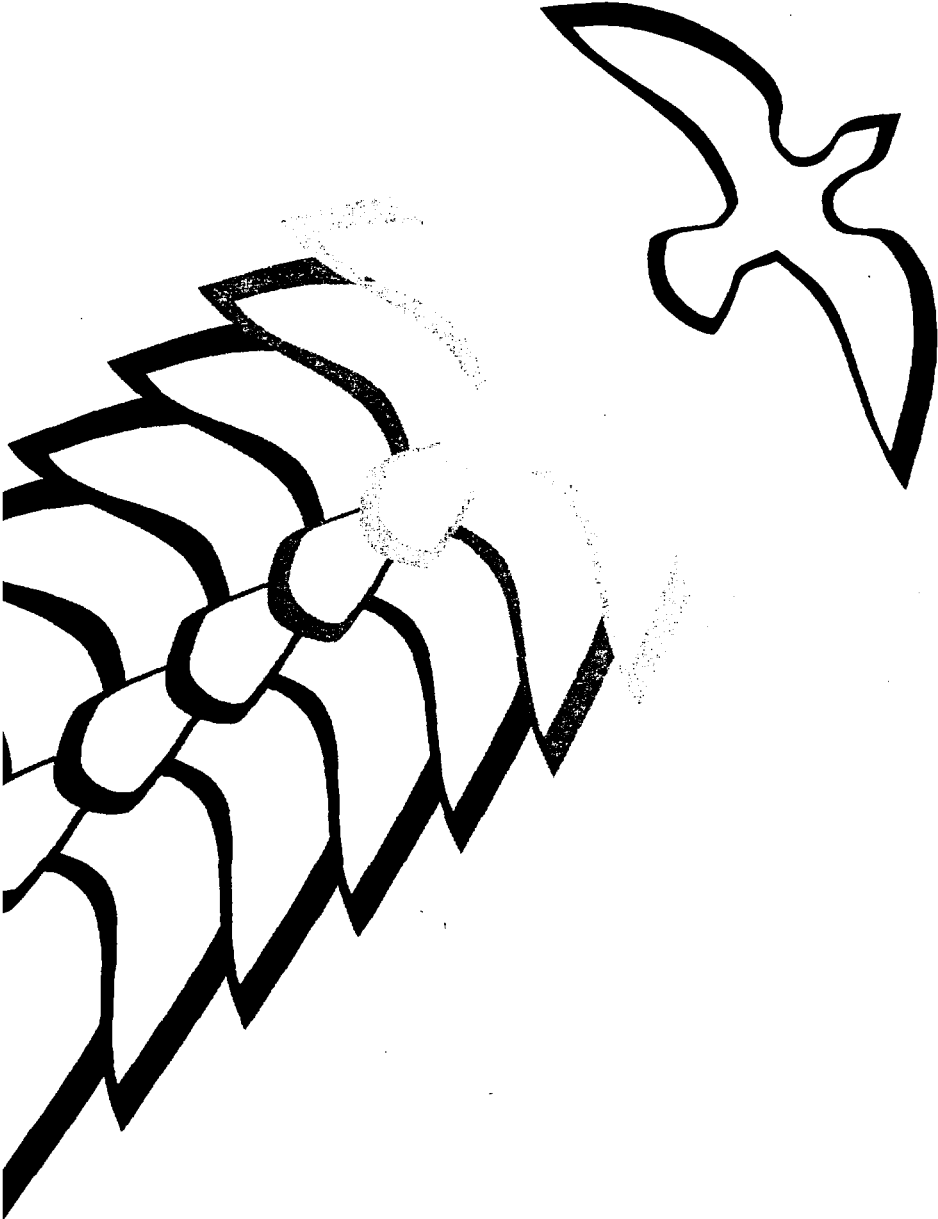


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# PEACE AND THE JORDANIAN ECONOMY





# *Peace and the Jordanian Economy*

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Washington, D.C.

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## Foreword

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The Treaty of Peace signed by Jordan and Israel on October 26, 1994 is a landmark, ending nearly fifty years of conflict. This report looks at the economic opportunities and challenges of peace for Jordan. It is the latest in a series of studies prepared by the World Bank on economic aspects of the Middle East peace process. The first of these studies, "Developing the Occupied Territories: An Investment in Peace," was presented in September 1993, immediately before the signing of the Israeli-Palestinian Declaration of Principles. The second, the "Emergency Assistance Program for the Occupied Territories," was published in April 1994.

Peace can bring substantial benefits to Jordan's economy. In the short run Jordan should gain from opportunities to participate in the economic recovery of the West Bank and Gaza. In the longer run peace offers expanded horizons in trade, tourism, water resources management, infrastructure development and private investment. But peace also imposes new economic challenges. Macroeconomic management will be more difficult, and the new potential for trade, tourism, and private investment will only materialize if domestic policy reforms continue.

Jordan has within its grasp most of the tools to deal with the major economic challenges of peace and to seize the opportunities it offers, but peace makes completing the task of economic reform more urgent. Early success will create its own momentum. The international community can also

help. Jordan's current level of debt casts a cloud over its ability to attract sustained, high levels of private foreign investment. While a gradual process of growing out of debt is possible, it will not provide the rapid and sustained growth needed to reinforce the peace agreements. Debt relief could create a virtuous circle of greater creditworthiness and faster growth.

This report, which appears during the year of the World Bank's 50th Anniversary, reflects the Bank's continuing commitment to find new ways to serve the needs and aspirations of its client countries. The Government of Jordan's firm conviction, expressed by HRH Crown Prince El Hassan Bin Talal, that economic progress will be the glue that cements the peace agreements is at the heart of our efforts to understand the economic impact of peace on Jordan's economy. For the average citizen of Jordan, as for other countries in the region, the test of peace will be whether the new international environment makes sustained, employment-generating economic growth possible. I hope that this report will help the government of Jordan to meet the challenges and realize the opportunities offered by peace to bring greater prosperity to its people.

*Caio Koch-Weser*  
*Vice President*  
*Middle East and North Africa Region*  
*The World Bank*

## *Acknowledgments*

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## *Acronyms and Abbreviations*

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ACM	Arab Common Market
AFL-CIO	American Federation of Labor - Congress of Industrial Organizations
CBJ	Central Bank of Jordan
CEM	Country Economic Memorandum
DFI	Direct Foreign Investment
EEC	European Economic Council
EFTA	European Free Trade Agreement
ESCWA	Economic and Social Commission for West Asia
EU	European Union
FTZ	Free Trade Zones
GATT	General Agreement on Tariffs and Trade
GCFCC	Gulf Crisis Financial Coordination Committee
GDP	Gross Domestic Product
GNP	Gross National Product
HUDC	Housing and Urban Development Corporation
IMF	International Monetary Fund
JD	Jordanian Dinar
LIBOR	London Interbank Offered Rate
NAFTA	North America Free Trade Agreement
NIS	New Israeli Shekels
NTB	Non-Tariff Barriers
OECD	Organization for Economic Cooperation and Development
OEM	Original Equipment Manufacturers
PLO	Palestinian Liberal Organization
PMA	Palestinian Monetary Authority
R&D	Research and Development
SBWB	Supervisor of Banks for the West Bank
SITC	Standard International Trade Classification
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WBG	West Bank and Gaza



## *Introduction and Summary*

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On October 26, 1994 Jordan and Israel signed a Treaty of Peace, ending nearly fifty years of hostilities. Jordan, Israel's near neighbor with ties to the new Palestinian entity, especially the West Bank, will be among the economies most directly affected by the widening Middle East peace process. Already Israel and Jordan have moved forward on a wide range of economic issues, including framework agreements on telecommunications, transport, water resources management, banking services and the use of the Jordanian currency.

This report examines the possible economic impact of peace on the Jordanian economy. It has two central messages. First, most of the actions needed to position the Jordanian economy to benefit from the economic potential of peace in both the short and long run are within the Government's own span of control; they do not depend on the actions of others—not even Israel and the PLO. But second, the international community can—and should—assist Jordan to carry out these actions, since the success of the political agreements on peace will ultimately depend on the success of the region's economies.

In the short run, while peace may offer Jordan some immediate benefits arising primarily from an investment-led boom in the West Bank and Gaza (WBG), it also carries substantial risks to macroeconomic stability. The opening of branches of Jordanian banks in the WBG offers potentially large benefits from supplying financial services in a rapidly expanding economy, but also exposes the Jordanian financial system to a new range of risks associated with operating in multiple currencies in a fragile economic environment. Jordan has the capacity to manage these increased risks through continued macroeconomic prudence and further efforts to strengthen the financial system.

In the longer term, peace offers Jordan, together with other countries in the region, the opportunity to benefit from greater mobility of labor and capital, increasing trade, and expanding foreign investment. But these longer run opportunities for the region at large carry with them significant chal-

lenges for Jordan. A large proportion of Jordan's population is of Palestinian origin. An autonomous Palestinian entity in the West Bank and Gaza may pose important problems for the Jordanian labor market by attracting permanent migration of skilled workers and professionals or offer potential benefits by offering employment opportunities for "commuting workers". Population movements may also increase investment needs for Jordan in housing and urban development.

In a more open and competitive regional economy, expanded trade—and especially the growth of nontraditional exports—will offer an important opportunity for more rapid economic growth. The reforms introduced by the Jordanian government to improve efficiency and international competitiveness, and to reduce the economy's dependence on external finance acquire even greater urgency in this environment. Although Jordan has something of a head start compared with its regional neighbors in building a more efficient, outward-oriented economy, it must maintain or accelerate that lead if it wishes to realize the longer-run potential benefits of peace.

Jordan has traditionally been a society which has relied heavily on transfers from abroad—remittances of its citizens and official aid flows—to finance investment, and even at times consumption. The opening of new economic opportunities in the WBG, potentially attractive to both foreign aid and direct foreign investment, may change traditional patterns of external transfers. Jordan thus needs a strategy to increase domestic savings, promote foreign investment, and remain an attractive location for capital transfers. A central element of that strategy will be satisfactory resolution of the overhang of debt, but structural reforms to increase the attractiveness of private investment in Jordan are also essential.

The opportunities and risks for the international community are equally large. The durability of whatever political solutions come out of the peace process will ultimately depend on economic success. The "peace dividend" for Jordan's population, as for those

of other countries in the region, will be measured primarily in terms of the ability of the economy to return to sustained growth of incomes and employment.

Chapter I of this report briefly describes the recent performance of the Jordanian economy, and compares Jordan's economic structure to that of Israel and the West Bank and Gaza. It then surveys the likely evolution of the economy of the West Bank and Gaza in the period of transition to full empowerment of the Palestinian entity. Chapter II examines problems arising from the impact of the potential investment-led boom in the WBG on monetary policy and exchange rate management in Jordan. Chapter III looks at the impact of the opening of Jordanian banks and the use of the Jordanian Dinar in the WBG on Jordan's financial sector. Chapter IV looks at trade and tourism. Chapter V discusses labor force movements between Jordan and the West Bank and Gaza and analyzes their consequences for the Jordanian labor market, and Chapter VI describes the potential consequences of these labor force movements for urban development in Jordan. Chapter VII looks at water management, and Chapter VIII examines capital flows and the role of Jordan's external debt.

### **The Pace of Change**

For Jordan the economic impact of peace will probably unfold at a pace which is slower than many hope or fear. Aid flows to the West Bank and Gaza will disburse more slowly than the commitments which accompanied the early donor coordination efforts. Absorptive capacity on the Palestinian side and limitations on the ability of donors to respond to changing needs will limit the pace at which actual disbursements take place. Private capital flows to the WBG will initially be limited by uncertainty surrounding the regulatory framework for private investment, lack of development of the financial system, and by political uncertainty. Labor flows, including return migration of refugees and displaced persons, will be constrained both by the political agreements reached between Israel and the PLO and by the lack of economic incentives for return migration. Jordanian bank branches will probably find themselves in an environment in which the uncertainty of the regulatory environment, risk, and limited investment opportunities constrain lending.

Nevertheless, the challenges of responding to the peace are already beginning to appear for

Jordan. The role of the Jordanian Dinar (JD) as a major currency in the WBG exposes the economy to additional risks in foreign exchange management. Jordanian banks have widespread interest in opening branches in the WBG and the Central Bank of Jordan faces the immediate need to supervise their operations. Investors in Jordan are already beginning to evaluate the possible benefits of direct investment in the economy of the WBG. Peace also gives greater urgency to the need for strategies for dealing with trade, tourism, urban development, and debt.

### **Monetary and Exchange Rate Policy**

Peace in the West Bank and Gaza and the creation of a Palestinian administration will pose two challenges for macroeconomic management in Jordan: (i) the use of the Dinar as one of the official currencies in the WBG; and (ii) the impact of capital flows and a possible investment-led boom in the WBG on the Dinar exchange rate.

There are both benefits and costs to Jordan of the decision to allow the Dinar to continue to circulate in the WBG. Jordan derives seignorage gains equal to about 1 percent of GDP. Its banking sector and payments system will benefit substantially from the ability to operate in their home currency. And physical proximity together with a common currency should promote trade in both goods and services. Set against these are the costs of the loss of seignorage and increased demand for foreign exchange reserves which would result from the creation of a new Palestinian currency. The Israeli-PLO agreement to create a Palestinian Monetary Authority (PMA) increases the perception of these risks. Indeed, there is some evidence to suggest that declining Jordanian reserves over the last six months reflect at least in part movements by residents of the WBG out of JD and into dollars.

These risks while substantial, are manageable. Continued good macroeconomic management to maintain the Dinar's position in the WBG as a store of value and an explicit agreement on the timing and mechanisms by which any new Palestinian currency would be introduced can substantially reduce the risk of a rapid draw-down of reserves. The international community can assist Jordan to deal with the uncertainties surrounding the possible creation of a Palestinian currency. In the short run front loading and acceleration of disbursements under

Jordan's adjustment program with the IMF and World Bank could be used to increase reserves. This, together with continued good exchange rate management should improve confidence in the JD. It may be desirable to create a contingent facility which would only be used in the event of a rapid, forced conversion of Dinars held in the WBG into a Palestinian currency and any subsequent uncoordinated redemption of JD for foreign exchange. Over the medium term, however, Jordan will need to accumulate reserves to deal with a probable decline in the use of the JD as a currency in circulation in the West Bank and Gaza.

As aid flows increase over the medium term, the economy of the West Bank and Gaza will need to turn increasingly to its neighbors—especially Jordan—to provide both skilled labor and services. Because capacity is constrained and unemployed Jordanians are not perfect substitutes for potential migrants to the WBG, there may be upward pressure on prices and wages in Jordan, leading to upward pressure on the real exchange rate. Capital inflows may also generate pressures for the exchange rate to appreciate over the medium term. It is likely that as investors' perceptions of the durability of peace improve there will be some additional reflow of assets to Jordan held by nationals abroad.

Exchange rate policy should differ depending on whether the pressures for appreciation stem from temporary financial flows alone or from permanent real shocks. Jordan should avoid appreciation arising from capital inflows, but must be prepared to allow some real appreciation in response to real demand pressures. Short run capital inflows can be sterilized through contractionary open market operations—essentially swapping foreign exchange for domestic bonds—but such a strategy is not viable in the longer run. Thus, to avoid the adverse impact of a rise in the real exchange rate on employment and exports, further fiscal stringency may be needed. A complementary strategy would rely on further trade liberalization to counteract pressures to appreciate the Dinar.

### **The Peace Agreements and the Financial Sector**

Jordanian banks are contemplating a rapid expansion of branches in the West Bank and Gaza. The provision of financial services can bring substantial mutual benefits to both the Jordanian and

Palestinian economies. For Jordan, expansion of banking services will increase bank profits and facilitate trade. For the West Bank and Gaza, it will transform what has been a largely cash economy. But the risks of operating in a new, multicurrency environment are sufficiently large to suggest that in the short to medium term Jordanian banks should be very conservative and tightly supervised.

The framework agreements between Jordan, Israel and the PLO establish sound principles with regard to the regulation and supervision of banks, based on international conventions, but fail to specify the conditions which will exist after the five year transition period. These uncertainties constrain the operation and development of banks in the WBG and are a source of legitimate concern to the Jordanian government. There is an urgent need to clarify the role of the Palestinian Monetary Authority in supervising banks and to forge cooperative relationships between the Central Bank of Jordan (CBJ) and the new supervisory authority.

The CBJ can help in the solution to these problems by providing technical assistance to the PMA—or even in the short run by running its supervisory operations on a contract basis. This arrangement would allow the banking system to start operations, but will not meet the need for a full definition of the rules governing banks following the transitional period. Because the framework agreements are based on international conventions, a sound, negotiated solution to define the long term regulatory framework for banks should be feasible. But if these issues are not resolved satisfactorily, the CBJ should raise the capital adequacy requirements for banks lending in the West Bank and Gaza, either through increasing the capital to assets ratio on the portion of bank's portfolios invested in the WBG or by requiring immediate provisioning of all loans in the WBG.

### **Trade and Tourism**

Current and future developments in the peace process open new opportunities for trade and tourism for Jordan, and for the region more generally. In the short run, the agreements between the PLO and Israel and the PLO and Jordan will provide some preferential access for selected Jordanian goods to the WBG market. This represents a major opportunity for Jordan's existing exporters to benefit from a market which was previously closed and to share in the

potential benefits of any investment led boom which may occur. The rules under which Jordanian goods can enter the WBG are highly restrictive, however, and are explicitly designed to prevent leakages of Jordanian goods into the Israeli market. These quantity controls will inevitably limit the scope for growth of exports to the WBG, both through diversification of goods and expansion of existing exports. This raises the issue of the future trading relationship between Israel, the WBG and Jordan.

In the medium term, it is difficult to envision the possibility of further Jordanian access to the WBG market without accompanying demands from Israel for preferential access to the Jordan market. While the economic benefits of some form of free trade area among the three parties are likely to be positive, rapid movement toward such an agreement is unlikely, both because of geopolitical reasons and the need for adjustment assistance to potentially harmed sectors in Israel and in Jordan.

Jordan's present trade strategy which focuses on multilateral liberalization continues to be the most appropriate approach to the challenges of increasing international competitiveness and maintaining diverse sources of import supply. It is also an appropriate strategy for preparing to meet the possible challenge of closer trading relationships with the economy of the WBG and, ultimately, Israel. Trade liberalization also serves to support macroeconomic management by increasing demand for foreign exchange and reducing appreciation pressures on the Dinar. The peace process makes the task of trade liberalization more urgent and places even higher premia on the delivery of effective institutional support to exporters.

