countries. Yet its general trend over time is erratic. Its value went up and down drastically during the period 1965-1975 (see Table 6.2). However, with the exception of the years 1972, 1974, 1975 it showed consistency in appearing on the credit side over the same period. The appearance of net errors and omissions on the credit side over time may indicate a continuous inflow of capital into Jordan. This is rather a surprising trend, especially when viewed against economic circumstances, which should have pointed to a capital outflow, particularly in periods

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1. W. Lederer: The Balance of Foreign Transactions: Problem and Definition, Special paper no. 5, Princeton University (1963), p. 57.

Table 6.2: Errors and omissions in Jordan's balance of payments (in JD million)

Year	Basic balance	Monetary sector	Errors and omissions	Ratio of errors and omissions to total trade transaction - %
1965	5.22	-6.21	0.99	0.071
1966	3.75	-8.87	5.03	2.60
1967	28.16	-33.19	5.03	2.60
1968	15.08	-16.33	1.25	0.07
1969	-12.90	10.92	1.98	0.09
1970	-4.71	1.52	3.19	1.80
1971	-13.65	11.82	1.83	0.094
1972	8.50	-6.71	-1.79	0.071
1973	10.25	-12.48	2.23	0.075
1974	13.82	-6.74	-7.08	1.70
1975	65.58	-50.74	-14.84	0.30

Source: Based on Statistical Appendix 3.

of political instability such as 1967, 1969, 1970 and 1971. Moreover, in periods of economic and political stability, the trend was in direct opposition to that which has been expected, particularly in the years 1972 and 1974. During these years, Jordan witnessed a remarkable growth in investment which was encouraged by the implementation of the Three Year Plan 1973-1975. Yet the balance of payments surprisingly showed an outflow instead of an inflow of capital in those two years.

How can such a contradiction be explained? There are two aspects to the answer: the first definitional and the second institutional. It is worth reiterating at this juncture, however, that a balance of payments

is a statistical record, in which certain items are the product of informed guesswork. This observation is important to the institutional aspects of the problem, as the difficulty in estimating certain items is magnified by legal as well as institutional problems. In the case of exports, proceeds are not properly evaluated for the following reasons. Firstly, the foreign exchange law requires that each exporter repatriates an amount of foreign exchange equivalent to the value of his exports.[1] Since there exists the desire among many exporters to retain certain sums of their export proceeds in banks outside Jordan in order to meet unforeseen contingencies, there is a tendency to deliberately under-estimate the actual value of exports. Secondly, in order to encourage agricultural output and exports, the foreign exchange control law does not require producers of agricultural products to repatriate any of their export earnings. Therefore, the recorded exports proceeds which appear in the debit entry below-the-line are far less than their counterpart credit entry above-the-line.

Imports, on the other hand, are under-estimated below-the-line. In the entry above-the-line, the figures are estimated by customs officials who determine the value of imports by subjective assessment based on the accompanying bill of lading. The value of these imports is financed either through the banking sector or by other unofficial means, such as the money changers (Sarraffeen). The credit entry below-the-line consists only of banking sector payments for imports and thus is actually less than the debit entry above-the-line. Although these errors in estimating foreign exchange movements tend to cancel one

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1. International Monetary Fund, Exchange Restrictions, 22nd Annual Report, Washington DC (1971), p. 241.

another out, the result is a net underestimation of foreign exchange outflows. Table 6.3 below clearly shows that during the years 1970-1975 reserves financed only 68.5% of total imports of goods and services. Furthermore, over those years, this ratio has declined from 82% in 1970

Table 6.3: Banking system payments for visible and invisible imports (in JD million)

Year	Banking sector (1)	Private sector (2)	Total imports (3)	Ratio 1:3 (%)
1970	74.94	15.73	90.67	82.0
1971	79.17	20.13	99.30	79.9
1972	74.36	44.57	118.92	63.0
1973	95.89	41.73	137.62	69.9
1974	152.14	86.02	238.16	63.9
1975	203.67	103.80	307.47	66.0
Total	680.16	311.98	992.14	68.5

Source: Central Bank of Jordan, unpublished data.

to reach 66% in 1975. Such a declining trend, reflects the expansion and growing impact of the unofficial foreign exchange market on Jordan's trade.

The most important conclusion that emerges from the foregoing consideration of net errors and omissions in Jordan's balance of payments is the importance of private sector foreign exchange holdings. It is these holdings operated in parallel to the official money market, and in direct competition with it, which make financial control in Jordan so difficult to achieve.

This unofficial market derives its foreign exchange receipts from a number of sources. These include export proceeds, income from tourism and most importantly, remittances from Jordanians working abroad (see Table 6.4 below).

Table 6.4: Estimates of foreign exchange receipts of the money changers (Sarraffeen) (in JD million)

Source of income	1969	1970	1971	1972	1973	1974	1975
Exports	10.55	8.77	8.43	12.08	9.32	20.32	25.34
Tourism	4.20	4.12	2.53	8.10	10.17	16.74	33.40
Jordanians working abroad	6.90	3.63	4.48	7.41	14.70	19.68	46.86
Others	15.00	10.00	5.00	-	-	-	-
Total	36.65	26.52	20.44	27.59	34.19	56.74	105.60

Source: Based on Statistical Appendix 5.

This unofficial market is run by a minority of influential money changers who act as intermediaries between buyers and sellers. They are officially licenced to undertake direct dealings in foreign exchange and local currency. However, due to the bureaucratic procedures adopted by commercial banks and to the import and foreign exchange control, money changers found ample opportunity to develop from small scale domestic financial operations to larger scale international financial transactions. This has come to the notice of the monetary authorities, particularly because of the high profit margins involved

and some attempts were made to bring them under official control in 1967 and 1973 on the pretext that money changers engaged in illegal pursuits can often frustrate reserves policies. The sarraffeen, for their part, argue that their arbitrary activities act as an important balancing force in the foreign exchange market, added to that, they are able to mobilize a great deal of personal influence in the political system, in order to maintain the status quo. Yet even those who are wholly committed to the laissez-faire system, and with whom the sarraffeen find most support and sympathy are unable to offer any justification for the refusal of money changers to allow the monetary authorities to scrutinise their banks, other than that the monetary authorities might hand any information gained to the Income Tax Department.

A consideration of the reserve situation in Jordan makes clear that the standard theoretical literature on reserves provides an inadequate basis for analysis of the country's economic affairs. To try to superimpose a theoretical model constructed for developed western economies on a small less developed country like Jordan is unlikely to yield meaningful results. Models like those put forward by Kelly, Youssef and Couchreen, Kenen and Clark assume the existence of money changers uncritically, and are based on optimal conditions that are not prevalent in a country like Jordan.[1] Moreover, all of these authors have adopted a comparative analysis between countries

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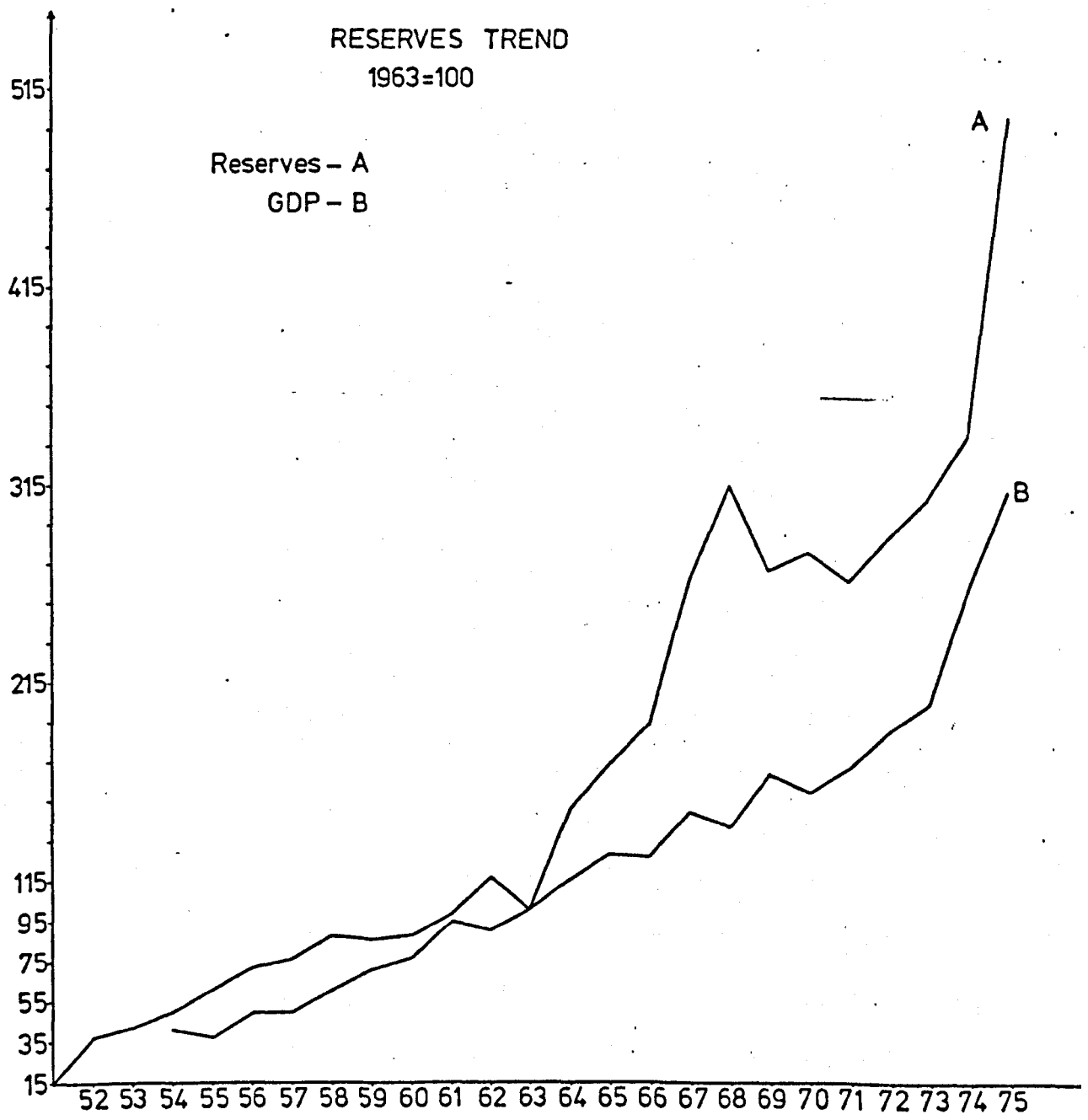
1. H. G. Grubel :'The Demand for International Reserves: A Critical Review of the Literature', Journal of Economic Literature, (December 1971), pp. 1148-66. See also M. G. Kelly: 'Demand for International Reserves', American Economic Review, (September 1977), pp. 655-67.

which may not be applicable to a single country study, without concealing some of the institutional elements involved. For this reason, the subsequent analysis of reserves in Jordan does not conform to the orthodox theoretical framework. It instead attempts to include in its examination of the most relevant factors which influence the market for reserves in Jordan, those institutional elements and industrial structures which are peculiar to the Jordan case.

It is imperative at this stage to consider the long term trends in total official reserves level, their composition and their distribution according to holders. The relevant institutional and policy conditions effecting the trend of such reserves will also be discussed.

Over the period 1952-1975, total reserves showed a persistent increase, as can be seen from the chart below. With the exception of the years 1959, 1963, 1969 and 1971 total reserves grew at an average rate of 12% per annum, thus increasing in absolute terms from JD 13 million to JD 175 million. The curious phenomenon is that Jordan's reserves increased continuously regardless of the cyclical trend in economic activity. For instance, while the overall growth in nominal GDP was 10% over the period 1954-1975, reserves increased at the higher rate of 13%. Moreover, when GDP declined at various rates in the years 1955, 1962, 1968 and 1970, reserves still showed substantial increases. In the years when reserves decreased, GDP as a proxy for economic activity increased noticeably. Two reasons may be offered for this unexpected economic behaviour. Firstly,economic activity in Jordan is volatile owing to forces that are exogenous to the market system, such as poor harvests or outside political disturbances. Such factors are a direct cause of an increase in the inflow of unrequited transfers and remittances, in amounts sufficient to cover the widening trade

Fig.6.1



Source: Statistical Appendix 3 and Table 6.7.

deficit, clearly increasing reserves levels. Secondly there is a time lag of at least one year between the inflow of foreign reserves and the subsequent revitalisation of the economy. The fact that reserves increased at high percentage rates in the years 1964 and 1968 and were followed by high increases in GDP in the years 1965, 1969 respectively, is clear evidence in support of this observation. Thus a correlation between reserves in period (t) and GDP in period (t + 1) is positive and substantial ($r \simeq 0.96$). (See figure 6.1.)

The years 1952-1975 may be divided into two periods namely, 1952-1963 and 1964-1975. In the first of these, Jordan's reserve policy was set by the Jordan Currency Board. During the second, responsibility for Jordan's reserves policy was in the hands of the Central Bank. Between 1952-1963, reserves increased from JD 13 million to JD 35.1 million or at an average annual growth rate of 15.4%. The reserves increased each year with the exception of very slight decreases. The movement of reserves, therefore, was stable and predictable as may be inferred from the small dispersion rate evidenced in the standard deviation of 8.3. Between 1964 and 1975, however, reserves increased from JD 52.9 million to JD 174.9 million or at an average growth rate of 21.3% annually. Although the direction was positive, growth was not steady as in the earlier period, as is shown by the standard deviation of 30.8. This variation in the measure of dispersion between the two periods is attributable to a number of factors which will be considered below.

Besides the management of reserves, the only other task entrusted to the Jordanian Currency Board (1952-1964) was the issuing of domestic currency. Since Jordan was then a member of the sterling area, these

tasks were easy and automatic.[1] The 'fixed rule' system which characterised reserves policies in that period, required the board to maintain at all times a 1:1 relationship between reserves held and currency issued.

At that time sterling regulations required Jordan to maintain all its foreign reserves in pounds sterling, and they were mainly invested in U.K. government gilt-edged securities.[2] A much smaller amount was in the form of deposits kept with British correspondent banks in London, in order to effect trade and other payments. Under these arrangements, management of reserves by the board became largely a matter of book-keeping. The board did not have to worry about the intricacies of portfolio management nor about the vagaries of international financial markets. Switching the component financial assets within Jordan's reserves portfolio was a matter of substituting one sterling denominated asset for another and was completely in the hands of the Bank of England.

During the early fifties, the system seemed to work quite effectively because most of Jordan's international transactions were effected in sterling; added to this, most of Jordan's foreign receipts, particularly aid and budget support, came from the British government, so that Jordan's need to maintain some of its reserves in currencies other than sterling was minimal. Moreover, the British economy at that time was relatively better placed to ensure a sound sterling position.[3]

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1. Edward Nevin: Capital funds in under developed countries: The role of financial institutions, Macmillan, London, (1963), p. 5.
2. Temporary Law of Jordan currency, no. 35, 1949, translated in the Jordan Currency Board annual report, (1956), Appendix A, Article 7, Section d.
3. B. S. Karlstroem: 'How did they become reserve currencies', Finance and Development, Vol. IV, (September 1967), p. 216.

In addition the substantial devaluation of the pound which had taken place in 1949 equalised the pound's par value with its market value and further devaluation was not expected. This stability minimised the possibility of incurring a capital loss on reserves and made possible the maintenance of a one to one relation with the pound sterling.

Internally, currency issued was regulated by similar fixed rules which tied the changes in the stock of money to the changes in the stock of reserves. In the absence of a fractional banking system, such a rule worked smoothly. The Board did not exercise any control over commercial banks operating in Jordan, nor were these banks required to deposit any of their assets with the board. The only credit control instruments applied to bank credit consisted of their own institutional conventions and prudential measures. Of the four commercial banks operating in Jordan in this period, two were British.[1] It is thus hardly surprising that British banking procedures were adhered to and that a fixed rates system was adopted.

By the late fifties and early sixties it became clear that the system could not go on without difficulty. Its automaticity lost its appeal in view of the growing complexity of the Jordanian economy and its widening international economic commitments. The old system was dependent for its continued operation on certain policy conditions. Firstly, that Jordan's international payments continued to be executed in sterling; secondly, that Jordan's foreign exchange receipts be drawn from the British government;[2] thirdly, that pound sterling maintained

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1. The two British banks referred to were: The Ottoman Bank and The British Bank for the Middle East.
2. At that time Jordan's need for foreign aid had proliferated while the British ability to pay had diminished. Jordan found itself forced to seek aid from other countries such as the U.S.A.

its strength as an international reserve currency;[1] and fourthly, that the Jordanian public was forced to accept the existence of British influence over its political and economic affairs.[2] These conditions are no longer operative in Jordan's financial structure; its institutions, assets and diversity of assets has reached a stage that did not lend themselves to automaticity. New developments not only jeopardised the fixed rate arrangements but the existence of the Currency Board itself. The stage was set for a Central Bank.[3]

The ill-fated Currency Board System not only suffered from the drastic changes in the parameters and setting which surrounded it as well as inimical historical trends, but also from inherent weaknesses which affected Jordanian interests. It has been mentioned above that foreign currency dealings were concentrated in the hands of the British. Such control covered not only dealings in sterling but dealings in other currencies as well. Whenever Jordanians needed to buy or sell convertible currencies other than sterling, they had to go through their British bank correspondents. In effect, this gave British banks a monopolistic power over Jordanian financial transactions enabling them to impose monopolistic prices which may have been higher than prevailing market prices. This situation is eloquently described by a

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1. Although the pound sterling was not devalued until November 1967, early indication of possible devaluation was already in evidence. See B. Kurlstrome: Finance and Development, IMF, Vol. IV (September 1967), p. 376.

2. After General John Glubb was relieved from his duties as the Chief of Jordan Arab Legion (Jordan's Army) in 1956, public opinion changed radically. The dismissal of Glubb was taken as a sign of independence from foreign domination.

3. See IBRD, The Economic Development of Jordan, Johns Hopkins Press, Baltimore (1957), p. 221.

British economist Dennis Robertson: 'It meant each country, as a country, agreed to hand over its surplus dollar earnings to mother in exchange for sterling, and to go to mother when it wanted extra dollars to spend. Naturally the degree of confidence with which it exercised or presented claims on the dollar pool depended on its political status'[1].

This somewhat detailed digression into the workings of the Jordan Currency Board was necessary in order to underline a major point. The regulation and institutional set-up is responsible for the smooth behaviour of reserves. Jordan's reserves originated from a single source and were expended through the same source and were regulated with the money stock on the basis of a simple and predictable fixed rule. Moreover, the exchange rate was fixed, and the purchasing power of money was not under the pressure of high rates of inflation. Under such circumstances, reserves were inevitably stable.

Although the law establishing the Central Bank was enacted as early as 1959, the Central Bank did not assume operations until 1964. Thus it was clear long before this date that the Currency Board was obsolescent. The Bank, when it finally came into operation, had slightly broader powers entrusted to it for the carrying out of its function. These were laid down in the Central Bank Act together with later amendments as follows: [2]

(a) to regulate the issue of currency

(b) to keep international reserves with a view to maintaining

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1. Sir Dennis Robertson: Britain in the World Economy, 1954, cited in Brian Johnson: The politics of money, Butler and Tonner, London, (1970), p. 227.

2. Central Bank of Jordan: The Accomplishments of the Central Bank in Ten Years (1964-1974), Amman (1974), (Arabic), p. 43.

monetary stability in Jordan and the external value of the Jordanian dinar.

(c) to influence credit conditions to the country's advantage

(d) to act as a banker to the government

(e) to act as a banker's bank.

The first two of these objectives were exactly the same as those of the Jordan Currency Board; the last two were new objectives. The establishment of the bank, however, was a key factor in starting the separation of Jordan from the sterling area. It took over some of the functions which under the Currency Board were performed by British banks. For example, the bank was empowered with the authority to diversify foreign reserves without having to consult the British officials. This power, however, did not have an impact on the composition of foreign reserves until the end of 1965 (see Table 6.5). In that year, sterling constituted 83.4% of total reserves, the rest being composed of U.S. dollars (13.9%) and gold and other currencies (2.7%). The dollar share increased because Jordan began to receive aid from the United States which was then financing the government budget. The year 1966 witnessed a sharp decline in sterling holdings (63.9% of total reserves) and their replacement by dollar reserves.

By 1967, the basic one to one relation between the value of the Jordanian dinar and that of sterling was exposed to a severe test when the British government decided to devalue the pound by 14.3% in November of that year.[1] The Jordanian government, however, opted to hold the value of the dinar at par vis-a-vis the dollar. This emphasised the move towards its independence from sterling because Jordan had not

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1. Central Bank of Jordan, Annual Report, (1967), p. 39.

Table 6.5: Percentage distribution of Jordan's foreign assets according to currency

Year	Gold	SDRs	£	$	DM	SF	FF*	BF**	DFL***	Other	Total
1952-1964	-	-	100	-	-	-	-	-	-	-	100.0
1965	2.5	-	83.4	13.9	-	-	-	-	-	0.2	100.0
1966	2.0	-	63.9	32.9	1.2	-	-	-	-	-	100.0
1967	2.7	-	41.9	27.3	3.3	14.1	9.9	-	-	0.8	100.0
1968	11.9	-	36.2	20.9	13.8	12.5	4.7	-	-	0.1	100.0
1969	12.8	-	34.2	22.7	12.5	14.3	1.4	-	-	2.1	100.0
1970	13.2	1.0	36.7	19.3	13.9	13.8	1.3	-	-	0.8	100.0
1971	13.5	2.1	29.3	14.8	16.5	14.9	8.3	-	-	0.6	100.0
1972	13.5	3.1	31.6	18.2	16.1	7.9	-	-	-	9.6	100.0
1973	13.1	2.9	25.3	11.2	25.0	10.1	8.9	-	-	3.5	100.0
1974	11.9	2.6	14.0	19.5	26.9	12.7	3.6	2.7	3.1	3.0	100.0
1975	12.2	2.5	20.38	18.46	21.36	11.84	5.4	1.7	1.8	4.4	100.0

* French franc
** Belgium franc
***Dutch Marck

Source: See Appendix 6.

devalued despite strong arguments for doing so at that particular time. Jordan had lost its West Bank territories to Israeli occupying forces five months earlier. Economically, the loss of the West Bank meant a loss of 30% of Jordan's national income and an increase in the financial burden of the government.[1] In such a situation devaluation would have been necessary for strict conformity with conventional economic wisdom. Moreover the decision not to devalue meant a loss of JD 6.3 million in the value of sterling holdings; i.e. 170% of Jordan's total foreign investment income in 1966.[2] It is clear, therefore, that the decision was not purely economic.

The years 1968-1970 witnessed a relatively stable movement in the percentage of sterling in Jordan's foreign reserves. That percentage ranged between 34.6 and 36.7. Jordan thus fulfilled the condition of the agreement concluded between the U.K. and members of the sterling area to maintain a certain percentage of their foreign reserves in sterling.[3] The U.K. promised to compensate the signatories for whatever loss they might incur if the value of sterling depreciated.[4]

In 1971, the international monetary system experienced a severe crisis, when in August of that year the United States decided to stop converting Euro-dollars into gold and to impose trade restrictions on its trade partners.[5] This decision, which was prompted by a

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1. See Chapter One, page 11. E. Kanovsky: The Economic Impact of the Six Day War, Praeger Special Studies, (1970), p. 417.
2. Central Bank of Jordan Annual Report, (1967), p. 39.
3. Jordan was committed to keep 30% of its reserves in sterling.
4. See: The Sterling Area Agreement. Exchange of notes and letters, Treaty Series, no. 118, (1968) H.M.S.O., London.
5. International Monetary Fund, Annual Report, Washington DC (1972).

declining U.S. balance of trade, distorted the operations of international monetary systems and created chaos therein. After the Smithsonian meeting was held in December 1971 by the Group of Ten, the dollar was devalued by 7.9% while sterling remained the same. When the dollar devaluation was officially ratified in April 1972, Jordan decided to follow withasimilar devaluation, signalling the new association of the Jordanian dinar with the U.S. dollar and the end of its association with sterling. By 1971 the sterling relative share had dropped to 26%, although it increased slightly the following year, to reach 30% immediately after the dollar devaluation. In 1973 the dollar was again devalued, this time by 10% but Jordan did not follow, on the grounds that such a devaluation would be highly inflationary and would expose the Jordan reserves to a severe test. Yet sterling, after it was floated in 1972, kept on declining vis-à-vis other major currencies such as the dollar, Deutschemark, Swiss franc and the Japanese yen. This naturally led to a continuing decline in the sterling element in Jordan's foreign reserves, until it reached a trough of 1.5% of its total reserves in mid-1976.

Two important points emerge from the above account. First, that under the Central Bank system, Jordan began to enjoy greater autonomy in its portfolio investment, and secondly, that the composition of foreign reserves has, under the same new system, become more diversified than the single reserve system adopted by the Currency Board.

In addition to diversifying the composition of the foreign reserves portfolio, the Central Bank adopted a greater degree of centralisation in the distribution of the ownership of reserves. This is important for two reasons. Firstly, below-the-line transactions in the balance of payments are treated on holder basis: they are categorised into Central

Bank, commercial banks, and net IMF position. and the balance of payments is thus mirrored in the holding distribution. Secondly, distribution of ownership gives a clear indication of the degree of dominance by the central monetary authority over the movement of reserves. If for instance, all reserves were held by the private sector, the control of the central monetary authority over the movement of reserves would be minimal, and could only be exercised by indirect measures such as quotas, tariff restriction and other reserve-saving policies. If reserves on the other hand, were held by commercial banks the degree of control would be greater depending on the level of control conferred by law on the central monetary authority. The degree of control would be greater if all reserves were held and managed directly by the central authorities. The basic advantage of complete centralisation is that it became possible to minimise the use of reserves.[1] Thus, the pattern of reserve distribution in Jordan since the 1950s has had two distinct phases. Over the period 1951-1963 reserves were mainly held by the Jordan Currency Board and the Central Bank. The commercial banks were allowed to hold reserves in whatever quantities they could muster and, therefore, their total percentage holdings ranged between 30% and 50%. It has been explained above that this distribution befitted the prevailing conditions of minimum control exercised by the Board over the commercial banks. On the other hand, in the period 1964-1975 a change occurred in the distribution of reserves. When the Central Bank commenced operations in 1964, a decree was issued limiting the banks' holdings of reserves to the equivalent of their total foreign liabilities plus

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1. See M. Flanders: 'The demand for international reserves', Princeton Studies in International Finance, no. 27, Princeton University Press, New Jersey (1971), p. 3.

the equivalent of one hundred thousand Jordanian dinar.[1] This shift in policy caused a commensurate shift in the distribution of reserves. Commercial bank holdings of foreign reserves averaged 5% of total official reserves while the Central Bank holdings averaged 94% (see Table 6.6).

Table 6.6: Jordan foreign reserves (in JD million)

Average	C - Board (1) Central Bank		C - Banks (2)		G (3)		Total
	Value	%	Value	%	Value	%	
1951-1956	11.5	67	5.8	33	-	-	17.3
1957-1962	17.3	53	15.2	46	0.5	1	32.8
1963-1967	49.3	77	11.9	18	3.0	5	64.2
1968-1975	105.7	94	6.3	5	0.6	1	112.6

(1) Currency Board (1951-1963) - Central Bank (1964-1975).
(2) Commercial banks.
(3) Government.