Jordan is a country with substantial tourism potential, but with an underdeveloped tourism sector. Peace and freer movement across borders in the region should result in an increase in tourism. There is a risk for Jordan, however, that much of the increase in non-Arab tourism will take the form of day journeys from Israel. While some employment and income benefits will accrue to Jordan from day tourists, they may not offset the environmental costs of increased use of such fragile tourist sites as Petra and the Red Sea coral reefs.

There is no short term solution to this problem. In the longer run improvements in the regulatory framework, increased investment in tourism infrastructure—especially outside Amman, liberalizing tourism transport, and more aggressive tourism

promotion can provide the basis for private investment to create new tourism capacity. Because much of the competition in tourism is service competition, training and upgrading of skills in the sector is critical. These are the strategic approaches which Jordan would need to follow if it wished to increase its capacity to attract tourists, even in the absence of the peace agreements. Peace with its increased opportunities and competition simply makes them more urgent.

### **Labor Markets, Migration, and Urbanization**

Peace is likely to have complex impacts on the functioning of Jordan's labor markets. Jordan has traditionally exported skilled and professional labor services while importing unskilled labor. If the inflow of aid committed to the WBG results in a rapid increase in construction activity, two types of labor in Jordan may be immediately affected. Unskilled construction workers drawn to the WBG would presumably be replaced quickly by other migrant labor from Egypt or Syria, producing little impact on wages. The labor market for skilled and professional workers may tighten somewhat, but given the relatively high human capital endowments of the unemployed in Jordan and the possibility that an increase in wages will reduce incentives for workers to migrate to the Gulf, the immediate labor market impact will be moderate.

In the longer run, however, some of the population of Jordan of Palestinian origin may choose to return permanently to the WBG. These individuals are likely to migrate with both labor force skills (human capital) and financial assets. The impact of such a movement could reduce GDP in Jordan by from 1 to 3 percent per year, depending on the volume of migration and extent to which migrating workers are replaced by the unemployed. Jordan's ability to mitigate the impact of this potential outflow of human and physical capital will depend primarily on its ability to generate viable investment and employment opportunities in the domestic economy. Large scale population movements are likely to occur only slowly, and the growth of investment opportunities in Jordan can reduce the incentives for migration. Thus, the outward-oriented, private sector-led growth strategy adopted by the government is the only viable response to the longer term objective of minimizing the disruptive effects of labor movements.

Many Jordanians of Palestinian origin, regardless of their official status as refugees or displaced persons, would choose to remain in Jordan. Jordan of all of the states neighboring the WBG and Israel has made the most concerted effort to integrate its Palestinian population into the broader society. Nevertheless, a substantial number of Palestinians continue to live in refugee camps or areas of concentration. These settlement areas have become part of the urban environment and are likely to become permanent urban neighborhoods once their official temporary status is ended.

The costs to Jordan of bringing refugee camps up to the standards of infrastructure and services which characterize urban areas in Jordan will be substantial. Land must be acquired, some resettlement must occur to reduce population densities, and physical investments will be required in schools, roads, water supply and sanitation, and health services. The cost of these investments—which represent an extraordinary expenditure for Jordan arising directly from the peace process—are likely to range from US\$200–500 million.

### **Managing Water Resources**

The effective and equitable management of water is critical to the political and economic future of Israel, Jordan and the West Bank and Gaza. With the agreement by Israel and Jordan to achieve full peace it is now possible for the two parties to deal directly with each other on water management issues, and water has occupied center stage in their bilateral discussions. Jordan faces imminent water scarcity, and although Israel's water situation appears to be manageable over the next 10–15 years, thereafter demand will exceed renewable resources. Gaza confronts acute water shortages, and the West Bank suffers from a lack of water development.

While the contrast between Israel with its currently manageable situation and Jordan and the WBG with their present and growing water deficits is striking, it may obscure the underlying reality that all three parties will need to deal with water scarcity in the medium term. This suggests that as the peace process unfolds Jordan will need to seek cooperative solutions to two sets of issues: (i) immediate agreements on revised water sharing in the Jordan basin, including resolution of the management of the Yarmouk River; and (ii) longer term cooperative approaches to increasing supply.

Access by Jordan to a larger share of Jordan basin surface water would greatly ease its short term water constraint, but because of pumping costs it will be expensive to exploit and, alone, surface water reallocations will not eliminate the longer term problem of the need for investment in new water sources. Coordination between Israel, the WBG and Jordan can yield substantial benefits in the development of new supplies. Desalination plants and import terminals must be located on the coast. If constructed, there is obvious economic sense in their serving the densely populated coastal regions in place of renewable resources currently pumped from inland areas. The inland resources could then be released to meet the demands of Jordan and the WBG.

But, cooperative arrangements either to share existing water more equitably or to develop new supplies will not offer a panacea for long run water scarcity in Jordan. The keys to addressing the longer term water challenge are further improvements in demand management, especially appropriate pricing of water to all users, and more rapid economic growth in order to make the substantial investment costs of new supplies under any scenario more affordable.

### **Capital Flows, Debt, and External Financing Needs**

For the average citizen of Jordan the “peace dividend” will be measured by improvements in well being. The durability of peace and its popular support will critically depend, then, on a return to sustained economic growth. Peace will not restore the levels of transfers and migration of the past, however, and Jordan's future growth will depend on its ability to increase domestic savings and to attract private sector investment from both internal and external sources.

Jordan has taken on much of the burden of improving the climate for private investment through its good macroeconomic management and program of structural reforms, but a central question remains: can a strategy of rapid growth based on attracting private investment succeed, given the existing stock of public sector debt? Simulations based on the present economic reform program, existing levels of external financing and debt rescheduling, and projections of the rate of growth needed to create sufficient new jobs and raise con-

sumption modestly, suggest that the answer is, realistically, no.

To achieve an average rate of growth of real GDP of about six percent per year over the remainder of the decade Jordan will require private investment rates of about 20 percent of GDP. Public investment will need to rise in response to the needs of integrating returnees and refugees into Jordan's society and economy. Foreign exchange reserves must be built up, both to deal with the increased risks of a drawdown while the JD continues to circulate in the WBG and in anticipation of the need to redeem Dinars if a Palestinian currency is created.

Moreover, the short run fiscal impact of peace is likely to be negative. Seigniorage revenues will fall by about one half of one percent of GDP as the WBG shifts from a cash economy to one based on modern financial services. If the JD is withdrawn from circulation the fall could be as much as one percent of GDP per year. The need to accumulate reserves to mitigate the risk of a disorderly redemption of JD in anticipation of the creation of a Palestinian currency will require additional public sector savings. Upgrading of the refugee concentrations may entail public investments equal to two to four percent of GDP on a one time basis. Continued fiscal effort, along with progress on trade liberalization, are also needed to retard real appreciation of the exchange rate. Excessive exchange rate appreciation, which may accompany an inflow of capital or an increase in demand for labor and services resulting from an investment-led boom in the WBG, imperils growth based on private investment and exports additional fiscal restraint is critical.

The scope for more fiscal effort in Jordan is limited, however. With a ratio of public revenue to GDP of more than thirty percent, additional tax effort will need to focus on base broadening measures and tax administration rather than tax rate increases. Otherwise, Jordan may lose its attractiveness to internationally mobile capital in a relatively less taxed region.

Public expenditures can be reduced by further rationalization of both the current and capital budgets, privatization, and reform of the public administration, but these cost savings will occur only slowly. Similarly, military expenditures will decline, but again slowly as regional tensions—which are not limited to the Arab-Israeli conflict—diminish. Interest payments on the public debt are a fixed obligation which the government has consistently

honored. In sum, Jordan can undertake further fiscal efforts to raise revenues and reduce expenditures, but these cannot fully address the incremental demands imposed by the peace process.

What then is the best route for securing the peace dividend for Jordan's people? In large measure the responsibility lies with the Jordanian government itself. Continued implementation of the present reform program, sustained good macroeconomic management, and additional efforts to build a private investment friendly environment are all essential to establish the credibility of Jordan's efforts in the eyes of the international community. The peace process in many cases—for example trade, tourism, and regulatory reform—increases the urgency of implementing the reform program.

But there is an important role for international support as well. Given the constraints that Jordan faces, it is unlikely that it will be able to achieve the growth rates of jobs and incomes required for an adequate peace dividend with the current stock of debt. Even under ambitious assumptions with respect to fiscal effort and private savings, the ratio of debt to GDP exceeds the standards established for international creditworthiness (75 percent of GDP) throughout the remainder of the decade. This casts serious doubt on the ability of the Jordanian economy to attract the level of capital inflows from abroad which would support a private investment rate of 20 percent of GDP. In this sense it is unlikely that Jordan can "grow out of debt" in the short to medium term.

A one time reduction in the existing stock of more than US\$7 billion of debt by about US\$1.7 billion would be sufficient to reduce the debt to GDP ratio to international standards of creditworthiness. This obviously would still leave a great deal of uncertainty surrounding Jordan's macroeconomic prospects. A crucial question is: what would happen to growth, investment and consumption, if all of Jordan's official and bilateral debt were to be forgiven? Full debt forgiveness (of US\$ 3.3 billion) in 1994 would permit substantial increases in per capita consumption growth, along with the increases in capital spending, which would significantly strengthen Jordan's social and political fabric and make its longer-term macroeconomic outlook more robust. Moreover, full debt forgiveness would allow Jordan additional reserve accumulation during 1995–1999 of US\$ 80 million a year. The debt-to-GDP ratio would be nearly cut in half, substantially



reducing the uncertainty surrounding Jordan's macroeconomic outlook, and the additional financing from debt relief would allow Jordan to substantially increase its Government capital spending, particularly in activities related to alleviating infrastructure bottlenecks, and upgrading the refugee camps. A combination of debt reductions and increases in grants equivalent to this amount is not impossible. The military debt of Jordan alone is more than US\$1 billion. The key is to find a mechanism which will allow Jordan's creditors, acting within a cooperative framework, to devise a strategy of debt relief which will to reduce the inhibiting effect of the debt overhang on investment flows.

Is such support for Jordan from the international community feasible? The answer is yes. The magnitude of the problem, while large, is not insurmountable. Bilateral discussions following the peace agreement between Jordan and Israel should make a cooperative solution possible. Indeed, the United States and the United Kingdom have already offered voluntary programs of debt relief. Creditors on the military debt can offer a unilateral, one time reduction in those obligations. Some non-military creditors may also wish to offer debt or

debt service reductions. Other major creditors, whose policies preclude debt or debt service relief, can offer grants, perhaps tied to the increased fiscal burden borne by Jordan as a consequence of adapting to the peace. Although private investors may prefer one time reductions in debt to a grant based strategy—since the former guarantee the reduction from the outset while the latter depend upon continued support by donors—some countries, including Israel, have very successfully employed a grant based strategy of reducing debt burdens.

The key roles for Jordan in this process are two. First, to avoid the temptation to seek concerted debt relief. Such concerted efforts can preclude further support from donors opposed to debt reduction and eliminate the viability of grant based support. Flexibility in pursuing bilateral negotiations is key here, along with coordinated timing of negotiations. Any package based on bilateral agreements should be announced at one time to maximize the impact on private investors. Second, Jordan must maintain its credibility with the international community in macroeconomic management. This is especially important if a one time, as opposed to tranching, program of support is sought.

# I. The Economies of Jordan and the West Bank and Gaza

The establishment of an autonomous Palestinian entity on the West Bank and Gaza is likely to lead to a substantial change in the pattern and level of economic activity in the region. This chapter attempts to describe the possible short and long term economic changes which will arise out of the peace process. It describes the recent performance of the Jordanian economy, and some salient features of the economy of the West Bank and Gaza. It then examines the magnitude of the projected aid flows into the WBG during the next five years and the likelihood that they will spark an investment-led boom.

## Jordan—From Boom to Bust and Back

Jordan enjoyed unprecedented economic growth between 1973 and 1984, boosted by foreign assistance and loans, worker's remittances, and exports to regional markets. This ended in the mid-eighties as a result of the rapid decline in the price of oil and the subsequent slowdown in regional economies. As a consequence, Jordan experienced a drastic slowdown in growth, which dissolved into crisis by 1986 with severe fiscal and external account deficits

(Table 1.1). In 1989 the Government responded energetically to the deepening crisis. The foreign exchange market was liberalized, the Jordanian Dinar was devalued, fiscal austerity was imposed and the government began to undertake a broad range of structural reforms in trade, agriculture, and the public sector. Notwithstanding the disruptions caused by the Gulf crisis in 1991, the Government has persevered with its policies, which have largely succeeded. Economic growth increased from 1.7 percent in 1990 to 11.3 percent in 1992, on the heels of the forced return of migrants (and their assets) from the Gulf, and 6 percent in 1993.

Jordan's main comparative advantage in the recent past has been to educate and export highly skilled workers to the Gulf states. There were 340,000 workers abroad in 1990, and their remittances accounted for 20 percent of GDP, financing about one third of total imports of goods and services (Figure 1.1). Remittances have had a significant impact on housing and construction which have been major sources of growth and employment. Until the mid-1980's Jordan was also able to capitalize on its geopolitical position and raise large amounts of bilateral assistance, especially from the Gulf (Figure 1.2).

While external transfers were a powerful spur to economic growth, they left a problematic heritage for the economy:

- vulnerability to external (including political) shocks;
- uncertain prospects for long-term growth, as demand from the Gulf region clouds Jordan's outlook for income and employment growth; and
- the consequences of adjusting to the loss of foreign exchange earnings and transfers.

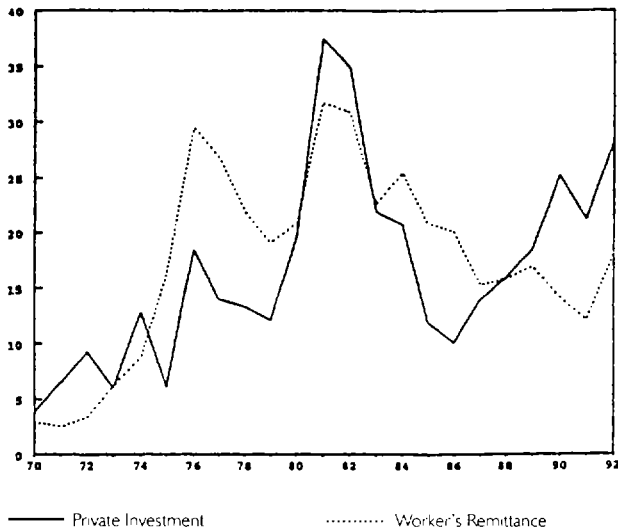
The challenge for the next century, then, is to create in Jordan a dynamic domestic economy which is less dependent on external transfers. With a small internal market, a growth oriented strategy aiming at greater integration with the world economy is needed. Such a strategy has been followed for a few years with some initial success. It has demonstrated

**Table 1.1: Jordan—GDP Growth and Composition, 1973–92**

	1973–79	1980–85	1985–89	1990–92
<i>By Sector</i>				
GDP at market prices	100.0	100.0	100.0	100.0
Agriculture	8.8	5.6	5.1	6.5
Industry	22.9	27.0	22.1	24.2
Manufacturing	14.8	12.5	9.9	12.9
Mining and quarrying <sup>a</sup>	n.a	3.3	4.0	4.7
Other	7.5	11.2	8.3	6.6
Service, etc.	55.2	56.2	59.0	55.8
Net indirect taxes	11.1	11.2	13.8	13.5
<i>By Expenditure</i>				
Total expenditures	100.0	100.0	100.0	100.0
Consumption	122.8	113.0	106.9	116.6
Investment	33.8	37.3	23.9	28.1
Imports	96.6	94.5	68.0	90.0
Exports	40.0	44.2	37.2	45.2
Savings	-22.8	-13.0	-6.9	16.6
Foreign savings (S-I)	56.6	50.3	30.8	44.8
GDP growth p.a.	11.1	9.9	-1.2	6.4

a. Included in manufacturing for 1973–78.

**Figure 1.1: Jordan—Workers’ Remittances and Private Investment as Percent of GNP**



**Figure 1.2: Jordan—Official Grants and Public Investment as Percent of GNP**



the resilience of the Jordanian economy, and what is feasible. Today, the manufacturing sector contributes 30 percent of exports. Although dominated by large joint venture private/public projects (fertilizer, cement, refined oil products), the sector also comprises a large number of small and medium size private establishments engaged in the production of processed food, pharmaceuticals, chemicals, textiles, footwear, furniture, and various engineering and building materials. This is a powerful base to build on.

In this process, Jordan will be supported by important assets: a well educated labor force, a relatively developed infrastructure—both physical and institutional—and a sophisticated banking sector and local capital market. The possibility of attracting back large accumulated private savings, mostly placed abroad during the boom era, presents one of the most important challenges and opportunities for policy-makers. At the same time, the existence of a large stock of public debt and the fragility of the aggregate financial picture will act to dampen potential investment flows.

### The Economy of the West Bank and Gaza

The economy of the WBG has an unusual configuration. The manufacturing base is low (Table 1.2) and it has a structure of output that is heavily biased towards services and export of labor to Israel. A sub-

stantial part of the workforce is employed in Israel, and the WBG like Jordan depends to a large degree on external transfers to supplement domestic production. With levels of capital per worker comparable to Jordan, it has wage levels that approximate Israel more than Jordan. GDP on the entire West Bank is currently estimated at about US\$2 billion, about 40 percent of Jordanian GDP. The Gaza strip would add between US\$500 million and US\$750 million to this; thus currently the economy of the WBG is about half the size of Jordan's (Table 1.3).

Growth in the WBG was high between the mid-sixties and the mid-eighties—about 6 percent per year in real terms. Much of this growth took place in spite of very restrictive trading arrangements imposed by the occupying authorities.<sup>1</sup> Industrial exports to Jordan were severely restricted also. Not surprisingly given the restrictions on exports and the high wages in Israel, trade mostly took the form of export of labor services: almost 40 percent of all the employed living in the WBG actually work in Israel, at wages several times what they would earn in Jordan. Since living expenses in the WBG are substantially below those in Israel, but wages are tied to wage developments there, real wage growth has been favorable.

The economic impact of the Intifada was initially masked by a good olive crop in the West Bank and a good citrus crop in the Gaza strip. But eventually the Intifada made its economic impact felt.