Source: Computed from:
(1) Central Bank of Jordan, The accomplishments of the Central Bank in ten years, Amman (1974).
(2) Central Bank of Jordan, Monthly Statistical Bulletin (June 1976).

The conclusion which can be reached from the change in ownership under the Central Bank is that, the Bank had greater dominance over official reserves than the Currency Board, which is compatible with the broader authority it had.[2]

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1. Central Bank of Jordan, Commercial Bank instruction memos (1965, 1967).
2. The third holder of reserves is the central government. Over the period 1950-1959 the government held no reserves at all. During the remaining period however (1963-1975) the government holdings were very small and showed a declining trend from a 1964 peak. Government holdings could not be subject to rational analysis for they change.

The other notable recent change, is the abandonment of the one to one relationship between the stock of reserves and the stock of money. The law of the Central Bank of Jordan does not include an article specifically determining the relationship between these two aggregates. Instead, the bank is required to manage foreign reserves in such a manner as to ensure convertibility of the Jordanian dinar and economic stability.[1] The exact procedures for achieving these goals are left to the discretion of the Central Bank. The statistical examination of shifts in policy will take the relationship between the stock of reserves and currency issued on the one hand, and the relationship between the stock of reserves and money supply, narrowly defined, on the other.

A comparison of the data for reserves and currency issued over the period 1952-1975, does not reveal any structural shift, indicating that the Central Bank did not in fact change its policies from those of the Currency Board. A computation of the ratio of foreign reserves over currency issued, for the entire period under study discloses that it almost invariably exceeded 100%, the ratio ranging between 100.4% and 220%. In the early years of the Central Bank the ratio exceeded 200%, indicating that the Bank was still adopting the same conservative reserve policy as the Board.

A comparison between the stock of reserves and the money supply, however, yields a different picture. The ratio of reserves over money supply showed slight variations after the establishment of the Central Bank. It consistently exceeded 100% during the Currency Board period, but began to show a declining trend during the Central Bank period, especially after 1968. The reason for this variation lies in the

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1. The Central Bank of Jordan, The Central Bank Temporary Law no. 93, Amman (1966) (arabic).

widened scope of the Bank's functions and the enhanced confidence in the system. The Central Bank began to exercise some of the stablisation tools at its disposal. The factors affecting changes in money supply became wider. Factors such as commercial bank credit and public borrowing began to influence changes in money supply as strongly as changes in reserves did. However, a change in reserves level was not emphasised as a policy alternative for achieving a more stable economy. To elaborate this point; the money supply showed a high rate of expansion over the period 1973-1975.[1] This expansion inter alia resulted in an increase in prices which led the Central Bank to direct its attention to containing the growth in money supply by limiting credit, not by altering reserves levels.

In summary, the procedures followed by the Central Bank of Jordan differed from its predecessor's in two main respects. Firstly, the Central Bank adopted a more liberal policy of portfolio diversification econdly, it has had a greater autonomy in managing and investing foreign reserves in a manner which would ensure both stability, convertability and profitability. The Bank made only slight changes to the Board's policy of linking the size of money stock to reserves. The following analysis will try to assess the extent of the success of the Central Bank in managing reserves, and attempt to determine whether under the bank, Jordan's reserves holdings have been maintained at an adequate level.

Demand for reserves is usually determined by a country's need to

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1. National Planning Council, Jordan Development Conference: Mobilisation of domestic resources and amelioration of inflationary pressures, Amman (1976) JDC 76/3, p. 2. This same limitation will be examined further in Chapter Eight.

Table 6.7: Foreign reserves in relation to the money supply and money issue (in JD million)

Year	Reserves (1)	Money supply (2)	Money issue (3)	Ratio 1/2	Ratio 1/3
1952	13.01	12.63	8.76	103.0	148.5
1953	14.86	13.63	9.32	108.9	159.3
1954	17.43	16.74	12.00	104.1	145.2
1955	21.46	17.49	12.93	122.6	165.9
1956	25.18	20.24	16.78	124.4	150.0
1957	26.85	22.20	15.63	120.0	171.7
1958	30.77	24.33	16.33	126.4	188.4
1959	30.30	24.24	15.98	125.0	189.6
1960	30.84	26.09	16.40	118.2	188.0
1961	34.38	28.92	17.96	118.8	191.4
1962	41.02	33.47	20.23	122.5	202.7
1963	35.06	36.85	21.75	95.1	161.1
1964	52.93	39.85	24.39	132.8	217.0
1965	60.95	47.27	27.63	128.9	220.0
1966	68.22	56.03	31.88	121.7	214.0
1967	93.57	75.24	53.02	124.3	176.5
1968	109.33	87.98	65.31	124.3	167.4
1969	95.19	96.22	73.14	98.9	130.1
1970	98.11	105.46	84.41	93.0	116.2
1971	92.88	107.98	84.59	86.0	109.8
1972	100.69	115.02	83.38	87.5	120.8
1973	107.37	139.25	99.54	77.1	107.9
1974	118.39	170.22	117.97	69.5	100.4
1975	174.90	218.50	141.92	80.0	123.2

Source: (1) Central Bank of Jordan, Statistics pertaining to some aspects of the Jordan economy, (October 1974), Table 1.

(2) Central Bank of Jordan, Monthly Statistical Bulletin (June 1976).
(3) Jordan Currency Board, Annual Reports (1956, 1960 and 1963).

finance its external payments.[1] Relatively poor countries like Jordan must tailor the size of their reserves holdings to both, viz. the demand for goods and services and to the precautionary demand. If the size of the reserves is sufficient to meet both of these aspects of demand, then the reserves level may be considered adequate.

As has been previusly mentioned, the International Monetary Fund applies its own criteria of reserve adequacy. Notable amongst these is the reserves/import ratio, where total stock of reserves in any given year is divided by the value of imports for that year. Should the ratio be 70% for example, the level of reserves held would be sufficient to finance the imports of that country for a period of 0.7 years or roughly 8.5 months. This ratio can be enlarged in order to meet the specific requirements of the individual country. If the economy is considered strong, then the precautionary demand is suppressed by shortening the period in which imports must be financed by the adequate reserves and vice versa. Table 6.8 contains data on Jordan's total reserves, total merchandise imports and the reserve import ratio. The graph of the ratio trend is shaped like an inverted 'U', the ratio starting relatively low and going up until it reaches a peak in 1968 and then declining consistently. This does not mean that reserves were not increasing all the time, rather it indicates that imports tended to increase faster than reserves, especially over the period 1972-1975.

This table reveals that from 1964 to 1966 the ratio barely exceeded 100%, indicating that in normal economic conditions, reserves were just sufficient to finance imports for one year. Following the war of 1967

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1. Flanders; op. cit., (April 1971), p. 2.

Table 6.8: Reserves/imports ratio in Jordan, 1964-1975 (in JD million)

Year	Total reserves	Total imports	Reserves/Imports (%)
1964	52.93	49.38	107.19
1965	60.95	55.77	109.29
1966	68.22	67.26	101.43
1967	93.52	54.23	172.54
1968	109.33	57.30	190.80
1969	95.19	67.46	141.11
1970	98.11	65.53	149.72
1971	92.88	76.19	121.91
1972	100.69	94.88	106.12
1973	107.37	107.80	99.60
1974	118.39	155.68	76.05
1975	174.90	232.94	75.08

Source: Central Bank of Jordan, Statistics pertaining to some aspects of the Jordan economy (October 1974) and Central Bank of Jordan, Monthly Bulletin (July 1976).

and until the end of 1971, Jordan maintained a level of reserves high enough to finance imports for a period of 14 to 23 months. During the years 1972-1975, the level of reserves declined and was hardly sufficient to finance imports for more than a year. This decline to 75% in 1975 was not the outcome of a deliberate policy but was rather imposed by international inflationary pressures and so does not reflect an improvement in Jordan's economy, which pari passu was the cause of the decline in the ratio over the period 1972-1975. Despite this decline, comparison of Jordan's ratio with that of the rest of the world reveals that Jordan maintained her reserves at a relatively high level (see Table 6.9). If

Table 6.9: Comparative reserve/import ratios for Jordan and other countries

Year	Jordan	World	Industrial countries	Oil exporters	Other less developed countries
1966	101	37	40	43	27
1967	172	36	38	46	28
1968	190	33	34	45	28
1969	141	30	30	43	28
1970	149	29	28	43	29
1971	121	32	33	52	28
1972	106	33	37	63	32
1973	99	34	31	59	34
1974	76	26	21	78	25
1975	75	28	22	93	23

Source: IMF Annual Report, 1976, p. 40. For Jordan see Table 6.8, p. 246 of this thesis.

this adequacy measure is sound the conclusion cannot be avoided that the current level of reserves involves risk, and that Jordan should adopt reserves-saving policies.

It is clear, however, that the adequacy measure can only be valid if the simple reserves/import ratio is to be relied upon as accurate. In this connection, Machlup argues that 'there is neither theoretical or statistical support for attaching any real significance to the ratio of reserves to imports'.[1] Machlup's study of the statistics of various countries has indicated that the variations of the ratios between countries have been large. It may be noted, moreover, that certain

1. F. Machlup: 'The need for monetary reserves', Banca Nazaional de Lavoro, vol. CIC, no. 78, (1966), p. 185.

countries such as Egypt and India have reserves/import ratios which are relatively much lower than other countries, while maintaining a better economic performance than those other countries.[1] Moreover, it is influenced by a diversity of factors which affect the reserves and import functions. Clearly then the ratio is a poor indicator of adequacy, because it describes what the reserve ratio is and not what it should be.

In the light of the point made above, a simple model will now be developed to measure the demand for reserves based on the assumption that in equilibrium, reserves supply will equal reserve demand. This will provide a more accurate and realistic measure of reserve adequacy than the simple reserve/import ratio. This theoretical determination of the supply of reserves will give a clear measure of the level of reserve holdings that may be considered as adequate for the Jordanian economy.

The model is based on the Keynesian paradigm which includes demand and supply formation for money. The demand for money in this paradigm is a function of real income and the interest rates on government bonds. Keynes discussed the transactionary demand for money and the interest rate the speculative demand for money. Demand for reserves may be broken down in a similar fashion, with the exception that precautionary, instead of speculative, demand will be taken into consideration. Transactionary demand for reserves is that component which is required to finance the country's foreign payments in a given period and includes merchandise imports, services and payments of foreign

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1. In 1974 reserves /imports ratio for India was only 27% and for Egypt 29%. See IFS, vol. 5, (May 1976).

debts. Such comprehensiveness is necessary in order to take account of all foreign obligations, because Jordan's imports of services and capital are constantly growing and constitute an amount too large to be neglected. The transactionary demand for reserves, therefore, will be the function of total foreign obligations.

$$D_{TR} = f_1 (P) \qquad (1)$$

where:

D_{TR} is the transactionary demand for reserves and

P is the total foreign payments.

The precautionary demand for reserves is that element in total reserves holdings which covers the country's need to maintain a hedge against future unforeseen contingencies. The size of this demand depends on the amount of fluctuation in the level of reserves over time. The greater the variation in reserves, the larger the precautionary demand for reserves and vice versa. Therefore,

$$D_{PR} = f_2 (V_R) \qquad (2)$$

where:

D_{PR} is the precautionary demand for reserves, and

V_R is the variation in reserves.

The total demand for reserves is, thus, equal to the transactionary as well as the precautionary demand.

$$D_R = D_{TR} + D_{PR}$$

$$= f_1(P) + f_2(VR) \qquad (3)$$

where

D_R is the total demand for reserves.

If we assume that (P) and (V_R) are exogenously determined, then the values for the two unknown dependent variables can be determined from

the two equations. To complete the system, a market equilibrium equation is needed. This equation is:

$$D_R = SR \qquad (4)$$

where

SR is the supply or the theoretically adequate reserves level.

The above can be transformed into an empirically tested formula. For this purpose each equation will be transformed as indicated below.

(1) The Precautionary Demand for Reserves.

Since the precautionary demand for reserves is dependent on their degree of variation, a measure of that variation is essential. The conventional statistical measure used is the standard deviation. It cannot alone determine the precautionary demand for reserves without behavioural assumptions. For this analysis, two such assumptions will be made . Firstly,that in normal conditions, Jordan will maintain a level of reserves greater than the required amount for any given year, and secondly, that in abnormal circumstances Jordan would maintain a level of reserves greater than that required for any two years. Two periods will be examined here. First, 1964-1966 or the pre-1967 war years, when Jordan enjoyed relatively stable economic growth. Second, 1967-1975, or the post war years which include the 1967 war itself, as well as the 1970-1971 civil disturbances and the upheaval in world economic and monetary system in the years 1973 onwards.

Given a 'normal' distribution, the amount of reserves required in order to prevent exhaustion of reserves holdings in one year with a

95% probability, is equal to the standard deviation multiplied by 1.65.[1] Hence, the magnitude of the precautionary demand for reserves can be found. After computation, the relevant standard deviation is 30.01 for the period 1964-1975. Precautionary demand for the years 1964-1966 is computed on the first behavioural assumption, while the demand in the remaining years is based on the second. Table 6.10 shows the results of the computations.

Table 6.10: Estimated precautionary demand for reserves, 1964-1975

Year	Standard deviation (1)	Probability co-factor (2)	DPR (3) = (1 x 2)
1964	30.01	1.65	49.16
1965	30.01	1.65	49.16
1966	30.01	1.65	49.16
1967	30.01	2.33	69.92
1968	30.01	2.33	69.92
1969	30.01	2.33	69.92
1970	30.01	2.33	69.92
1971	30.01	2.33	69.92
1972	30.01	2.33	69.92
1973	30.01	2.33	69.92
1974	30.01	2.33	69.92
1975	30.01	2.33	69.92

1. This figure is derived from the statistically normal distribution table corresponding to 4500 using one trial test. To prevent exhaustion in two years the appropriate figure equals 1.65 multiplied by square root of 2 = 2.33.

2. The Transactionary Demand for Reserves

The definition of the precautionary demand for reserves analysed above was considered as an integral part of the transactionary demand for reserves in the IMF, Kelly and Wadva models.[1] In these models, both transactionary demand and precautionary demand are lumped together in the fashion of the Keynesian demand for money. The total demand for reserves is a function of the variability of the reserves themselves. All models referred to above implicitly assume that the policy target of monetary authorities is to prevent the exhausion of reserves within a given period of time. Therefore, the total demand for reserves in these models may be expressed as follows:

$$DR = f(VR) \qquad (5)$$

$$DR = a + bvr + e \qquad (6)$$

Here, e is an error item which has commonly been neglected in previous models. It is proposed here that e is especially important to countries which are aware of the trend in their total foreign payments. The transactionary demand then, is here interpreted in a new way. It means the demand for reserves which are required in the current period in order to cover the increase in total foreign payment in the previous period. The year to year variation in payments is what e signifies in equation (6) above.

It follows that the sum of (a) and (bvr) constitutes the precautionary demand for reserves. The importance of this interpretation stems from two factors, each of which relies on slightly different behavioural assumptions. First that countries which are vulnerable to extreme and

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1. C. D. Wadva: 'Reserve pooling in Asia and the Far East', Pakistan Development Review, IX, no. 3, Autumn 1969, p. 327.

internal variables do not determine the need for reserves solely on the variation in reserves, and secondly, that the same countries are anxious about developments in the payments on which reserves are expended.

The proposed transactionary demand for reserves is:

$$D_{TR} = f_1 (P)$$

or, in order to be consistent with the above analysis,

$$D_{TR} = f_1 (\triangle P) \qquad (7)$$

The change in payments ($\triangle P$) may be expressed as the difference from the previous period or,

$$\triangle P = P_t - P_{t-1} \qquad (8)$$

However, when P was computed for Jordan over the period 1964-1975, it was found that it had an erratic trend. To smooth out the sharp fluctuations, a moving average of three years ending with the current year was used, as follows:

$$\triangle P = \frac{(P_{t-2} - P_{t-3}) + (P_{t-1} - P_{t-2}) + (P_{t-1} - P_t)}{3} \qquad (9)$$

Consequently, a time series of P_2 computed for the period 1964-1975 (see Table 6.11) where i = 1, 2, 3 . . . 12. The values obtained are equal to e in equation (6) above or equal to the transactionary demand for reserves.

The Total Demand for Reserves

From equation 3, total demand is equated to the sum of transactionary and precautionary demands for reserves. This total demand is equal to the supply of reserves given the assumption of equilibrium which in turn determines the theoretically adequate level of reserves. Therefore a comparison between the estimated reserve level and the actual level of reserves can be made. Table 6.12 below indicates that Jordan maintains a higher level of reserves than that warranted by its demand

Table 6.11: Estimated transactionary demand for reserves, 1964-1975 (in JD million)

Year	Actual P	Δ P	Moving average
1961	46.08	-	-
1962	50.74	-	-
1963	61.35	10.60	-
1964	57.93	-3.42	3.95
1965	66.76	8.83	5.33
1966	78.30	5.54	3.65
1967	65.58	-12.77	0.53
1968	82.58	17.05	3.27
1969	110.43	27.85	10.71
1970	92.04	-18.39	8.57
1971	100.04	8.00	5.82
1972	123.10	23.06	4.22
1973	142.82	19.72	16.74
1974	203.35	60.53	34.43
1975	315.12	111.77	64.00

P = total payment for goods, services, and repayment of foreign loans.

Source: Central Bank of Jordan: Statistics pertaining to some aspects of the Jordan economy, (October 1974), Table 15. Central Bank of Jordan, Monthly Bulletin (June 1976), Table 14.

conditions. On average the excess reserves maintained are almost equal to 20%

The above analysis suggests that Jordan's monetary authorities tend to hold 'excessive' foreign reserves. Why does Jordan, a developing country with relatively limited resources, large imports and few exports, hold such a high level of reserves?

Table 6.12: Estimated and actual stock of reserves, 1964-1975 (in JD million)

Year	DR - Estimated reserves (1)			Actual reserves (2)	Excess reserves (3) (2) - (1)	Ratio (3/2)
	TR	PR	Total			
1964	3.95	49.16	53.11	52.93	-0.18	-
1965	5.33	49.16	54.54	60.95	6.46	10.6
1966	3.65	49.16	52.81	68.22	15.41	22.5
1967	0.53	69.92	70.45	93.53	23.08	24.7
1968	3.27	69.92	73.19	104.33	31.14	29.8
1969	10.71	69.92	80.63	95.19	14.56	15.3
1970	8.57	69.92	78.49	98.11	19.62	20.0
1971	5.82	69.92	78.74	92.88	17.14	18.4
1972	4.22	69.92	74.14	100.69	26.55	26.3
1973	16.74	69.92	86.66	107.37	20.71	19.3
1974	34.43	69.92	104.35	118.34	13.99	11.8
1975	64.00	69.92	133.92	174.93	30.01	23.4
Total	161.22	776.76	937.98	1167.47	229.47	19.6

The answer to this question lies in the fact that Jordan's policy makers appear to be convinced that large reserve holdings promote Jordan's economic development by creating confidence in the economy and this in turn induces an inflow of foreign capital into Jordan.

The Central Bank made this belief quite explicit in its 1969 Annual Report:

> 'Comfortable reserves of gold and foreign currencies serve three major purposes (i) securing the convertability of the national currency and the stability of its value internally and externally;(ii) financing foreign trade transactions particularly imports and invisibles; (iii) soliciting foreign loans, reserves being a fundamental aspect of a sound national economy and its

ability to meet external obligations.'[1]

Thus, the excessive level of reserve holdings is a deliberate policy aimed at enhancing the economic development of the country. It is the contention here that such a policy is a gamble based on unrealistic assumptions.

During the past twenty years it has become established economic wisdom that the holding of 'excessive' reserves is undesirable, particularly by developing countries.[2] It has been pointed out that the maintenance of 100% currency backing is based on the assumption that all outstanding currency notes might be submitted to the monetary authority for conversion into other foreign currencies, and that stability therefore depends on 100% currency backing. This assumption is, to say the least, over-cautious and has the effect of preventing the use of reserves to finance economic development. In fact, experience has shown that the stability of the value of the Jordan dinar (internally and externally) has in the past been associated with political conditions in Jordan rather than with its level of reserves.[3]

The argument that high reserve holdings may serve as a basis upon which foreign loans may be obtained is a weak one. Indeed, it may reasonably lead to the assertion that countries with large reserve holdings are not in need of foreign loans in the first place. In this connection, it is worth mentioning two important facts. Firstly, that

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1. Central Bank of Jordan, Annual Report, 1969, p. 42.
2. W. A. Lewis: Theory of Economic Growth, George Allen & Unwin, London (1970), pp. 246-47.
3. In 1967 and 1970 despite the fact that reserves exceeded money issues, the market value of the Jordanian dinar dropped drastically in the Beirut market and other Arab countries.

foreign capital received by Jordan is mainly in the form of grants and not loans, and secondly, that loans from foreign governments are not granted on purely economic grounds alone. More often than not political considerations play the major role in determining the foreign loans. The size of reserves, thus, only marginally affects the ability to borrow. Furthermore, creditworthiness is assessed more accurately by the debt/service ratio rather than by the reserves stock. It has been shown, in Chapter Four, that Jordan's debt/service ratio is small which minimises the need for a large stock of reserves to cover foreign debt.

The strongest argument advanced in favour of holding large reserves is that in a poor country such as Jordan the growth of these reserves depends mainly on an inflow of aid, and that since this source is particularly vulnerable to political circumstances, it is inevitable that reserve levels will be high, in order to ensure availability for the finance of the inflow of imports. However, the counter-argument can be advanced that: 'The poorer, more slowly growing countries are likely to receive a high proportion of grant aid and to use it to increase consumption'.[1] This has in fact been the case in Jordan ever since the country was established. What is more, aid flows have usually increased in times of crisis. The clearest example of this is the 1967 crisis, when the inflow of aid became almost twice that of the 1966 level. While it is true that in 1970-1971 the level of aid dropped compared with the 1969 level, this decline has to be viewed against

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1. A. P. Thirlwall, Inflation, Saving and Growth in Developing Countries, Macmillan, London (1974), p. 193.

the general background of the domestic political situation in 1970, when the very existence of the State was threatened.

Excessive reserves in Jordan can be considered as one of the outcomes of the bias of the internal industrial structure and its development. During the period 1959-1974 GNP grew at an annual rate of 8% while consumption only grew at 7% per annum, but the latter continued to exceed production in most of the years (see Table 6.13). Only in 1963, 1964, 1965, 1966 and 1968 was the economy able to produce a small excess over consumption to support development. The disequilibirum between domestic supply and domestic demand had to be supplemented by a large inflow of imports, which in turn contributed to the expansion of services. Thus, on the one hand, expansion of consumption has led to an increase in imports and a consequent increase in tertiary activities, on the other hand, the increase in the tertiary sector, coupled with increased urbanisation, has played an important role in further enhancing consumption, particularly of durable consumer goods. The inevitable result has been a continuous increase in the demand for imports. The analysis of imports made in Chapter Three demonstrated that over 60% of total imports consisted of consumption goods. Of these, non-essential items accounted for over 50%. Such a consumption level could not have been maintained without foreign aid. Hence, as a precautionary measure the government opted to hold large reserves to maintain the consumption level.

It is clear, therefore, that the reserve level and economic policy interacted with each other. The important economic effect of the high level of reserves was that it encouraged more expansionary financial policies, less severe restrictions on trade, and, on the whole, consumption which, in turn, affected imports. This sequence,

Table 6.13: Consumption and GNP (in JD million)

Year	Consumption (1)	GNP (2)	Ratio (1/2)
1959	112.5	99.2	113
1960	115.5	105.7	109
1961	130.8	127.2	102
1962	122.5	130.8	93
1963	149.9	137.6	109
1964	155.8	160.6	96
1965	174.7	180.5	96
1966	188.6	185.6	101
1967	204.8	205.9	99
1968	212.0	197.3	107
1969	231.5	233.7	99
1970	226.9	222.5	102
1971	247.7	236.6	104
1972	265.7	263.0	101
1973	293.8	286.6	102
1974	357.6	341.9	104
1975	399.5	394.9	101

Source: See Statistical Appendix 4.

in its turn, affects the balance of payments and consequently reserves.

Excessive foreign reserves have provided policy makers with a cushion enabling them to adopt liberal trade policy that has resulted in a large inflow of imported consumer goods. This has prevented, or at least delayed, the introduction of measures necessary for long term development.

Long term planning in Jordan has, in the past, considered this problem, but appropriate measures to reduce domestic consumption, the

trade deficit, and the requirement of foreign aid, have not been adopted. In 1964, a Seven Year Plan for Economic Development was initiated. The Plan aimed at a major increase in production as well as reducing the level of unemployment, and bringing about a major reduction in the trade deficit and in the foreign assistance. However, as has been shown in Chapter Three, this Plan was only a set of uncoordinated projects many of which did not seem to be based upon extensive analysis. Moreover, the implementation of the Plan under normal conditions lasted only two years until the 1967 war. The disruption of the Plan at that point necessitated a reassessment of priorities, but this, however, was not carried out systematically. This ad hoc approach to the economic policy persisted until 1973, when the Three Year Plan (1973-1975) was introduced. The aim of this Plan was not structural economic reform, but 'revitalising economic activities and resuming the development momentum disrupted by the 1967 June war'.[1]

It was not until the Five Year Plan (1976-1980) was introduced that Jordan's structural problem, and the need to change the predominantly services economy, was directly faced. The main objective of this plan is

> 'The achievement of changes in the Jordanian economy through developing the commodity-producing sectors, increasing their share in GDP, strengthening the movement towards a self-sustained economy and expanding its productive capacity'.[2]

Accordingly the plan anticipates that the contribution of the services sector to the gross domestic product will decline from 64.8% in 1974 to 55.9% in 1980. It is anticipated that the services sector will grow

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1. National Planning Council, Report of the Jordan Development Conference, (November 1972) JDC/72/2.
2. National Planning Council, Five Year Plan, 1976-1980, Amman (unpublished), p. 28.

at an average annual rate of 8.6%, while the material output sectors will grow at a rate of 21.1% per annum.[1] However, the distribution of the Plan's investment programme reveals that the share of the services sectors is JD 355.7 million (46.5%) and the material output only JD 409.3 million (53.5%). Such a distribution is not compatible with the claim that the contribution of services will decline to 55.9%. Further, given the current liberal economic policy, coupled with the possibility that Amman may become a regional financial and commercial centre, growth will certainly be biassed towards services. Private sector investment (estimated to be JD 383 million , or 50.1% of total investment of the plan) will concentrate on offices, restaurants, trade, banking, insurance. This will clearly cause services to grow at a rate higher than envisaged by the plan.

In such circumstances, the monetary authorities in Jordan have been tempted to rely on foreign reserves and have consequently overlooked and/or deferred necessary economic adjustment, i.e. mobilisation of domestic resources through monetary measures.

Although the high level of reserves seems to be associated with the problem of Jordan's industrial structure, it may still be argued, with some justification, that part of the reserve holdings could be rationally utilised to finance development projects. The return on such investments would be much higher than the return from holding these assets abroad. In fact, it is rather a luxury for a country like Jordan to hold such a high level of reserves, given that development is the primary policy objective. Accumulation of these

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1. Ibid., p. 32.

holdings is not necessarily equivalent to the accumulation of capital - on the contrary such a process may entail a capital loss.[1]

In order to estimate the total cost incurred by holding large reserves, a simple model based on Keynesian liquidity preference theory will be used. However, the different variables employed will have other values. Two types of cost are considered here. The first type, direct cost, refers to the cost incurred as a result of the decline in the purchasing power of reserves. In other words, it is assumed that the reserve holdings of a given reserve currency will be used in purchasing commodities from the country which issues that currency. If the currency-issuing country suffers from inflation, which spills over to its exports, the holding country will suffer a comparable loss.