**Table 1.2: Basic Economic Indicators***(US \$ million, at current prices, 1991)*

	<i>Israel</i>	<i>Jordan</i>	<i>Palestine<sup>a</sup></i>	<i>Lebanon<sup>b</sup></i>	<i>Syria</i>	<i>Egypt</i>	<i>Saudi Arabia</i>
GDP	59,104	4,086	2,161	2,498	17,236	30,265	108,640
Sectoral Shares (%)							
Agriculture	2	6	35	7	30	18	7
Industry	22	17	8	14	23	30	52
Construction	10 <sup>c</sup>	7 <sup>c</sup>	12	7	n.a.	n.a.	n.a.
Services	65	57	45	71	47	52	41
GNP	58,089	3,762	2,869	2,976	14,500	32,696	120,428
Exports	11,893	881	304	837	5,594	3,887	54,736
Imports	16,906	2,514	1,470	2,496	3,002	7,862	25,540

a. Sectoral shares are the 1991/92 average in order to smooth the olive cycle.

b. 1990 data.

c. Includes electricity and water

Source: *International Financial Statistics*, International Monetary Fund, 1994; *National Accounts of Judea, Samaria and Gaza Area, 1985-1992*, Central Bureau of Statistics, Israel; *Statistical Abstract of Israel*, Central Bureau of Statistics, 1992; World Bank (1993a), World Bank (1994a); World Bank (1994b), World Bank (1994c)

Employment in Israel of workers from the WBG, adjusted for reduced working hours, fell by about 25 percent, and GDP fell by about 10 percent. The impact on disposable income was larger—around 20 percent over 1988 and 1989—since workers remittances do not enter in the calculation of GDP but are part of national income (Razin and Sadka 1993). As the Israeli economy came out of its own recession in 1990 and the economic aspects of the Intifada became less prominent, pre-Intifada levels of income were once again achieved.

#### *Aid Flows and an Investment-Led Boom in the West Bank and Gaza*

If the levels of aid funding that are now being discussed materialize, the West Bank and Gaza may receive capital inflows almost equal to its annual GDP in the initial years of autonomy. Estimates of up to US\$2 billion per annum have been made for the first three years. This is a capital inflow to GDP ratio that may well be unparalleled in economic history. By comparison, the Marshall plan constituted about 3 percent of Post-war Europe's GDP. Given the West Bank and Gaza's low ratio of capital per worker and generally deficient infrastructure capital inflows of this magnitude may spark an investment boom.

An investment boom in the WBG is clearly going to be a major event for Jordan. Because the

**Table 1.3: Israel, Jordan and the OT—Comparative Indicators for 1986**

	<i>Israel</i>	<i>Jordan</i>	<i>West Bank</i>	<i>Gaza Strip</i>
Population (thousands)	4,298	2,744	826	536
GNP per capita (1986 US\$ millions)	28,435	5,901	1,397	572
GNP per capita (1986 US\$)	6,615	2,151	1,691	1,067
GDP (1986 US\$ million)	29,141	5,235	1,111	352
GDP per employed person (US\$)	19,747	7,560 <sup>a</sup>	10,100	7,040
Capital per employed person	51,497	17,200 <sup>b</sup>	6,769	8,556

a. Based on assumed labor force growth of 3% between 1986 and 1989, labor force of 780,000 in 1989 and 3.5% unemployment rate in 1986 (IMF ext.).

b. World Bank estimate.

WBG will not be able to double their GDP overnight, the Jordanian services sector should expect a substantial increase in activity, either directly or as a subcontractor. The substantial increase in construction activity that is likely to develop in the WBG should have positive spill-over effects on the Jordanian economy. In addition Jordan will be influenced by a series of monetary developments stemming from the use of the JD and of Jordan banking services in the WBG, the possible influx of money into the WBG from outside the region, and the possible impact on non-resident holdings in the Jordan banking system.

## II. Macroeconomic Management

Managing the short run impact on Jordan of a potential boom in the West Bank and Gaza is important. Macroeconomic management in Jordan has been very difficult; the economy has been buffeted by extraordinarily large shocks and changes in financial fortune in very short periods. That Jordan has nevertheless managed to maintain price stability is testimony to the quality of its macroeconomic policies (Figure 2.1). Such a reputation is potentially very valuable. Financial services and direct foreign investment (DFI) tend to center on countries that have a record of macroeconomic stability. The benefits Jordan will receive from economic growth in the WBG, and possibly elsewhere in the region, will be greatly enhanced if it succeeds in maintaining its current reputation for competent macroeconomic management.

Macroeconomic management in the wake of peace will have to focus on two key issues: (i) the role of the Dinar in the WBG and the implications for Jordan's monetary policy, and (ii) the impact of capital movements and greater vulnerability of foreign exchange markets. The circulation of the Dinar in the WBG will complicate monetary man-

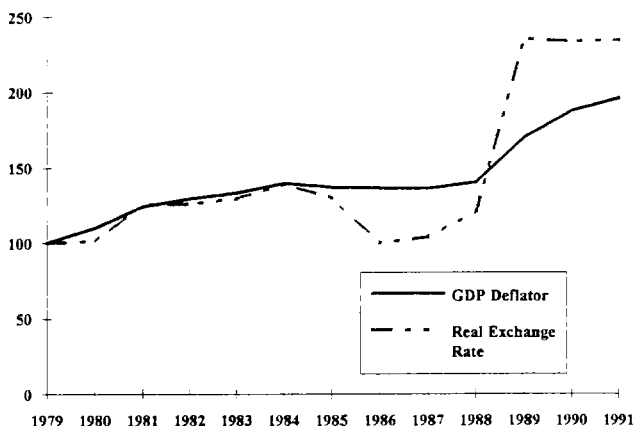
agement as the demand for money is likely to change and because the loss of seignorage revenues will have substantial fiscal effects on Jordan. Capital inflows, both speculative and in response to real shocks, may cause pressures on the exchange rate. This will have to be carefully managed to avoid adverse effects on employment and exports. The analysis that follows indicates that these risks for Jordan's macroeconomic management are manageable and the benefits to Jordan's trade from maintaining circulation of the Dinar in the WBG could be considerable.

### The Role of the Dinar and Monetary Policy

The most immediate issue for Jordanian monetary policy stems from the use of the JD in the WBG. There is a clear possibility that a local currency in the WBG will arise, but in its absence, the current situation of free circulation of several currencies will lead to a strong presence of the Dinar (Table 2.1). Estimates of the amount of JD held by residents of the WBG range from US\$500 million to US\$800 million. Jordanian bankers estimate that as much as JD 300 million are circulating in cash in the WBG, equivalent to 20 percent of the total supply of JD 1.5 billion in both Jordan and the WBG. Jordan's relatively open capital account and more liberal foreign exchange regulations (compared to Israel) give the Dinar an advantageous position with respect to the shekel. The extensive banking services that are likely to arise from the opening of Jordanian bank branches (see Chapter III) give it a strong position compared to the use of the dollar.

**Figure 2.1: Jordan—GDP Deflator and Index of Real Exchange Rate**

(JD/\$ · 1979 = 100)



**Table 2.1: Money in Circulation**

(US\$ million, at current prices, 1992)

	Israel	Jordan	Palestine	Total
JD	—	1,779	809	2,588
NIS	2,872	—	977	3,849

Note: Estimated by applying population shares to total.  
Source: International Financial Statistics, 1994

*Speculative Movements Against the Dinar*

Autonomy in the WBG will inevitably increase the openness of Jordan's foreign exchange markets, because both exchange and interest rates will be set freely in the WBG, and arbitrage is quite easy to perform. Such an opening has raised concerns about the risks of either unsustainable drains of foreign exchange reserves or economically unjustifiable devaluations driven by foreign exchange demands in the WBG.<sup>2</sup> This risk is lower than it appears at first sight. It is no larger than the risk which Jordan is running today as a result of the cash stocks of JD held by the Palestinian population. Because Palestinians living in the WBG already have substantial holdings of JD currency, these holdings establish the maximum of JDs that they could exchange for foreign currency.

Nevertheless, especially with continued political uncertainty, Jordan faces the risk of speculative movements against the JD. Because of Jordan's good track record of macroeconomic management, the JD has been used as a store of value in the WBG in parallel with the US dollar. Although there has been no substantial movement out of JD in the West Bank and Gaza since the devaluation of the late 1980s, the peace agreements have clearly increased the perceived risks to Palestinians of holding Dinars, rather than dollars. The recent creation of a Palestinian Monetary Authority (PMA) has increased expectations that a Palestinian currency may be created in the short term. This has led to precautionary movements out of JD into US Dollars. The magnitude of these movements is not well known but they have undoubtedly contributed to the more rapid than anticipated depletion of reserves in the CBJ since January 1994.

Jordan can mitigate the risk of speculative movements against the Dinar (anticipating devaluation) by sustained good macro economic management and by increasing reserves. In the absence of increased external support this will entail further fiscal discipline, since reserve accumulation at the present exchange rate will require an increase in aggregate savings. Attempts to accumulate reserves through exchange rate depreciation would only feed speculative movements against the Dinar. Speculative pressure on the JD should diminish over time if the exchange rate is maintained and reserves are rebuilt. The opportunities for increased trade between Jordan and the WBG and the expan-

sion of financial services using the JD as the unit of account should over the medium term increase the demand for Dinars in the WBG. Political risk, however, is difficult to counter. It is clearly in the interest of both Jordan and the PLO to reduce this uncertainty by reaffirming the official status of the Dinar as a currency in the WBG. In the absence of such a reaffirmation of the previously agreed framework a continued drawdown of reserves may take place.

The international community can play an important role in assisting Jordan to reduce the risks of short run speculative pressure on the JD. While Jordan's macroeconomic program and financing plan are fully consistent with continued maintenance of the present exchange rate, the speculative drawdown of dollar reserves, combined with delayed disbursements under bilateral aid agreements, have reduced the Central Bank's (CBJ) reserve position to levels which may feed further speculative pressure on the Dinar. Front loading and/or acceleration of disbursements by donors under the adjustment program supported by the IMF and World Bank could provide an immediate increase in reserves to the CBJ.

*Seignorage Gains and Losses*

Since Jordan derives substantial seignorage revenue from circulation of the Dinar, its continued use clearly represents a benefit for Jordan. At a 10 percent nominal growth rate in the WBG (probably a conservative estimate for a successful post-agreement scenario) these revenues would amount to about US\$50 million per annum, roughly 1 percent of Jordanian GDP, if the current cash intensity is a norm. The opening up of from 8 to possibly 30 bank branches and the restoration of normal retail and investment banking activities will make the WBG economy less cash-intensive than it is now. With a well developed financial sector and non-punitive reserve requirements, base money to GDP ratios should at most be around 10 or 15 percent instead of in the current range of 25 to 40 percent. So a halving of seignorage revenue should be anticipated over the medium run, requiring a matching fiscal adjustment. The longer term impact of a forced conversion out of JD to a new Palestinian currency is also fiscal; a decline in seignorage of about 1 percent in GDP requires offsetting fiscal measures.

### *A New Palestinian Currency?*

Replacement of the JD by a new Palestinian currency, while still uncertain at present, is a possibility sometime in the future. If a local currency is introduced, Jordan will face both transitional and permanent problems requiring policy response. The immediate impact of a shift to a Palestinian currency will be felt on Jordan's foreign exchange reserve position. Clearly a sudden withdrawal from circulation of US\$500–800 million equivalent followed by an immediate request for foreign assets upon return of the withdrawn notes would create a major shock in Jordan. The amount required is in the range of the entire stock of foreign assets in the Jordanian Central Bank.

The possibility of such a large claim on reserves emphasizes the importance of reserve management. Provided that the exchange of currency is carried out in an orderly fashion based on prior agreement between the Palestinian and Jordanian authorities, the need to redeem the JD in circulation in the WBG can be met by further reserve accumulation in the Central Bank of Jordan. However, it may not be possible to increase reserves through increased fiscal effort sufficiently quickly to meet the redemption requirements of the JD in circulation, if a Palestinian currency is created in the near term. This suggests that in addition to actions to increase reserves by the Jordanian government, international support will be needed. One mechanism by which Jordan's creditors can assist in the accumulation of reserves is through a combination of external debt reduction and/or increased grants (Chapter VII). It may also be desirable to explore the feasibility of creating a "currency redemption facility" which would be drawn down only in the event of a rapid, unprogrammed redemption of the JD in circulation in the WBG following the creation of a Palestinian currency. The facility could be repaid as future disbursements of World Bank and IMF operations occur. Given the projected magnitude of these disbursements under the financing plan for the period July 1994 to June 1995, a facility of about US\$300 million should be feasible, an amount which could have an important impact on the confidence of residents of the WBG holding Dinars.

The risk of a sudden demand for the immediate payment of all monetary obligations in foreign exchange should not be exaggerated, however, because there is no way to force a population to

exchange a currency—such as the JD—that has value in a neighboring country. Forced conversion is feasible only when the old currency becomes useless. Since the exposure of Jordan to this risk is mainly reserve money, the obligations to repay would be the cash in the vaults of the Jordanian branches in the WBG, plus any cash that people in the WBG voluntarily surrendered, which would probably be much less than their total holdings, at least initially. People would turn to the other currency only gradually, if and as they gain confidence in it. An intriguing result from the break-up of Czechoslovakia in January 1993 is that in both countries about 25 percent of the outstanding currency stock was not exchanged, providing both governments with a substantial windfall gain. If that experience were repeated, the reserve impact would be correspondingly reduced.

If withdrawal of the JD takes place, it is in both Jordan's and the WBG's interest to make the transition orderly. This is in fact possible, as the example of the Czech and Slovak Republics indicates. The first step in an orderly transition would consist of overprinting the currency in circulation, something that could be implemented in the short term. The second step would consist of actual withdrawal of the old notes and replacement by a new currency, to follow only gradually as the overprinted notes pass through the banking system. The notes could then be presented to the Jordanian authorities for exchange as they come in. At current velocity this process would take roughly four to six months. The reserve impact of such a process could be further drawn out by supporting it with an IMF program.

There is an alternative to the current regime and a complete monetary split between Jordan and the WBG—this is a jointly-managed currency union. The high degree of factor mobility between Jordan the WBG and the lack of institutional capacity in the PMA are important reasons for this being considered a potentially optimal currency union. The costs for Jordan are two-fold: (i) having to share the seignorage revenue with the Palestinians (although this would be preferable to a total loss of seignorage with an independent Palestinian currency); and (ii) losing some policy independence since a currency union would require joint management of monetary policy and banking supervision (which would entail fewer risks for Jordanian banks operating in the WBG). Another permutation would be to link any future Palestinian currency explicitly to the JD. Ultimately,

the decision may depend on political circumstances, but on economic grounds there are many advantages to both Jordan and the WBG of a more coordinated approach to monetary management.

### **Capital Movements and Exchange Rate Management**

Over the medium term, there may be significant capital flows with potentially substantial consequences for Jordan's reserves and/or exchange rate. On the one hand, assets held in Amman could be redeployed to the WBG. This concern seems premature: the high level of uncertainty about the future of the WBG on the one hand, and the good macroeconomic stability of Jordan on the other, make a large shift out very unlikely. Against that is the likely large inflow of foreign money into the WBG, a substantial part of which is likely to find its way to Amman. Whichever way the capital flow may go, clearly there will be a substantial amount of additional financial uncertainty and capital movements stemming from political developments rather than from underlying changes in the real economy alone. A strong case can be made not to let purely financial flows back and forth influence the exchange rate, since that would introduce unwarranted disturbances in the real economy. Careful monetary policy designed to isolate the exchange rate from purely temporary financial pressures seems advisable. But sterilizing capital inflows is not a policy that can be pursued for any length of time without incurring substantial financial and real costs.<sup>3</sup>

The most obvious approach is to sterilize foreign exchange inflows through contractionary open market operations (essentially swapping foreign exchange for domestic bonds rather than domestic currency). The interest effects of that could be substantial if the domestic capital market outside the banking system is not well developed, as is still the case in Jordan. Upward pressure on interest rates makes for a destabilizing cycle since it in turn encourages further capital inflows, leading to more need to sterilize. Latin American experience has shown that the contractionary impact of such policies, through their impact on the cost of servicing the public debt and the financing of private investment, can be substantial.

An alternative approach puts the burden on the banking system by raising reserve requirements in

line with foreign inflows (for example through very high marginal reserve requirements, possibly focused on foreign deposits). The fiscal impact of sterilization will disappear if the banks are not state owned, and if reserves pay below market rates.<sup>4</sup> The economic costs will still be there, however: as reserves increase, there will be upward pressure on lending rates and a reduction in intermediary services performed by the banking system. Clearly this will be costly at the very time that private investment is very much needed. Other approaches to sterilization essentially come down to variants of the two methods presented, with correspondingly similar consequences.

International experience suggests that sterilization of financial inflows should be carried out in the short run but cannot be sustained in the long term. Short term flows can be sterilized at negligible costs; long term inflows cannot. If a steady inflow of foreign exchange materializes—like in Mexico after the debt deal—the upward pressure on the exchange rate may reduce the growth of economic activity and employment. Since the main impetus for growth will have to come from the private sector, serious thought should be given to the only alternative left: further fiscal stringency to take pressure off the real exchange rate. This was the route taken by Mexico in 1989; when it was abandoned recently, the resulting upward pressure on the real exchange rate led to severe downward pressure on privately generated exports and employment. When the pressure comes from reserves inflows without matching signs of an expansion in commodity market activity, upward pressure should be resisted. The resulting real appreciation will lead to a decline in exports and ensuing recessionary pressure. As a general rule, appreciating too late is not very damaging; going too far and being forced to devalue is.

### **Real Sector Developments and the Exchange Rate**

Identifying purely temporary financial shocks will be complicated by the fact that there are likely to be real permanent changes in the economy that do require a real exchange rate adjustment over the medium term. Moreover there may be portfolio shifts that reflect real changes in the returns to holding Jordanian assets. A building boom in the WBG may probably spill over into increased demand for



Jordanian labor and construction services. This in turn may set off a similar, smaller boom in Jordan itself. Although there is currently some excess supply in the labor market, the combination of increased product market demand and labor outflows to the WBG could lead to a tightening of labor market conditions (Chapter V). A similar boom in 1990/91 was accommodated without upward pressure on the exchange rate, but that boom coincided with a labor influx of almost 20 percent (140,000 entrants into a labor force of at that time 780,000). No such influx is anticipated after the peace agreement; on the contrary, a return of Palestinian refugees to the WBG would set up a flow in the opposite direction, with attendant further upward pressure on the real exchange rate (Chapter V).