The second type of cost, implicit cost, refers to the opportunity cost which is incurred by opting to hold reserves as a currency cover rather than investing them in development projects inside the country. Therefore,

$$C_t = C_d + C_i \qquad (1)$$

where:

C_t is total cost; C_d is direct cost; and C_i is implicit cost.

Direct cost

The direct cost will be computed by the following formula

$$C_d = \frac{Y_1 - P}{Y_1} \qquad (2)$$

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1. W. A. Lewis, Theory of Economic Growth, George Allen & Unwin (1970), ninth impression, p. 246.

where:

Y_1 = is the annual average holdings of a given reserve currency.

P = is the present value of currency holdings in the base year.

The present value can be obtained by using the following formula:

$$P = \frac{Y_1}{(1+r)^1} + \frac{Y_2}{(1+r)^2} + \frac{Y_3}{(1+r)^3} + \frac{Y_n}{(1+r)^n} \quad (3)$$

where (Y_1) is the average annual holdings of a given currency in Year i (i = 1, 2, 3 . . . n). r is a discount rate.

For the purposes of making the measurement more exact, two basic operations were employed. Firstly, r was used to denote the percentage annual increase in the export prices of the country issuing the reserve currency. Therefore

$$r_1 = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (4)$$

where r_1 is the annual percentage increase in the prices of the exports of the country issuing the currency under consideration. P_{t-1} is the export price index of the country which issues the reserve currency in the period preceding the current period.
P_t is the export price index of the same country in the current period.

The reserve currencies which have been included in the analysis are five, namely, sterling, U.S. dollars, Swiss francs, French francs and Deutsche marks. r represents the discount rate for each one of these currencies on the basis of the export price indices of the U.K., U.S.A., Switzerland, France and Germany respectively. Table 6.14 gives the export price indices of the five countries over the period 1970-1975 (1970 = 100). The data therein were used to compute the value r_i for each currency.

Table 6.14: Export price indices for the major reserve countries, 1970-1975

Year	U.K.	U.S.A.	Switzerland	France	Germany
1970	100.0	100.0	100.0	100.0	100.0
1971	107.1	103.3	107.0	106.1	106.3
1972	115.2	106.2	125.0	117.6	118.4
1973	128.9	124.1	155.0	146.6	146.3
1974	157.2	157.6	186.0	171.1	173.4
1975	182.8	177.3	222.0	202.8	195.4

Source: (1) International Monetary Fund, International Financial Statistics, Vol. XXIX (November 1976).
(2) International Monetary Fund, International Financial Statistics, Vol. XXIX (April 1976).

Secondly, the value of Y_i or the average annual holdings of a given reserve currency was computed in the following manner. It is known that Jordan usually diversifies its portfolio of currency holdings to include different types of investments such as current accounts, time deposits, securities and bonds. A single currency may be dispersed over 30 different investments. The balance of each deposit, security or bond was taken on a bi-weekly basis. Thus a year was divided into 26 sub-periods, and the balance of each investment was summed up accordingly. The total of these investments was calculated for 26 sub-periods constituting a year. The grand total of the total investment of these periods was then divided by 26 to give the average annual holdings of each currency in every year during 1970-1975. The justification for this process lies in the fact that end of the year figures do not accurately represent the holding for the whole year. Moreover, seasonably adjusted data would not properly reflect the short period changes in each currency holdings.

Having found Y_1, Y_2, Y_3. . . Y_n for each currency, and r_1, r_2, r_3 . . . r_n for each currency, it was possible to measure the value of each currency at the 1970 export price of each respective country. Yet equation (3) cannot be used immediately because (r) is not the same for every year, therefore, the equation was modified as follows:

$$P = \frac{Y_1}{(1 + r_1)} + \frac{Y_2}{(1 + r_1)(1 + r_2)} + \frac{Y_3}{(1 + r_1)(1 + r_2)(1 + r_3)} + \ldots \frac{Y_n}{(1 + r_1)(1 + r_2) \ldots (1 + r_n)}$$

The present value was computed, in this way, for the five currencies under consideration. The results are in Table (7) in the Appendix. It was next necessary to compute the percentage loss which was incurred by holding reserves in an inflationary export situation. Since the period under consideration witnessed a high increase in the world export prices, the magnitude of the loss was very great.

The percentage direct cost obtained from equation (2), however, is measured on a gross and not a net basis. Reserves do earn an interest rate when they are invested. It therefore became necessary to adjust the gross cost by introducing interest earnings in order to obtain the net cost. The net cost obtained is treated here in a similar fashion to the treatment of any financial investment in a stock market.

To measure the percentage interest earnings on each currency, the total earnings of that currency was obtained and divided by the relevant Y_1. The net direct cost may, therefore, be expressed as follows:

$$\text{Net } C_d = \frac{Y_1 - P}{Y_1} - \frac{Y}{Y_i}$$

where Y is the interest earnings on a certain currency in year i. The ratio obtained for net C_d for each currency in every year is shown in Table 6.15 below:

Table 6.15: Net capital gain or loss for Jordan's foreign reserves (%)

Year	£ - U.K.	$ - U.S.	Swiss francs	French francs	Deutsche mark
1970	-	-	-	-	-
1971	4.01	4.08	2.97	1.52	4.72
1972	-7.99	-2.91	-8.15	-5.97	-0.31
1973	-27.96	-19.81	-17.02	-17.89	-5.98
1974	-45.05	-42.64	-30.81	-36.59	-22.31
1975	-65.33	-65.31	-44.87	-57.07	-35.54

Source: Statistical Appendix 7.

The table shows that Jordan has been incurring a high loss from excessive holdings of all types of reserves. The data in Table 6.15 shows that the purchasing power of the different reserve currencies declined steadily over the period 1971-1975, taking 1970 as a base year. The highest loss was incurred from holding sterling assets, followed by the U.S. dollars and the French francs. Although the loss incurred from holding Deutsche marks was the lowest, its magnitude is still high in absolute terms.

In the above table $\frac{Y_1 - P}{Y_1}$ is cumulative over five years, while figures for interest received are for one year. This may lead to confusion because the total holdings of each reserve currency vary. A simple

indicator might be based on a calculation of the loss using price changes minus interest earned, for the case where one unit of each currency has been kept in reserves over the whole period. The annual percentage gain or loss may be obtained using the export prices indices for the major reserve countries (Table 6.14, p. 264) together with the average interest rates receeived by Jordan for holding these reserves (Appendix 7, p. 369). The results are presented in Table 6.15a below.

Table 6.15a: Percentage capital gain or loss for each unit of Jordan's reserves

Year	£ - U.K.	$ - U.S.	Swiss francs	French francs	Deutsche mark
1970	-	-	-	-	-
1971	2.2	3.9	-0.2	0.1	0.8
1972	-0.8	3.1	-7.6	-4.5	-6.2
1973	-1.7	-9.4	-19.5	-17.9	-18.0
1974	-9.7	-16.15	-12.8	-4.5	-12.9
1975	-2.0	-4.4	-10.8	-7.7	-3.5

Source: Computed from Table 6.14, p. 264 and from Appendix 7, p. 369.

The important policy implication which may be inferred here, is that the income earned from interest from holding any single reserve currency should not necessarily be the only criterion for determining the investment or the size of currency holdings. More importantly, in

an unstable international monetary market, attention should be given to the expected capital gain or loss.

Having shown that Jordan's loss was very high relative to its financial resources, it is important to point out the opportunity cost of holding such excessive reserves. Heller, in his thesis dealing with the factors which determine the level of reserves, mentioned that while countries tend to hold reserves to hedge themselves against future contingencies they incur a cost in income and welfare simultaneously.[1] Opportunity cost here, therefore, is the marginal rate of return (r) foregone by not transforming reserves into physical capital. The higher the cost of holding reserves, the smaller the demand for such reserves. Heller has estimated the cost at only 5% annually for the 60 countries included in his paper. Flanders, on the other hand, assumes that it can be determined for each country by the marginal utility of forgone imports.[2]

Although most of the studies on this subject have agreed on the concept of the cost of reserves, there has been a confusion about which proxy should be used to measure this cost. For example, marginal utility of foregone imports is a rather misleading proxy because imports include both capital and consumer goods. As a result other proxies have been used, such as interest rates, increases in per capita income and capital-output ratio. These may be appropriate when applied to the developed countries, but less so in a developing economy like Jordan's. Interest rate, for example, is an unsatisfactory variable and does not

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1. H. R. Heller: 'Optimal international reserves', Economic Journal, 76 (302), (June, 1966), pp. 296-311.

2. Flanders: op. cit., (1971), p. 47.

reflect productivity of capital in Jordan. Interest rates in Jordan are rigid and do not change in either the money or capital markets, which are small and fragmented. Moreover, interest rates are kept more rigid by the fact that the teachings of Islam consider any form of interest as usury. Quick profit is the major factor which determines the shape of the investment function, not interest.[1]

Incremental capital-output ratios (ICOR) may be thought of as an alternative proxy. Nevertheless, incremental capital-output ratio can only be used if it is segregated according to each productive sector. Such a sectoral distribution for investment is not available for Jordan.

To make the computation useful, the fact that a high proportion of Jordan's GDP is dominated by the service sector has been taken into consideration. To estimate the ICOR, therefore, the following assumption was made, viz. that 87% of total capital formation is directed toward the physically producing sectors. This assumption was based on the estimated investment programme in the Five Year Plan for Economic Development, 1976-1980.[2] The estimations were made on the simple known formula $K \frac{I}{Y}$ where K is the ICOR, Y is the GDP of the physical producing sector and I is the total capital formation in each year (which equals 87% of total capital formation).

The computation revealed expected results. During the period

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1. Jawad Anani: 'A comparison between the effects of fiscal and monetary action on economic activity, the case of Jordan'. Unpublished thesis, University of Georgia (1975). See a further analysis of usury in Chapter Seven.

2. National Planning Council, Five Year Plan, 1976-1980, Table 3, Amman, n.d., p. 35.

1959-1974 average ICOR was 1.81. When the computation was amended on constant prices, using the cost of living index as a deflater, it reached 2.78. When the period was divided into pre-war and post-war periods, the ICOR was higher in the pre-war period (2.68) than the post-war period (1.43). This decline in the ICOR during the latter period may reflect an increase in the productivity of the Jordanian economy and better use of capital. This decline in the ratio may be explained by the preponderance of social overhead investments during the pre-war period, whose yield takes a long time to materialize, while in the early seventies a large proportion of investments were directed into directly productive sectors.

Table 6.16 compares the average of excess reserves with the actual total of investment used for production purposes. It is evident from the table that the rate of growth would then have increased by ratios varying from 19.2% to 69.1% according to the year selected if these excess reserves had been utilised domestically.

Table 6.16: Excess reserves, investment and income, 1971-1975 (in JD million)

Year	(1) Excess reserves	(2) Investment	(3) Income	(4) 1/2
1971	17.14	43.3	202	39.5
1972	26.55	38.3	224	69.1
1973	20.71	44.5	234	46.5
1974	13.99	72.5	308	19.2
1975	40.01	80.5	330	49.7

Source: (1) See Table 6.12, p. 255.
(2) See Appendix 4, p. 366. Investment is assumed to equal 87% of the figure presented in Table 4 of the Appendix.
(3) See Central Bank of Jordan, Annual Report, Amman (1975).

Summary

The central theme of this chapter has been that the stock of reserves held by Jordan has exceeded the demand for such holdings, and that the excess reserves so generated have involved an appreciable opportunity cost sacrifice by the Jordanian economy.

It has been shown that, in the particular case of Jordan, where a considerable proportion of trade is financed by the private sector, private sector holdings cannot be ignored in the analysis. However, a

parallel foreign exchange market, operated and run by private money changers, makes it difficult to accurately assess such holdings.

Under the aegis of the Currency Board and the Central Bank, foreign reserves have been held in excess of demand. On the one hand, the Board was unable to adopt a flexible reserve policy, because the par value of the Jordanian dinar waspegged against sterling, and its reserve holdings consisted solely of sterling and the reserves money/ stock ratio was fixed by the one to one rule. On the other hand, the Central Bank managed to diversify the portfolio composition of its holdings, and the money supply was allowed to be affected by factors other than foreign reserves. Although the Bank was given full authority to manage reserves, empirical analysis has demonstrated that it too tended to hold them at an excessive level. This policy of excessive holdings has been adopted on the assumption that a high reserve level is symbolic of profitable investment opportunities. When this was subjected to close analysis the assumption was not only shown to be wrong but also to indicate a failure to adopt necessary adjustment measures to correct Jordan's structural imbalances. The excessive level of domestic consumption in relation to limited domestic production has required a high level of imports, particularly in non-essential consumer items. Jordan therefore tends to hold excessive amounts of reserves to maintain these high levels of consumption. As national reserves are excessive, policy makers are encouraged to adopt a more expansionary policy.

The high level of reserves has been shown to be very costly in two respects. Firstly, the direct cost attributable to the decline in the purchasing power of reserves, particularly under general

conditions of international inflation, and secondly, the implicit cost which is the cost of opportunities foregone by opting to hold such a high level of reserves.

The next step in examining the monetary aspects of Jordan's foreign trade is to consider money supply and domestic credit. Chapter Seven discusses their relationship with the balance of payments.

CHAPTER SEVEN: MONETARY POLICY AND THE TRADE DEFICIT

In contrast to its industrial structure, which has remained basically services oriented, Jordan's financial structure has undergone radical changes since 1950. The economy has become substantially monetised as a result of institutional development within the banking system, namely the establishment of the Central Bank of Jordan in 1964 and the emergence of new commercial banks and specialised credit institutions in the money market. Concomitant with this, a number of new financial instruments including government bonds and securities and mechanisms of credit control have been created.

Despite these developments, however, the nature of the trade problem remains essentially as it was at the time of independence. Consequently, the need for financial aid to finance the domestic trade deficit has become even more crucial. In this chapter an attempt will be made to outline the relationship between the development of the financial system and the trade deficit, including an analysis of money supply development and the factors affecting it. The impact of this expansion on the inflow and structure of imports will be particularly emphasised.

The considerations and relationships are many and very intertwined in cause and effect. The discussion that follows selects the following areas and considers each in the sequence as given below:

(a) - the statistics of monetary development

(b) - the components of money supply

(c) - domestic credit and monetary expansion and the government role

(d) - the domestic credit expansion and the private sector

(e) - the inflationary implication of the monetary expansion

(f) - the inflationary implication of the aid flow

(g) - the limited impact of Central Bank credit control policy

(h) - the excess liquidity of the commercial banks

(i) - the implicationsof the fragmented financial structure

(j) - the need to allow interest rates to be market determined

(k) - the need for a more realistic exchange rate policy

(a) The statistics of monetary development

Experience of developed Western countries has shown that, when development takes place the ratio of money (broadly defined) to GNP (the inverse of income velocity) tends to increase and that rapidly growing real cash balances contribute to the increase of investment and total output,[1] and consequently to more self-sustained economic growth and a reduction in balance of payments deficit. Although Jordan has witnessed such an increase in its real monetary balances during the last twenty-five years, the magnitude of its trade deficit problem remains substantially as it was during the 1950s.

Table 7.1 shows how the M_2 money supply[2] increased from the low 1951 level of JD 15 million to reach JD 277.74 million in 1975 (an average annual increase of 11.87%). The highest increase however, was recorded during the closing period of this study (1973-1975) when

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1. J. G. Gurley and E. S. Shaw: 'Financial Development and Economic Development', Economic Development and Cultural Change, vol. 15, no. 3, (April 1967), pp. 257-65.

2. The official published statistics in Jordan define the money supply as being demand deposits held by the private sector, and currency in circulation. Both time and saving deposits are excluded on the grounds that they are not conventionally used directly for transaction purposes. However, for the purposes of this study, these deposits will be included for they are included in the computation of the liquidity ratio of the commercial banks. Furthermore, since individuals are free to hold their money balances in the form of cash and/or demand deposits, they are free as well to switch their portfolio holdings between demand and time deposits. Thus, the exclusion of these balances would render an assessment of the impact of changes in aggregate money balances on the balance of payments incomplete. The money supply will be defined here to include currency in the hands of the public, plus private sector deposits including time and savings deposits (M_2).

Table 7.1: M_2 and GNP in Jordan, 1951-1975 (in JD million)

Year	M_2 (1)	Trade deficit (2)	GNP (3)	Ratio (1/3)	Ratio (2/3)
1951	15.00	-	-	-	-
1952	13.41	15.04	49.2	27.0	30.6
1953	14.71	15.55	42.7	39.0	36.9
1954	18.22	15.54	52.5	34.0	29.9
1955	20.74	21.72	48.9	42.0	45.2
1956	22.95	19.50	68.1	33.0	28.6
1957	25.70	24.28	69.5	37.0	34.9
1958	27.97	30.49	76.3	37.0	40.1
1959	28.94	35.91	86.1	33.0	41.7
1960	30.95	37.48	93.9	33.0	40.3
1961	35.60	35.66	127.1	28.0	27.5
1962	43.04	37.59	130.8	32.6	20.9
1963	48.03	47.07	137.6	35.6	34.3
1964	53.57	40.60	160.6	33.0	25.3
1965	64.26	45.90	180.4	36.0	25.9
1966	74.82	56.90	185.7	41.0	30.2
1967	83.50	42.90	206.0	41.0	23.2
1968	108.82	43.00	197.3	55.0	23.8
1969	118.83	52.70	233.7	51.0	32.9
1970	129.13	53.30	222.5	58.0	35.0
1971	135.71	64.80	236.6	57.0	27.0
1972	146.47	77.87	252.4	58.0	30.9
1973	176.07	83.65	291.3	60.0	29.0
1974	216.74	105.93	373.9	58.0	28.3
1975	277.74	183.06	394.9	60.0	46.0

Source: See Appendices 3 and 8.

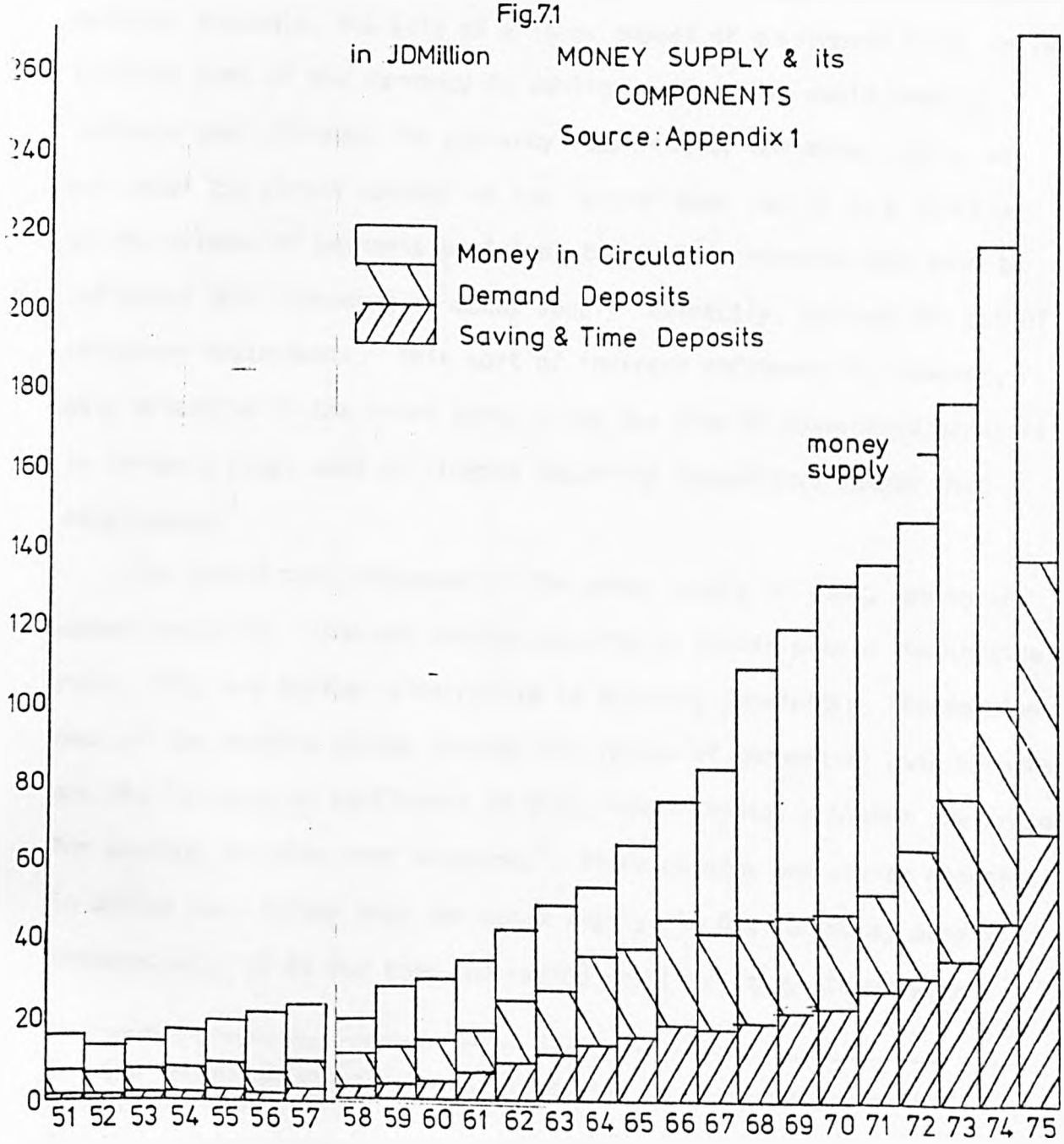
the money supply increased by an average of 23%. This increase in total money supply was reflected in the ratio of M_2 to GNP, which by 1975 had increased to more than twice its 1952 level, becoming one of the highest of all developing countries. Despite the high relative level of money supply to GNP, the trade problem continued to worsen.

(b) The components of money supply

It is clear from figure 7.1 that despite the high rate of growth of M_2, the share of each component remained basically the same as it was in the 1950s. The ratio of money in circulation during the period shows a movement which reflects political events in the area. During periods of stability the ratio declined, while in periods of instability it rose. Between 1951 and 1958 Jordan witnessed a great deal of domestic political unrest and uncertainty. There were clashes on the border with Israel; a conflict between the government and other neighbouring Arab countries (Egypt and Syria); and of course the Suez war of 1956. During such periods of uncertainty, people tend to hold their financial assets in the form of cash because of the precautionary motive. Consequently these balances accounted for over 50% of total M_2 during this period. From 1958 to 1966, Jordan and her neighbours enjoyed relative political stability, and sustained growth. The ratio, therefore, showed a declining tendency, reaching about 40% in 1966. However, the war of 1967 reversed this trend and the ratio increased, reaching its highest ever level of 63% during the 1970 political unrest, after which it returned to a downward trend, reaching 50% by 1975, almost the same level as in the 1950s.

By contrast, the level of the money in circulation component shows an increase in

Fig.7.1


in JDMillion
MONEY SUPPLY & its COMPONENTS
Source: Appendix 1
Money in Circulation
Demand Deposits
Saving & Time Deposits
money supply
260
240
220
200
180
160
140
120
100
80
60
40
20
0
51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

every year with the single exception of 1972 when it fell by JD 1.54million following only a small increase of JD 0.6 million. This arose firstly, because foreign reserves declined in 1971 as a result of the balance of payments deficit; secondly, the sale of a large amount of government bonds in 1972 absorbed some of the currency in public hands. This would seem to indicate that although the currency component of the money supply was not under the direct control of the Central Bank (as it is a function of the balance of payments position) the Bank is nevertheless able to influence this component of money supply indirectly, through the use of statutory instruments. This sort of indirect influence is, however, only effective in the short term, since the sale of government bonds is, in Jordan's case, used to finance recurring expenditure rather than development.[1]

The second main component of the money supply is time, saving and demand deposits. Time and saving deposits in Jordan play a distinctive role. They are another alternative to hoarding. Therefore, the development of the banking system through the spread of commercial bank branches and the increase in confidence in these banks creates a higher preference for savings deposits over hoarding.[2] Although time and saving deposits in Jordan rose faster than the money supply (10.87% for money supply compared with 20.8% for time and saving deposits) they showed wide

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1. The impact of the government debt will be discussed later in detail on p. 282.

2. E. L. Furness: Money and credit in developing Africa, Heinemann, London (1975), pp. 130. See also Jack Kattan: Jordan's Money Supply, unpublished Ph.D thesis, University of Georgia (1976), p. 79.

fluctuations which affected their share in total M_2. In contrast to the movement of currency in the hands of the public, time and saving deposits decreased in times of political instability and increased when confidence was restored. Since 1959, when the political atmosphere seemed stable, the share of these deposits shows a continuous increase from the 1951-1958 level of 10%, reaching 26% in 1966. In 1967 the ratio dropped to 9%. From then on the ratio recovered its upward trend reaching 22% in 1975. Nevertheless, the ratio was still lower than the pre-1967 period.

(c) Domestic credit and monetary expansion and the government role

Having considered the components, it is now necessary to examine the determinants of Jordan's money supply. As is the practice in other countries, money is created in Jordan by the mechanism of credit creation through the banking system. Deposits, as well as money in circulation, are part of the liabilities of the banking system which are created against various assets. These assets may be put into two categories: domestic and foreign. Figure 7.2 illustrates the relationship between these two variables and money supply in Jordan. During the period 1951-1968, the money supply increased at an annual average rate of 10.7%, at the same time foreign assets[1] were increasing at the relatively higher annual rate of growth of 13.5%. However, in the years 1969, 1970, 1971 foreign assets declined at an average rate of 5.3% as a consequence of a balance of payments deficit, thus exercising a negative influence on the rate of expansion of money supply. Never-

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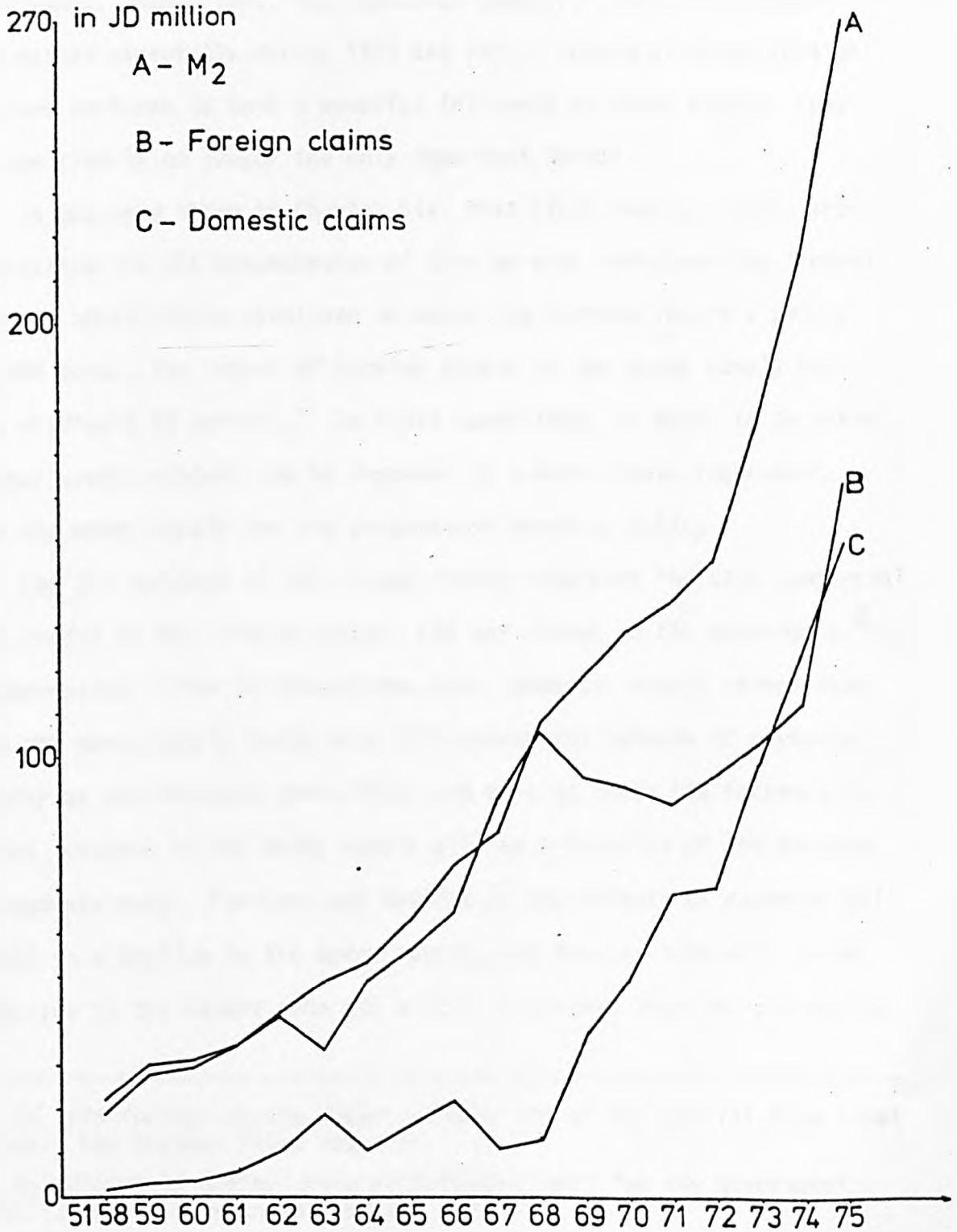
1. Foreign assets is defined here to include Central Bank foreign assets, commercial bank's and government's.

Fig.7.2

Money supply & the factors affecting it 1951-75



Source: Statistical Appendix 9.

theless money supply continued to increase at a rate of 7.7% annually, indicating that the expansion in domestic claims was large enough to compensate for the negative effect of foreign assets, during these three years. Since 1971, the impact of domestic claims has become more marked especially during 1973 and 1974. Indeed, although foreign reserves continue to have a powerful influence on money supply, they are now clearly no longer the only important factor.

It has been shown in Chapter Six, that since foreign assets are in practice the net accumulation of foreign aid, and since the Central Bank has unofficially continued to adopt the Currency Board's policy of 100% cover, the impact of foreign assets on the money supply has been difficult to control.[1] In these conditions, it needs to be asked whether credit control can be regarded as a more viable instrument than the money supply for the purposes of monetary policy.

For the purposes of this study, credit expansion includes commercial bank credit to the private sector, and net claims on the government.[2] In theoretical terms to concentrate upon domestic credit rather than upon the money supply leads to a self-correcting balance of payments. Insofar as the monetary authorities are able to check the increase in credit, changes in the money supply will be a function of the balance of payments only. Further, any deficit in the balance of payments will result in a decline in the money supply, and this in turn will cause a decline in the demand side and a fall in prices, thus increasing the

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1. In 1975 foreign assets comprised over 75% of the Central Bank total assets. See Chapter Five, page 242.

2. Net claims is defined here to include credit for the government less its deposits with the banking sector.

demand for domestic exports and adjusting the balance of payments deficit.[1] Although this theoretical account of the working of domestic credit policy may apply in a developed economy, a developing country like Jordan may lack the operational conditions necessary for its successful implementation as control of the volume and direction of both public and private credit is not in the hands of the monetary authorities. Public credit in Jordan is determined by the budget deficit consequent upon the amount of aid received in any given year. Credit to the government is thus exogenously determined, while credit to the private sector is a function of the monetary system. However, Central Bank control over private sector credit has not, in Jordan's recent past, been at all effective. Table 7.2 below shows that up until 1970 the government was a net creditor to the banking system, while credit to the private sector increased at a relatively high rate (on average, 16.1% annually). The negative impact of the government during this period is explained by its large deposits with the commercial banks. The ratio of these deposits to total deposits was over 30% during the Currency Board period. Following the establishment of the Central Bank, which became the government banker, the relative importance of these deposits started to decline.[2] (See Figure 7.3).

Since 1970, claims on the government have combined with those in the private sector to produce a positive effect on total credit. This new

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1. See Victor Argy: Monetary variables and the balance of payments, IMF Staff Paper, vol. XVI, (1969), pp. 267-271.
2. Given that there was no monetary authority capable of exerting any influence on the banking system during the Currency Board period, it may be argued that the government could have manipulated its deposits to influence the banks' activities. Although the government used to increase its deposits with the commercial banks in times of political instability (1967, 1970 for example), there seems to be no evidence that these activities were part of a comprehensive credit and monetary policy.

Table 7.2: Credit of the banking system, 1951-1975 (in JD million)

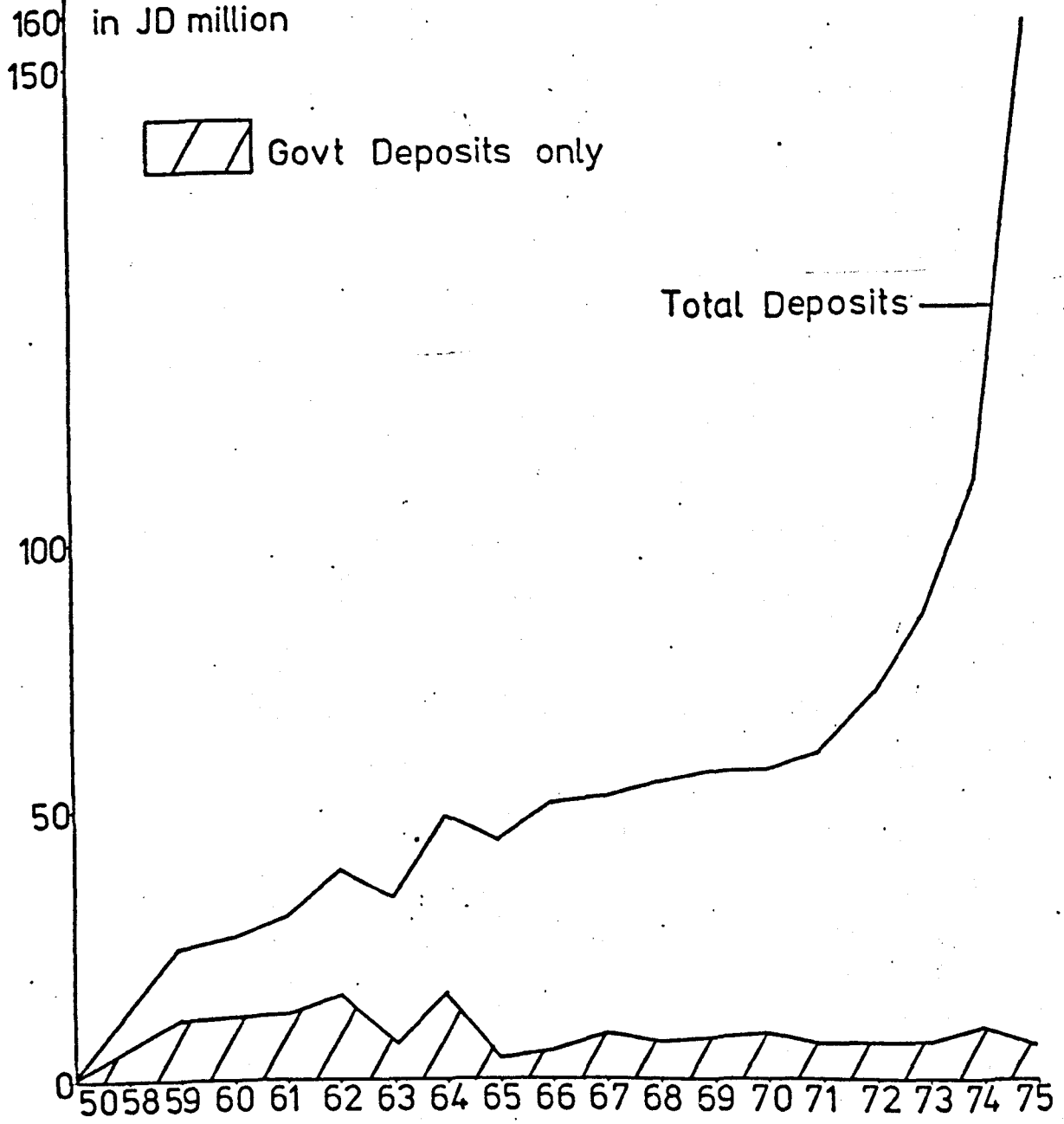
Year	Claims on - Government	Private sector	Total
1951-1958	-5.24	7.14	1.90
1959	-10.37	13.15	2.78
1960	-12.26	16.78	4.52
1961	-12.28	18.64	6.36
1962	-15.09	21.05	5.96
1963	-6.63	25.78	19.16
1964	-17.46	29.49	12.03
1965	-17.80	33.71	17.91
1966	-16.23	39.78	23.53
1967	-27.23	39.80	12.57
1968	-28.64	2.00	13.36
1969	-10.28	46.40	36.12
1970	2.00	46.44	48.44
1971	20.02	48.18	68.20
1972	19.04	52.36	70.40
1973	32.85	65.15	98.00
1974	32.72	89.29	122.01
1975	22.54	127.09	149.63

Source: Appendix 9.

development underlines the growing importance of government borrowing from the banking system in Jordan, and dates back to 1969 when Treasury Bills were first introduced. The idea of issuing government bonds and bills was first mooted in the Seven Year Programme for Economic Development (1963-1970). The planners at that time assumed that 'A modest national debt owed to the citizens of Jordan should not be regarded as undesirable, in fact it is much more desirable than having foreign debts

fig7.3

Total Deposits of the Commercial Banks including Government Deposits 1950-75



Source: (1) International Monetary Fund, 1972 supplement, Washington DC.
(2) Central Bank of Jordan, Monthly Bulletin (January 1978).

of similar size'.[1] The objective in issuing these bonds was to attract funds from the private sector which might otherwise be spent on consumption, thus providing funds for government investment and creating the 'money market' which is essential for effective monetary policy.[2] Although the programme was never implemented because of the 1967 war and its aftermath, the government, as stated earlier, did follow its recommendation regarding the issue of government bills. However, in so doing the government ignored the long term importance of these bonds and concentrated instead on financing its budget deficit, which was the result of the suspension of foreign aid. A close examination of Jordan's fiscal policy reveals that it was short term budgetary considerations which led the government to borrow from the banking system. The resultant expansion of credit was both expensive in monetary terms, and led to a sharp increase in the level of imports. As Jordan is a small country lacking natural resources and, as Chapter Three has detailed, suffers from an acute disequlibrium between supply and demand, it is to be expected that the government will play a major role in economic activities during the early stages of development. In 1975 over 40% of the labour force was employed in government institutions.[3] Furthermore, government expenditure accounted for over 30%, on average, of total consumption and 50% of total capital formation. Developments in government expenditure in relation to GNP can be seen in Figure 7.4. The

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1. Jordan Development Board: op. cit., The Seven Year Programme, p. 25.
2. Ibid., p. 25.
3. Out of 87,486 employees in establishments engaging 5 persons or more in 1975, there were 51,741 employees in government institutions (58%). See Department of Statistics, Employment Survey, Amman (1975), Table 12.

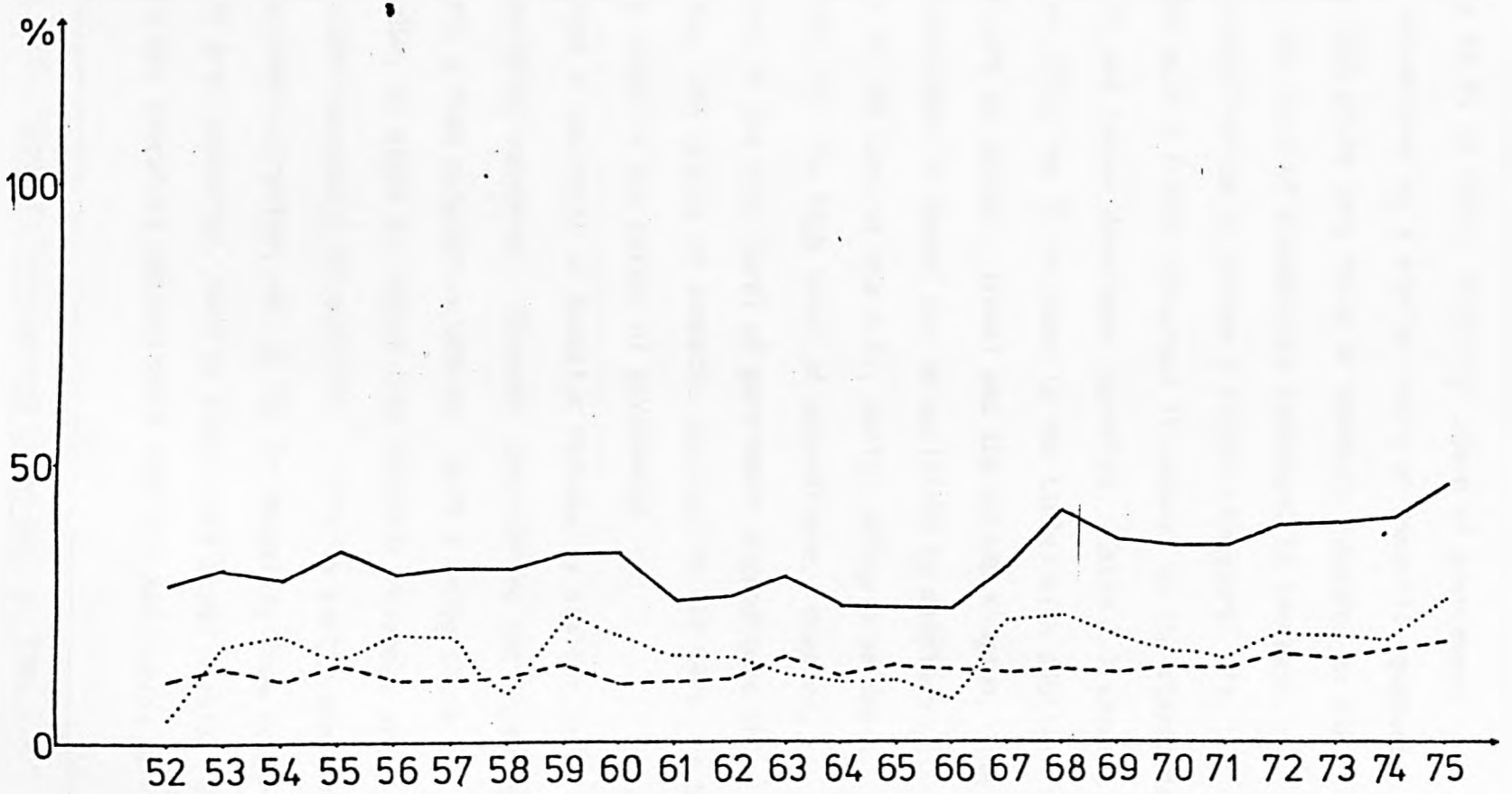
fig 7.4

Ratios of Government Receipts and Expenditure to G.N.P

_____ Ratio of G Expenditure to G.N.P 1952-75

- - - - - - Ratio of Domestic Revenues to G.N.P

..... Ratio of Foreign Aid to G.N.P



Source: Computed from: (1) International Monetary Fund, 1972 supplement, Washington DC.
(2) Central Bank of Jordan, Monthly Bulletin (January 1978).

ratio remained relatively stable during the fifties and the early sixties, but started to show a steady decline reaching 24% in 1966. In 1967, however, this trend reversed showing a fluctuating upward movement reaching 45.6% in 1975. This high share of government expenditure was not matched by a similar ratio of domestic revenues. The table shows that while this ratio of domestic revenues to GNP remained stable, the ratio of expenditure continued to increase, reflecting the disequilibrium in Jordan's fiscal structure. It must be noted that such a fiscal structure is unusual by the standards of both developing and indeed developed countries. Table 7.3 shows only two countries (from the 17 included in the table) with similar ratios of expenditure to Jordan - Israel and the United Kingdom. The high level of expenditure in Israel can be explained by military expenditure while in the case of the U.K., social policy provides a credible explanation for the high level of expenditure. However, whatever the causes of the high level of government expenditure in these two countries, the ratios of domestic revenues to GNP were, in both cases, relatively close to the ratios of government expenditure. Jordan's low ratio of domestic revenue is similar to that of other developing countries. However, considering the fact that Jordan's is largely a free enterprise economy, with a large share of foreign trade to GNP, it might be argued that domestic revenues are much lower than might reasonably be expected.[1] This is partly explained by inefficient tax administration, and partly by smuggling from neighbouring low tariff Arab countries, such as Kuwait and Saudi Arabia.

This analysis has therefore demonstrated that the initiation of

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1. M. Mazur: op. cit., Economic Development in Jordan, p. 276.

Table 7.3: Ratio of government expenditure and revenues to GNP in various countries

Country	Ratio of expenditure	Ratio of domestic revenue	Year
Malaysia	25.6	21.4	1973
Korea	37.0	n.a.	1974
Greece	21.6	18.1	1973
Cyprus	17.4	17.7	1971
India	11.4	9.45	1971
Indonesia	17.0	12.8	1973
Morocco	21.9	17.6	1972
Pakistan	15.2	12.5	1973
Tansania	27.0	18.8	1972
Thailand	17.3	14.5	1973
Turkey	18.8	17.1	1972
Canada	17.2	17.6	1971
Japan	10.7	9.2	1973
The Netherlands	26.7	26.7	1973
United Kingdom	40.7	40.6	1973
Jordan	45.6	18.3	1975
Israel	52.6	41.0	1972

Source: Computed from, International Monetary Fund, International Financial Statistics, Vol. XXIX, Washington DC (1 August 1976).

government borrowing was mainly due to budgeting difficulties and the failure of the government to increase domestic revenue given the sharp increase in expenditure. As can be seen from Table 7.4 in the years preceding 1967 there was no fiscal pressure on the government to use a new source of finance for the budget. Foreign grants and loans were sufficient to finance deficits, and in some years there were small surpluses. These surpluses enabled the government to accumulate

Table 7.4: Summary of the government budget, 1960-1975 (in JD million)

	1960	1961	1962	1963	1964	1965	1966*	1967	1968	1969	1970	1971	1972	1973	1974	1975
Domestic revenues	13.84	14.68	21.11	19.38	22.18	26.73	23.31	25.50	26.27	32.52	30.26	35.74	42.60	45.52	63.48	84.21
Foreign grants	17.44	18.76	15.71	14.69	15.41	14.27	9.88	40.41	40.11	38.38	35.42	35.12	44.45	45.05	52.97	90.01
Foreign loans	0.50	0.50	2.04	0.70	6.18	1.89	0.90	3.29	3.11	3.85	1.45	3.58	7.40	7.86	11.14	18.98
Total receipts	31.89	33.94	38.86	35.77	43.77	43.89	34.09	69.20	69.49	74.75	67.13	74.44	94.45	98.43	127.59	193.2
Total expenditure	32.85	32.83	37.38	38.74	41.18	46.30	37.40	66.94	80.52	88.40	80.71	85.96	101.45	114.67	158.33	209.43
Deficit or surplus	-0.96	+1.11	+1.48	-2.97	+2.59	-2.41	-3.31	+2.26	-11.03	-13.65	-13.85	-11.52	-7.00	-16.24	-30.74	-16.24
Use of cash balance (increase -)	+0.96	-1.11	-1.48	+2.97	-2.59	+2.41	+3.31	-2.26	+11.03	+4.95	-8.25	5.38	-3.00	10.10	-24.17	4.24
Domestic borrowing	-	-	-	-	-	-	-	-	-	8.70	5.60	16.90	10.00	15.23	6.57	12.00

* 1966 - 9 months only.

Source: (1) International Monentary Fund, International Financial Statistics, 1972 supplement, Washington DC, n.d.
(2) Central Bank of Jordan, Monthly Statistical Bulletin, Amman (July 1976).

reserves,[1] which were used to finance small deficits in other years. In 1968, however, government expenditure went up by over 20% compared with 1967. Total government receipts on the other hand showed an increase of only 0.4% and so did not match the large increase in expenditure. The budget in that year recorded the highest ever level of deficit, amounting to JD 11.03 million, compared with a surplus of JD 2.26 million in 1967. Obviously the magnitude of such a deficit depleted the accumulated budgetary reserves from previous years. The government was thus forced to make use of the terms and rules of public borrowing through the mechanism of Public Debt Law no. 96 of 1966, which permits government bond issues; the limit in any one year being set at a level of 15% of the average domestic revenue of the three preceding financial years. The government found it necessary to increase the amount of Treasury Bills issued, and therefore the limit was changed in 1969 to 15% of the currency in circulation or 15% of the average domestic revenue for the three previous years, whichever was the higher. Further, when the Public Debt Law of 1966 was replaced by a new one in 1971 this ratio was raised to 25%.[2] Accordingly, the total issue of three month treasury bills increased from JD 8.40 million in 1969 to over JD 25 million (35% of domestic revenue) in 1975.

Despite the increase in the volume of outstanding Treasury Bills the budget continued to be in substantial deficit, especially after the civil disturbances of September 1970. The government therefore introduced special 'Reconstruction Bonds' the value of which the law

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1. Comprehensive data on the government cash position is not available.
2. Central Bank of Jordan, 1971 Public Debt Law, article 4, item b.

restricted to JD 32 million, in 1971. A first issue of JD 3 million was made in June 1971, with a maturity of four years, and an interest rate of 7%.

This amount, together with Treasury Bills and Advances from the banking system, was sufficient to finance the overall deficit and create an increase in government cash balances. In 1972 the deficit continued to increase, despite an increase in domestic revenue and in foreign grants and loans. Two additional issues were therefore introduced carrying longer maturities of five and six years, but with interest rates of only 6%. Declared government policy is that bond issues are directed at the private sector. The 1972 bond issue, however, in increasing the maturity period, and decreasing the interest rate, tended to work contrary to this policy. Given that such government bonds are a new phenomenon in Jordan, and that public confidence is not high, owing to political instability in the area as a whole, and to an exceptionally high rate of inflation, interest rates should at least have been comparable to the first issue. This lack of consistency in interest rates was reflected in the declining share of the private sector in these bonds, which dropped from 58% in 1971 to 44% in 1972. In its recent bond issues the government has raised the interest rate to 7.5% and added a lottery feature which raised the effective rate to 8%.[1]

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1. To encourage subscription in government bills, 50% of the interest rates arising from such investment are deductable from income tax. On the other hand government bond interest income was given full exemption from income tax.

In addition to Treasury Bills and bonds, advances from the banking system, and especially from the Central Bank have become an increasingly important source of government borrowing. Temporary and ordinary advances from the Central Bank to the government were limited by the Central Bank Law of 1966 to a fixed ceiling of 10% of the average annual domestic revenue collected during the preceding three years. The first of these advances amounted to JD 2 million in 1968. This has since increased reaching JD 13.37 million on 15.9% of total domestic revenue (1975). The increase was made possible because of an amendment to the 1966 law which raised the level of advances that the government can obtain, from 10% of the average domestic revenue for the previous three years to 20% of the domestic revenue for the current year. In addition to the ordinary advances, extraordinary advances are given to the government, in accordance with the decisions of the Economic Security Committee.[1] The first of these was given in 1971 (JD1 million). In 1972 the committee decided that JD 6.3 million of balances held in a special account with the Central Bank, representing the profit from the re-evaluation of foreign reserves of 1971, should be transferred to the government as an extraordinary advance. This advance however, was later written-off by order of the Committee. Table 7.5 shows the development of government borrowing. Thus borrowing from the banking system has now become a routine practice in Jordanian public finance. The government, in formulating the budget

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1. After the 1967 war with Israel, the existing legislation was not enough to solve economic problems resulting from the war. For example, deposits from the public held in the closed Jordanian banks in the West bank of Jordan. Therefore a special committee under this name was established. The committee is chaired by the Minister of Finance and has four other ministers as members.

Table 7.5: Internal Public Debt, 1969-1975 (in JD million)

Year	Treasury Bills (1)				Government Bonds (2)				Advances from the Central Bank(3)	Total borrowing (4)	Total of the banking system(5)	Ratio (5/4)
	Banks	Central Bank	Other	Total	Banks	Central Bank	Other	Total				
1969	3.77	4.00	0.63	8.40	-	-	-	-	-	8.40	7.70	0.89
1970	3.35	8.29	0.96	12.60	-	-	-	-	1.70	14.30	13.33	0.93
1971	7.32	12.75	0.93	21.0	1.26	-	1.74	3.00	3.13	27.83	25.15	0.93
1972	12.53	5.04	2.68	20.25	3.25	1.18	3.57	8.00	7.03	35.85	29.73	0.84
1973	13.01	8.30	1.69	23.00	4.01	2.53	5.46	12.00	14.41	49.76	42.62	0.86
1974	10.57	15.80	1.63	28.00	4.34	5.28	10.38	20.00	7.97	55.97	44.14	0.80
1975	17.99	9.45	1.56	29.00	6.69	1.51	14.80	23.00	13.37	65.37	49.00	0.75

Source: (1) Central Bank of Jordan, Statistics pertaining to some Aspects of the Jordanian Economy (1974).
(2) Central Bank of Jordan, Monthly Bulletin (January 1978).

assumes that any revenue shortfall should be financed from the banking system. The latter for its part is excepted to make the required funds available either through the purchase of Bills and bonds, or directly by means of credit advances. Moreover, it is assumed that legislative amendments will make these operations possible.

The extent of the impact of government borrowing on economic activities depends on whether this process involves a reactivation of borrowed money into investment channels or merely increases the money supply. Borrowing from the Central Bank and the banking system directly increases the money supply and constitutes a net addition to the income stream, thereby exerting an expansionary influence on aggregate demand. Borrowing from the public on the other hand, does not lead to an increase in the aggregate demand. The theoretical assumption made here is that such borrowing represents a withdrawal of funds which would otherwise have been spent on consumption. Jordan's fiscal policy has to date involved the most expansionary type of borrowing, viz. borrowing from the Central Bank and the commercial banks. The inflationary impact of such borrowing is magnified by the inability of the government instruments to reduce the liquidity level of the commercial banks, so that credit to the private sector (and consequently, consumption by the private sector) has remained largely unaltered by the government's use of the fiscal measures at its disposal. On the contrary, these measures, because they are guaranteed by the Central Bank, have served to maintain the liquidity levels of the commercial banks and thus stimulated them to provide more rather than fewer credit facilities to the private sector. Furthermore, it would seem that state borrowing from the private sector has, in the context of Jordan, expansionary implications, as bonds issued

by the Jordanian government, and held by the public, are convertible at any time, without loss. They, therefore, do not restrict private sector liquidity in any way, functioning in the manner of interest-bearing current accounts rather as a means of encouraging savings. Although there is no direct statistical evidence to support the expansionary effect of this argument it is usually assumed that there is a negative relationship between consumption and the level of domestic borrowing. Private consumption should, therefore, be reduced by an amount equivalent to that of public borrowing. Information on consumption in Jordan indicates that during the years 1970-1975 consumption showed a higher rate of increase in the period when the private sector holdings of government bonds increased (see Table 7.6). In fact, the bonds may have an expansionary effect by stimulating idle money to become active through financing the recurring expenditure of the government rather than the developmental.