While Jordan should avoid appreciation stemming from temporary financial flows only, unless the inflows develop into a medium term phenomenon, it should let its currency appreciate when the economy starts to heat up in response to positive demand shocks. A good example of what may happen when upward pressure on the real exchange rate emanating from the real sector is not accommodated can be seen in Western Europe. German unification and the large amount of transfers extended by the German government at that time triggered a boom in Germany and its immediate neighbors, the US recession notwithstanding. The rigid way the rules of the European Monetary System were implemented at the time did not allow revaluation of the Deutsche mark and the Dutch guilder; as a consequence, inflation in both countries accelerated well

beyond recent historical experience. (Inflation in excess of trading partners' inflation is also a way of achieving a real appreciation.)

Thus, contrary to pressure emanating from purely temporary financial flows, such real shocks should be accommodated by real exchange rate appreciation. This raises two key questions.

- How to distinguish exchange rate pressure emanating from real factors from pressure stemming from purely financial factors?
- And, if there is a need to bring about a real appreciation, how is it best to do this?

The answer to the first question is straightforward. A boom in the Jordanian economy and a tightening of labor market conditions are clear indications that exchange rate pressures are emanating from the real economy. When GDP growth accelerates above its current rate of about 5 percent, non-traditional exports start growing faster than their current 10 percent and pressures in the labor market appear, appreciation is called for. The only sustainable alternative would be to create room in commodity and labor markets by extensively cutting back on fiscal expenditure.

As to the second question, how a real appreciation should be brought about, Jordan faces two options. A real appreciation can be brought about through either revaluation of the nominal rate or through inflation at rates higher than Jordan's trading partners. There is a strong argument against the second route. Jordan has built up an enviable record of macroeconomic stability, which could be damaged if the inflation route is chosen.

### III. The Peace Agreements and the Financial System

This chapter focuses mainly on the operation of Jordanian banks in the WBG. It discusses the opportunities and risks faced by Jordanian banks arising from their operations in the WBG, the consequences for the financial system in Jordan resulting from these operations and some recommendations regarding the regulation and supervision of Jordanian banks.

#### Opportunities and Risks of Operating in the WBG

Although initially only those banks that operated in the WBG in 1967 will receive licenses to start business there, practically all Jordanian banks are planning to establish branches in the West Bank and Gaza and most of them want to open more than one branch. The driving forces behind this push are desires to mobilize untapped resources, to gain market share in an emerging economy, and to participate in the expected investment-led boom. Jordanian banks are counting on the possibility of lending in the WBG to Jordanian enterprises, or to joint ventures with Palestinian enterprises, against collateral established in Jordan. This market could prove to be substantial, given the links of many Jordanian enterprises with the West Bank. According to some bankers, many Jordanian enterprises have stopped their investment plans in Jordan in anticipation of the possibility of investing in the WBG.<sup>5</sup>

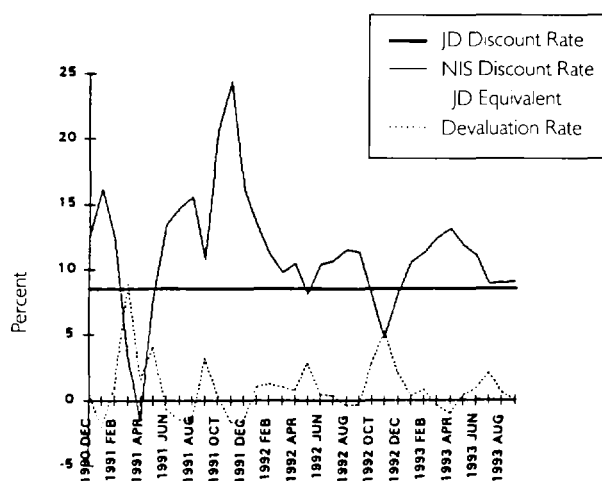
In the short term, it is quite likely that Jordanian banks will operate with high levels of liquidity in the WBG, lending only a small portion of their portfolio at very short maturities. The risks of the multiple currency environment, the lack of good financial statements and collection enforcement, and the termination provision in the Memorandum of Understanding push the banks in this direction. If banks cannot identify good opportunities for lending, they could find it difficult to cover the fixed costs of their branches and their operations in JDs could become unsustainable. They could turn to operating in new Israeli shekels (NIS), depositing their resources with Israeli banks, but the spread on

these operations is very small, and would be reduced if many banks enter the business. Thus, the main problems that Jordanian banks will face in the first few years are those associated with operating with a low ratio of loans to total assets, and the problems that Jordanian banks working in the WBG may transmit to the Jordanian economy are likely to be rooted in their lack of lending rather than in an excessive expansion of credit.

#### The Risks of Operating in Multiple Currencies

The current agreements among Israel, Jordan and the PLO allow Jordanian banks operating in the WBG to issue assets and liabilities in both New Israeli Shekels (NIS) and JDs, as well as to exchange one currency into the other at a freely set exchange rate. This environment poses considerable risks to the banks. The importance of these risks in the management of the Jordanian branches will depend on the share of the NIS in the WBG economy in general and in the operations of the banks. Currently, the NIS is widely used in the WBG because the wages

Figure 3.1: NIS and JDs Discount Rate in JD Terms



Source: IFS.

of Palestinians working in Israel are paid in that currency. Apparently, Palestinians do not use it for deposits. If accounts in NIS are made available in Jordanian banks, however, people may choose to hold their deposits in NIS for interest rate reasons. As shown in Figure 3.1, NIS interest rates have been higher in JD terms (deflated by the rate of devaluation) than those in JDs for prolonged periods.

When a bank has part of its assets and part of its liabilities denominated in two currencies, it will attempt to ensure that both sides of the balance sheet are perfectly matched in currency terms, and differences in interest rates between each currency reflect the expectations of devaluation of one against the other. If there is a sudden change in expectations of a devaluation, banks will attempt to shift the composition of assets simultaneously with the shift in the composition of their liabilities. If, however, assets are not fully liquid (as may happen if maturities are longer than overnight), banks may end up having assets denominated in the weakening currency funded with deposits in the strengthening currency, which would put it at serious risk of losses.

For banks with a relatively short-term portfolio, resisting a portfolio shift through interest rate increases or deposits in the weakening currency is probably the best strategy. If the market is responsive to this strategy, and the increased interest rate prevents both the shift in the currency composition of deposits and the depreciation of the weak currency. The interest costs of deposits in the weakening currency would increase while the interest revenues on loans in the same currency would remain unchanged, but because the losses arising from the temporarily reduced spread would be lower than those that a devaluation could cause if they are caught unmatched. Banks, however, may be unable to prevent shifts in the composition of liabilities, if the demand for deposits in the weakening currency is inelastic to interest rates. In this case, assets and liabilities in the weak currency will become unmatched, increasing the risk of capital losses if a devaluation takes place. These losses would occur even if the deposit portfolio is shifting, if the shift is faster than both the rate of depreciation and the rate of recovery of loans in the weak currency.

Jordanian banks are already exposed to the risks of a multiple currency environment because they are authorized to receive deposits in foreign exchange in Jordan. The environment in Jordan, however, is much less risky than in the WBG for three main rea-

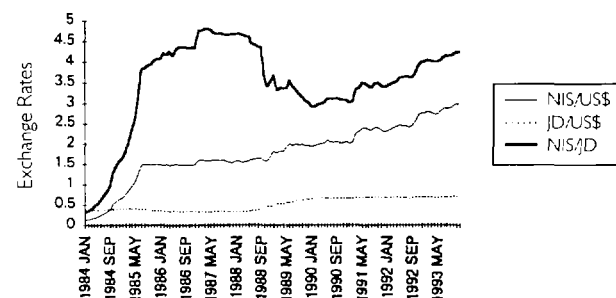
sons. First, banks are allowed to issue foreign currency deposits only to nonresidents. While this regulation can be bypassed, it elevates the transaction costs of foreign currency deposits. Second, the banks do not lend foreign currency deposits inside Jordan, but redeposit all of them with either the central bank (CBJ) or correspondent banks abroad. Thus, there is no way of falling into currency mismatching. Third, the volatility of the JD exchange rate with respect to the most important of the foreign currencies, the US Dollar, is much lower than the volatility of the exchange rate with the NIS (Figure 3.2).

These three differences make for a much safer environment in Jordan than in the WBG. The case of Lebanon, portrayed in Figure 3.3, shows clearly how fast and how radically the currency composition of liabilities can change in response to economic and political events. The risk should push Jordanian banks into holding higher levels of liquidity in the WBG than in their home country. Higher liquidity in both currencies would reduce the risk of mismatching, the risk of volatility in the main monetary and financial variables, and the risk of stock losses in the event of devaluation. But the risks posed by the volatility of a multiple currency environment would not be completely eliminated with higher levels of liquidity. Banks operating in the WBG would have to become quite sophisticated in the management of assets and liabilities in terms of currency composition, interest rates and exchange rate risks.

### Credit Risks

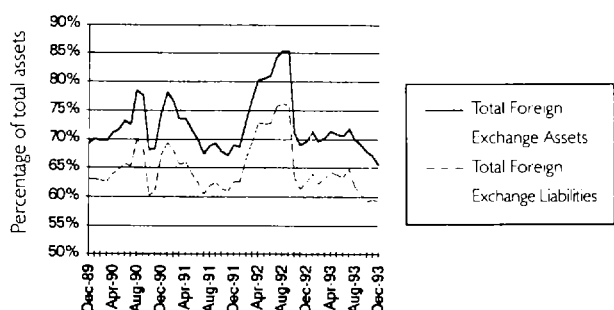
Opening operations in a new territory always poses increased credit risks to banks, because they lack

Figure 3.2: Exchange Rates of US\$, NIS and JD



Source: IFS.

**Figure 3.3: Foreign Exchange Assets and Liabilities, as a Percentage of Total Assets in Lebanese Banks**



Source: Bulletin of the Bank of Lebanon.

knowledge about potential borrowers and the institutional setting of the new country. In the case of the WBG, these risks will be higher for two additional reasons. First, banks will start their operations during a period of unsettled relative prices, which could fluctuate in ways that endanger the health of the banks' portfolios. If there is a real estate boom, triggered by both a one-time adjustment of the stock of middle-class housing units and by large flows of external aid targeted for low-price housing, the shift in relative prices in favor of land and construction may prove to be unsustainable in the medium term, once the factors inducing the boom spend themselves. A subsequent shift in relative prices in the opposite direction could seriously hurt banks overexposed in real estate.

Second, the basic financial infrastructure in the WBG is still inadequate in at least five respects: (a) financial statements are unreliable, and there are no auditing standards; (b) foreclosing on real estate collateral is not widely accepted and is impossible if it relates to rented housing units; (c) courts are slow when dealing with collections in general; (d) the police force that would enforce court orders is just being established; and (e) most of the lending since 1967 has been carried out by nongovernmental agencies, which have not pressed for collections. Some of these problems exist in Jordan (the problems found in foreclosing real estate property and the slowness of the courts) but they are more marked in the WBG, to the point of paralyzing lending operations.

The two existing banks in the WBG—the Bank of Palestine in Gaza and the Cairo-Amman Bank in the West Bank—lend only about 10 percent of their

assets in the WBG. The Bank of Palestine deposits most of the remainder in Israeli banks, and the Cairo-Amman Bank invests in documents specially issued by CBJ for this purpose. Given the lack of outlets for funds, these banks make no efforts to mobilize resources, and sometimes they reject deposits.

### *Lending Behavior in the WBG*

The lending behavior of Jordanian banks in the WBG can affect the Jordanian financial system through two important channels: (a) the soundness of the loans, which would affect the solvency of the home institutions; and (b) the volume of lending, which would affect the interest rates, the spread and the profitability of those institutions. The implications of the first are obvious. The second requires some elaboration.

If reserve requirements are the same in Jordan and the WBG, bank branches in the WBG could lend either the same or a lesser percentage of deposits as branches in Jordan. As discussed previously, the opportunities to lend safely in the WBG are lower than in Jordan, so that banks could easily end up with a glut of deposits that they would not be able to lend. The JD savings available for lending would have increased more than the effective demand for credit. Banks can react to this in two ways. First, they can transfer the resources to Jordan and lend them there. This would be equivalent to a capital inflow for Jordan, which would exert downward pressures on interest rates. Second, they could reduce the interest rates they pay on the deposits. These interest rates would then be transmitted to Jordan through arbitrage. In both cases the low interest rates resulting from the excessive liquidity of the WBG branches would get transmitted to Jordanian markets in the same way as LIBOR in US Dollars influences interest rates in the US.

The impact on the banking system and on macro variables, however, would be different in each of the two outcomes. If banks are not allowed to lend their extra resources in Jordan, they will experience profitability problems, which would lead them either to reduce their mobilization of deposits by reducing their interest rates and the scope of their operations in the WBG, or to ask for CBJ's subsidization through open market operations (the interest paid by CBJ on debt issued to the banks would maintain the profitability of the operation of the WBG

branches). If the banks are allowed to transfer funds from the West Bank and Gaza to Jordan and lend them there, the profitability of the banks would not be affected. However, this could lead to an expansion of overall credit, which would create a conflict with the credit ceilings that CBJ is imposing on the banking system under its agreements with the IMF. CBJ would be forced to sterilize the extra amount of credit, with adverse effects on the fiscal or quasi-fiscal deficit. Indirectly, CBJ would also be subsidizing the operations of the banks in the WBG, by borrowing the extra capital inflow, equal to the excess of the deposits over the loans in the WBG. It is worth noting that this problem would exist even if there are good lending opportunities in the WBG, if the credit ceilings are estimated on the basis of economic activity of Jordan alone.

#### *The Risks of a Change in the Regulatory Environment*

The risks to Jordanian banks of operating in the WBG are aggravated by the termination provision in the Memorandum of Understanding. The provision states that the framework established by the Memorandum will expire not later than the end of the interim period or whenever banking and monetary responsibilities and authority in the WBG are transferred to the Palestinians. This clause leaves the institutional setting under which Jordanian banks will operate in the WBG after five years—or earlier if the banking and monetary responsibilities are transferred to the Palestinians—uncertain.

The risks introduced by this provision are paralyzing. Given the uncertainty, it would be imprudent of Jordanian banks to grant loans maturing beyond 1998. More importantly, investing in developing a knowledge of the credit market would not make much sense if the business horizon of the banks is only five years or less. Without such investment, lending risks would remain high, reducing the level of lending that banks could carry out. Additionally, there is the risk posed by one of the possible outcomes implied by the termination clause, the creation of a Palestinian currency. A change in currency can be positive, neutral or negative for banks operating in the WBG, depending on many variables, including the way the reform is carried out, the maintenance or the elimination of the multi-currency environment under the new regime, the rate of exchange used in conversions, and the maturity of the loans granted by the banks. These

variables are so many that no meaningful analysis of this contingency can be carried out, except for noting the negative effects on bank risk of current uncertainty in this respect.

#### **Dealing with Financial Sector Risks**

The problems that excess liquidity in the Jordanian branches in the WBG would create in Jordan, and the parallel problems that bad portfolios could generate, make it clear that it is in the interest of Jordan to help in the development of a good lending environment in the WBG, one which would make it easier and safer for the banks to lend. There are four main dimensions to the risks: (a) the lack of an adequate infrastructure for accounting, auditing, and enforcement of collections; (b) the termination clause in the Memorandum of Understanding; (c) the multicurrency environment; and (d) the danger of excessive credit risks in the WBG. There is little that Jordan can do regarding the legal infrastructure in the WBG, except try to persuade the Palestinians of the importance of creating a sounder environment in terms of collection enforcement, accounting and auditing. Reducing these risks is crucial for the Palestinians as well, who otherwise may find that their banking system is not playing its developmental role. Something can be done about the other three, including negotiating a permanent agreement regulating banking operations in the WBG, issuing regulations regarding the operations in different currencies, and strengthening the banking system against portfolio losses that could potentially arise from a real estate bubble.

#### *The Need for a Permanent Banking Framework*

It would be better for all parties involved (the Bank of Israel, CBJ and the authorities of the WBG) to reach an early agreement on the main features of a permanent banking arrangement. This would remove a factor that is unnecessarily increasing the risk of operating in the WBG. The new arrangement should cover the operation of banks of any nationality, and should have provisions regarding the establishment of local banks, including subsidiaries of foreign banks. This is essential because Jordanian banks should know what their environment will be relative to that of other banks, particularly those established locally. The current Memorandum of Understanding is fully consistent with the Basle

Concordat, and could become the basis for a permanent agreement regarding the operation of foreign banks. If banking and monetary authority is transferred to the Palestinians, the Palestinian authority would inherit the faculties now exercised by the SBWB. With clearer rules of the game, the banks now starting their operations in the WBG could think long term, investing in the West Bank and Gaza to acquire knowledge about the credit markets, in training local staff, and in promoting long-term relationships with their customers. All these actions would reduce both the long-run costs and the risks of bank operations, resulting in higher ratios of credits to deposits.

The permanent agreement should also include the main guidelines that the Palestinian banking and monetary authorities would follow in case they decide to create a Palestinian currency, or modify in any substantial way the currency regime now in place. The key points in this respect are the following: (a) there should be no discrimination in the rate of exchange that would be paid for the new currency, either in terms of the sides of the balance sheet or in terms of the capital of the banks; (b) the denomination of assets and obligations in terms of currencies of third parties would be left intact, or paid outright at an exchange rate that would leave the capital of the bank intact; (c) banks would continue to have the right to repatriate their profits; and (d) an agreement to the use of international arbitration in case of disagreement at the moment of termination or currency reform should be reached.

#### *Dealing with Volatility*

To deal with the risk of volatility in exchange and interest rates, and in the currency composition of the assets and liabilities of banks, minimum liquidity ratios (liquid assets to total assets) are needed for both JD and NIS. These would be covered by the legal reserve requirements in JDs, and by a provision in the Memorandum of Understanding in the case of NIS. These ratios should be revised, if needed, to ensure the flexibility of banks to shift their assets as their liabilities change.

Jordanian banks should have a formal committee for assets and liabilities management, controlling the risks of mismatching in terms of currency, interest rates and liquidity. This is crucial in the WBG, but is also important in Jordan, and will become even more so as the markets across the

bridges become closer. As long as the termination clause is not clarified, Jordanian branches should not grant loans maturing later than 1998. As long as they operate in a multicurrency environment, they should not grant loans with fixed interest rates with maturities longer than 30 days.

#### *Dealing with Credit Risks*

While the current information seems to indicate that the main risks that Jordan will face from the operation of Jordanian banks in the WBG are on the side of scarce lending opportunities, the risks posed by the opposite possibility—a very fast growth of credit in the WBG—cannot be ignored. In fact, some of the risks of each possibility are not contradictory. A lack of good lending opportunities in the WBG could lead banks to take inordinate risks. Banks could suffer simultaneously from excess liquidity and excessive risks in their loans. For these reasons, CBJ should prepare itself for the whole range of possibilities.