Table 7.6: Public debt and consumption, 1969-1975 (in JD million)

	1969	1970	1971	1972	1973	1974	1975
Private consumption	164.0	165.0	183.0	193.0	220.0	256.0	280.0
Percentage change in consumption	-	0.6	+10.0	+5.0	+13.0	+16.0	+9.0
Government bonds with the public	-	-	1.7	3.6	5.4	10.3	14.8

Source: (1) Central Bank of Jordan, Statistical Monthly Bulletin (March 1973).
(2) Central Bank of Jordan, Statistical Monthly Bulletin (January 1978).

(d) Domestic credit expansion and the private sector

The second major factor which contributed to the money and credit expansion in Jordan is credit to the private sector. During the period under review credit grew by a higher average rate (15.8%) than the rate of increase in M_2 (11.87). However, the real impact of credit to the private sector occurred after 1973 when credit increased by 34.1% between 1973-1975 compared with only 12% during 1968-1972. It is clear, therefore, that more than 45% of the increase in M_2 in the recent period (1973-1975) was made possible by the increase in credit to the private sector (see Table 7.7). This is compared with only 22% during the years 1968-1972.

Table 7.7: The impact of credit expansion in the private sector on M_2 (in JD million)

Average	(1) Δ Private Credit	(2)	(3) Δ Other factors		(4) Δ M_2
	Value	1/4		3/4	
1951-1964	25.80	67%	12.77	33	38.57
1964-1968	12.51	24%	38.29	76	50.80
1968-1972	5.96	22%	21.72	78	27.68
1972-1975	61.94	47%	59.06	53	121.00
1951-1975	123.40	47%	139.34	53	262.74

Source: See Statistical Appendix 9.

The impact of the expansion of credit was magnified by its distribution. Despite the higher rate of increase in total credit during the period 1964-1975, its sectoral distribution has not changed. Commerce and trade have consistently accounted for over 40% of the bank credit. The construction and building sector has had the second

highest amount with industry and agriculture coming third (see Table 7.8). Given Jordan's industrial structure, it is only to be expected that credit will be distributed in this way. The large scale of Jordan's imports in relation to domestic production means that service industries predominate in the economy. As the services sector offer short term return on credit, the commercial banks prefer this sort of investment to more long term industrial and agricultural projects. As a result of this sectoral distribution of the commercial bank credit, responsibilities for agriculture and industry have been assumed by special credit institutions created for the purpose.

Although an evaluation of the lending activities of these institutions is not within the scope of this thesis, they need to be briefly discussed here for two reasons. Firstly, they form an alternative source of finance for the productive sectors which the commercial banks seem reluctant to finance. Secondly, these institutions can play an important role in increasing the level of savings and in channelling resources from the import sector to the domestic production sectors. Therefore, potentially, their financial activities may have a positive impact on the balance of payments by stimulating the self-finance process.

Jordanian specialised credit institutions have so far played only a passive role in increasing the level of savings and consequently credit to the productive sector. This is evident from the small and stable ratio between commercial bank credit and the credit of these institutions. Table 7.9 shows that despite the increase in the overall credit of these institutions (from JD 10.38 million in 1966 to JD 53 million in 1976), the ratio of their credit to commercial bank credit

Table 7.8: Sectorial distribution of outstanding bank credit (in JD thousands)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Agriculture	0.86	0.67	0.61	0.77	0.65	0.71	0.58	0.79	0.80	2.06	3.74	3.61	5.16
Mining	0.22	0.12	0.30	0.14	0.10	0.15	0.72	0.67	0.29	0.37	0.37	0.28	0.33
Industry	3.30	4.32	4.72	4.23	4.01	4.05	4.03	3.92	4.35	5.87	10.08	14.83	21.81
Commerce and trade	14.41	17.07	20.33	17.35	17.07	19.06	16.89	18.96	21.45	25.07	30.30	51.37	81.61
Construction	1.81	1.71	2.37	4.06	5.08	6.08	10.33	10.51	10.67	14.42	18.83	26.28	30.85
Transport	2.59	2.32	2.14	1.77	1.78	1.55	2.42	2.61	2.42	2.19	5.29	3.69	7.78
Tourism	0.82	0.95	0.94	1.60	0.99	1.00	0.97	0.88	0.92	1.38	1.53	1.78	2.52
Financial institutions	0.23	0.14	0.33	0.19	0.19	0.19	0.18	0.25	0.34	0.50	0.74	0.34	0.55
Professional	1.47	1.70	2.24	2.14	2.46	3.07	4.14	3.28	3.89	4.55	5.47	7.40	11.36
Land and building*	0.43	0.74	0.89	0.96	1.00	1.01	0.89	-	-	-	-	-	-
Municipalities	1.61	2.05	2.58	2.92	3.68	2.93	2.83	-	-	-	-	7.18	8.09
Other	1.51	1.58	1.73	3.40	4.04	5.56	1.53	2.01	1.83	1.58	2.56	4.55	13.65
Total	29.27	33.30	38.99	38.88	40.99	45.34	45.54	46.92	50.59	61.82	83.98	121.43	183.73

* After 1971 Land and building was included under construction.

Source: (1) Central Bank of Jordan, Statistics pertaining to Some Aspects of the Jordanian Economy (October 1974), Table 11.
(2) Central Bank of Jordan, Monthly Statistical Bulletin (October 1977) Table 12.

remained the same. Further, if the activities of the newly established Housing Bank are excluded from the analysis, this ratio would decline to about 16.6% in 1976 compared with 27% in 1966. Although the declining share in the lending activities of these insitutions (other than the Housing Bank) may be related to the large expansion in commercial bank's credit, it may be argued that their limited role is chiefly a consequence of the limited sources of funds available to these institutions. Except for the Housing Bank the Specialised Credit Institutions (SCIs) do not accept deposits, and their resources have been limited to the government, Central Bank and foreign borrowing. In addition to its expansionary impact on money supply, this concentration on government finance prevented these institutions from utilising available domestic resources and increasing the level of savings. Foreign borrowing on the other hand, is likely to result in a further monetary expansion and in a further increase in imports and consequently in a balance of payments disturbance. It is not suggested here that SCIs borrowing from official sources is undesirable in itself. Indeed, in a developing country like Jordan, government backing of these institutions is to be expected, especially in the years immediately following their creation, but it should not continue to be the only source of finance, thus redirecting resources from the import sector to the domestic sector. Despite the creation of the SCIs, however, overall credit direction remains concentrated in trade and other services sectors, so that redirection of resources from imports to domestic sectors has been minimal. In addition the way in which SCIs have financed their operations has furthered monetary expansion, which in turn has had a negative impact on the balance of payments. Furthermore, one of these SCIs has directly contributed to the speculation in land

Table 7.9: Outstanding claims of Specialised Credit Institutions, 1966-1976 (in JD million)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
1. Municipal and village loans fund	2.39	3.46	3.94	3.95	4.21	4.64	4.95	5.22	5.59	6.46	7.60
2. Industrial development bank	0.97	1.36	1.60	1.83	2.31	2.51	2.73	3.04	3.98	5.53	7.86
3. Housing agency	0.19	0.52	0.79	0.80	0.84	1.03	1.28	1.16	2.84	2.44	2.25
4. Agricultural credit	6.05	5.96	6.40	5.95	5.92	5.92	6.41	7.23	7.97	8.87	9.72
5. Jordan co-operative	0.76	0.75	0.68	0.83	0.80	0.77	0.86	0.82	1.13	1.76	3.07
6. Housing bank	-	-	-	-	-	-	-	-	0.97	5.31	23.35
7. Total SCIs	10.38	12.08	13.42	13.37	14.08	14.86	16.23	17.52	22.49	30.36	53.86
8. Commercial bank credit	38.98	38.88	40.99	45.39	45.54	46.92	50.59	61.82	83.98	121.43	183.73
9. Ratio of 7/8 - %	27	31	32	29	31	32	32	28	27	25	29

Source: 1.Central Bank of Jordan, Statistics pertaining to Some Aspect of the Jordanian Economy, (October 1974), Table 12.
2.Central Bank of Jordan, Monthly Statistical Bulletin (October 1977) Table 16.

and housing which has had an important implication on Jordan's balance of payments and economic development as a whole. The Housing Bank was established in 1973 to serve that 'part of the population which does not need the concessionary terms of the Housing Corporation lending but could not be reached by commercial banks, because of the short term nature of the latter's credit'.[1] Nevertheless, it can be criticised on two grounds. Firstly, the establishment of the Bank came at a time when the construction sector was already large; and secondly, that the level of its activities has far exceeded those of the other SCIs, thus furthering the unbalanced structure in overall credit.

(e) The inflationary implication of the monetary expansion

The important implication of the monetary expansion that took place between 1973 and 1976 was that it further augmented the inflationary pressures already prevalent in Jordan (previously discussed in Chapter One), which had resulted from credit creation and the consequent increased demand for consumption and imports. This necessarily stimulated the demand for credit thereby worsening the trade balance (see Figure 7.5). The graph shows how the unprecedented increase of JD 69.8 million in credit during 1969-1976 was accompanied by a high rate of increase in imports (43.7%). This increase was greater than the increase in both M_2 (25.2%) and the price level (12%).[2] It is, therefore, important here to explain how the chain of relationships

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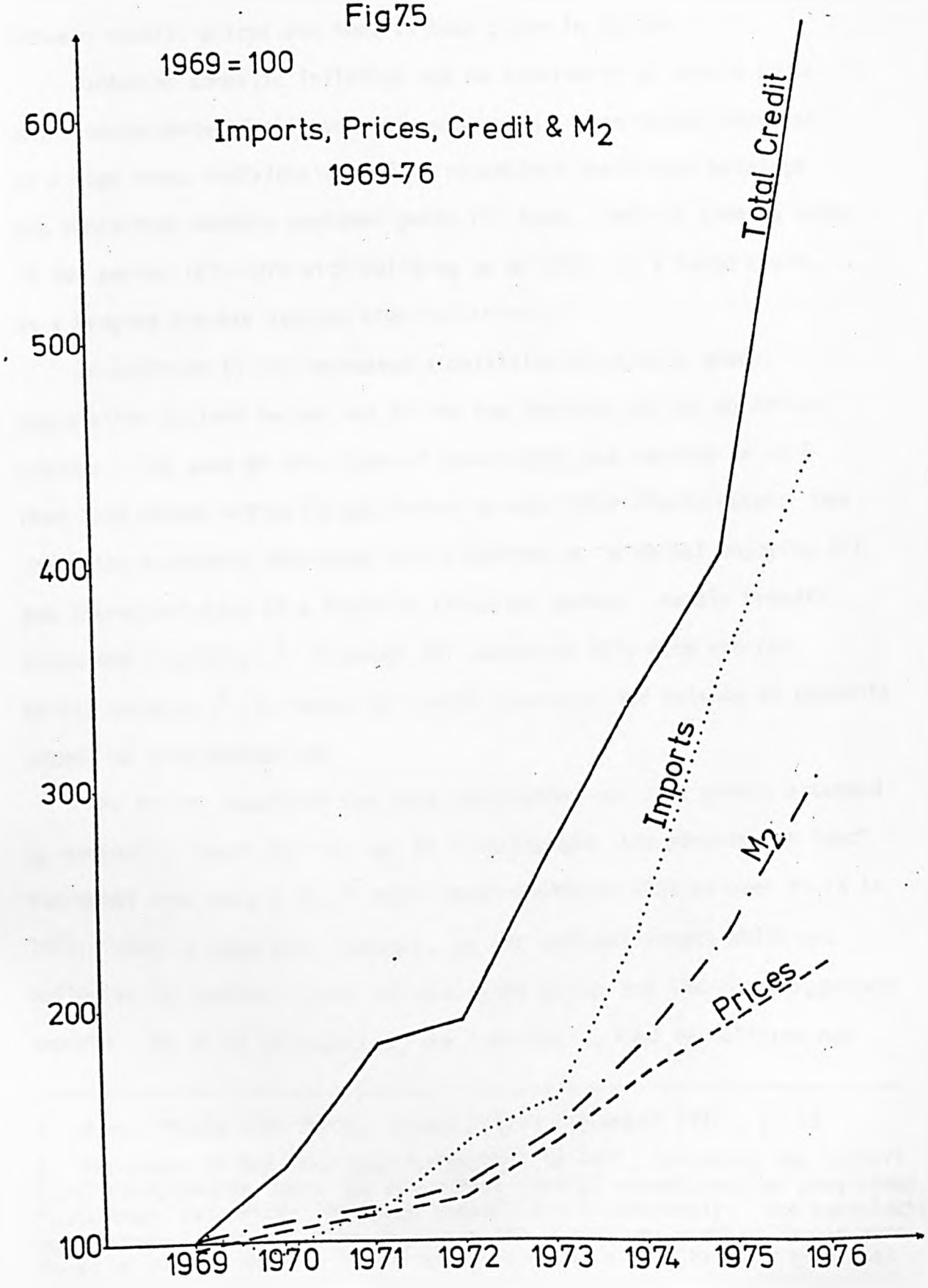
1. See Gerard de la Fortelle: Financial Intermediation in Jordan, draft paper, IFC, (1976), p. 31.

2. The rate of inflation as presented by the cost of living index is believed to be underestimated.

Fig 7.5



Source: (1) Statistical Appendices 3 and 9.
(2) Central Bank of Jordan, Monthly Bulletin (March 1972 and January 1978).

between credit, prices and imports took place in Jordan.

Jordanian domestic inflation may be considered as both a cause and a consequence of this monetary expansion. When prices increase at a high rate, individuals tend to reconsider their cash holdings and substitute durable consumer goods for them. This is clearly shown in the period 1973-1975 with building up of stock on a large scale, as a hedging process against high inflation.

In addition to the increased acquisition of durable goods, speculation in land became one of the new features of the Jordanian economy. The peak of this type of speculation was reached in 1975 when land became virtually equivalent to any other liquid asset. One Jordanian economist described this situation as 'a market enjoying all the characteristics of a feasible financial market - namely breadth, width and liquidity'.[1] Although the causes of this boom are not merely monetary,[2] its impact on credit expansion and balance of payments cannot be underemphasised.

The direct result of the land speculation was that credit extended by commercial banks for the use of "construction and purchase of land" increased from only 8.5% of their total credit in 1966 to over 21.7% in 1975. What is important, however, is its indirect impact which was reflected in further credit for the trade sector and increased aggregate imports. As is to be expected, the increase in land speculation had

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1. Memo, Middle East Money, London, Paris (November 1976), p. 12.

2. The cause of the land boom dates back to 1971, following the 1970/71 civil disturbances, when the government started reconstruction programmes. Since then land prices increased rapidly and incoherently. The speculation was further increased after 1973 when the Jordanians working abroad were faced by the instability of the world money market. This led them away from cash investment into land speculation in Jordan. In addition, the establishment of the Housing Bank increased the demand on land for housing projects.

the effect of creating a new additional dominant wealthy group, whose pattern of consumption produced a significant demonstration effect on the other income groups who sought to emulate their consumption standards. This led to an increase in the demand for imported manufactured consumer goods, the production of which was financed by commercial banks.

The above development demonstrates how the monetary expansion resulting from the increase in credit has aggravated the inflationary pressures in Jordan, especially during 1973-1976. Inflation, through its impact on expectations and by increasing speculation, intensified the already high level of demand for consumption goods and, given Jordan's high propensity to import, this necessarily had an adverse effect on the balance of payments position.

(f) Inflationary implications of the aid flow

Theoretically, an adverse balance of payments is likely to have a deflationary effect on the economy, which may be reflected in an overall decline in demand and a consequent reduction in credit and the money supply, leading to a decline in imports and an improvement in the trade balance.

In Jordan, however, as the balance of payments deficit is mainly financed by the continuous inflow of aid, the above mentioned deflationary implication is yet to be witnessed. Thus, the aid inflow permitted the continuous expansion with the consequent adverse effect on the trade deficit. The precise way in which this aid inflow accommodated and affected Jordan's banking system will now be outlined.

On the receipt of the aid by the government as part of its budgetary support, it is either directly deposited with the Central Bank or the commercial banks, or deposited abroad. However, as

Chapter Five has shown, the government keeps only a small fraction of its deposits in the form of foreign assets abroad, the rest being deposited mainly in the Central Bank and in the commercial banking system.

The Central Bank credits the government's account by the amount of aid received, thus increasing its liabilities to match the new increase in its foreign assets. Government deposits with the Central Bank will decline with Treasury expenditure. The decline will be met by an increase in the deposits of the commercial banks and in money in circulation. However, part of the increase in the money in public hands will spill over into commercial bank deposits, thus increasing the ability of commercial banks to provide credit to finance the import sector.[1]

In the case when the government deposits its foreign aid received with the commercial banks, this effect is more direct through increasing government deposits and consequently increasing the level of commercial bank reserves and their ability to create new credit.

It may be concluded here, therefore, that while credit expansion, through its positive impact on money supply, has led to an expansion in imports and deterioration in the balance of payments, the availability of foreign aid in the form of grants and loans, as a source of finance, has prevented the deflationary consequences of these deficits. Further, the aid has been large enough to create a further monetary expansion and further import surplus.

Having shown that the interaction between the balance of payments and monetary expansion is directly related to aid inflow and the finance of imports through the banking system, it is important to clarify the monetary implications of foreign trade in the general context of Central Bank policy objectives.

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1. M. Marto: A money supply model: Jordan, Central Bank of Jordan, Amman, (October 1974), p. 62.

(g) The limited impact of Central Bank credit control policy

Since its establishment in 1964 the Central Bank has indicated its dissatisfaction with the credit policy of the commercial banks. During the period upto 1973, the complaint was that the commercial banks were very conservative in their credit policy and that a greater contribution should be made by them to the economic development of the country.[1] This dissatisfaction did not go beyond open general criticism.

In 1973, however, the Central Bank required the banks to apply 'a differential interest rate structure under which development projects would be charged preferential interest rates',[2] and further instructed them 'to check the operations of importing luxury goods and purely consumer goods by means of raising interest rates to the maximum limit possible'.[3]

During 1974, however, the Central Bank reversed its policy, when the inflationary pressure first witnessed in 1969 intensified. In its 1974 Annual Report, the Central Bank made it clear that the large expansion of credit facilities, especially in the first half of 1974, played a major role in effecting the increase in money supply ' a fact which prompted the Central Bank to intervene with the purpose of restricting the expansion and thus alleviating the inflationary pressure.'[4] The Bank, therefore, instructed the commercial banks to limit the increase in credit facilities over a six month period to only 5% of its total outstanding credit at the end of 1973. To encourage credit

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1. As early as 1963 the Jordanian planners, indicated in the Seven Year Programme, that commercial banks should redirect their operations from financing foreign trade to the industrial and construction sector. See The Seven Year Programme for Economic Development, (1963), p. 34.
2. Central Bank of Jordan Annual Report, (1974), p. 111.
3. Ibid., p. 111.
4. Central Bank of Jordan, Annual Report (1975), p. 19.

for industry and agriculture, these sectors were excluded from the credit restrictions. In addition, legal reserve requirements in that year were raised from 10% to 12%. In 1975 the Central Bank limited their credit increase during the first six months to 10% excluding credit extended to the above mentioned productive sectors. However, this exclusion of the productive sector was limited to only 5% when the Central Bank reiterated its 10% limit for the second half of 1975.

A close examination of commercial bank credit during these two years reveals that neither the object of limiting the overall value of credit nor the redistribution of credit were achieved. Table 7.10 shows how credit increased irrespective of the monetary targets set by the Central Bank. The high increase in credit to the agricultural and industrial sectors was not enough to bring about a noticeable change in the credit structure. Although these measures failed to fulfil their objectives, it may be argued that credit expansion would have been larger had the Central Bank not intervened by setting credit ceilings.

In trying to explain the causes of the rather limited impact of the Central Bank credit policy, two important factors stand out. The first is the high liquidity of the commercial banks and the second is the lack of conditions necessary for open market operations. The following section will concentrate on how these factors interacted to prevent the Central Bank from adopting successful measures to limit credit, and consequently any measures to correct the balance of payments deficit.

Table 7.10: Commercial bank credit in relation to Central Bank objectives (in JD thousands)

Period	Total credit	Credit for agriculture and industry	Rate of increase in overall credit:		The share of industry and agriculture in total credit
			Actual	Central Bank objective	
December 1973	61.81	8.31	-	-	13.6
June 1974	78.31	11.07	26.0	5	14.20
December 1974	83.97	14.20	7.2	10	16.90
June 1975	101.09	15.35	20.4	10	15.19
December 1975	121.43	18.62	20.1	10	15.40
June 1976	149.31	22.04	22.9	10	14.70

Source: Central Bank Monthly Bulletin, Amman (December 1974).
Central Bank Monthly Bulletin, Amman (December 1975).
Central Bank Monthly Bulletin, Amman (December 1976).

(h) The excess liquidity of the commercial banks

In its definition of liquid assets, the Central Bank Lawsof 1966 and 1976 include the following: (a) Jordanian notes and coins; (b) balances held with the Central Bank; (c) net credit balances with other commercial banks; (d) net balances in convertible currencies with banks abroad; (e) government and government-guaranteed securities, maturing in not more than three months; and (f) marketable foreign securities with a maturity of not more than three months.[1] It is clear that this definition does not include other assets, such as government bonds, which were considered illiquid because of their long maturity period. However, given that the Central Bank provides an unconditional and irrevocable guarantee to repurchase these bonds, their liquidity is in effect high. Therefore, for the purposes of this study, 'liquidity' will include the Bank definition together with the above mentioned assets.

The development of commercial bank liquidity is shown in Figure 7.6, from which it is clear that these banks have, during the years 1950-1975, maintained a high liquidity ratio. Furthermore, liquid assets have shown an upward trend parallel to the trend in deposits. However, the year 1963 witnessed a decline in both total deposits and liquid assets. This decline is explained by the fact that a large proportion of government deposits were transferred to the newly established Central Bank.

One explanation for the excessive liquidity during the Currency Board period, 1951-1963, is the absence of any obligation on the

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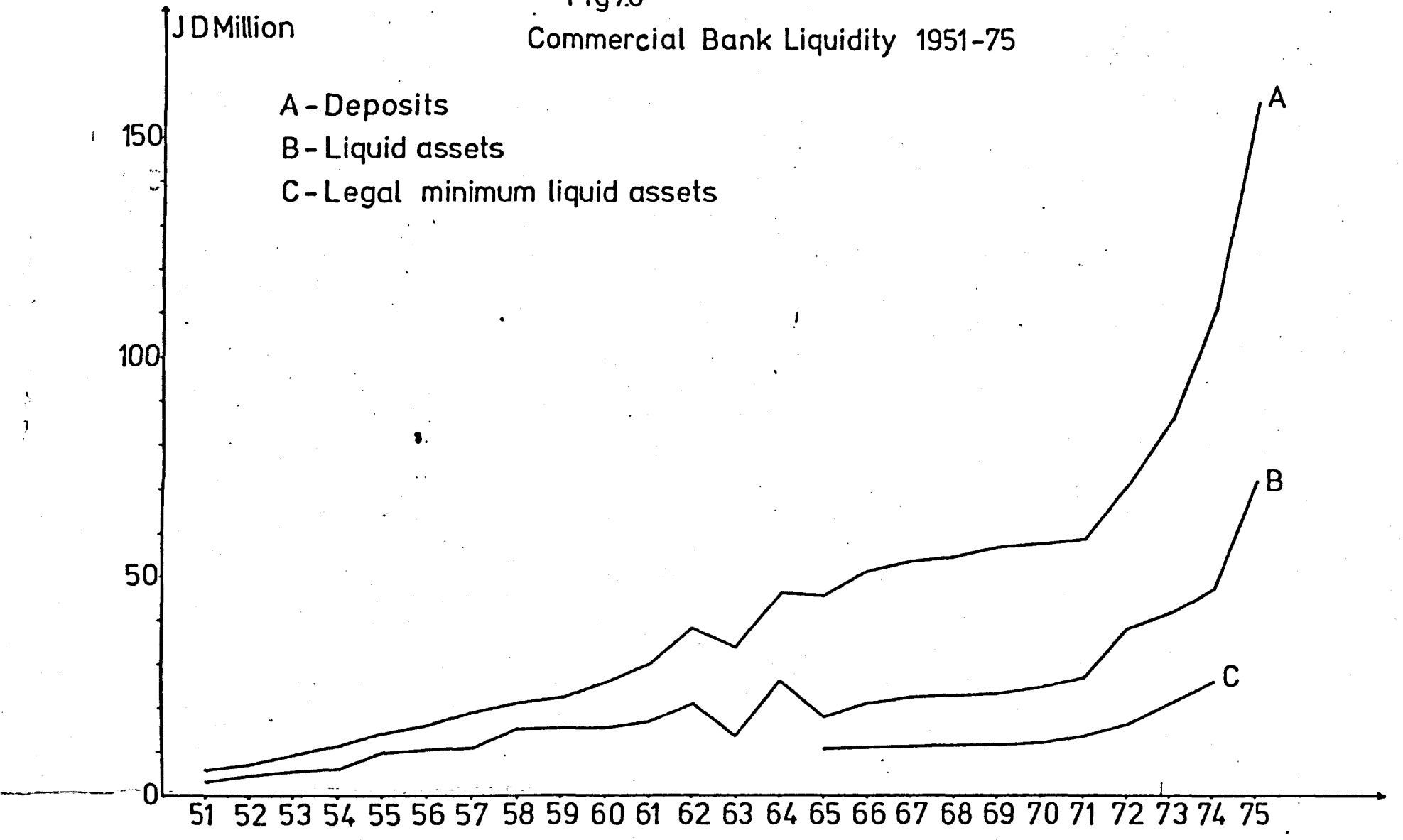
1. Central Bank of Jordan: Banking Law no. 99 of 1966, article 11 and Banking Law no. 24, article 17, (1971).

Fig 7.6

Commercial Bank Liquidity 1951-75



Source: Statistical Appendix 10.

commercial banks to maintain a high liquidity ratio to meet any unforeseen circumstances. However, as the figure shows, despite the creation of the Central Bank, commercial banks continued to maintain a high liquidity level far exceeding the legal ratio imposed by the Central Bank.