The prices of real estate are already very high in the WBG, and may go up even further as a result of the expected boom in housing construction. CBJ should consider issuing a regulation restricting the levels at which real estate collaterals will be valued to prevent problems, if and when the prices of real estate shift downwards. Raising the capital adequacy ratio for banks operating in the WBG is not necessary as long as the banks keep their liquidity ratios in each currency, analyze their risks properly and supervision is good. In addition, raising capital adequacy ratios would worsen the profitability problem that banks may experience if they do not find good lending risks to take in the WBG.

The ceilings imposed on the banking system's credit indirectly set a limit on the amount of resources that the banks can mobilize and allocate profitably. If they are maintained while the volume of deposits could easily increase by 20 percent, they will induce either severe profitability problems to the Jordanian banks or large fiscal or quasi-fiscal expenditures carried out to sterilize the new inflow of credits granted with those deposits. CBJ should re-examine this policy.

#### *The Role of the Palestinian Monetary Authority*

The recently created Palestinian Monetary Authority (PMA) is the vehicle that the Palestinian

authorities could use to remove these uncertainties. From the point of view of Jordan, the main question is who will regulate and supervise the banks established in Gaza and Jericho while the PMA gains the expertise required to regulate and supervise the banking system, and under what basic legislation? It is essential for the health of the Jordanian banking system that all banks are properly regulated and supervised in the West Bank and Gaza. Thus, the Palestinian authorities must dispel uncertainties regarding the who and how of regulation and supervision, today and for the future.

Jordan could help in the solution of these problems by providing technical assistance to the PMA during the transition period, training Palestinian professionals to take over the institution at the end of it. The principles set up in the original agreements with Israel provide an adequate foundation for the operation of the system during this period. The identity of the institution which would act as the host in the establishment of foreign branches or subsidiaries, and as the regulator and supervisor of domestic institutions should be redefined. It would be PMA, under the management of a professional

agency, which, given the circumstances, could be the Bank of Jordan. This arrangement would allow the banking system to start its operations.

The principles that will govern the operation of banks after the transition period, and the rules of the conversion (if any is needed) must also be clearly established. Since the agreements are based on international conventions, there should be no need to change them, and their negotiation should be relatively easy. If these issues are not resolved clearly or satisfactorily, the risks of operating in the West Bank and Gaza for Jordanian banks would become unacceptably high. The best course of action in these circumstances would be to raise the capital that banks would need to operate in the West Bank and Gaza substantially, by either increasing the capital to assets ratio in the portion of their assets invested in the West Bank and Gaza, or by mandating an immediate provision in each credit granted there. Also, a regulation prohibiting loans with maturities longer than, say, 90 days should be issued, and the possibility of imposing administrative controls on the conversion of currencies should be considered.

## IV. Trade and Tourism Options

Current and prospective developments in the peace process open up the possibility of a major restructuring of trade and tourism patterns in the region. Jordan's response to the challenges posed by the rapidly changing external economic environment will play a key role in determining the country's economic future. In this Chapter we examine the strategic choices that are likely to face Jordan in the area of trade, in both goods and services. We start by describing current patterns of trade, and then turn to alternative trade strategies. Tourism is considered separately.

### Jordan's Trade Patterns

Table 4.1 presents data on Jordan's current geographical trade pattern for goods. Neither imports nor exports are geographically concentrated. On the export side, India is the largest single market, with Saudi Arabia next. Jordan's biggest import bill is with Iraq, from which it imports oil; the United

States follows, and then Germany. Trade with Japan is still at a relatively low level. Exports to Arab countries account for over a third of the total, whereas imports from Arab countries account for just 20 percent of the total.<sup>6</sup> Jordan's trade is marked by unusually large imbalances. Most noteworthy, the excess of goods imports over exports amounted in 1992 to 50 percent of GNP. There is little correlation among the shares of exports to and imports from a particular country—only in the cases of Iraq and Turkey are there sizable shares of both imports and exports. Trade deficits as a share of GNP are very large with Iraq, Europe, and the United States; Jordan has a trade surplus with Saudi Arabia and with India.

Services trade for 1992 is summarized in Table 4.2.<sup>7</sup> Gross workers' remittances in 1992 amounted to over a third of receipts on the services account, and were almost as large as total exports of goods. Travel receipts amounted to 50 percent of total goods exports, equivalently to 9.9 percent of GNP. Payments made on account of investment income amounted to over JD 313 million, or 9.9 percent of GNP.

Most of Jordan's exports are raw materials (Table 4.3). Phosphates and potash, together with medicaments, detergents and fertilizers account for nearly 60 percent of all exports. Most imports are capital goods and raw materials. By SITC, exports are concentrated in categories 0 (food and live animals), 2 (crude materials, consisting mainly of phos-

**Table 4.1: Jordanian Goods—Imports and Exports, Geographic Distribution, 1992**  
(Percent)

	Exports	Imports	Deficit (% of GNP)
Total (JD millions)	633.8	2214.0	50.0
(% of GNP)	20.1	70.1	
Arab countries	35.1	20.9	7.6
Egypt	0.6	1.7	
Iraq	7.7	13.3	7.8
Syria	2.0	1.0	
Lebanon	1.5	1.4	
Saudi Arabia	11.1	1.8	-1.0
U.A.E.	4.1	1.0	
European Union	3.0	29.4	20.0
E. Europe & FSU	2.5	5.9	
Other	59.4	43.8	
Other Europe	0.0	3.4	
U.S.A.	0.7	11.1	7.7
Japan	1.9	6.0	3.8
China	2.2	2.4	
India	15.2	1.4	-2.1
Turkey	2.4	4.4	
Indonesia	4.6	0.7	0.7

Note: In the exports and imports columns, all entries except in the first two rows are as a percentage of total exports and imports respectively.  
Source: *Monthly Statistical Bulletin*, Central Bank of Jordan, October 1993.

**Table 4.2: Jordanian Services Trade, Accrual Basis, 1992**  
(Percent)

	Receipts	Payments
Total (JD millions)	1633.9	1019.9
(% of GNP)	51.7	32.3
Workers' remittances	35.1	5.7
Travel	19.2	23.3
Transportation	13.7	19.7
Investment income	4.7	30.7
Other	27.3	20.6

Note: Except for first two rows, entries are percent of total for the column.  
Source: *Monthly Statistical Bulletin*, Central Bank of Jordan, October 1993. The data here are from a preliminary estimate.



**Table 4.3: Jordanian Goods Trade, by Function and Commodity, 1992**

(Percent)

	Exports	Imports
Total (JD millions)	633.8	2214.0
By economic function		
Consumer goods	40.3	40.7
Raw materials	57.3	35.7
Capital goods	2.3	23.0
Re-exports	30.8	
By SITC		
0. Food and live animals	14.5	18.8
1. Beverages and tobacco	0.8	0.4
2. Crude materials, except fuels	34.4	2.1
Phosphates	19.3	
Potash	13.6	
3. Mineral fuels etc.	0.0	13.7
4. Animal and vegetable oils and fats	0.3	1.7
5. Chemicals	31.1	11.0
Medicaments	8.7	
Detergents and soap	5.5	
Fertilizers	11.4	
6. Manufactured goods	10.6	20.1
Textiles etc.	2.4	
Cement	3.5	
7. Machinery & transport equipment	1.9	24.6
8. Miscellaneous manufactured articles	6.5	6.8
9. N.e.c.	0.0	0.8

Note. Except for first row, entries are percent of total for the column.

Source: *Monthly Statistical Bulletin*, Central Bank of Jordan, October 1993.

phates and potash), 5 (chemicals, including medicaments and fertilizers), and 6 (manufactured goods). Thus commodities exported are mainly primary commodities and some downstream chemical products. Imports are concentrated on categories 0 (food and live animals), 3 (mineral fuels), 5 (chemicals), 6 (manufactured goods), and 7 (machinery and transport equipment). In volume (constant dollar) terms, Jordanian merchandise exports grew on average at 6 percent per annum over the period 1983–1992;<sup>8</sup> over that period nonfactor service exports declined by 20 percent, implying very little change in real exports of goods and nonfactor services. Real merchandise imports varied a great deal during 1983–1992, from a maximum of \$3.2 billion (1989 dollars) in 1983 to a minimum of \$2 billion in 1989, rising to \$2.9 billion in 1992.<sup>9</sup>

### The Trade Regime

A trade liberalization program was initiated in 1989. Import restrictions and bans have been reduced, some price controls have been lifted, direct controls over parts of agricultural production have been

removed, and subsidies on food production and consumption have been reduced. The weighted average tariff rate was reduced from 34.4 percent in 1987 to 25 percent in 1992, and the coefficient of variation of tariffs was cut sharply, with the number of goods for which tariffs exceeded 50 percent being significantly reduced. Quantitative restrictions and tariff exemptions have been reduced, and the support for export development strengthened; the incentive regime in Jordan in the last few years appears to have moved in favor of the production of tradables. Most significantly, Jordan's planned accession to GATT is a further signal of its commitment to pursue trade liberalization.

Nonetheless important distortions remain in the trade regime, some as a result of trade interventions, others as a result of domestic policies. There is still considerable variance in the tariff structure. Despite the improvement in incentives for the production of tradables, the tariff structure remains biased against exports. Tariff exemptions undermine the legal tariff and surcharge structure in a nontransparent way: during 1990–92, over half of all imports entered the country without paying duty. It appears also that customs regulations increase the base price of those goods that do pay duties by about 24 percent. Consumption taxes on some imports appear to be higher than on domestically produced goods.

Non-tariff barriers take several forms: outright prohibition of imports of some food products; licensing requirements for other products; and a government monopoly on imports of other food-stuffs. Import and export regulations in Jordan are unusually complex and restrictive and are followed in a rigid fashion by government officials. One important feature of the Jordanian trade regime is the importance of protocol trade. Of the JD 222 million (35 percent), of direct exports which go to Arab countries, about JD 90 million consists of exports of food and live animals to Gulf countries. The remainder consists primarily of protocol trade to the following countries in order of importance: Iraq, Yemen, Libya, Sudan, Egypt, Tunisia, Russia, and Morocco.

### Alternative Trade Strategies

Jordan faces both short-run and medium- to long-run strategic options with respect to trade. In the short run the key issue is to assure access by Jordanian firms to the WBG construction market on

a equal footing with other potential contractors and suppliers of services. This will depend primarily on bilateral negotiations between the PLO and Jordan and on the procurement procedures adopted by donors financing the expected investment program in the WBG. Jordan may also have a competitive advantage in supplying such construction inputs as cement and metal products to the WBG market. If it wishes to pursue the commodity, as opposed to services, trade opportunities offered by the predicted construction boom in the WBG, Jordan will have to place its exporters of construction materials on an equal footing with potential competitors elsewhere. At a minimum this will require effective administration of a duty free import-for-export regime for the construction materials industry and negotiation of nondiscriminatory tariffs on construction materials with the PLO.

In the longer run the Jordanian economy faces important choices with respect to its trade regime. There are a number of options which the government can choose in pursuit of greater integration with world markets, ranging from unilateral actions to increase trade to strategic integration with the WBG and/or Israel. We consider several of these options below.

#### *Multilateral Liberalization*

Jordan has made the basic decision to liberalize its trade regime and integrate with the world economy. The goal is export-led growth, both as a matter of necessity in light of the declining remittances and foreign aid available to finance the import surplus, and as a matter of conviction based on the superior performance over the long term of countries that have aggressively helped the private sector develop exports.<sup>10</sup> This strategy is already being implemented, and will over a period of years and together with GATT accession, provide the basis for Jordan's trade and overall economic development strategy.

There is much room for Jordan's trade, particularly exports, to develop. In particular, Jordan at present exports very little to the three major global markets, the European Union, the United States, and Japan (see Table 4.1). There is every reason to expect such trade to develop as Jordanian export promotion efforts begin to pay off. Trade in services, especially tourism, is another promising area. Even in 1992, after the Gulf War, the value of workers'

remittances into Jordan amounted to nearly as much as exports of goods. No doubt Jordan will have to rely on the revenues generated by such labor flows for many years. But if Jordanian economic growth, and with it foreign and domestic investment in the economy, increases, then it is likely that Jordanians working abroad will begin to return. The eventual result would be that Jordan will export less labor directly and export more labor embodied in goods and services.

#### *Regional Trade Arrangements*

The development of the European Union and NAFTA are only the most prominent examples of the recent trend to the creation of regional trade arrangements.<sup>11</sup> The issues of multilateralism versus regionalism have been extensively debated, with multilateralism being seen as generally preferable, but with regional arrangements making sense either as a means for a developing country to guarantee access to a particular industrialized country market, or in the hope that the dynamics of overall trade liberalization can be accelerated by starting with regional liberalization.<sup>12</sup> It should be noted, though, that most regional trading agreements have been unsuccessful.

Jordan is currently a member of at least two regional trade agreements, the Arab Common Market (ACM)<sup>13</sup> founded in 1964, and the Arab Cooperation Council<sup>14</sup> founded in 1989. Neither of these groupings appears to have affected the pattern of Jordanian trade significantly; indeed, as in other areas of the world, the general experience of regional trade arrangements in the Middle East has been unsuccessful, with the exception of the Gulf Cooperation Council.<sup>15</sup> Given both international and Middle Eastern experience with regional trade arrangements, the natural course for Jordan to follow seems to be to pursue general trade liberalization, and to focus on developing its exports to the major international markets of Europe, North America and the Far East.

However, two important questions remain. First, is it possible or likely that the creation of a new regional trade grouping would enable some or all of the countries of the Middle East to liberalize trade among themselves more rapidly than would occur if they pursued independent trade policies? Second, how should Jordan respond both to the need to establish a new set of trading relations with the

Palestinians as they gain control over their economy, and to the developing trade relations between Israel and the Palestinians? International experience, including the history from which the European Union developed, offers lessons about the way to develop a successful regional trading group. Most important, the successful agreements have started small, either by being limited to a few countries, or by beginning cooperation in a limited number of functional areas. Given the need to start small, and since Jordan will in any case have to decide on its trade policy with the Palestinians within the next few years, we shall focus on alternative responses to the trade relations that are likely to emerge from the peace process.

#### *The Emerging Framework of Palestinian Trade*

An economic agreement between the PLO and Israel was signed in Paris on April 29, 1994. Trade between the two economies will be free with the exception of the export of a limited number of agricultural goods to Israel where quotas will apply for the next five years before being phased out. There will be common tariffs to third countries with the exception of two lists of goods—one consisting of specific imports from Jordan and Egypt and a second “development list” which will include imports needed for infrastructure projects and some basic foodstuffs. The agreement opens up the Israeli market for Palestinian products more than in the past, but in return it requires tight policy coordination in the area of trade with third parties.

In the case of imports from Jordan, where the Palestinian authority is free to establish duty rates independently, mechanisms have been put into place to minimize leakages into Israel. These mechanisms rely heavily on quantitative restrictions on imports into the West Bank and Gaza based on estimates of current levels of consumption in the West Bank and Gaza. In the absence of a physical frontier between the WBG and Israel the quantitative restrictions will restrict the volume of imports from Jordan and increase their price, but will not prevent leakages into the Israeli economy.

Currently the trade relationship between the WBG and Jordan is asymmetric. The WBG will impose tariffs according to the schedule of the Israeli-Palestinian customs union, while Jordan has traditionally facilitated the WBGs exports when they could be shown to satisfy the domestic content

requirements of the Arab boycott. This has resulted in a trade imbalance in favor of the WBG.

The PLO has also signed framework economic agreements with Jordan and with Egypt. The Jordan-PLO agreement contains several clauses that deal with trade.<sup>16</sup> Most important,

- A joint committee will be set up to promote trade and to adopt procedures to increase trade, “subject to a subsequent agreement”;
- A joint free zone will be set up in the Jordan Valley for the purpose of transit trade, industrial production, the processing of agricultural products, and joint investments;
- Both parties will facilitate the re-export of Palestinian products to Arab countries and the rest of the world;
- Tourism will be encouraged;
- Joint investments will be encouraged.

Obviously, most of the details that will determine the trade regime between Jordan and the Palestinian entity remain to be spelled out in subsequent agreements. It must also be the case that the eventual trade arrangements will depend on the political development of the Palestinian entity, where the leading possibilities are an independent Palestinian state and a confederation with Jordan.

#### **An Israel-West Bank and Gaza-Jordan Free Trade Area?**

Assuming the creation of a Palestinian-Israeli free trade area within the next year, or perhaps even within months, we consider three basic options that are available to Jordan. In each case, we assume the overall Jordanian trade liberalization program will continue. The options are:

- A trade agreement with the Palestinian entity, with no other special regional trade agreements.
- A trade agreement with the Palestinian entity, combined with a gradual approach to increased trade with Israel coordinated with other countries in the region (among these countries could be Iraq, Lebanon and Syria).
- A trade agreement with the Palestinians and also a trade agreement with Israel that specifies a gradual liberalization by each side, or equivalently a tripartite agreement among the three parties.

Each of these options assumes Jordan will negotiate trade arrangements with the Palestinians, as

specified in their January 1994 economic agreement. In the second and third options we assume that a peace agreement has been reached between Israel and Jordan. Given the close links between Jordanians and Palestinians, it is very likely that the Jordanian-Palestinian trade agreement would lead eventually to substantially free trade between the East and West banks of the Jordan—this would certainly be the case if the final political outcome is a Jordan-West Bank and Gaza confederation. Thus under all three options, we envisage a process that starts with substantial liberalization of Jordan-West Bank and Gaza trade, and that leads over time to essentially free trade between them.

The existence of an Israeli-Palestinian free trade area together with substantially free trade between Jordan and the West Bank would create incentives for indirect Israel-Jordan trade if formal trade were prohibited or heavily taxed. Rules of origin could be used to try to control such trade, but rules of origin would both impede legitimate trade and are typically porous. This, together with the political incentives coming out of the peace process, suggests that Jordan will have to consider formalizing its trade relations with Israel at the same time as or shortly after it makes an agreement with the Palestinians.

#### *The Israel-West Bank and Gaza Trade Regime*

The emerging free trade area between Israel and the Palestinians will have a tariff structure that is similar to that of Israel. Israel has trade agreements with the European Union (since 1975), BUN (1992), and the United States (1985), and reasonably high tariffs with other countries. Israeli trade with Europe and the United States is essentially free, except for agricultural restrictions. Under a trade liberalization program that began in 1991, tariffs on imports from other (non-BUN, non-BUN, non-US) countries are being gradually reduced over a five to nine year period, to a maximum of 8–12 percent. The liberalization program remains broadly on track (Table 4.4). The formal tariff structure of Israel implies a quite open economy, and one that over the next five years is scheduled to become very open. The important question is whether nontariff barriers change this picture significantly. At the formal level, most nontariff barriers were removed in 1991 with the introduction of the liberalization program. Remaining Bon take the form of standards that appear to be protective devices, and some licensing requirements.

**Table 4.4: Taxation of Israeli Imports, 1980–1992**

(Percent)	1980	1986	1989	1992
Average tax rate				
Consumer nondurables	20	25	23	24
Consumer durables	110	96	74	67
Intermediates	5	7	4	4
Producer durables				
Machinery and equipment	11	11	10	8
Motor vehicles	39	83	64	60
Total imports	9	16	11	12
Change in average tax rate on total imports due to changes in tax rates		1.7	-4.0	-4.8
Coefficient of variation of effective exchange rates		0.24	0.20	0.45

Note. Tax rates include customs, purchases tax, and other tariffs.  
Source: Bank of Israel Annual Report, May 1993.

Table 4.5 presents data on Israeli trade in 1992. The Israeli import surplus amounts to about 10 percent of GDP, with the gap arising mainly in the exports of goods, with the services account essentially balanced. Europe is the biggest source of goods imports and the major market for exports, but the North American market is large, and Israeli trade with North America is close to balance. Exports to other markets, particularly in Asia, have been rising rapidly in the last few years. Israeli goods exports consist largely of industrial commodities, with the metals, machinery and electronics sector accounting for 30 percent of total exports. Note that agricultural goods contribute only 4.1 percent of Israeli exports. Imports consist largely of investment goods and intermediates, while consumer good imports remain small.

The eventual nature of the Palestinian trade regime, and the commodity composition of its trade, remains to be determined. It is likely that the Palestinians, given market access, will export high-value-added agricultural goods, and that their industry will develop rapidly as it is freed of restrictions imposed during the occupation. Given the wage differentials between the Palestinians and Israel, it is also likely that Palestinian industry will operate as a supplier to Israeli industry, and that joint ventures will develop if the peace process stays on track. Of course, tourism is another likely source of export revenue for the Palestinian economy. It is inevitable that the share of Palestinian trade with Arab countries will rise, and the share with Israel will decline, as normal trade patterns in the region re-establish themselves.

**Table 4.5: The Structure of Israeli Exports and Imports, 1992**

	Exports	Imports
Total (\$ ba)	21.5	28.4
Goods (\$ ba)	13.3	18.3
Services (\$ ba)	8.2	8.6
Defense imports (\$ ba)		1.5
Total (percent of GDP)	33.2	43.8
<i>Geographical distribution of goods trade (percent)</i>		
Europe	42.0	54.0
North America	29.0	21.0
Other	30.0	25.0
<i>Commodity composition of goods trade (percent)</i>		
Agricultural goods	4.1	Consumer durables 6.6
Industrial goods	66.7	Consumer non-durables 6.0
Metals, machinery, electronics	30.3	Investment goods 17.7
Chemicals, rubber, plastics	15.0	Intermediates 71.6
Polished diamonds (net)	19.9	Fuel 9.4
Unpolished diamonds	3.4	Diamonds (net) 15.9
To West Bank and Gaza	8.3	From West Bank and Gaza 1.4

Source: Bank of Israel Annual Report, May 1993.

As a potential export market the West Bank and Gaza offers several attractive elements to Jordan, including physical proximity, a well established payments system based on the common use of the Dinar, and a limited modern domestic economy. Jordan could potentially export manufactured goods, agricultural products and services which are complementary to existing economic activity in the territories. In the longer run, however, there will be elements of competition between the two economies as well. If the WBG retain their privileged access to the Israeli market investment flows may move from Jordan to the West Bank and Gaza. Tariff reductions between the two economies threaten Palestinian agriculture and some segments of industry. This suggests that in the long run a workable solution may be the development of a three way trading n. Jordan's vulnerability to capital flight would be lessened while concerns in the WBG over the competition faced by local producers from Jordanian goods would be lessened as a consequence of the expanded market.

#### *Exports from Jordan to Israel*

Given the different per capita income levels in the two countries and the consequent difference in consumption patterns, there are few current Jordanian consumer products that would have a large market in Israel. A number of agricultural products are pro-

duced at lower cost in Jordan given the high price of water and labor in Israel. There are, however, a substantial number of intermediate products currently exported by Jordan which are imported by Israel in large volume (Table 4.6). The figures in the table underline the large potential gains for the smaller of the two economies. In these selected branches, Israeli imports are a multiple of Jordanian exports. This implies considerable potential for export expansion to Israel. At the least, the much lower transportation costs between the two economies implies that Israeli firms would switch some of their purchases to Jordanian firms. The most important potential exports are likely to be intermediate industrial inputs and some consumer products that can be sold in niche markets by Israeli exporters of final products. Many of these potential exports may be of products related to current production but differing in specifications. Assuming that Jordanian firms could maintain their current export markets, a considerable net expansion in output would be expected. This would have two beneficial effects in addition to increased gross national product:

- It would permit greater product specialization within existing plants and hence a reduction in unit costs. For example, firms that can reduce their product range in yarn from ten yarns of varying thickness to three yarn types can reduce unit cost by 20 to 30 percent. The reduction in cost would enable Jordanian firms to increase their exports to other nations.
- If greater sales were achieved by increasing the number of shifts from one, currently typical of Jordanian factories, to two, the cost of

**Table 4.6: Comparisons of Selected Jordanian Exports and Israeli Imports, 1992**

(Millions of dollars)

SITC number	Sector name	Israeli imports	Jordanian exports
522	Inorganic elements	54.0	9.1
523	Other inorganic chemicals	54.2	20.6
55	Perfume and cleaning products	123.1	55.3
651	Textile yarn	243.8	8.4
6513	Cotton yarn	90.9	3.1
6612	Lime and cement	82.8	32.7
678	Iron, steel tubes, pipes	303.0	6.7
699	Base metals	69.6	2.6
723	Civil engineering equipment	116.6	6.6
8219	Furniture and parts	64.8	5.1
8939	Miscellaneous plastic articles	129.4	14.6

Source: United Nations, Yearbook of International Trade Statistics, 1992.

the additional output would be quite low as no additional costs for plant and equipment would be incurred. A large number of new jobs could thus be created at virtually no cost to firms.

Exporting to Israel may also offer some important benefits from learning and technology transfer in addition to an expanded market. To succeed in exporting, it is critical to have access to a marketing network, the network that Israeli firms have built up during the last 35 years of an intensive export effort can be utilized at low cost by Jordanian firms. The alternative of slowly building one's own marketing network is both expensive and slow. These and other forms of interactions with other economies stemming from cooperation with Israeli firms should provide significant benefits. Interaction with Israeli firms offers a considerable amount of free technological information. It allows the utilization of their knowledge of technology and takes advantage of their existing marketing channels.<sup>17</sup>

In some successful Asian nations joint ventures and direct foreign investment have been crucial in recent years in fostering exports. The enterprises that have been established produce final and intermediate products as original equipment manufacturers, OEM, sold under the brand name of foreign enterprises. In other cases, large retailers have established local buying offices and signed contracts with local firms to produce products for these retail chains. The specifications and designs are often provided. A similar form of interaction has been subcontracting, the production of inputs by locally owned firms for incorporation into the product of foreign firms which have many international suppliers. Subcontracting and local buying offices have often been preferred to the admission of multinational corporations as governments have found the latter to engender internal political hostility even where their economic impact is demonstrably positive.

While Jordanian firms could establish such commercial interactions with foreign manufacturers and retailers, there is likely to be considerable benefit in taking advantage of existing Israeli technology and marketing skills much as China has done with Hong Kong and Taiwanese firms. Moreover, Israeli exporters are likely to be more comfortable with the small firms that currently exist in Jordan than would major OECD firms. Most Israeli firms that export have fewer than 500 employees and

were only recently considerably smaller. In contrast, American sporting shoe manufacturers have established links with Korean companies which have 5000 employees and can produce 200,000 pairs of tennis shoes in two weeks when fashion changes! Israeli manufacturers serve niche not mass markets and the products they sell do not require firms that are large by Jordanian standards.

The production of components and final goods and their export either directly through Israeli export traders or indirectly as components of Israeli final products promises a quick entry into world markets without having to go through the enormous expenses and time consuming process of developing a separate export marketing system. The building of such export facilitating institutions can require five years or more after the policy changes have been implemented for exports to be realized. Exports from Jordan to Israel of components to be included in Israeli exports as well as some final exports to Israel and the WBG would provide the initial impetus for a rapidly expanding set of exports. Jordanian manufacturers would be able to take advantage of the free trade agreements that Israel had concluded with the NB and the United States, providing an enormous boost for the Jordanian manufacturing sector. It would not have to be concerned with the growing protectionist pressures in the OECD countries.

#### *Exports from Israel to Jordan*

Given that Israeli prices are very close to world prices, opening the Jordanian economy to imports from Israel would have no effects different from those of permitting liberalized imports from all countries under GATT procedures. Obviously if special tariff arrangements were made with WBG and Israel while keeping a high common tariff barrier for other nations, imports from Israel could lead to adjustment problems in the short term insofar as Israeli costs were lower than those prevailing for higher cost Jordanian producers. Their source, however, is the inability of local manufacturers to meet international competition, Israeli or other, and lower prices would lead to benefits for Jordanian consumers.

Set against these adjustment costs, however, are a number of potential gains from increased imports of intermediate and capital goods from Israel. A major prospective benefit for Jordan would consist

of the ability of Jordanian farms and firms to interact with Israeli suppliers of specialized inputs. The most familiar example comes from agriculture in which seeds can be developed which are better suited for specific combinations of soil quality, rainfall, and sunshine. In the U.S., India, and other nations, such specially designed high yield seeds have been a major source of greater agricultural productivity and employment. Egypt has recently benefitted from Israeli innovations in the design of new seeds and seedlings for bananas and cantaloupes.

Many examples of locally appropriate innovations exist in both the industrial and service sectors as well as in agriculture. Computer aided design for cotton textiles, an important area of Israeli expertise, is more likely to be fruitful when close personal contact is available between the software designer and the ultimate Jordanian user than is the case when the software is imported from a vendor in a distant country. Such design alterations are best carried out through close interactions between producers and users in close physical proximity and are the basis for benefits accruing from industrial agglomeration in the industrialized economies. One of the major benefits is that the learning in the purchasing country is likely to be much greater and leads to potential self reliance. Similar interaction with geographically remote suppliers is unlikely.

A significant but often overlooked potential benefit would stem from the fact that Israel, even in the 1960s, has a relatively new and largely labor intensive industrial sector. Many Israeli industrialists are well acquainted with more labor intensive production technologies than technicians in the more advanced countries. Given the critical need of the Jordanian economy to generate new jobs, the Israeli familiarity with cost efficient but labor intensive technology provides a significant potential benefit.

#### *Exports from the West Bank and Gaza to Jordan*

A typical concern of domestic manufacturers in many nations is that with the opening of trade, local producers will not be able to match competitors. With respect to Israel and Jordan, a specific concern may be the possibility that further integration of the economies of the WBG and Israel will achieve a combination of high Israeli labor productivity, with low initial wages of Palestinian workers. This might occur as a result of direct investment in WBG by Israeli manufacturers or still more open borders for

workers from WBG who seek jobs in Israel. Investment by firms from advanced countries in lower wage nations in order to produce exports goods has been typical of recent experience, as OECD firms locate in some of the poorer nations of Asia such as Indonesia, China, Malaysia, Thailand, and the Philippines. The experience of these regions is suggestive.

In most cases the products manufactured have been targeted for sale in other OECD countries and not for the markets of poorer countries. They have typically been goods whose demand is highly income elastic such as TV sets, microwave ovens, high end sporting goods and electronics. It is thus plausible that Israeli manufacturers who expanded their hiring of Palestinians would similarly be oriented towards newer product areas for Israeli manufacturing which are largely high technology products. High technology here implies considerable research, design, and development but not necessarily very skilled production workers. On the margin, expanded Israeli production employing Palestinians would be mainly destined for its existing higher income markets. Insofar as exports to Jordan occurred they would likely be existing high technology products and those specially designed for Jordan reflecting local needs. Large exports of standardized products in textiles or clothing seem unlikely though small amounts of niche products might occur.

What is the scope for Israeli manufacturers to reduce production costs further by making investments in the West Bank and Gaza? The average cost of production may be expressed as:

$$AC = wz + ik + p_m m \quad (1)$$

where  $w$  is the average wage prevailing in a given Israeli sector,  $z$  the labor per unit of output,  $i$  the prevailing interest rate,  $k$  the amount of capital per unit of output,  $p_m$  price of intermediate inputs, and  $m$  the quantity of intermediate inputs per unit of output. The impact on Israeli costs of production of an expanded Palestinian labor force can readily be calculated from (1) by assuming that all cost elements except  $w$  remain the same and that the addition of new workers lowers wage cost by some given percentage. Table 4.7 presents the percentage reduction in average costs if productivity,  $z$ ,  $k$ ,  $m$  in (1) remained constant and  $w$  declined by 25 percent. Given the size of the WBG labor force relative to the

**Table 4.7: Percentage Reduction in Unit Costs in Israeli Manufacturing Resulting from a Uniform Wage Reduction of 25 Percent**

Sector	Reduction in unit cost (%)
Food products	4
Textiles	6
Wearing apparel	8
Leather	5
Footwear	7
Wood and wood products	7
Furniture and fixtures	7
Paper and paper products	5
Printing and publishing	8
Industrial chemicals	4
Other chemicals	6
Rubber products	9
Plastic products	4
Pottery, china	4
Glass	n.a.
Other nonmetallic minerals	5
Iron and steel	6
Non-ferrous metals	5
Metal products	9
Non-electrical Machinery	8
Electrical machinery	10
Transport equipment	13
Precision instruments	8

Source: Calculated from data in United Nations, *Handbook of Industrial Statistics*, 1992, Table 2.6

existing one in Israel, this is an extremely high upper bound assumption. In only a few industries do the decreases in cost amount to 5 percent or more. This is not surprising as wages account for a relatively small percentage of average cost, less than 30 percent even in the most labor intensive sectors. Hence even very large declines in  $w$  cannot result in a significant decline in unit cost.

Would the sectors with the largest reduction in wages be a particular problem for Jordanian manufacturers? Several observations are relevant.

- In apparel, Israeli products are oriented to the high income market in Israel, Europe and the U.S. and exhibit a large design component. The clothes are relatively high priced given this orientation and it is unlikely that such products would displace current Jordanian production. They might displace some European imports into Jordan if there were a common external tariff. The printing and publishing branch is largely oriented towards publications in Hebrew for which one can assume there is little competitive production in Jordan.
- The metal products, electrical machinery, non-electrical machinery, transportation equip-

ment, and professional and scientific instrument branches are characterized by very high wages and high R & D (Table 4.8). This implies little substitutability between unskilled, lower wage workers (Israeli or Palestinian) and high wage high skill employees in the sector. Thus, the relatively large calculated decrease in unit cost would be unlikely to materialize. Moreover, most products in these sectors, being intensive in R & D, are directed to the needs of very high income countries and it is unlikely that many exports to Jordan would develop that would be competitive with current Jordanian production. Nevertheless, as noted above, some products of these sectors might be developed to satisfy special requisites of Jordanian purchasers and might be superior to the off-the-shelf versions of such goods available from other suppliers. In this case, there would be again a diversion of imports from other countries towards Israeli manufacturers but there would be no threat to Jordanian domestic producers.

- A few sectors such as footwear, wood products, and furniture might become slightly more competitive exporters as they are characterized by low annual wages, implying lower skill levels, as well as low R & D, suggesting fairly traditional products. Nevertheless, the reduction in unit costs from even a 25 percent reduction is sufficiently small, roughly 5 percent, to suggest that relative to international suppliers, there should be a limited amount of increased competition for Jordanian firms. Insofar as there are high transportation costs for some of these goods, particularly furniture, some increased exports to Jordan might materialize.

Moreover, there are two factors which suggest the calculated decreases in unit cost are excessive. First, it is assumed that  $z$ ,  $k$ , and  $m$  are identical in new factories whereas there is likely to be a significant learning period, even in subsidiaries of established Israeli firms during which all three unit input requirements are likely to be in excess of those in existing Israeli plants. Second, wages are unlikely to be as much as 25 percent lower than those for Israeli workers as the Israeli trade union federation, the Histadrut, would almost certainly argue that jobs were being lost to low paid workers. While the U.S. AFL-CIO cannot guarantee to American workers



**Table 4.8: Selected Characteristics of Israel's Manufacturing Sectors**

Sector	Annual wage, 1988 (\$'000)	R&D, 1991 (millions of Shekels)
Food, beverages, tobacco	13.5	12.6
Textiles, clothing, leather products	12.2	18.2
Paper, paper products, printing and publishing	19.1	5.1
Rubber and plastic products	15.6	29.6
Chemical and oil products	25.4	142.8
Mining, quarrying, wood and wood products, non-metallic minerals	18.7	29.0
Basic metals and metal products	22.4	35.4
Machinery	20.6	24.1
Electrical equipment	28.2	32.7
Electronic equipment	28.2	757.5
Transport equipment, miscellaneous manufacturing	26.0	149.0

Source: Column 2, United Nations, *Handbook of Industrial Statistics - 1993*, Table 2.6. Column 3, *Statistical Abstract of Israel, 1993*, Table 23.10.

that some jobs will not be lost to Mexico as a result of the North American Free Trade Area, the Histadrut because of its greater relative size is likely to be successful in precluding hiring of very low paid workers in manufacturing. Moreover, given that the Palestinian workers exhibit lower skill levels than Israeli labor, it is unlikely that even if market forces were unimpeded that wages would be bid down very much.

#### *A Free Trade Area? Not Likely Yet*

Our analysis suggests that there may be substantial benefits to Jordan from increasing its volume of trade with Israel. On the import side reduced costs to consumers, the ability to benefit from specialized products, adapted to local conditions, and the availability of capital goods which embody more employment intensive technologies will offset to some extent the costs of adjustment faced by firms which confront internationally competitive prices. The size of Israel's export market and the possibilities to use Israel as a source of learning about and a launch-point into other markets can offer substantial benefits. The potential cost reductions offered to Israeli manufacturers by access to lower wage labor through investment in the WBG or through increased access by Palestinian workers to the Israeli labor market do not appear sufficiently large to pose a major threat to Jordanian firms in most sectors.