In both periods, the liquidity ratio of the commercial banking system was chiefly determined by the balance of payments position. This can be seen in two inter-related factors: firstly, the fact that the commercial banks' main activity is to finance imports, induces them to concentrate on short-term liquid assets to balance any pressure on their short-term liabilities. Secondly, a large proportion of the liquid assets in the banking system are a direct product of the balance of payments situation. In principle the Central Bank is obliged to buy all foreign exchange offered to it, irrespective of its monetary policy objective. This convention was established during the Currency Board period and was continued by the Central Bank but with one modification: the centralisation of foreign reserves.[1] Thus, by increasing its foreign assets, the Central Bank has been forced to increase the currency in circulation, a substantial amount of which spills over into the commercial banks in the form of liquid assets. Further, the fact that these reserves were accumulated because of the inflow of aid, rather than as the result of domestic activity, has meant that the excess of liquidity is substantial. This effect was increased by the way in which aid expenditure occurred in Jordan and by its timing. Because government expenditure is of a recurring nature in Jordan, the type of credit demand created is mainly of a short term sort. On the other hand,

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1. See Chapter Five, page 236.

the fact that aid to Jordan is directly expended, means that the liquid assets available to the commercial banking sector exceeds demand for credit. Taking the volume of reserves as a proxy of the balance of payments condition, it can be seen (figure 7.7, p. 312a) that the liquid assets of the commercial banks were, during 1950-1975, moving roughly in parallel with the movement of reserves. The period 1967-1971, however, witnessed some deviation from this trend, owing mainly to the fact that government expenditure during this period was subject to severe fluctuations caused by an unsettled flow of aid. Specifically, in 1967 and 1968, Jordan received an amount of aid greater than its expenditure. Therefore, bank liquidity did not increase by as much as the increase in reserves.

The high liquidity of the commercial banks rendered ineffective the use of traditional monetary policy techniques adopted by Jordan. The high liquidity meant that the Central Bank could not exercise its power as a lender of last resort. Indeed, the commercial banks did revert to the discount window of the Central Bank, but only when they experienced financial difficulties, and in these cases the Central Bank did not use discount operations as an element of monetary policy, but rather as a prudent measure designed to support confidence in the banking system. Despite the numerous attempts made by the Central Bank during the period 1965-1972 (when credit expansion was blessed by the Bank) to induce the commercial banks to use the discount facility,[1] the level of commercial bank borrowing from the Central Bank continued to account for only a small fraction of their total liabilities. This was mainly because they enjoyed at this time a high liquidity ratio

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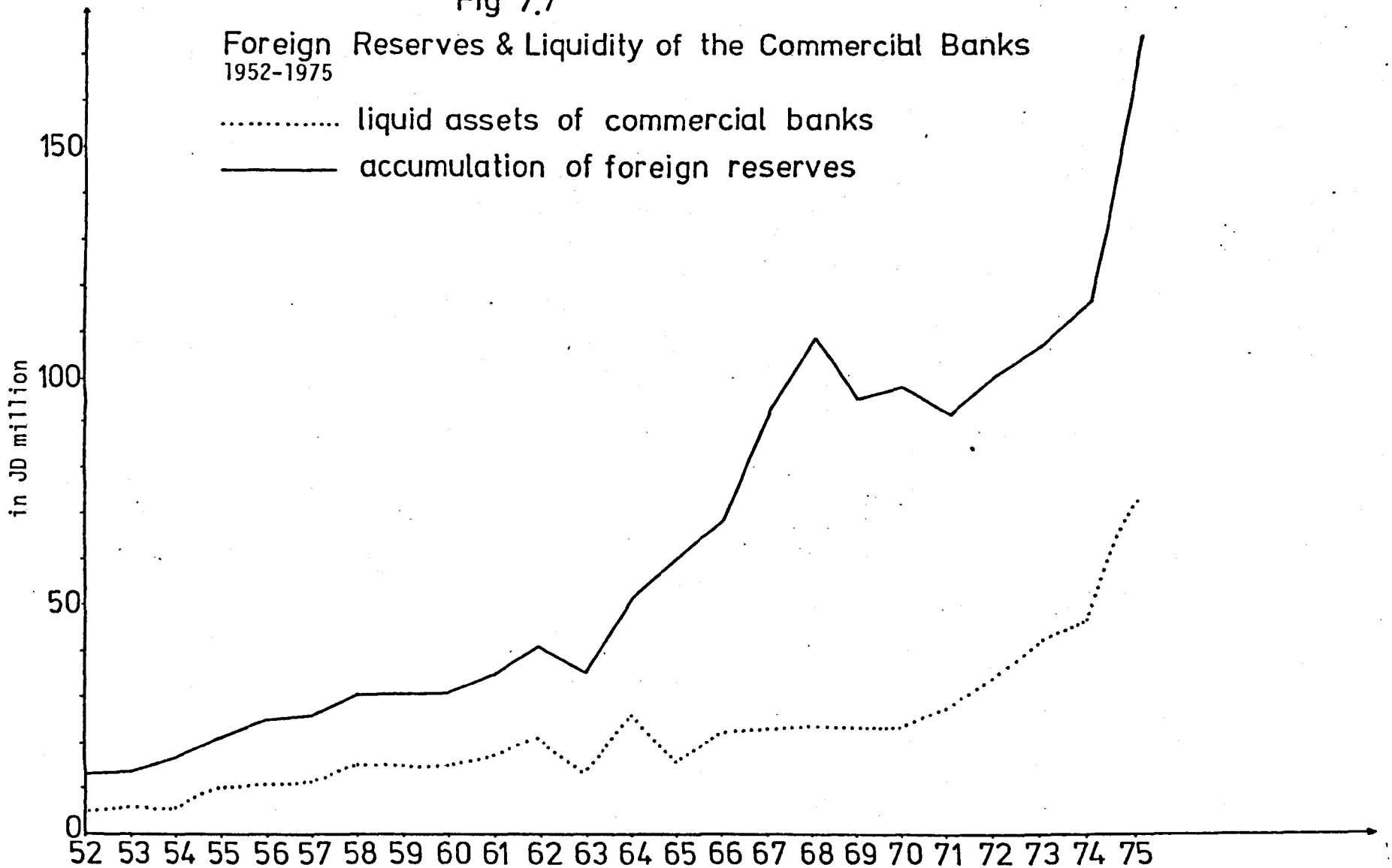
1. Central Bank of Jordan, Accomplishments of the Central Bank in Ten Years, Amman (1974), p. 20 (arabic).

Fig 7.7

Foreign Reserves & Liquidity of the Commercial Banks
1952-1975



Source: Obtained from Tables 6 and 10 in the statistical appendices.

and because they did not want to come under the close supervision of what they regarded as a young and inexperienced Central Bank. Table 7.11 shows how the commercial banks started to borrow under the discount arrangements only from 1970 onwards, and that even then the amounts borrowed represented only a small fraction of their total sources of income.

Table 7.11: Liabilities of the commercial bank, 1967-1973 (in JD million)

	1967	1968	1969	1970	1971	1972	1973
Deposits	42.4	44.9	47.3	46.4	51.5	64.6	77.5
Foreign liabilities	2.6	2.6	3.3	3.5	2.5	2.4	2.6
Government deposit	8.8	7.4	7.5	8.7	6.1	6.2	6.1
Credit from C.B.*	-	-	-	0.3	0.7	0.3	0.2
Capital	6.2	7.1	7.9	8.0	8.0	8.0	8.0
Others	10.8	9.3	8.5	9.5	13.4	13.9	17.2
Total	70.8	71.3	74.6	76.4	82.2	92.5	111.6

* Central Bank
Source: Central Bank of Jordan, Monthly Bulletin, Amman (March 1970).
Central Bank of Jordan, Monthly Bulletin, Amman (December 1973).

In addition to the unfavourable conditions under which the Central Bank operated its discount facilities, the terms and conditions for direct intervention by the Central Bank through open market operations were almost completely absent. The excess liquidity in the commercial banking sector may be seen as both the cause and the effect of this state of affairs. The banks did not need to refinance

their loan operations through the open market, because of their excess liquidity and this in turn inhibited the development of open markets.

In theory, open market operations may be used as a tool for adjusting the balance of payments. When the Central Bank's objective is to contract aggregate demand in a time of balance of payments difficulties, it is able to increase its selling of Treasury Bills and securities to the commercial banks and to the public. This will bring about a decline both in the bank deposits and in the bank cash ratio, and this in turn will lead to a decline in the money supply and in total demand.[1] However, the success of such operations depends on the following conditions: firstly, a well developed financial system which includes a wide range of financial instruments;[2] and secondly, a stable cash reserve ratio in the commercial banking sector.

(i) The implications of the fragmented financial structure

Jordan's experience has shown that despite its institutional and instrumental development during recent years, the financial structure remains fragmented and lacks the main constituents of a developed money market. The three money markets which exist in Jordan neither complement each other nor compete with each other. Interest rates are still administratively fixed and lack economic rationality. The commercial banks charge an interest rate of between 8% and 9% while the specialised credit institutions charge a rate of between 5% and 8%,[3]

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1. Furness: op. cit., (1975), p. 218.
2. A. Crockett, Money: theory, policy and institutions, Nelson, London (1973), p. 87.
3. Apart from the Housing Bank which charges an interest rate of 9%.

but the gap in interest rates between these two markets is small compared with charges in the unorganised money market, which can exceed the other two rates reaching at least 15%.[1] The fragmentation of the total money market is increased by the fact that the constituent markets are independent of one another. Although there is a kind of financial relationship between the markets, it is confined to the traditional sectors (i.e. money lenders) and to the commercial banks. The money lenders, because of their credit 'worthiness', can obtain cheap credit from the commercial banks and lend it at an inflated rate to the less credit worthy. The clear implication here is that whatever developments occur in the financial market, and however sophisticated the organised banking system becomes in Jordan, open market operationscan never be successful until the problem of unofficial money lending is dealt with by the integration of the three sectors of the money market to create a high level of interdependence throughout the financial system. The high liquidity ratios of the commercial banks result in reserve ratios which are high and unstable. Table 7.12 shows how the actual cash reserve ratio during the period 1965-1975 continued to exceed the minimum ratio laid down by the Central Bank. In addition, the ratio has fluctuated widely (34.5 in 1972 and 22.1 in 1974), indicating the absence of the stable ratio which is an essential condition for the success of open market operations.

Table 7.12: Minimum legal and actual reserve cash ratio of Jordan's commercial banks, 1965-1975

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Actual ratio	23.1	28.7	35.2	33.0	25.0	25.7	25.3	34.5	21.0	22.1	23.5
Minimum - %	7	7	7	7	7	7	10	10	10	10	0

Source: Computed from Statistical Appendices 8 and 10.

1. Said Hammami: Monetary policy in the changing financial structure of Jordan, 1969-1976, MA dissertation, University of Bangor, 1976, p. 60.

In 1976, the government approved the 'Amman Financial Market' law. This will involve the market in buying and selling shares, bills and government bonds.[1] The assumption here is that once established, it will increase the available financial instruments and enhance their effectiveness in the mobilization of savings.[2] This step represents an attempt to create a 'supply leading' phenomenon for financial development. In theory, however, the 'supply leading' concept assumes that the establishment of new institutions will be helpful in generating a demand for various types of assets provided that interest rates are determined by the market, and that there is a response to the stimulus of high interest rates.[3] Given the rigidity of interest rates in Jordan, however, it is difficult to see how the proposed financial market, lacking the major condition of a free market, can be successful in increasing the savings level. Doubts over the future of the financial market were expressed in the 1976 Jordan Development Conference, which stated clearly that 'its utility as a stabilizing medium may take some time to reach full fruition, because it may lack depth, width and resilience'.[4] There may, at present, be sufficient marketable financial debt for dealings in the market to commence.[5] A substantial amount of this, however, (JD 52 million) represents government bonds

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1. Amman Financial Market Law, (1970).
2. National Planning Council, Five Year Development Plan, p. 70.
3. Diana Khatkhate: Analytic Basis of the Working of Monetary Policy in Less Developed Countries, IMF Staff Paper, November 1972, pp. 533, 557.
4. Jordan Development Conference, Amman, paper no. 3 (1976), p. 24.
5. In 1975, it is estimated that the total bonds and securities reached roughly JD 100 million, out of which JD 29 million were Treasury Bills and 23 million government bonds. See G. de la Fortalle: Financial Intermediation in Jordan, IFC, Washington DC, (August 1976).

and bills. As both Treasury Bills and government bonds are mainly held by the banking system, and as the commercial banks have a very high liquidity ratio, dealings in the proposed market will be restricted to securities and equity shares of the private sector. Thus, it may be argued that the establishment of the market is not expected, under present conditions, to help the Central Bank in commencing its open market operations. For these operations to be successful, an amendment to the law is required, abolishing the artificial ceiling on interest rates, and the Central Bank guarantee of government paper. This may help in reducing the liquidity of the commercial banks, and may help to put market conditions into force, especially with regard to interest rates. This in turn may provide an opportunity for the Central Bank to intervene directly in the money market through open market opinions.

One explanation for the introduction of the Financial Market Law at this particular time is to support the general speculation that Amman can become a regional financial centre for the Middle East, instead of Beirut which was severely damaged during the Lebanese Civil War.[1] The government, as well as the Central Bank, has announced through the press, its willingness to welcome new companies from Beirut. Further, it has tried to attract foreign companies by issuing in 1975 a decree in which certain privileges were offered to any company deciding to move to Amman.[2] All this is in addition to the

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1. Rami G. Khouri: 'Amman Emergence', The Financial Times, 21 (April, 1976), p. 14.
2. The following measures were taken to encourage companies to settle in Amman: a) full exemption from custom duties and fees of registration; b) full exemption from income tax and social services on gains and profits derived from business outside Jordan; c) exemption for foreign personnel from income tax. Further, withina week a decision by the Industry and Trade Ministry could be made on the company's application to settle in Amman.

proclamation in the media of the 1972 Encouragement of Investment Law, which provided for foreign firms the freedom to repatriate capital and profits. Further, these profits are fully exempted from income tax for at least the first six years of commencing business.

Only 70 foreign companies moved their regional offices from Beirut to Amman during the period 1975 to June of 1976.[1] This movement was reflected in the figures for long term foreign investment, which increased from JD 0.96 million in 1974 to JD 7.37 million in 1975 and to JD 5.19 million in 1976.[2] Non-residents' deposits increased during the period from JD 3.6 million in 1974 to JD 8.6 million in 1975. Despite this success, the development of Amman as a regional financial centre has been limited. This may be related to its lack of sound infrastructure, which causes delays in accommodating large companies. In addition, the rigidity of interest rates removes from Jordan one of the important prerequisites of a regional or international financial centre. These limitations have put other Middle Eastern countries, such as Bahrain and Kuwait in a better comparative position, indeed Bahrain has been the most successful country in attracting foreign banks and money brokers.[3] Whatever the degree of success that has been accomplished by Jordan in this matter, its monetary implications have contrasted with the announced policy of the Central Bank: i.e. the reduction of the liquidity of the commercial banking sector. For the purposes of attracting foreign financial institutions to come to Jordan,

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1. Middle East Currency Reports: Jordanian Dinar, vol. 3, (January 1977), p. 17.
2. Central Bank of Jordan Monthly Bulletin, (December 1976).
3. Over 30 banks were registered in Bahrain during 1975 including Midland Bank, National Westminster and Lloyds Bank. See The Times, (18th February 1977), p. vii.

the Central Bank excluded the non-resident deposits from the 12% reserve requirement condition. The impact of this is an increase in an already excess liquidity and consequent increase in credit.

The conclusion from the above discussion is that, despite the establishment of the Amman Financial Market and the availability of money instruments, open market operations in Jordan are not likely to be successful. The key factor here is the failure to bring commercial bank liquidity under the control of the monetary authorities. This failure may be rectified by the liberalisation of the monetary system in a fundamental way. What is meant by liberalisation here is simply to allow demand and supply to determine the price of the various monetary instruments, and to abolish the prevailing administrative forces which determine the interest rates on these instruments.

(j) The need to allow interest rates to be market determined

While outstanding credit and the rate of inflation grew rapidly during this period, interest rates remained artificially low and stable.

Although no detailed information about interest rates on loans and deposits is available, there is evidence that prevalent interest rates in the fifties were not substantially different from Jordan's present interest rates. Table 7.13 shows that during the period 1972-1975 there was no structural change in the interest rate. The slight increase which was recently imposed on commercial bank credit was much less than the inflation rate. The table clearly demonstrates the lack of coherence in the interest rate structure. While interest paid on government bonds reached 8% (tax exempted) time and savings deposits did not exceed 6%. Further, there was a wide variation in interest

Table 7.13: Interest rates on deposits and credit in banking sector and Jordan's Treasury Bonds and Bills

	1969	1972	1973	1974	1975	1976
Central Bank of Jordan						
Bank rate	5.25	5.0	5.0	5.0	5.0	5.0
Long term advances	5.0	4.0	4.0	4.0	4.0	4.0
Short term advances	5.0	5.0	5.0	5.0	5.0	5.0
Deposits subject to notice	4.5	3.0	3.0	3.0	3.0	3.0
Time	4.0.	4.0	4.0	4.0	4.0	4.0
Commercial Banks						
Overdrafts	7.0	7.0	7.0	7.0	7.0	8.25
Loans	9.0	9.0	9.0	9.0	9.0	9.0
Demand deposits	4.0	4.0	4.0	4.0	4.0	5.5
Saving and time deposits	4.5	4.5	4.5	4.5	4.5	5.6
Time and subject to notice deposits	5.5	5.5	5.5	5.5	5.5	6.6
Specialised Credit Institutions						
A Agricultural Credit Corporation	6.0	6.0	6.0	6.0	6.0	7.0
B Industrial Development Bank	7.0	7.0	7.0	7.0	7.0	7.0
C Housing Corporation	5.0	5.0	5.0	5.0	5.0	5.0
D Jordan Co-operatives Organisation	6.0	6.0	6.0	6.0	6.0	6.0
E Municipalities and Village Loan Fund	4-5.0	4-5.5	4-5.5	4-5.5	4-5.0	4-5.0
F Housing Bank						
F_1 - Deposits	-	-	-	5-5.2	4-5.7	5-5.7
F_2 - Loans	-	-	-	7.5-9	7.5-9	7.5-9
Jordan Treasury Bills	5.16	4.9	4.9	4.9	4.9	4.9
Government Bonds	-	6.0	7.5*	7.5*	7.5*	7.5*

* With 10,000 lottery prize each six months.

Source: Central Bank of Jordan Annual Reports of 1970, 1972 and 1975.

rates among Specialised Credit Institutions, which provide long and medium term credit. Such a structure contradicts the economic convention that interest rates should reflect market prices, as determined by supply and demand.

Interest rate ceilings were imposed under Islamic Law as a matter of anti-usury philosophy aimed at protecting the poor from exploitation by businessmen - an attitude taken also by Lord Keynes: 'the rate of interest is not self adjusting at a level best suited to the social advantage, but constantly tends to rise too high, so that a wise government is concerned to curb it by statute and custom and even by invoking the sanctions of moral law'.[1] In addition to their social impact, excessive interest rates may lead to inflationary conditions. The high cost of capital may be reflected in output through the 'cost push' effect. In recent years the Central Bank would not pass recommendations for easing the control on interest rates because of the fear that such a step might induce more inflationary pressures and bring another destabilising element into the fragile Jordanian economy.[2] While this moral and economic motivation for an interest rate ceiling can be accepted during a period of price stability, a case might be made for its removal when general price levels increase. Shaw distinguishes between nominal and real rates of interest and between explicit and real ceilings; a low explicit ceiling which is less than the inflation rate being the real ceiling. Thus, the real ceiling when it is low and negative may inhibit the development of savings and prevent

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1. John Maynard Keynes: General Theory of Employment Interest and Money, cited in Edward S. Shaw: Financial Deepening in Economic Development, Oxford Press, (1973), p. 92.
2. Middle East Currency Report: op. cit., p. 17.

their redirection towards the more productive sectors of the economy. Further the fear that high interest rates may lead to inflation is not necessarily well founded, because high interest rates may attract more savings permitting additional increases in income and lower price levels. High interest rates may in addition bring full utilisation of capital and reduce the wastage of capacity inducing more use of available resources.[1] Therefore, neither the moral argument nor the economic one regarding the pegging of interest rates can be accepted in the inflationary conditions prevailing currently in Jordan.

(k) The need for a more realistic exchange rate policy

Despite the monetary disequlibrium between 1973 and 1975 and the accompanying high increase in trade deficit, the foreign exchange rate of the Jordanian dinar remained stable and even showed signs of upward movement.

Because of its potential importance to monetary stability and to the adjustment process in the balance of payments, Jordan's foreign exchange rate policy in recent years warrants study. The principal feature of Jordan's foreign exchange policy since it was established, is that minimum restrictions have been imposed on transactions in the current account in the balance of payments. As shown in Chapter Three licences of imports and payments are granted freely under a unified foreign exchange rate. However, the period 1956-1961 witnessed a multiple foreign exchange rate practice. The 1956 foreign exchange regulations introduced two foreign exchange rates: a 'free' one for imports from Arab League countries and for non-essential imports, and an

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1. Shaw: op. cit., (1973), p. 94.

'official' exchange rate for imports from the rest of the world, and essential imports. In 1959, the only Arab countries to which the free rate applied were Syria and the Lebanon.

In December of 1961 the government announced that the rate for imports from Lebanon would be fixed at the official rate and that exchange at the official rate would apply to invisible payments to Syria and Lebanon. Thus the unification in the exchange rate was a gradual achievement.[1] Since then and until 1970, the Jordanian dinar remained stable and there was only one instance when the Central Bank had to strongly support the exchange rate. In 1970, however, there was strong pressure on the dinar in the neighbouring Beirut market. This sudden pressure was the result of uncertain economic and political conditions created by the civil war of that year. The excess supply of the Jordanian dinar was not only generated by anticipation of a depreciation in the exchange rate, but was also the result of a sizeable flight of capital. The Central Bank, in order to support its value, requested the Jordanian banks in Beirut to intervene in the market and buy the Jordanian dinar, thus keeping the foreign exchange rate very close to par value.

Among the various objectives of the Central Bank, the achievement of stability for the Jordanian dinar at home and abroad may be regarded as the most important.[2] This was made very clear when the Jordanian authorities decided not to follow the pound sterling when it was devalued by 14.3% in 1967. The official explanation for the Central Bank's decision, set out in its 1967 Annual Report, can be

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1. Central Bank of Jordan, unpublished papers.

2. Central Bank Law, 1966, 1971.

summarised as follows:

a) devaluing the Dinar would weaken confidence, and demonstrate complete dependence on the London money market;

b) devaluation would discourage private investment and destabilise the price level;

c) the high ratio of imports to exports in Jordan indicated that devaluation would do very little to reduce the trade gap.

Devaluation would, however, have brought with it an increase in the cost of imports and a consequent reduction in consumption. In 1966, 72% of total imports originated from outside the sterling area. Thus in the case of devaluation the prices of these imports in terms of local currency would have risen in terms of Jordan's currency by a higher percentage than devaluation.

On the exports side, total export value in 1966 amounted to JD 818 million, 35% of which was phosphates. Given that the main markets for phosphates are outside the sterling area, the prices for foreign importers would have decreased if the Jordanian dinar had been devalued. Devaluation therefore, would have helped phosphates to become more competitive at a time when there were difficulties in marketing them.[1]

In theory, the factors that determine the exchange rate of any currency are those which determine its supply and demand. Conventional exchange rate theory, in determining these factors, does not allow for non-traded transactions to be treated as a determinant factor. Hence 'the supply of foreign exchange resulting from capital imports, gifts,

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1. Information on exports and imports derived from Chapters Two and Three.

etc.'[1] must be considered as a non-determining factor. On the other hand the theory assumes that if the authorities have enough reserves of foreign exchange the rate of exchange may be maintained by them at any level.

Given the low export/import ratio in Jordan, foreign aid is the main factor that determines the supply of foreign exchange. An equilibrium in the supply and demand of foreign exchange, like that in Jordan, does not imply that the balance of payments is in equilibrium. Jordan, in fact, has a basic disequilibrium in her balance of payments and it could be argued that the government could have used the opportunity of the sterling devaluation to bring down the already over-valued rate of the Jordanian dinar. In 1971, however, when the first devaluation of the US dollar was declared, the monetary authorities decided to follow, and announced the first and only devaluation of the Jordanian dinar in its history. This devaluation is an indicator that the monetary authorities believed that the Jordanian dinar was over-valued. Nevertheless, when in 1973 the US dollar was devalued for the second time, the Jordanian Central Bank decided not to follow and maintained the par value of the dinar against gold.[2] In addition to its 1967 justification of the 'no devaluation' decision, the Central Bank added that 'devaluation of the currency would have undermined internal price stability by raising import prices.'[3]

Since then, the Central Bank has stressed the objective of a stable

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1. S. A. Ozga: The Rate of Exchange and the Terms of Trade, London, (1967), p. 50.
2. In 1971 the US dollar was devalued by 8.2% and in 1973 by 11%.
3. Central Bank of Jordan, Annual Report, (1973).

exchange rate for the dinar. To ensure this stability the dinar was linked in 1974 to the International Monetary Fund, Special Drawing Rights. However, in determining the daily exchange rate, the Central Bank tried to adjust the exchange rate in line with the confirmed long term trends of major currencies, rather than following daily fluctuations of the SDRs. The Central Bank declared the purpose of this to be: 'to protect the local market against daily fluctuations in the international money market'.[1]

In summary, the external trade deficit has not discouraged the monetary authorities from maintaining the high exchange rate. In fact, the monetary authorities were convinced that, since Jordan is largely an importing country, any changes in the exchange rate could not affect the level of imports and exports. It was, therefore, necessary to maintain an exchange rate which may have been over-valued to keep the cost of imports down. This attitude was reflected in the value of the dinar during the years 1972-1976, when it strengthened against the US dollar and the depreciating pound sterling, and declined against the appreciating Deutsche mark and the Swiss franc (see Table 7.14 below). The trend clearly reflects the realignments of international currencies, which have occurred in recent years, as well as the Central Bank's policy of support for the over-valuation of the dinar. It has been shown in Chapter One that in addition to the balance of payments pressure, the economy recorded a low rate of growth in its real output during the period 1969-1975. This fact coupled with the high rate of growth in money supply should, in terms of conventional economic wisdom, have led

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1. Central Bank of Jordan, Annual Report, 1975, p. 67.

Table 7.14: Exchange rate of major currencies against the Jordanian dinar

	1972	1973	1974	1975	1976
US dollar	0.358	0.328	0.322	0.319	0.330
Pound sterling	0.894	0.812	0.757	0.713	0.603
Deutsche mark	0.112	0.123	0.124	0.130	0.131
Swiss franc	0.093	0.103	0.107	0.125	0.132
French franc	0.070	0.074	0.060	0.074	0.069
Italian lira	0.061	0.055	0.050	0.049	0.040

Source: Central Bank of Jordan, Monthly Bulletin, January 1977.

to a fall in the rate of exchange rather than the maintained high rate which in fact prevailed. This suggests that an opportunity to take one important measure that could have helped in correcting the economic and trade imbalances was missed. In this respect economists distinguish between two sorts of balance of payments deficits: 'stock' and 'flow'. While 'stock' deficits are the result of a change of the countries' assets by substitution of other assets for their money, the 'flow' deficit is the result of excess spending relative to the total receipts.[1] A 'stock' deficit indicates a change in the composition of a country's assets. It is therefore, of a short term nature and implies perhaps a positive sign of the country's economic performance. A 'flow' deficit on the other hand, results from excessive expenditure and is an indicator of a long run disequlibrium and is likely to be permanent unless the proper

1. H. Johnson: 'International Trade and Economic Growth', Studies in Pure Theory, London, (1959), p. 159.

corrective policies are adopted.[1]

The fact that Jordan's balance of payments problem has been concentrated in the goods and services account, shows clearly the 'flow' and consequently the long run nature of the deficit. This type of disequilibrium is difficult to terminate without a drastic change in economic policy regarding income and expenditure.[2] Jordan has, to date, maintained its excessive expansionary policy, without generating a corresponding expansion in receipts. Over-valuation of the Jordanian dinar, coupled with low interest rates has facilitated a big increase in imports. This is in addition to the government policy aimed at increasing current expenditure by borrowing from the banking system. To deal with the trade deficit, interest rates as well as exchange rates should be used in the correcting process. A gradual devaluation of the Jordanian dinar may lead to a reduction in real income and may switch expenditure towards home production. Interest rates which are artificially low need an upward adjustment, in order to match the present inflationary pressure. This may bring the liquidity of the commercial banks under the control of the Central Bank, as well as the control over the credits which in turn will be reflected in the level of imports.

Summary

This chapter has demonstrated that although financial institutional development in Jordan did not establish itself until some ten years or so after independence, the monetary structure has, nevertheless, undergone considerable changes since 1964. These changes, however, have had

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1. Ibid., p. 159.
2. Ibid., p. 160.

no perceptible positive impact in reducing the trade gap and improving the balance of payments.

Despite the increase in the cash ratio (money supply/GNP) money in circulation continued to account for the largest proportion of the money supply so that the system remained essentially underdeveloped in nature.

The main conclusion to be derived from the analysis is that the changes in the money supply and domestic credit that did occur were irrelevant to the targets set by the monetary authorities. During the Currency Board period, because of the convention of maintaining an automatic relationship between the total money supply and foreign assets holdings, no independent domestic monetary policy was pursued. After 1964, however, although the Central Bank still continued to try to maintain the aforementioned relationship, it did attempt, for the first time, some control over the level and distribution of domestic credit.

Two distinct periods of different Central Bank credit control policies were identified. The first, from 1964 to 1973 was one in which the Bank encouraged and facilitated the increase in domestic credit. The second, from 1974 onwards was one in which the Bank tried to curb domestic credit expansion. In the implementation of both policies priority was given to the agricultural and manufacturing sectors.

Traditional monetary weapons, such as the discount rate, the interest rate, the liquidity ratio, credit ceilings and moral persuasion were employed by the Bank to achieve the credit targets it had specified. Yet, credit, expecially during the second period, continued to increase despite the fact that the prime objectives of the Central Bank were to

both check the expansion and correct the trade bias of the former pattern of credit distribution.

Two major reasons were outlined for the continued expansion in credit and the limited impact thereon of Bank policies. The first was the level and nature of government borrowing that was promoted by the Central Bank, although it was at odds with the latter's overall monetary targets. Government borrowing, determined mainly by budgetary considerations, has increased the liquidity of the commercial banks and overall liquidity through government consumption expenditure. Somewhat perversely, the government bonds thereby created have further added to the total liquidity of the financial system.

Secondly, monetary measures were frustrated by factors operating within the banking system itself. These include the high liquidity of the commercial banks, the stickiness of the interest rate and the general fragmentation of the financial market. In these circumstances, the operation of traditional policy instruments was rendered ineffective. It has been demonstrated that although credit to the agricultural and industrial sectors did increase, trade credit continued to account for by far the largest proportion of commercial banks' credit.

Although monetary expansion has had an important impact on the inflationary pressures experienced since 1973, together with the low interest rates, this has stimulated further excessive increases in domestic credit and the money supply, thus reinforcing the high level of consumption demand and the balance of payments deficit. Thus, by 1975 the import/GDP ratio reached a record level of 65% (compared with 36% in 1964).

Although the basic causes of the trade problem lie in the nature of

the industrial structure of the economy, monetary policy during the 1970s has failed to apply measures to correct and gradually reduce the trade gap, as the persistent over-valuation of the Jordanian dinar would seem to indicate.

CHAPTER EIGHT: CONCLUSION

Although Jordan was only one of many political states created after the first World War, it had and has continued to have, several unique distinguishing features which are manifested in two particular aspects closely related to its subsequent economic development and trade pattern. The first is the repeated changes in its political allegiance and boundaries. At the turn of this century Jordan was part of Syria's Ottoman Governorate, and its economy and trade formed a part of Syria's and Palestine's. These economic and trade ties continued even when Transjordan was proclaimed a political entity in 1921, albeit under British control. Furthermore, the strong traditional trade and economic relations with Syria and Palestine remained, despite the changes in Jordan's status in 1946 when the Hashemite Kingdom of Jordan was officially proclaimed. Dramatic changes, however, occurred after the 1948 war with the unification of the West and East Banks of the River Jordan in 1950. In 1967, the West Bank was occupied by Israel thereby confining Jordan to its pre-1950 boundaries. These dramatic shifts in its resource base resulted not only in a great influx of refugees, but also in fundamental changes in the economy and trade.

Added to these volatile political constraints, Jordan, unlike most of her neighbours, was endowed with limited natural resources, the only major resource available for utilisation being phosphate. Due to the limited demand both domestically and internationally, this mineral did not play a significant role in the economic development of the country and exports of it remained relatively small.

This thesis has examined the role of trade in the economic development of Jordan and has involved an assessment of exports, imports and invisible earnings. It has also examined the foreign reserves and monetary development in relation to the trade and balance of payments problem. Several themes have been considered and particular conclusions have already been established. This chapter, however, will be devoted to outlining some of the general issues which have emerged from this particular case-study of the Jordanian trade experience.

[A] In the long run, the balance of payments structure and problems of small developing economies tend to be closely related to their industrial structure.

The interesting feature of the economic development of Jordan is that, despite a relatively high rate of growth achieved during the period 1954-1976, the economy remained basically service-oriented. Manufacturing industry, which was in its infancy in the late fifties has, despite expansion and development through import substitution, continued to account for only a relatively small, although increasing, share of the GDP. Conversely, agriculture's share continued to fluctuate about a declining trend. The particular climatic circumstances during the past 30 years or so, and the absence of a clear agricultural policy, have lead to a vicious circle, whereby falling output resulted in a decline in investment which led to a further decline in output.

The continued dominance of the service sector was explained as the result of a set of inter-related factors:

a. limited natural resources which could be used as a base for industrial development;

b. the liberal trade policy;

c. the large inflow of imports;

d. the invisible earnings; and,

e. the expansionary budgetary and monetary policy.

Liberal trade policy coupled with a high level of government expenditure has led to a large inflow of imports, which, in turn, have promoted the large service sector necessary to accommodate these imports, as was demonstrated in Chapter One.

[B] The unbalanced industrial structure has been manifest in a uniquely import-biassed trade pattern.

Like other small developing countries, the trade/GDP ratio is high in Jordan, accounting for an average of over 90% between 1954 and 1975. However, Jordan is unusual in two respects; firstly, imports predominate at a high level of almost 60% of GDP; and secondly, within the export sector, invisible trade accounts for some 22% of GDP (and 66.3% of total exports), whilst visibles account for less than 10% of GDP (33.7% of total exports).

While conventional wisdom derived from the experience of developed Western economies presumes that the ratio will tend to decline as GDP grows, the Jordanian experience would seem to be an exception to this rule, for despite growth of GDP, the trade ratio has continued to increase. Only in periods of stagnation has the ratio actually declined.

[C] The small size of the visible export sector (as measured by the trade/GDP ratio) has provided a constraint on the development of the economy that has been further reinforced by a lack of industrial diversification both immediately prior to independence and since.

During the period 1954-1976, despite a high rate of growth of 17.1%, exports had little impact on the economic development of Jordan. Unlike most developing countries, particularly those in the Middle East, Jordan

has no natural resources in high international demand. Phosphates, the largest single item of Jordan's exports have faced problems of marketing and transport, and the growth of exports of this commodity has been inhibited by their high production cost, coupled with low demand.

Despite these differences Jordan is similar to the case of most developing countries in that exports are concentrated in primary products, with manufacturing exports contributing only a very small proportion of the total. This concentration is closely associated with limited developmental linkages and a high degree of income volatility. Imports account for over 50% of the input necessary for the production of exported commodities. The only industrial export group which has created some secondary impact has been manufacturing, yet this sector depends for over 50% of its inputs on imports. Phosphates have had little linkage effect on the domestic economic sectors, with the exception of construction. This is also the case with agricultural exports.

The high degree of industrial export concentration is typical of many other developing countries, with the usual implication of vulnerability to foreign exchange earnings fluctuations. In Jordan's particular case this has meantthat in general an increased financial burden has been placed on the government budget as a result of subsidies paid to certain export industries. This has led to a concomitant loss of revenue that might otherwise be derived from tax on profits and dividends. This has had two consequences:

a the economic impact of the fluctuations has been severely felt in the agricultural sectors, where farmers are not financially protected against fluctuations; and

b the level of investment expenditure in the exports sector has closely reflected the instability profile.

[D] Positive export promotion policies are a necessary condition for steady growth.

Jordanian trade policies have in the past concentrated development efforts on import substitution, without any positive intervention through direct or indirect measures particularly designed for export promotion. The potential benefits from foreign exchange control and/or the use of particular monetary instruments have been ignored. Trade strategy has only been concentrated on bilateral and multilateral trade agreements, but even these have had little impact on export promotion, essentially because they have been concluded on political rather than economic grounds. Increases in exports havebeen the result of a natural increase in demand in foreign markets rather than the impact of such trade agreements. The only exception to this trend has been the phosphate agreements with India and Yugoslavia and the recently concluded agreement with Syria.

[E] Jordanian trade policy has been too passive and has not attempted to explore the advantages of the high income effect of other developing countries that might have promoted positive export diversification.

Neighbouring Arab countries represent the main markets for Jordan's exports. Indeed, with the rise in demand, exports to these markets increased notably between 1954 and 1966. However, such an increase was relatively small when compared with the much greater demand in the oil producing countries. Jordan's share in this market did in fact decline between 1972 and 1975, despite a substantial increase in the value of exports. This was mainly due to the lack of any national export promotion policy rather than competition from the manufacturing products of developed countries. The focus of policy has been biassed by (i) the large inflow of aid made available to the country, which

constituted the most important part of foreign exchange receipts and (ii) the large amount of imports which has directed government policies to import substitution, ignoring export promotion as an alternative/ compensatory method of industrialisation and reducing the trade deficit.

[F] The trade gap has not been corrected but on the contrary, reinforced by the policy measures adopted.

On the one hand, due to the wide gap between domestic supply and domestic demand, imports have made available resources necessary to increase per capita income and achieve sustained growth. On the other hand, free access to the inflow of imports, through a liberal trade policy and the maintenance of the inflow of foreign aid, have played an important role in the continuing prevalence of the domestic gap, and in furthering the need for more imports.

[G] The direct positive short-term effect of invisible earnings on the balance of payments has been largely outweighed by the long-term effect on economic development.

Unlike visible trade, invisible trade has always been (with the exception of 1968 and 1969) in surplus. Yet this surplus has not been enough to finance the visible trade gap, and Jordan's need for foreign aid has continued to increase. Remittances, investment income and tourism have all tended to reinforce the service orientation of the economy and have increased the pressure on domestic resources, thus furthering the need for imports and widening the trade gap. Analysis of each main source revealed the following issues.

a) Tourism - Although severely disrupted during the political instability of 1967-1971, tourism has shown a rapid growth. The number of tourists arriving in the country, and the income deriving from them, has notably

increased, This study rejects the argument put forward by some officials, that tourism can be a leading sector in Jordan. This rejection is based on the following: limited linkages with other economic sectors; its small contribution to GNP; and the high level of import content in tourist expenditure. The high multiplier effect of tourist expenditure is considerably reduced once imports are included. Clearly the exclusion of the import costs has considerably over-exaggerated the benefits from expenditure of this sector.

b) Investment income - The impact of the surplus derived from investment income account is determined by the sources and uses of this surplus.

The source of Jordan's investment surplus was shown to be the result of a large inflow of interest on foreign assets abroad, relative to the small payments for foreign loans and foreign investment inside Jordan.

Unlike other developed and developing countries, Jordan's foreign assets are not the result of indigenous economic performance, but of the inflow of foreign aid. This inflow has been largely misallocated by the government sector being directed to finance government current rather than capital expenditure. Furthermore, it has been shown that with the help of the Central Bank, the government has been using this source of income to obtain short term credit from the Central Bank, thus furthering both monetary expansion and the expansion of government consumption, which has led to negative effects on the balance of payments.

The low dividend payments for private long term foreign investment were explained simply by the limited amount of this investment in Jordan.

The reason for this was shown to be an interaction of Jordan's lack of domestic resources, with the political instability in the area, given the general characteristics of private foreign investment. Despite several legislative and administrative efforts which started in 1953, private foreign investment in Jordan has remained negligible and is unlikely to play a major role in the economy in the foreseeable future. Even though a considerable amount of new private foreign investment was transferred to Jordan between 1974 and 1976, this was a temporary inflow caused by political disturbances in the Lebanon. The fact that this inflow was concentrated in the banking, insurance and service sectors, must raise the question of whether this form of foreign investment is desirable for Jordan.

Analysis of foreign debt repayments has shown that although the debt ratio in Jordan is relatively small, the actual debt burden of the country is high and similar to other developing countries. The exclusion of payments for military loans and of interest on government bills and securities held by non-residents, and the fact that most of the foreign loans were taken up in the sixties, are the main reasons for the low figure of payments in the investment income account. The increase in the amount of foreign loans received between 1970 and 1976 will put extra pressure on the balance of payments in the future. This pressure will be magnified in Jordan because these loans have not been directed either towards export promotion or towards import substitution.

[H] The national benefits from remittances of workers abroad not only represent insufficient compensation for the loss incurred by labour migration, but the way in which these remittances have been used has inhibited economic development.

Although these remittances would normally have been considered in a discussion of the invisible surplus, their growing importance, particularly

in the closing period of this study, demanded not only a micro-economic analysis of remittances but also consideration of the general macro impact of migration. This subject, despite its importance in the Middle East, has received little attention in either labour exporting or labour importing countries and this is reflected in the fragmentary information which is all that is available. However, the analysis of the available data has shown some of the gains and losses which Jordan has experienced originating from migration and remittances. The following general conclusions are often made:

(i) Migration is part of a widespread movement of labour from non-oil producing countries to oil-producing ones.

The economic expansion, resulting from a sudden increase in oil revenues, created in oil-producing countries a demand for both skilled and unskilled labour, which was met by an inflow of migrants mainly from neighbouring Arab countries. Although the number of Jordanians responding to this increased demand is not precisely known, it was estimated in 1976 that one third of Jordan's labour force was working outside the country. Most of these are skilled workers, or professional and educated labour. Thus, Jordan provides an example of a type of migration which economic analysts have so far ignored. Consequently, the impact of migration on Jordan's economic development has been shown to be materially different in a number of ways from the impact which conventional analysis assumes.

(ii) Emigration may help the development of a labour supplying economy, by assisting the spread of new methods and skills.

In the oil-producing countries, Jordanians are providing skills rather than acquiring new ones. The fact that in terms of employment, the services sector in those countries is the largest one and consequently

absorbs the bulk of migrants, means that few new skills can be acquired there which are not obtainable in Jordan. The small proportion of migrants who are working in the oil industry are, in fact, learning skills which are irrelevant to Jordan's economic needs. In addition, it has been shown that among migrants, those with relatively higher wages tend to stay for the length of their working lives, and again, the question of skills becomes irrelevant. Indeed it has been shown that workers abroad will only return home for social and political reasons, but there they will be consumer rather than producer units.

(iii) Emigration may help economic development through balancing the labour market.

While the labour outflow may have lessened the unemployment problem in Jordan during the fifties and the sixties, this has since reinforced the shortage of skilled and unskilled labour. This is evident in the increase in wages and in the increasing number of foreign workers coming into Jordan. The economic consequences of this labour shortage were felt in the agricultural as well as manufacturing sectors and in some cases in the civil service. This has been reflected not only in forgone production but also in increasing costs, thus accelerating inflationary pressures.

(iv) Emigration may assist development, through the domestic impact of remittances on investment.

Jordan's experience is that the remittances have contributed to the consumption orientation of the economy and consequently this has increased pressure on domestic resources, thus further increasing both prices and imports.

In addition to increasing consumption by migrants' families, remittances have also contributed to the increase of consumption in

general, through a 'demonstration effect'. This was very clear during 1973-1976, when land speculation fed by remittances became a major characteristic of the Jordanian economy. The effect was to create new patterns of conspicuous consumption amongst land-owners which were directly reflected in imports of luxury goods. It was also seen to have had an expansionary impact on the money supply, directly through increasing the level of liquidity of the commercial banks, and indirectly through short term credit for the trade sector.

From the above-mentioned points it is clear that, while migration of labour is the result of interaction between 'push' factors in the labour exporting country and 'pull' factors (higher wages) in the host oil countries, the economic impact on the former countries may be to further increase emigration by reinforcing the 'push' factors.

[I] Excessive foreign reserves can negatively influence economic development by preventing or postponing the implementation of necessary measures to correct an imbalanced trade and industrial structure.

Reform of Jordan's colonial financial and monetary system began in 1963 with the establishment of the Central Bank and the adoption of new foreign reserves policies. Foreign reserves holdings have been diversified to include convertible currencies other than sterling, the only previous component of Jordan's reserves during the Currency Board system. While commercial banks used to hold over 30% of Jordan's total official reserves, this ratio declined to only 5% during 1968-1975, due to the new centralisation policy of the Bank. However, despite institutional development, Jordan continued to hold excessive reserves in relation to the level needed for its transactions and as a precautionary measure. This was demonstrated by calculating the conventional reserve/import ratio and using a simple model to estimate Jordan's needs.

The reserve/import ratio was shown to be higher than that for similar less developed countries and higher than the more fortunate developed countries. A model based on the Keynesian paradigm was used to estimate the precautionary and transactionary demand for reserves in Jordan, and implied that the average level for foreign reserves in Jordan might exceed demand by over 20%.

This analysis led to the refutation of official arguments justifying the high level of reserves as essential for ensuring the convertibility of the Jordanian Dinar and attracting foreign loans and investment. The main reason for such a high level of reserves was shown to lie in the relationship between the industrial structure of the economy and the financing of reserves through aid. Maintaining the high level of consumption through a large inflow of imports has been the prime objective of policy makers. The analysis concluded that the high level of reserves was necessary to maintain the level of imports needed to satisfy consumption.

[J] The receipt of high interest on foreign exchange reserves is small compensation for the direct and indirect loss resulting from holding excessive reserves.

Depreciation in the purchasing power of the major reserve currencies, especially during the period 1973-1975, has resulted in a large capital loss to Jordan's reserves. The greatest loss was found in the holdings of sterling, followed by the loss in the holdings of US dollars. In addition to the direct cost, the holding of excess reserves involved a high element of opportunity cost. The high implicit cost of holding excess reserves was quantitatively indicated.

K The basic feature of an underdeveloped monetary system is that money in circulation with the general public is the major component of money supply.

The analysis has shown that although the evaluation of Jordan's financial system has, to a large extent, followed a similar path to that of developed countries, the basic nature of the system remains underdeveloped. The monetisation of the economy began with the establishment of new financial institutions and the introduction of new financial instruments. This was reflected in the increase in the cash ratio (ratio of money to GNP) from the low level of 27% in 1952 to over 60% in 1976. Nevertheless, for political, economic and financial reasons stemming from the underdeveloped state of the system, the proportion of money held by the public remains remarkably high, and similar to that found in other developing countries.

The money supply has always been determined by factors which go beyond the control of the monetary authorities. The chief factors determining the level of money supply during the Currency Board period was shown to be the condition of the balance of payments. The increase in the level of reserves created by the inflow of aid to finance the balance of payments permitted the money supply to increase automatically. Although this policy of a one to one relationship between foreign reserves and the money supply continued to operate once the Central Bank was established, nevertheless for the first time some attempt was made to control the money supply by means of a credit policy.

Since its inception, the Central Bank has emphasised that credit should be related to the needs of the economy as a whole. Several measures have been adopted to encourage the commercial banks to both increase credit and correct their past trade-biassed preferences. It

was shown that this particular credit policy lacked an overall developmental objective, resulting in purely monetary expansion which intensified the pressure on domestic resources, thereby increasing both imports and prices. Chapter Six indicated that in practice, neither private sector credit nor public sector credit was actually under the control of the Central Bank.

Government borrowing, a recent phenomenon in Jordan's fiscal and monetary development, has been solely determined by budgetary considerations. The monetary authorities facilitated such credit availability on the assumption that it would increase the government's role in promoting development of the physical productive sectors. However, it has been shown that all forms of government borrowing since 1970 have been directed towards current, rather than developmental, expenditure.

[L] The high liquidity element of Treasury Bills as well as government development bonds has contributed to the liquidity of the banking system at a time when the prime objective of monetary policy was to reduce this liquidity and bring it under control.

Due to the inability of the Central Bank to control commercial bank credit, trade continued to account for the largest proportion (over 50%) of total credit whilst the share of manufacturing industry and agriculture remained relatively low. Even when the Central Bank used direct credit ceilings, credit nevertheless continued to expand unrelated to the precise targets set by the Bank.

Given the trade bias in the commercial bank credit structure, the alternative sources of finance for the productive sector have been assumed to be through the establishment of specialised credit institutions. Despite the increase in the number of these institutions and the increasing volume of their credit they have so far played a limited role in both

increasing the level of savings and channelling the available resources to the agricultural and manufacturing industries. The expansion in credit activities of these has been small in relation to the expansion of the commercial banks' trade credit. Apart from the Housing Bank, which has played a key role in the expansion of an already large construction sector, the ratio of the specialised credit institutions to overall credit has in fact declined from 27% in 1966 to only 16.6% in 1976. Obviously this declining ratio resulted from the large increase in commercial bank credit, rather than from the decline in the activities of specialised institutions.

From this analysis we can conclude that credit control in a small developing country will not necessarily lead to the originally intended objectives, unless financial markets are established and the liquidity of the commercial banks is brought under control.

The basic problem facing the monetary authorities has been the excessive liquidity of the banking system. The commercial banks, for important historical reasons, tend to maintain a high level of liquidity. This has been magnified in the particular case of Middle Eastern economics where political and economic instability has been a basic, and almost permanent, feature. In addition, the Central Bank, by adhering to the one to one ratio and together with the expansion of highly liquid financial instruments, has also contributed to the problem.

[M] The rigidity of interest rates may render monetary policy ineffective.

Despite an annual inflation rate of 20% since 1973, no significant change has taken place in the official interest rate level, and the constitutionally laid down rate has a maximum limit of 9% which has not

been revised to take into account the new monetary circumstances. The consequent fall in the real monetary value of interest rate payments has played a major role in contributing to the overall expansion in credit. Thus, although traditional attitudes towards interest rates, as embodied in Jordanian financial legislation, reflects Islamic moral values, economic considerations would seem to question their continued application, if present monetary conditions persist.

[N] The need for a realistic foreign exchange rate policy.

Although in general an unchanging exchange rate value can be considered an indicator of the strength and stability of an economy, in the particular case of Jordan this is not the case as it arises from an over-valued currency which, although artificially supported by a persistent aid inflow, nevertheless applies to an economy that is inherently failing to correct its real structural position (as Chapters Six and Seven show).

Naturally, certain aspects of these conclusions, especially those regarding the role of invisible trade and foreign exchange policies, were of necessity tentative in their quantitative significance. This could be seen in the analysis of the role of remittances of Jordanians working abroad and the role of the foreign exchange market. Full assessment of these roles would need detailed statistics.

This study has given special significance to, inter alia, the role of remittances of Jordanians working abroad and the role of the foreign exchange market. In the absence of comprehensive official statistics in the case of the former, and full information and knowledge on the latter, it has not been possible to quantitatively assess these aspects

of the Jordanian monetary and trade position. Consequently the analysis has had of necessity to be impressionistic and tentative in certain aspects. This is, however, a general problem facing the researcher in these areas in most countries. For instance, even the full statistical services and expertise of an advanced country such as the United Kingdom, did not make possible a full examination of the workings of the British monetary system by the Radcliffe Committee in the 1950s. It would seem, from the arguments presented in this thesis, that such research is essential in the aforementioned areas, in order to fully assess the adverse effects present policies are having on the developmental achievements and future potential of the Jordanian economy.

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STATISTICAL APPENDICES

Appendix 1: Industrial origin of Gross Domestic Product, 1954-1959 (in JD million)

	1954	1955	1956	1957	1958	1959
1. Agriculture and forestry	14.2	6.2	19.0	12.8	12.9	10.5
2. Mining, manufacturing and electricity	4.2	5.2	6.3	6.8	7.6	7.9
3. Construction	1.2	1.5	1.7	1.9	2.4	3.7
4. Transport	4.4	5.5	6.8	8.3	9.0	9.7
5. Trade and banking	9.3	9.3	10.5	12.0	14.4	16.2
6. Ownership of dwellings	2.3	2.3	2.9	3.1	3.3	4.2
7. Public administration and defence	9.1	9.7	11.5	13.3	15.6	16.1
8. Other services	3.0	3.3	2.7	3.7	3.9	6.0
Gross Domestic Product at factor cost (GDP)	47.7	43.0	61.4	61.9	69.1	73.3

Source: R. S. Porter, Economic Trends in Jordan, 1954-1959, Beirut Middle East Division, (July 1961).

Appendix 2: Industrial Origin of Gross Domestic Product, 1960-1975 (in JD million)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975*
Agriculture, forestry and livestock	14.62	25.30	20.90	22.08	34.14	34.11	27.65	38.74	27.53	36.34	28.66	37.81	42.45	31.92	54.48	26.00
Manufacturing and Mining	6.89	8.83	8.06	10.62	12.53	16.22	17.27	17.50	20.05	23.12	19.77	20.56	25.23	28.60	49.11	48.80
Construction	4.50	4.50	6.15	6.12	5.45	7.87	9.28	8.69	9.83	10.89	7.79	7.50	9.67	15.30	17.00	16.10
Electricity and water supply	0.69	0.67	0.74	0.93	1.03	1.68	2.26	1.78	2.27	2.09	2.35	2.73	2.90	3.47	3.66	3.10
Transportation	11.12	12.64	12.53	12.77	12.03	12.60	14.42	14.84	14.55	16.01	15.91	16.20	18.09	19.95	25.29	24.90
Wholesale and retail trade	19.57	24.28	23.63	26.43	28.01	31.43	28.92	39.08	29.07	38.36	38.00	39.00	42.50	45.00	52.00	43.90
Banking and finance	0.87	1.27	1.46	1.35	1.51	2.11	2.77	3.40	2.97	4.20	4.19	3.37	3.38	3.36	3.80	4.30
Ownership of dwellings	7.13	8.01	8.58	9.39	9.93	10.69	11.20	11.90	12.33	12.78	13.61	14.41	15.19	16.00	17.40	15.70
Public administration and defence	15.79	16.74	17.06	17.61	19.70	21.41	22.03	26.01	33.25	36.28	37.94	39.00	41.00	49.57	54.76	56.10
Services	8.26	8.63	9.51	10.37	11.19	12.83	13.94	15.17	16.64	18.27	21.34	22.00	23.75	26.14	31.00	30.60
GDP at factor cost	89.44	110.87	108.62	117.67	135.52	150.95	149.74	177.11	168.49	198.34	189.56	202.58	224.16	239.31	308.60	269.50
Indirect taxes	8.86	9.27	10.28	11.39	13.43	16.66	20.89	17.60	18.42	21.35	20.30	20.84	25.00	29.20	33.36	37.00
GDP at market price	98.30	120.14	118.90	129.06	148.95	167.61	171.63	194.71	186.91	219.69	209.86	223.42	249.16	268.51	341.96	306.50

* East Bank only.