But there are substantial barriers to rapid movement toward a free trade arrangement among the

three parties. First, free trade will inevitably lead to losses in some sectors. In particular Israeli agriculture and labor intensive industries would come under threat from Jordanian production while Jordan's protected import substitution industries would be vulnerable to Israeli competition. This is a transitional problem which can be addressed by slowing down the process of liberalization in affected sectors, allowing greater time for adjustment.

Second, Jordan may wish to avoid the geopolitical implications of close integration, even if it decides to normalize its political relationship with Israel. If Israeli producers faced no tariff barriers to the Jordanian market their advantage over more distant exporters would be substantial—on the order of 25 percent average duty and 10 percent transportation margin. Given Jordan's substantial reliance on imports (80 percent of GDP) the likely high share of imports from Israel in Jordan's economy might be viewed as an unacceptable concentration on strategic grounds.<sup>18</sup>

These considerations suggest that movement toward a liberalized trading arrangement among Israel, Jordan and the West Bank and Gaza will be slow and will depend crucially on the timing of liberalization efforts and the need to retain some diversification of trading patterns. For Jordan these concerns may be best addressed by continuing and even accelerating its own efforts at multilateral trade liberalization. Continued reductions in non-tariff barriers and in duties will help to improve the international competitiveness of the Jordanian economy, reducing the adjustment costs which would result from any future integration efforts and preserving geographical diversification among suppliers.

In the absence of a free trade area, however, Jordan can still seek greater access to the Israeli market through an asymmetric arrangement such as those offered by the EU to lower income members or the United States and Canada to Mexico under the NAFTA. Such agreements, which call for free trade in some product lines while permitting a phased reduction in protection in others to permit time for adjustment are both politically complex to negotiate and offer reduced economic benefits in comparison to more orthodox regional trade liberalization. Nevertheless, if an asymmetric agreement with Israel assisted Jordan to carry out its stated objective of eventual multilateral trade liberalization, through, say, reducing the learning costs of

Jordanian exporters and the adjustment costs of firms manufacturing import substitutes it could represent a viable element in Jordan's overall trade strategy.

Supporting institutional services for exporters, especially effective duty free import regimes for exporters and automatic access to export finance, are essential complements to a multilateral strategy. One unexplored route to managed, partial integration is through the use of free trade zones (FTZ). The agreement between the PLO and Jordan calls for establishing a joint FTZ in the Jordan Valley. If such an FTZ were allowed access to the Israeli market on preferential terms, Jordanian industry could serve the joint Palestinian-Israeli market without relocating outside of Jordan.

### Tourism

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

The tourism sector in Jordan, however, has not yet attained its potential. In 1989, tourist arrivals comprised only about 28 percent of total nonresident arrivals (638,980 tourists). The number of tourists decreased considerably during the Gulf Crisis in 1990 and 1991 and started to increase again

in 1992, exceeding its 1989 level by 3.5 percent. The majority of tourists entering Jordan are from the Gulf countries (74 percent in 1992) (Table 4.9). Europeans comprised about 18 percent in 1992. The rest come from North and South America, New Zealand, Australia and Japan. By 1992, the number of non-Arab tourists had reached just below its pre-crisis level. The number of Arab tourists, however, exceeded its 1989 level by increasing 8.4 percent. Tourists travelling on package tours represent a significant percentage of non-Arab tourists.

### *Obstacles Facing the Tourism Industry*

In general, the total number of tourists in Jordan is perceived to be below its potential. Although peace, once established, is expected to bring a tourism boom to the area, Jordan will need to expand its tourism capacity aggressively to benefit from the expected growth in tourism in the area. Tourist sites, facilities, and services require substantial improvements, and there are no current plans or projects to do so on a comprehensive scale. Under current conditions Jordan will face hard competition with Israel for a number of reasons:

*Room Capacity.* Jordan has approximately 7,000 hotel rooms compared to 45,000 in Israel. Israel is also currently expanding its room capacity in both Eilat and the Dead Sea area. Although the cost of a room in Jordan is on average 20 percent less than the cost in Israel, on average the quality of Israeli hotels is higher. In 1989 there was over-capacity in Amman and under-capacity in both Aqaba (especially higher quality hotels) and Petra. The 1993 numbers are likely to indicate that Aqaba and Petra are operating with under-capacity again, as European and American tourists are expected to have increased with the end of the Gulf War.

**Table 4.9: Tourist Arrivals to Jordan, 1989-1992**

	1989		1990		1991		1992		% change 1989-91	% change 1989-92
	Arrivals	%	Arrivals	%	Arrivals	%	Arrivals	%		
North and South America	48,257	7.6	38,538	6.7	23,978	5.5	39,250	5.9	-50.3	-18.7
Europe	127,148	19.9	117,366	20.5	57,968	13.3	120,898	18.3	-54.4	-4.9
Gulf Coop. Council	452,559	70.8	404,567	70.8	348,216	79.9	490,629	74.2	-23.1	8.4
Others <sup>a</sup>	11,016	1.7	11,439	2.0	5,699	1.3	10,337	1.6	-48.3	-6.2
Total tourist arrivals	638,980	100	571,910	100	435,861	100	661,114	100	-31.8	3.5

a. Includes Australia, New Zealand, Japan, and others.

Source: Ministry of Tourism, Statistics Section.

New projects are currently underway in the Petra area, which, once functional, will increase room capacity dramatically. The number of rooms in the area will increase from 163 to 1117 (Table 4.10). In Aqaba, however, although a 3-star hotel is currently under construction, it will not create a considerable increase in room capacity (up by 93 rooms), and demand for hotel rooms has increasingly been for the 5-star class. There are currently no projects underway in the Dead Sea area. Ajloun and Tafila each has one hotel under construction. In order to meet the challenge that will face the tourism sector once peace is established, new projects must be developed, especially in Aqaba and the Dead Sea area.

*Expanding Tourism Outside Amman.* There are a number of obstacles to initiating tourism projects outside Amman. Infrastructure is under-developed in areas that are candidates for investment in tourism such as Petra, the Dead Sea area, and southern Aqaba. For example, currently there is only one hotel on the Dead Sea. It has its own sewerage treatment plant (which costs about US\$100,000–130,000), and it does not have any telephone lines (the entire hotel depends on a single cellular telephone, and guests are asked to come down to the reception area to receive or make calls.) clearly, this comprises a large capital cost and lowers quality of service, discouraging both investors and tourists.

Land on both the Gulf of Aqaba and the Dead Sea is owned by the government, which leases land for a period of 20–30 years with a possibility for renewal.<sup>19</sup> The leasing period is short and is a source of uncertainty. In addition, there are no fiscal incentives provided to the private sector to encourage investment in these locations. In contrast, Israel leases similar lands for 90 years and offers a package of incentives that includes a nominal fee for the land, infrastructure provision and grants reaching up to 16 percent of the capital cost.

*Tourism Promotion.* Tourism promotion in Jordan is carried out by the Jordan Tourism Board, with a budget from the private sector. Travel agents hold 4 seats on the Board, hotels hold 4 seats, the government has 2 seats and Royal Jordanian Airlines has 1 seat. The Board hires professional firms for tourism promotion but the budget is very limited (about one million JDs a year.) It is estimated that a minimum amount of 10 million JDs is required to reach an acceptable level of tourism promotion.

**Table 4.10: Hotels Under Construction in 1993**

Hotel location	Number of hotels	Number of rooms	Cost <sup>a</sup> (US\$ million)
Wasi Mousa/Road to Tiba <sup>b</sup>			
5 stars	4	513	26
4 stars	4	441	23
Aqaba			
3 stars	2	91	4
Amman			
3 stars	2	239	7
Ajloun			
3 stars	1	134	3
Tafila			
4 stars	1	70	2
Total	15	1,488	65

a. Cost is calculated in millions of 1993 US\$.

b. Area adjacent to Petra.

Note: Most of these projects are due to be completed by early 1996.

Source: Ministry of Tourism.

There is little training for professionals providing tourist services in Jordan, such as tourist guides, car rental employees and hotel staff. There is only one hotel management school in Jordan which is administered by the Ministry of Education, but graduates have essentially no practical training; students only attend classes and are not required to do any actual training in hotels or restaurants before graduating. Local investors emphasized the shortage of adequately trained professionals and suggested the transfer of the administration of the hotel management school to the private sector.

*Transport.* There are only a small number of airlines servicing Jordan and the number of trips are limited. Charter flights are hard to organize because of the limited capacity of rooms in tourist sites such as Aqaba and Petra. In addition, operating charter flights requires a special permit, which a prominent investor in Jordan claims is very hard to obtain. For the last 26 years, a monopoly has been granted to one private company on all tourism related land transportation in Jordan and from Jordan to neighboring countries. The government is currently promising to end the special privileges extended to this operator by the end of June 1994. This monopoly both raises the price and limits the range of ground transportation across and to and from Jordan.

#### *The Impact of Peace on Non-Arab Tourism*

Although peace will undoubtedly bring a tourism boom to the whole region, the most likely scenario

is that Jordan will have a limited share of it. The first phase of normalizing relations with Israel is expected to include complete mobility of tourists to and from Israel to Jordan. Currently, a visitor can travel from Jordan to Israel and back but cannot start his/her trip from Israel. If trips originating from Israel are allowed, tourism in Jordan most probably will be transformed into day trips to visit the recreational and archaeological sites in Jordan. Once mobility is established, most of Jordan's historical and recreational sites will be at a maximum of two hours driving distance from Jerusalem. Although the number of daytime tourists in Jordan will increase dramatically, the revenue from tourism may not; day trips are typically much less profitable than night stays. For example, a tourist will be able to stay in Eilat and travel to Aqaba and Petra. The number of daytime tourists to Petra will increase considerably. This increase in daytime visitors to Petra, however, will not be accompanied by a similar increase in the demand for hotel accommodation. The impact on the hotel business in Aqaba is potentially negative. As Aqaba is closer to Eilat and is similar in terms of the entertainment it offers, overnight non-Arab tourism to Aqaba may decrease considerably, although southern coast of Aqaba will still be a major attraction for daytime trips for snorkeling activities.

#### *The Impact on Arab Tourism*

Arab tourism into Jordan will be affected by peace in two ways: (i) negatively through the possible diversion of Arab tourism from the Gulf area to Israel, and (ii) positively through an increase of Arab tourists to the West Bank and Gaza and Israel. The net effect of these offsetting trend will depend on the reaction to peace of three distinct types of Arab tourists:

- *Pilgrims to Jerusalem and the other Holy places in the West Bank and Gaza.* Jordanian officials are hoping that a significant percentage of pilgrims

will choose to stay in Jordan and have day trips to the West Bank on the basis that they might prefer to stay in an Arab country. Even if air travel is established, given the low hotel capacity in the West Bank, a significant percentage of pilgrims are expected to stay in Jordan.

- *Palestinians in Arab countries visiting relatives in the WBG.* Most of these visitors will be transit travellers (if travelling by land) and will not have a significant impact on tourism in Jordan.
- *Arab tourists visiting the WBG and Israel for tourism purposes.* Arab tourists to the WBG and Israel are expected to increase dramatically in the long run. Currently, Arab tourism to the WBG and Israel is negligible and is restricted to Lebanese and Egyptian nationals. Once open borders between the WBG, Israel, and the Arab world are established, there may be a large influx of Arab tourists to both the WBG and Israel. Arab tourism, primarily from the Gulf countries, constitutes about three-quarters of total tourism in Jordan. Once Israel is open to them, a large portion of Arab tourists who traditionally visit Jordan may be inclined to stay in Israel, with its superior tourism infrastructure. On the other hand, this increase in the number of Arab tourists to the WBG and Israel, may overflow to include Jordan. A majority of Arab tourists to Israel and the WBG are expected to travel by land through Jordan, and hence an Arab tourist visiting the WBG or Israel might also choose to include Jordan in his/her trip.

Under a second scenario, it is possible that, although open, the borders might still be cumbersome to cross especially for Arab visitors. It is also possible that a second border will be created between the WBG and Israel (which may include East Jerusalem). Under this scenario, the impact of peace on Arab tourism in Jordan will be milder; Arab tourism to the WBG and Israel, in the three categories described above, is expected to be less.

## V. Labor Markets and Migration

Although the Jordanian economy has experienced numerous shocks in recent years, the impact of peace is likely to have more complex effects on the functioning of domestic labor markets than previous changes in the external environment. The impact of positive shocks, such as the oil price increases of the 1970s, was fairly predictable with higher levels of migration, inflows of remittances, and a domestic boom, particularly in nontradable sectors. Negative shocks such as the Gulf war have resulted in the return of Jordanian migrant labor and, at least temporarily, higher levels of domestic unemployment. The impact of peace is likely to be a shock of a different character—with elements of a positive shock associated with the inflow of capital and emergence of employment opportunities in the WBG, but raising the possibility of permanent resettlement of parts of the Jordanian labor force of Palestinian origin.

There are many uncertainties that complicate an analysis of the impact of peace on Jordan's labor market, particularly with respect to the details of the agreements between the Palestinians and the Israelis and the policy response of the Jordanian Government to these agreements. The analysis that follows starts with a brief description of the Jordanian labor market, identifies elements of the

population most likely to be directly affected by the peace agreement, and then analyzes the possible effects of peace for labor supply and demand in Jordan. Illustrative scenarios of the impact of labor force movements for output and employment in Jordan are presented. The final section explores the policy options.

### Jordan's Labor Force

Only 22 percent of Jordan's population of 4 million participate in the labor force, reflecting the age structure of the population and the low participation of women (14 percent). Almost half of Jordanians work in the government sector, and the terms of public sector employment play an important role in wage determination in the economy. The labor force is educated and skilled with almost universal basic education. Thirty-four percent of men and 28 percent of women complete secondary school and 17 percent of men and 13 percent of women complete post-secondary education (Tables 5.1 and 5.2).

### Labor Exports and Imports

Jordan is one of the few countries in the world that is both a major exporter and importer of labor (Table 5.3). About one-third of the workforce is employed

**Table 5.1: Distribution of the Jordanian Labor Force by Educational Status in 1991**

(Percent)

Educational status	Men	Women
Unclassified	0.1	0.2
Illiterate	6.8	22.0
Literate <sup>a</sup>	11.4	10.1
Elementary	17.8	15.3
Preparatory	28.1	24.7
Vocational training	1.7	0.4
Secondary	17.6	14.9
College diploma	7.6	9.1
University degree	7.8	3.1
Higher education	1.1	0.2

a Refers to individuals who are literate but have not completed elementary school.  
Source: Department of Statistics (1991), "Survey of Employment, Unemployment, Returnees and Poverty," Amman, Jordan

**Table 5.2: Distribution of the Jordanian Labor Force by Primary Occupation, 1991**

Primary occupation	Percent
Manager	2.2
Specialist	42.2
Technician	12.2
Clerical	14.6
Skilled service workers	8.5
Skilled agricultural workers	4.0
Skilled retail workers	6.5
Machine operators and maintenance workers	0.5
Unskilled	8.1
Unclassified	1.0

Source: Department of Statistics (1991), "Survey of Employment, Unemployment, Returnees and Poverty," Amman, Jordan

**Table 5.3: Number of Immigrant Workers and Jordanian Workers Abroad, 1985–92**

Year	Work permits	Immigrant workers (estimate)	Jordanians abroad
1985	101,484	143,000	280,200
1986	97,885	130,000	343,300
1987	79,761	120,000	339,000
1988	63,050	148,000	n.a.
1989	47,632	200,000	n.a.
1990	37,626	200,000–250,000	n.a.
1991	30,069	200,000–250,000	n.a.
1992	89,912	200,000–250,000	n.a.

Source: Jordan Country Economic Memorandum, December 1993.

outside Jordan, largely in skilled occupations. Half of those employed abroad were production and unclassified workers, one-quarter had less than secondary education and one-half had secondary school certificates.<sup>20</sup> Eighty-five percent of those working abroad were employed in Saudi Arabia and Kuwait before the Gulf war in August 1990. While the number of Jordanians in Kuwait has fallen dramatically since the Gulf war, the vast majority of migrant workers from Jordan are still employed in the Gulf region.

Jordan also imports unskilled or semi-skilled labor primarily from Egypt and Syria.<sup>21</sup> The number of guest workers has remained at about 200,000–250,000 since 1989. These migrant workers are employed primarily in agriculture (40 percent) and, to a lesser extent, in social services (26 percent) and construction (9 percent). While there have been attempts to reduce the dependence on foreign workers in Jordan, they have not been successful because Jordan's unemployed, who are largely skilled and often college-educated, are unlikely substitutes for low-skilled guest workers.

### *Unemployment*

Unemployment in Jordan peaked at 18.8 percent in 1991 in the wake of the Gulf war, but has since fallen to 13 percent at the end of 1993. The causes of unemployment in Jordan are both external and internal. The external causes relate to the Gulf war, the recession in the Gulf countries and consequent fall in demand for Jordanian workers, and falling Arab aid for Jordan. The 250,000–300,000 individuals (of which 60,000–70,000 were workers) who returned to Jordan from the Gulf, many of whom brought capital and substantial skills and experience, were

gradually absorbed into the labor force, albeit at lower wages than those they had been previously earning. A survey of returnees found that while 48 percent of Gulf returnees' last annual income in the Gulf was between JD 5000–JD 15,000, only 7.3 percent of returnees maintained their income at these levels in Jordan.<sup>22</sup>

The internal causes of unemployment are the rapid rate of population growth (2.8 percent), the lack of appropriate skills of new entrants in the labor force, inflexibility in wage-setting and the capital-intensity of production. The most recent survey results indicate that the typical unemployed individual in Jordan is a single male between the ages of 20–29 with a general diploma from a community college who is entering the labor force for the first time and is supported by his family.<sup>23</sup> Whether the presence of foreign workers is a major cause of unemployment in Jordan has been much debated. With the bulk of guest workers in the agricultural sector and the majority of the unemployed with post-secondary education, the scope for substitution seems limited. Nevertheless there may be some possibilities for Jordan workers to replace guest workers in areas such as services.

### **The Possible Impact of Peace**

Peace in the region is likely to be associated with the normalization of borders between the WBG and Jordan and substantial investment in the WBG. This increase in labor demand is likely to increase further the substantial wage differentials between the WBG and Jordan and create strong economic incentives to migrate in the medium term. While economic incentives will be only one, although important, determinant of labor movements, peace is likely to generate a reduction in the supply of labor in Jordan over the medium term.