Source: Pertaining the years 1960-1970, see The Dept. of Statistics, National Income Accounts, Amman (May 1973).
Pertaining the years 1970-1975, see Central Bank of Jordan, Monthly Statistical Bulletin (February 1978).

Appendix 3 : Jordan Balance of Payments, 1950-1976 (in JD million)

	1950		1951		1952		1953		1954		1955		1956		1957		1958		1959	
	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
A. Goods and Services	4.01	14.71	4.22	17.57	4.97	18.78	5.99	19.98	7.56	20.44	8.48	27.03	10.18	26.63	13.56	36.78	11.82	36.61	9.38	42.63
1. Merchandise	1.95	13.48	2.00	16.18	2.11	17.15	2.66	18.21	3.05	18.59	3.54	25.26	5.11	24.61	5.48	29.76	3.43	33.92	3.35	39.26
2. Travel	0.88	0.83	1.08	0.98	1.29	1.17	1.68	1.32	2.21	1.33	2.45	1.12	1.49	0.90	1.22	1.68	1.22	1.61	2.85	1.93
3. Investment income	0.02	0.12	0.03	0.09	0.05	0.09	-	0.12	0.15	0.15	0.31	0.25	0.43	0.48	0.93	0.22	0.73	0.12	0.67	0.18
4. Government, n.i.e.	0.57	0.22	0.74	0.19	0.89	0.25	1.06	0.21	0.71	0.21	1.34	0.30	1.17	0.42	2.82	4.82	2.89	0.27	1.05	0.82
5. Receipt from Jordanians Abroad	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Other services	0.59	0.06	0.36	0.13	0.63	0.12	0.59	0.12	1.44	0.16	0.84	0.09	1.98	0.22	3.11	0.30	3.55	0.71	1.46	0.44
Net goods and services	-	10.70	-	13.35	-	13.81	-	13.99	-	12.88	-	18.55	-	16.45	-	23.22	-	24.81	-	33.25
Net merchandise	-	11.53	-	14.18	-	16.04	-	15.55	-	15.54	-	21.72	-	19.50	-	24.28	-	30.49	-	35.91
Net services (2 through 8)	0.83	-	0.83	-	1.23	-	1.56	-	2.66	-	3.17	-	3.05	-	1.06	-	5.68	-	2.66	-
8. Unrequited Transfers	6.92	-	8.94	-	11.75	-	14.60	-	14.27	-	15.43	-	14.80	-	16.89	-	23.91	-	25.52	-
7. Private	1.56	-	2.03	-	2.30	-	2.34	-	1.65	-	n.a.	-	n.a.	-	n.a.	-	n.a.	-	n.a.	-
8. Central Government	5.36	-	6.91	-	9.45	-	12.26	-	12.62	-	15.43	-	14.80	-	16.89	-	23.91	-	25.52	-
C. Allocation of SDRs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D. Capital and Monetary Gold	4.59	-	3.60	-	1.31	-	-	0.84	-	1.55	-	0.73	-	2.67	1.72	-	-	1.96	1.20	-
1. Nonmonetary sector	1.00	-	0.78	-	1.89	-	1.02	-	2.44	-	1.99	-	2.19	-	3.63	-	1.58	-	0.61	-
9. Private	-	-	0.25	-	0.12	-	0.10	-	-	-	-	-	0.25	-	0.30	-	0.58	-	0.11	-
9.1 Liabilities	-	-	0.25	-	0.12	-	0.10	-	-	-	-	-	0.25	-	0.30	-	0.58	-	0.11	-
9.2 Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10. Local Govt. liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. Central Govt. n.i.e.	1.00	-	0.53	-	1.77	-	0.92	-	2.44	-	1.99	-	1.94	-	3.33	-	1.00	-	0.50	-
11.1 Liabilities	1.00	-	-	-	1.05	-	0.72	-	1.30	-	1.29	-	1.86	-	4.68	1.30	1.13	0.13	0.50	-
11.2 Assets	-	-	0.53	-	0.72	-	0.20	-	1.14	-	0.70	-	0.08	-	-	-	-	-	-	-
11. Monetary sector	3.59	-	2.82	-	-	0.58	-	1.86	-	3.99	-	2.72	-	4.86	-	1.91	-	3.54	0.59	-
Net errors and omissions	-	0.81	0.81	-	0.75	-	0.23	-	0.16	-	3.85	-	4.32	-	4.61	-	2.86	-	6.53	-

Source: International Monetary Fund, Balance of Payments Year-book, Washington DC, n.d. For 1950-54, vol. 8; for 1955-59, vol. 12; for 1960-63, vol. 16; for 1964-68, vol. 21; and for 1968-76, Central Bank of Jordan, Statistics pertaining to some aspects of the Jordanian Economy (October 1974), Central Bank, Monthly Bulletin (June 1977).

Appendix 3 : continued

	1960		1961		1962		1963		1964		1965		1966		1967		1968		1969	
	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
A. Goods and Services	17.01	45.83	20.55	46.08	23.89	50.75	25.17	61.35	32.70	57.10	37.20	64.10	41.60	77.10	36.80	64.60	37.20	81.60	46.01	108.63
1. Merchandise	3.95	41.43	5.27	40.93	5.92	43.51	6.56	53.63	8.80	49.40	9.90	55.80	10.40	67.30	11.30	54.20	14.30	57.30	14.75	67.54
2. Travel	3.23	2.22	4.34	2.44	5.05	3.42	6.00	3.20	8.00	3.60	9.80	4.30	11.30	5.20	6.80	5.30	4.60	7.00	4.53	7.98
3. Investment income	0.62	0.10	1.19	0.20	1.37	0.30	1.11	0.23	1.70	0.40	2.60	0.50	3.70	0.50	4.40	0.80	5.80	0.90	6.85	0.81
4. Government, n.i.e.	1.29	1.05	1.06	0.99	1.30	1.39	1.19	2.53	1.10	1.50	1.90	1.70	1.70	2.00	4.50	1.80	6.30	13.80	10.69	29.24
5. Receipt from Jordanians Abroad	6.24	-	5.25	-	6.20	-	6.17	-	9.30	-	9.10	-	10.60	-	6.60	-	4.10	-	6.92	-
6. Other services	1.68	1.03	3.44	1.52	4.05	2.13	4.14	1.76	3.80	2.20	3.90	1.80	3.90	2.10	3.20	2.50	2.10	2.60	2.27	4.06
Net goods and services	-	28.82	-	25.53	-	26.86	-	36.18	-	24.40	-	26.90	-	35.50	-	27.80	-	44.40	-	63.62
Net merchandise	-	37.48	-	35.66	-	37.59	-	47.07	-	40.60	-	45.90	-	56.90	-	42.90	-	43.00	-	52.79
Net services (2 through 8)	8.66	-	10.13	-	10.73	-	10.89	-	16.20	-	19.00	-	21.40	-	15.10	-	-	1.40	-	10.83
B. Unrequited Transfers	26.88	-	26.28	-	25.21	-	24.14	-	28.50	-	29.50	-	34.10	-	53.90	-	54.50	-	47.34	-
7. Private	1.39	-	1.72	-	1.74	-	1.62	-	1.90	-	2.70	-	2.70	-	2.30	-	1.40	-	1.55	-
8. Central Government	25.49	-	24.56	-	23.47	-	22.52	-	26.60	-	26.80	-	31.40	-	51.60	-	53.10	-	45.79	-
C. Allocation of SDRs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D. Capital and Monetary Gold	0.83	-	-	1.64	2.81	-	9.51	-	-	10.90	-	3.60	-	3.70	-	31.20	-	11.40	16.26	-
1. Nonmonetary sector	0.90	-	1.25	-	6.03	-	1.36	-	6.20	-	2.60	-	5.20	-	2.00	-	4.90	-	5.34	-
9. Private	0.41	-	0.31	-	0.56	-	1.32	-	0.30	-	0.30	-	0.30	-	-	-	-	0.10	0.80	-
9.1 Liabilities	0.50	0.08	0.54	0.08	1.30	0.03	1.50	0.02	0.40	0.50	-	-	-	-	0.10	0.10	-	-	0.80	-
9.2 Assets	-	0.01	-	0.15	-	0.71	-	0.16	0.40	-	0.30	-	0.30	-	-	-	-	0.10	-	-
10. Local Govt. liabilities	-	-	-	-	-	-	0.01	-	-	-	0.10	-	0.10	-	0.30	-	-	-	0.04	-
11. Central Govt. n.i.e.	0.49	-	0.94	-	5.47	-	0.03	-	5.90	-	2.20	-	4.80	-	1.70	-	5.00	-	4.50	-
11.1 Liabilities	1.50	-	0.50	-	1.26	-	3.82	0.58	7.00	0.80	2.60	0.70	5.40	1.20	2.20	1.00	5.50	1.00	4.67	0.80
11.2 Assets	-	1.01	0.47	0.03	4.21	-	-	3.21	-	0.30	0.30	-	0.60	-	0.40	-	0.50	-	0.63	-
11. Monetary sector	-	0.07	-	2.89	-	3.22	8.15	-	-	17.10	-	6.20	-	8.90	-	33.20	-	16.30	10.92	-
Net errors and omissions	1.11	-	-0.89	-	-	1.16	2.53	-	6.80	-	1.00	-	5.10	-	5.10	-	1.30	-	0.02	-

Appendix 3 : continued

	1970		1971		1972		1973		1974		1975		1976	
	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
A. Goods and Services	44.09	90.67	40.42	98.30	51.94	118.92	76.82	137.62	114.36	198.16	185.84	304.17	332.34	431.55
1. Merchandise	12.17	65.53	11.44	76.19	17.01	94.88	18.98	107.80	49.75	155.68	48.38	232.94	68.71	338.74
2. Travel	4.85	9.43	6.35	9.69	8.30	11.27	10.71	11.28	17.29	17.43	35.72	33.76	68.86	32.14
3. Investment income	6.77	0.65	5.75	0.98	4.39	1.05	6.34	1.26	8.81	2.11	11.33	3.10	12.99	4.74
4. Government, n.i.e.	11.86	11.29	3.67	5.12	1.40	5.28	2.03	10.26	2.02	12.65	5.91	14.68	5.67	27.57
5. Receipt from Jordanians Abroad	5.54	-	4.97	-	7.41	-	14.70	-	24.13	-	53.25	-	136.46	41.80
6. Other services	2.9	3.86	8.24	6.32	13.43	6.44	24.06	7.02	-	-	-	-	-	-
Net goods and services	-	46.58	-	-	-	66.98	-	60.80	-	83.80	-	118.33	-	99.21
Net merchandise	-	53.36	-	-	-	77.87	-	83.63	-	105.93	-	184.06	-	270.03
Net services (2 through 8)	6.78	-	6.87	-	-	-	-	-	-	-	-	-	-	-
B. Unrequited Transfers	40.65	-	36.61	-	68.29	-	64.60	-	86.85	0.11	140.36	0.56	127.85	1.30
7. Private	1.57	-	1.12	-	2.33	-	3.51	-	2.42	0.11	2.35	0.56	5.10	1.30
8. Central Government	39.68	-	35.49	-	65.96	-	61.09	-	84.43	-	138.01	-	122.75	-
C. Allocation of SDRs	0.96	-	0.88	-	0.88	-	-	-	-	-	-	-	-	-
D. Capital and Monetary Gold	1.78	-	18.56	-	-	0.40	-	6.03	4.14	-	-	6.63	-	28.85
i. Nonmonetary sector	0.26	-	6.74	-	6.31	-	6.45	-	10.88	-	44.11	-	-	31.19
9. Private	-	1.35	-	1.28	-	0.38	-	1.14	1.04	-	6.30	-	3.40	-
9.1 Liabilities	-	0.20	0.05	1.22	3.50	0.12	0.67	-	2.16	0.03	4.18	0.14	6.81	9.30
9.2 Assets	-	1.15	-	0.11	0.61	-	-	1.81	0.10	1.17	-	1.98	-	0.94
10. Local Govt. liabilities	0.19	-	0.22	0.04	0.02	0.04	0.01	0.02	0.41	0.06	0.41	0.06	0.13	0.04
11. Central Govt. n.i.e.	1.42	-	7.84	-	6.71	-	7.60	-	9.47	-	37.42	-	-	27.88
11.1 Liabilities	2.95	1.37	9.41	1.74	10.76	4.18	7.60	-	14.45	5.19	49.01	10.94	25.09	53.02
11.2 Assets	-	0.16	0.17	-	0.13	-	0.06	-	0.21	-	-	0.64	0.05	-
ii. Monetary sector	1.52	-	11.82	-	-	6.71	-	12.48	-	6.74	-	50.74	2.34	-
Net errors and omissions	3.19	-	1.83	-	-	1.79	2.23	-	-	7.08	-	14.84	1.51	-

Appendix 4: Resources and their uses at domestic prices, 1954-1975 (in JD million)

Year	Resources		Total resources	Uses		
	GDP	Imports		Consumption	Investment	Exports
1954	51.3	19.8	71.10	59.1	5.9	6.1
1955	47.3	26.8	74.10	61.7	6.1	7.3
1956	66.6	26.2	92.80	69.7	13.7	9.4
1957	67.4	32.4	99.80	79.8	9.3	10.7
1958	75.2	36.4	111.90	92.8	8.2	9.9
1959	93.53	43.3	136.90	112.6	12.6	11.8
1960	98.30	47.05	145.30	115.5	17.1	12.8
1961	120.14	46.63	166.77	130.9	19.0	17.0
1962	118.90	51.80	170.70	131.4	20.2	19.1
1963	129.06	61.06	190.12	149.8	20.0	20.3
1964	148.95	56.65	205.60	155.8	25.3	24.6
1965	167.61	63.55	231.16	174.8	27.8	28.5
1966	170.63	76.60	247.23	187.71	28.1	32.1
1967	194.71	63.68	258.39	205.0	25.6	27.7
1968	186.91	90.98	277.89	212.0	37.5	28.3
1969	219.69	108.69	328.38	231.6	64.4	32.3
1970	209.86	89.89	299.75	227.1	40.1	32.2
1971	223.42	93.01	316.43	245.9	49.8	20.8
1972	239.50	101.01	340.51	262.0	44.1	34.2
1973	268.51	136.36	404.87	303.41	51.17	50.29
1974	341.96	184.63	526.59	357.64	83.44	85.51
1975*	306.50	304.36	620.30	398.15	92.65	129.50

* East Bank only.

Source: (1) R. S. Porter: Economic Trends in Jordan, Middle East Development Publication, Beirut (July 1961).
(2) Jordan Dept. of Statistics, The National Accounts, 1959-1966 (Amman: Dept. of Statistics, passis); and 1967-1972 (Amman: Dept. of Statistics, May 1973).
(3) Central Bank of Jordan, Monthly Bulletin (January 1978).

Appendix 5: Receipts and the estimated inflow of foreign exchange in Jordan (in JD million)

	1969		1970		1971		1972		1973		1974		1975	
	Estimate	Banking System	Estimate	Banking System	Estimate	Banking System	Estimate	Banking System	Estimate	Banking System	Estimate	Banking System	Estimate	Bankin System
1. Export proceeds	14.75	4.20	12.17	3.40	11.44	3.01	4.93	17.01	9.66	18.98	29.43	49.75	48.88	23.54
2. Tourism	4.50	0.30	4.22	0.10	3.10	0.57	0.20	3.30	0.54	10.71	0.55	17.29	35.72	2.32
3. Jordanians working abroad	13.82	6.92	7.26	3.63	8.96	4.48	7.41	14.32	14.70	29.40	19.68	39.36	93.72	46.86
4. Others	15.00	--	10.00	--	5.00	--	--	--	--	--	--	--	--	--
Total	48.10	11.52	33.65	7.13	28.50	8.06	12.24	40.13	24.90	59.09	49.61	106.40	178.32	72.72

1. Exports from balance of payments estimates.
2. Tourism from balance of payments.
3. Income from Jordanians working abroad was estimated to be twice as much as the receipts of the banking system.
4. Others represents transfers for the Palestinian movements.

Source: Central Bank of Jordan, unpublished data.

Appendix 6: Jordan's Gold and Foreign Exchange Assets During the Period 1965-1975 (in JD million)

Assets	1964		1965		1966		1967		1968		1969		1970		1971		1972		1973		1974		1975	
	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %	Value	Ratio %
Gold	-	-	1.22	2.5	1.218	2.0	2.342	2.7	12.002	11.9	12.008	12.8	12.011	13.2	12.014	13.5	13.045	13.5	13.046	13.1	13.045	11.9	13.046	8.1
Special Drawing Rights	-	-	-	-	-	-	-	-	-	-	-	-	0.960	1.0	1.831	2.1	2.932	3.1	29.20	2.9	2.868	2.6	2.864	1.8
Pound Sterling	26.06	-	40.83	83.4	37.585	63.9	36.532	41.9	36.600	36.2	32.069	34.2	33.549	36.7	26.048	29.3	30.485	41.6	25.270	25.3	15.317	14.0	2.721	1.7
U.S. Dollar	-	-	6.82	13.9	19.330	32.9	23.829	27.3	21.117	20.9	21.269	22.7	17.601	19.3	13.180	14.8	17.532	18.2	11.199	11.2	21.277	19.5	47.353	29.
Deutsche Mark	-	-	-	-	0.699	1.2	2.930	3.3	13.914	13.8	11.725	12.5	12.721	13.9	14.697	16.4	15.493	16.1	24.924	25.0	29.381	26.9	35.754	22
Swiss Franc	-	-	-	-	-	-	12.271	14.1	12.663	12.4	13.362	14.3	12.557	13.8	13.220	14.9	7.637	7.9	10.032	10.1	13.874	12.7	21.800	13.
French Franc	-	-	-	-	1.000	0.0	8.668	9.9	4.789	4.7	1.288	1.4	1.214	1.3	7.343	8.3	-	-	8.887	8.9	3.952	3.6	10.144	6.
Belgian Franc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.936	2.7	9.340	5.
Netherland Guilder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.366	3.1	9.343	5.
Others	-	-	0.09	0.2	2.0	0.0	0.664	0.8	0.068	0.1	2.005	2.1	0.689	0.80	0.520	0.60	9.256	9.60	3.489	3.50	3.339	3.0	8.128	5.
Total	26.06	-	48.86	100	58.835	100	87.236	100	101.153	100	93.726	100	91.302	100	88.853	100	96.380	100	99.767	100	109.356	100	160.493	10

Source: Central Bank of Jordan, Central Accounting Division, Unpublished table on Jordan's foreign assets.

Appendix 7: Capital Gain or Loss for Jordan Foreign Reserves (in thousands of the currency unit concerned)

Year	1 Average Balance	2 Present Value	3 Balance 2 - 1	4 Average Interest Rate	5 Ratio 3/1	6 Gain or loss (5-4)
STERLING						
1970	31,796	-	-	9.74	-	-
1971	31,615	29,939	1,676	9.31	5.30	+4.01
1972	27,394	23,371	4,023	6.70	14.69	-7.99
1973	32,323	21,973	10,350	10.05	32.02	-21.97
1974	30,349	12,838	17,511	12.65	57.70	-45.05
1975	9,461	1,937	7,524	14.2	79.53	-65.33
U.S. DOLLAR						
1970	64,536	-	-	7.09	-	-
1971	50,056	48,457	1,599	7.26	3.19	+4.08
1972	38,313	34,924	3,389	5.94	8.85	-2.91
1973	43,494	31,948	11,456	7.37	26.55	-19.18
1974	50,450	23,513	26,937	10.75	53.39	-42.64
1975	132,272	35,167	97,105	8.10	73.41	-65.31
SWISS FRANC						
1970	168,180	-	-	6.58	-	-
1971	153,584	147,677	5,907	6.82	3.85	+2.97
1972	88,739	78,281	10,458	3.64	11.79	-8.15
1973	88,824	69,690	19,134	4.52	21.54	-17.02
1974	106,485	66,040	40,445	7.17	37.98	-30.81
1975	162,677	75,856	86,821	8.50	53.37	-44.87
FRENCH FRANC						
1970	9,607	-	-	17.25	-	-
1971	36,027	34,085	1,942	6.91	5.39	+1.52
1972	115,315	102,150	13,165	5.45	11.42	-5.97
1973	113,884	85,784	28,100	6.78	24.67	-17.89
1974	83,736	42,908	40,828	12.17	48.76	-36.59
1975	103,432	33,230	70,202	10.80	67.87	-57.07
DEUTSCHE MARK						
1970	56,446	-	-	16.55	-	-
1971	128,205	125,078	3,127	7.16	2.44	+4.72
1972	133,408	126,118	7,290	5.15	5.46	-0.31
1973	173,525	153,599	19,926	5.50	11.48	-5.98
1974	202,039	145,634	54,405	5.61	27.92	-22.31
1975	289,734	160,404	129,330	9.10	44.64	-35.54

Appendix 8: Money supply and GNP, 1951-1975 (in JD million)

Year	GNP (1)	Currency in circulation (2)	Demand deposits (3)	Time deposits (4)	Money supply (5) (2 + 3 + 4)
1951	-	8.36	5.91	0.73	15.00
1952	49.2	7.72	4.91	0.78	13.41
1953	42.7	8.55	5.08	1.11	14.71
1954	52.5	10.66	6.10	1.48	18.22
1955	48.9	11.13	6.36	3.08	20.57
1956	68.1	14.56	5.68	2.71	22.95
1957	69.5	14.71	7.49	3.50	25.70
1958	26.3	15.16	9.17	3.64	27.97
1959	86.1	15.27	8.97	4.70	28.94
1960	93.9	15.36	10.46	5.13	30.95
1961	127.1	16.97	11.95	6.68	35.60
1962	130.8	19.04	14.43	9.57	43.04
1963	137.6	20.40	16.45	11.18	48.03
1964	160.6	23.12	16.73	13.72	53.57
1965	180.4	26.50	20.77	16.99	64.26
1966	185.6	30.33	25.70	19.79	75.82
1967	206.0	51.52	23.72	8.26	83.50
1968	197.3	63.55	24.43	20.84	108.82
1969	233.7	71.29	24.93	22.61	118.83
1970	222.5	82.43	23.03	23.67	129.13
1971	236.6	83.01	24.97	27.73	135.71
1972	252.4	81.47	33.50	31.50	146.47
1973	291.3	97.48	50.86	27.73	176.07
1974	273.9	115.49	53.94	47.31	216.74
1975	394.9	134.03	79.48	64.23	277.74

Source: (1) International Monetary Fund, IFS Supplement 1972, Washington DC, n.d.
(2) International Monetary Fund, IFS, vol. XXIX, Washington DC, IMF (September 1976).
(3) Central Bank of Jordan, Statistics pertaining to some aspects of the Jordanian economy (October, 1974).
(4) Central Bank of Jordan, Monthly Bulletin (January 1978).

Appendix 9: Money supply and factors affecting it, 1951-1975 (in JD million)

Year	Money supply		Foreign assets		Domestic credit		Other factors	
	Value	%Δ	Value	%Δ	Value	%Δ	Value	%Δ
1951	15.00	-	12.01	-	2.90	-	0.9	-
1952	13.41	-10.6	13.01	8.3	1.67	-43.0	1.27	41.1
1953	14.71	9.0	14.85	14.1	1.26	-24.6	1.40	10.2
1954	18.22	23.8	17.43	17.3	2.48	19.4	1.69	20.7
1955	20.57	12.0	21.46	23.1	2.28	-8.1	3.17	87.5
1956	22.95	11.0	25.18	17.3	0.99	-56.5	3.22	1.5
1957	25.70	11.9	26.84	3.8	2.32	134.3	34.6	7.4
1958	27.97	8.8	30.76	14.6	1.33	-42.6	4.12	19.0
1959	28.94	3.4	30.30	-2.0	2.78	109.0	4.14	-
1960	30.95	6.9	30.84	1.0	4.52	62.5	4.40	6.2
1961	35.60	15.0	34.38	11.4	6.36	40.7	5.12	16.3
1962	43.04	2.1	41.02	19.3	5.97	-6.1	3.94	-23.2
1963	48.03	11.6	34.43	-16.0	19.16	220.9	5.56	41.0
1964	53.57	11.5	49.32	44.1	12.03	-37.2	7.80	40.2
1965	65.26	19.0	56.65	14.2	17.91	48.8	10.31	32.0
1966	74.82	18.2	64.26	13.4	23.55	31.4	12.00	16.3
1967	83.50	10.2	89.74	39.1	12.57	-46.6	8.26	-68.8
1968	108.82	30.5	105.26	17.9	13.36	6.2	9.83	19.0
1969	118.83	9.3	95.19	-9.6	36.12	170.3	12.46	27.0
1970	129.13	8.6	93.69	-2.7	48.44	34.1	13.01	4.3
1971	135.71	5.1	89.08	-5.0	68.20	40.7	22.17	70.0
1972	146.47	8.0	95.89	6.7	70.40	3.2	20.82	-6.1
1973	176.07	20.3	103.36	8.4	98.00	39.2	25.29	21.4
1974	216.74	23.1	113.35	9.7	122.0	24.4	18.60	-26.0
1975	277.74	28.1	163.87	44.2	149.63	22.6	35.76	93.0

Source: (1) International Monetary Fund, International Financial Statistics, 1972 supplement, Washington DC, n.d.
(2) International Monetary Fund, International Financial Statistics, vol. XXIX, Washington DC (September, 1976).

Appendix 10: Liquid assets of commercial banks (in JD million)

Year	Cash	Deposits with Central Bank	Foreign assets	Government bonds	Total
1951	0.98	-	2.67	-	3.65
1952	1.04	-	4.21	-	5.25
1953	0.77	-	5.49	-	6.26
1954	1.36	-	5.39	-	6.75
1955	1.80	-	8.49	-	10.29
1956	2.22	-	8.36	-	10.59
1957	0.92	-	11.17	-	12.09
1958	1.17	-	14.40	-	15.57
1959	0.71	-	14.28	-	14.99
1960	0.77	-	14.27	-	15.04
1961	1.00	-	16.08	-	17.08
1962	1.19	-	20.31	-	21.50
1963	1.36	-	12.04	-	13.40
1964	1.27	0.34	24.73	-	26.34
1965	1.13	7.80	10.05	-	18.98
1966	1.55	13.28	7.26	-	22.09
1967	1.50	16.94	5.30	-	23.74
1968	1.76	15.69	6.32	-	23.77
1969	1.85	12.59	4.82	3.77	23.04
1970	1.98	12.86	6.07	3.34	24.25
1971	1.58	14.86	3.07	8.55	28.07
1972	1.91	17.27	3.39	16.18	38.74
1973	2.07	16.76	6.56	16.94	42.33
1974	2.48	21.97	7.96	14.88	47.29
1975	2.89	32.91	12.45	24.48	72.73

Source: (1) International Monetary Fund, International Financial Statistics, 1972 supplement, Washington DC, n.d.
(2) International Monetary Fund, International Financial Statistics, vol. XXIX, Washington DC (September, 1976).