### *Determinants of Migration*

Migration decisions must take into account a variety of economic, political and social variables. Expected earnings, based on individual wages, the cost of living and unemployment rates in different labor markets, continue to be major determinants of migration decisions. However, it is necessary to take into account that migrant's decisions are also contingent on factors such as household welfare maximization and life cycle considerations. In the case of

international labor migration, which is typical of the Middle East, additional variables, such as the higher transaction costs of international mobility and the regulations governing guest workers in both labor sending and labor receiving countries must also be assessed.

There are likely to be three stages of labor migration from Jordan to the WBG. The first stage will be the "pioneers," including officials of the PLO, whose numbers are likely to be small in the initial period because of rationing. The second phase will depend to a large extent on "push" factors that result from policies of countries hosting Palestinian refugees. In the case of Jordan, the number of returnees will depend very much on the Government's policy vis-a-vis those residing in Jordan with temporary status. Secondments of personnel from the Jordanian government to the new Palestinian state as well as commuting may also be important in this second stage. The third stage will be dominated by "pull" factors as the economy in the WBG begins to recover, creating new opportunities for returnees, and as the quality of infrastructure and services improve. There are also a large number of individual characteristics that will determine whether people will have a high propensity to resettle. Those with close family ties in the WBG and those who own property are more likely to return. Those with weak ties in Jordan—such as temporary legal status, a lack of work and limited assets—are also more likely to resettle.

In addition to the local market, Jordanian workers face opportunities in two important external markets: (1) the Gulf labor market which had been absorbing between 3000–5000 new entrants from Jordan per year, and (2) an additional new market with the possible opening of the WBG market for Jordanians of Palestinian descent. However, access to both these external markets is highly rationed and the rules governing the entrance of Jordanian workers will be critical for future labor market developments. Conditions in the Gulf market are likely to remain stable and possibly weaken further with the recent falls in the price of oil. However, improved relations with Kuwait could result in a small recovery in migration levels from the current low level.

The most rapidly growing market for Jordanian labor is likely to be in the WBG. The influx of investment, particularly public capital to build needed infrastructure in the WBG, is likely to spur a sharp increase in the demand for labor, particularly in

nontradables sectors such as construction and services. Much of this demand will be met by local labor, about 7 percent of which is unemployed, particularly in the initial years.<sup>24</sup> Nevertheless, demand is likely to exceed local supply in the medium term and that supply could be augmented by returnees. The ultimate size of the increase in demand for Jordanian labor will depend on the expected returns to labor migration and the rationing of returnees. The size and skill composition of the labor demand shock will also determine the degree to which there is upward pressure on wages in Jordan.

#### *Wage Differentials*

Wage differentials in the markets for Jordanian labor reveal a clear ranking of expected returns—wages less costs—with the highest returns in the Gulf labor market followed by the WBG, and then by the local Jordanian market. Average monthly wages in Jordan are about \$150, while those in the WBG (which are affected by the higher wages in the neighboring Israeli market where many WBG residents work for close to the minimum wage) are about \$300–400 per month.<sup>25</sup> A survey of Jordanians that had worked in the Gulf found median wages were between \$600–\$1200 per month.<sup>26</sup> The very high wage levels in the Gulf labor market are likely to mean that it will continue to be attractive for Jordanian workers, but weak demand will remain the binding constraint.

The wage differentials between Jordan and the WBG are significant enough to generate labor migration, but the net impact must be assessed in light of the higher cost of living in the WBG, the unemployment rate, and the likely restrictions on mobility. Unemployment in Jordan, which stood at 13 percent of the labor force at the end of 1993, is above that in the West Bank and Gaza when there is secure access to the Israeli labor market. Although the construction boom associated with international aid flows is likely to create jobs in the WBG, the reduction in local unemployment will take some time, especially since reducing the dependence of about 70,000 Palestinian workers on the Israeli labor market will be a political priority. Nevertheless, one would expect strong economic incentives for labor to move to the WBG in the medium term once economic activity recovers and uncertainty is reduced.

It is also necessary to take differences in the cost of living in the Gulf, the WBG, and Jordan into

account when assessing the expected returns to labor mobility. Comparative household expenditure data are not available. However, revealed preferences of migrant workers indicate that the higher wages more than offset the higher cost of living in the case of the Gulf. The differences in costs of living between the WBG and Jordan are more difficult to assess. It is widely believed that the costs of most goods and services is higher in the WBG (again, a reflection of the high degree of openness to Israeli prices) and that the quality of infrastructure and the level of social services is higher in Jordan. However, the empirical evidence is weak and contradictory. If there are large differences in the cost of living between the WBG and Jordan, commuting (thereby earning WBG wages but incurring Jordanian living costs) could become an attractive alternative if border procedures facilitate labor mobility.

#### *Skills Demanded*

Investments in the WBG brought about by peace are likely to generate significant demand for large numbers of construction workers and selected categories of professionals such as engineers, managers and civil servants. Jordan, which imports construction workers, will not benefit from the immediate increase in demand for such workers brought by the expected building boom in the WBG. A significant portion of professionals are likely to come from the residents of the WBG, many of whom are unemployed or underpaid. However, Jordanian workers with specialized skills that are lacking in the WBG are also likely to be demanded. This is likely to generate higher wages for workers with those skills in the Jordanian labor market.

Another determinant of labor demand in the WBG is the relationship between skills and wages. Although average wages in the WBG are higher than those in Jordan, this may not be the case for professionals. Higher wages accrue to Palestinians who work in sectors demanded by the Israeli economy, such as construction and agriculture. Palestinian professionals are rarely employed in Israel, where they experience wage discrimination, thereby resulting in very low returns to education and training for residents of the WBG.<sup>27</sup> Skilled professionals (who constitute the bulk of the unemployed in Jordan and are the most likely migrants) may find that job opportunities are more attractive in Jordan in the near term. This anomaly of the labor

market is likely to diminish as opportunities for skilled professionals expand in the WBG.

#### *The Labor Supply Response*

The possible movement of labor from Jordan to the WBG will be unlike migration elsewhere in the region because the majority of migrants will be refugees returning for permanent settlement with their families. Therefore the standard model of labor migration which focuses on expected returns to labor mobility must be adjusted to take into account the special features of labor movements that might result from peace. For Jordan, movement of labor toward the WBG would be equivalent to a reduction in the supply of labor which would result in upward pressure on wages, particularly in those occupations where there is short supply and considerable demand in the WBG.

In the near term, the most binding constraint to labor mobility will be the agreement between the PLO and the Israeli government on the number of Palestinians who will be permitted to return to the WBG. The Declaration of Principles signed by the PLO and the Israeli government refers to the right to return of persons displaced by the 1967 Israeli occupation of the West Bank and Gaza. While all Palestinians displaced by the 1967 war will have the right to return, there are likely to be restrictions on how many will be able to exercise that right at any one time. The PLO is hoping that about 800,000 Palestinians return to the WBG by the year 2000. The Israeli government would like to restrict the number to 5000–10,000 per year.

The potential population of returnees is concentrated in Jordan, Syria, and Lebanon. About 300,000 residents of Jordan are Palestinians displaced by the 1967 war. With population growth and the additional 121,000 people who left the WBG between 1967–84, the total number of potential returnees in Jordan is about 800,000. Those displaced from the West Bank were given Jordanian nationality since the West Bank had been under Jordanian rule. Those from Gaza received temporary Jordanian papers since Gaza was formerly Egyptian territory. After 1984, Palestinians were given “green cards” which only entitled them to temporary residency in Jordan. Two categories—those from Gaza with temporary papers and those who came to Jordan after 1984 and received “green cards” (many as students)—will have no legal basis for remaining in



Jordan once a Palestinian homeland exists.<sup>28</sup> Jordan's policy vis a vis these individuals with temporary status will have an important impact on the number of returnees.

### Labor Market Scenarios

To illustrate the possible impact of peace on Jordan, four scenarios of labor movements up to the year 2000 are presented in Table 5.4. The scenarios reflect the impact of returnees on unemployment and output in Jordan depending on the number of returnees and the extent to which Jordanians and returnees are substitutes. These scenarios are not predictive and only serve to show some of the consequences for the Jordanian economy of labor mobility caused by peace. The scenarios are predicated on two different assumptions about the substitutability of returnees and Jordanian laborers. The column labeled "unemployment" assumes that unemployed Jordanians are perfect substitutes for

returnees, thus increased numbers returning to the West Bank and Gaza results directly in lower unemployment in Jordan. This can be considered the upside case for Jordanian labor markets. The column labeled "output" is the downside case, reflecting the assumption of no substitutability between Jordanian unemployed and returnees. Under that assumption, higher levels of returnees result in lower output for Jordan with no offsetting reductions in unemployment. Therefore, depending on assumptions about the substitutability of Jordanians and returnees, the final columns of Table 5.4 define the outer bounds, both favorable and unfavorable, of the impact on Jordan's economy.

The first "no impact" scenario assumes that there is no movement of labor, either because of regulatory restrictions or lack of incentives and/or infrastructure to support returnees in the WBG. This scenario has no additional implications for the Jordanian economy—output and unemployment remain at predicted levels. The second scenario

**Table 5.4: Scenarios of Returnees and the Impact of Unemployment and Output in Jordan**

Year	Returnees to OT	Of which labor	Returnees as % of labor force	Unemployment (perfect substitution)	Output loss as % of GDP (no substitution)
<i>Scenario 1</i>					
1995	0	0	0.00	0.13	0
1996	0	0	0.00	0.13	0
1997	0	0	0.00	0.13	0
1998	0	0	0.00	0.13	0
1999	0	0	0.00	0.13	0
2000	0	0	0.00	0.13	0
<i>Scenario 2</i>					
1995	15,000	3,300	0.00	0.13	0.00
1996	25,000	5,500	0.01	0.12	0.01
1997	25,000	5,500	0.01	0.12	0.01
1998	35,000	7,700	0.01	0.11	0.01
1999	50,000	11,000	0.01	0.10	0.01
2000	50,000	11,000	0.01	0.09	0.01
<i>Scenario 3</i>					
1995	25,000	5,500	0.01	0.13	0.01
1996	35,000	7,700	0.01	0.12	0.01
1997	50,000	11,000	0.01	0.11	0.01
1998	75,000	16,500	0.02	0.09	0.02
1999	95,000	20,900	0.02	0.07	0.02
2000	120,000	26,400	0.03	0.04	0.02
<i>Scenario 4</i>					
1995	50,000	11,000	0.01	0.13	0.01
1996	75,000	16,500	0.02	0.11	0.02
1997	90,000	19,800	0.02	0.09	0.02
1998	105,000	23,100	0.02	0.06	0.02
1999	130,000	28,600	0.03	0.03	0.03
2000	150,000	23,000	0.03	0.00	0.03

**Assumptions.**

- Labor productivity is constant.
- GDP grows at 5% for 1995–2000
- Output loss is adjusted assuming that unemployment of returnees is same as rest of labor force.

posits that 25 percent of potential returnees migrate to the WBG by the year 2000, implying a total population movement of 200,000 people. Assuming that the rate of unemployment of returnees is similar to that in the Jordanian economy and there is no substitutability, this loss of human capital will imply lost output for Jordan of about 1 percent of GDP annually. The size of the labor supply shock will be muted by the degree to which the unemployed in Jordan or guest workers are close substitutes for the returnees that leave vacancies behind in Jordan. Perfect substitutability would result in a fall in Jordan's unemployment rate from 13 percent at the end of 1993 to 9 percent in 2000. The third and fourth scenarios explore more extreme versions of this case—with 50 percent (400,000 people) and 75 percent (600,000 people) of potential migrants returning to the WBG over the period. The implications for output are substantially larger—with 1–2 percent of GDP lost annually in the third scenario and 2–3 percent in the fourth under the assumption of no substitutability. Assuming that the Jordanian unemployed can substitute for the returnees, unemployment is virtually eliminated in the scenario where 75 percent of potential returnees move to the WBG.

The scenarios in Table 5.4 indicate that the impact on Jordanian labor markets depend critically on two factors—the number of returnees and the degree to which returnees' jobs can be filled by Jordanians. In the most favorable case, unemployment in Jordan could fall to negligible levels. In the most unfavorable case, Jordan could experience output losses on the order of 1–3 percent annually by the year 2000. But clearly, these scenarios do not capture the whole story, such as the dynamic gains from peace that may result from higher investment and trade opportunities in the region. These are likely to expand employment opportunities for Jordanian workers, contribute to productivity gains and to higher growth. Moreover, output losses associated with resettlement may be offset by remittance flows if returnees maintain economic and social links to Jordan. The assumption that the Jordanian unemployed can substitute for workers that migrate is not likely to be valid in all cases. As a consequence, there may be considerable upward pressure on wages in certain skill categories. The scenarios also do not include the adjustment costs (both economic and social) associated with labor mobility and the displacement of employed workers.

### Policy Options for Jordan

Unlike the resettlement of refugees in other parts of the world, Jordan faces the potential return to the WBG of a fairly large proportion of its population, much of which has become well-integrated into the local labor market. What is the best strategy for Jordan to take advantage of the opportunities presented by peace while reducing the risks and costs? Although the impact on Jordanian labor markets depends to some extent on decisions taken elsewhere (such as the quota on returnees agreed between the Palestinians and the Israelis), many factors that determine the level of mobility will depend on policies adopted by Jordan. For example, the treatment of those with temporary status in Jordan and the rules governing dual citizenship will influence locational decisions, especially in the initial period.

Because of the array of factors that will influence decisions about labor mobility and the issues described above, there are strong incentives for the movement of labor from Jordan to the WBG to be very gradual. The numbers that can return will be rationed. Employment opportunities for Jordanian workers will emerge gradually and will be initially filled by residents of the WBG. The unemployed that remain in Jordan will not be perfect substitutes for those that migrate. There will be important macroeconomic reasons to avoid the upward pressure on wages that might result from a reduction in the supply of labor alongside an increase in demand from a neighboring country.<sup>29</sup> There will continue to be considerable uncertainty as the details of the peace are finalized and eligible returnees are likely to proceed cautiously. Gradualism is in the interest of all parties—sudden disruptions to the supply of labor would result in serious adjustment costs and output losses for Jordan while absorptive capacity for migrants will be initially limited in the WBG. Simple border procedures that facilitate shorter trips and commuting would encourage such a gradual transition.

An analysis of the impact of peace also raises more fundamental questions about Jordan's human resource strategy. Jordan's current emphasis on post-secondary education has produced educated workers faster than the economy can generate jobs for them. The consequent skill mismatch—with an oversupply of educated workers and an undersupply of manual workers—has increased Jordan's dependence on external labor markets—both to employ its educated workers and to fill its need for

manual workers. Peace will only exacerbate this phenomenon. But peace will also mean that Jordanian labor will need to become more flexible. Policies that encourage the substitutability of Jordanian labor for returnees to the WBG will be crucial for reducing the output losses associated with labor mobility while reducing unemployment in Jordan. A first step will need to be data collection to identify the skills of likely returnees to the WBG and to assess areas in which there is likely to be upward pressure on wages in Jordan. The government can also play a catalytic role in encouraging private sector provision of training in response to private demand for certain skills to insure that Jordanian workers are able to substitute effectively for returnees to the WBG.

While close integration with regional labor markets is efficient, given Jordan's endowment of human capital, there are potential externalities associated with employing skilled workers at home that are being lost under the current strategy. Jordan must decide whether it will continue to be an economy that relies on transfers from labor exports or whether it will become an exporter of domestically-produced goods and services. However, employing skilled Jordanians at home efficiently requires higher levels of investment—which would depend on policies that affect the investment climate, the trade regime and the labor-intensity of production. Until such policies are in place, efforts at self-sufficiency in labor markets are likely to lead to inefficiency of labor use.

## *VI. Urban Development and Housing*

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Jordan's pattern of urban development reflects both economic incentives and the population movements arising from successive conflicts in the region. Forty years of unrest have resulted in three major waves of migration into Jordan. Jordan has responded by making substantial investments in housing an urban infrastructure for these displaced persons, and by making more concerted efforts than neighboring countries to integrate displaced Palestinians into Jordanian society. Changes in the flows of goods and people, possible shifts in the location of investment, and decisions by refugees whether to return to their homes in the new Palestinian entity may have important consequences for urban development in Jordan.

This chapter looks at three interrelated sets of urban development issues arising from the peace process. The first is the likely long run change in the pattern of urban development in Jordan arising from economic opportunities offered by peace. The second is the set of issues constraining the ability of the housing stock to grow in response to changes in urban patterns, and the third is the need to deal with the housing and urban infrastructure needs of displaced persons choosing to remain permanently in Jordan.

### **The Impact of the Peace on Jordan's Urban Pattern**

Jordan is already a highly urbanized country. About 80 percent of Jordan's population lives in urban areas, and in 1991 and 1992, urban-based activities accounted for some 88 percent of GDP at factor cost. Peace-induced changes to the urban pattern in Jordan are likely to be slow for two reasons. First, as we pointed out in Chapter V labor force and population movements in the short run are likely to be very gradual. Second, Jordan is a small country and has a relatively well-developed road network and an already dominant city.

Amman is likely to continue to be dominant because of its large size, the location of key decision-makers there, and the access that its airport provides to overseas markets. It also already has an

established tourism base which would be likely to grow. Amman's growth will be relatively independent of shifts in the locus of economic activity, due to agglomeration economies arising from its already large size. Water resource constraints that might otherwise counter Amman's continued growth are also unlikely to have an impact in the medium term, as the scarcity of the resource is not reflected in its price. Although over the longer term, water scarcity is likely to constrain growth due to deteriorating reliability of the service.

As new trade relationships develop, however, Jordanian firms will make locational decisions in response to changing trade patterns. Just as the current pattern of urban development focuses on Irbid and Aqaba to serve the Syrian and overseas markets, respectively, the future urban pattern will reflect the location of emerging markets. Manufacturers will seek to locate where they can minimize costs, such as the transportation costs of labor, materials and finished goods. In the case of trade with the WBG, some of these cost savings would be achieved by locating at border crossing points to facilitate dealing with customs formalities. Labor and enterprises providing goods and services would be attracted to such locations by the presence of the manufacturers. Urban centers will therefore tend to develop at such strategic points. Areas near the crossing points that are likely to be established across the River Jordan would be likely candidates. Similarly, Irbid would grow with increased trade with Syria. Aqaba would also be likely to maintain its importance because of its strategic location in relation to overseas markets.

The tourist industry can play a role similar to manufacturing in acting as a base for further economic activity. Tourism is likely to grow as a result of the peace agreements, if there is increased security or the perception of security in the region and the sharing of markets with neighboring countries as crossing of borders becomes easier. In this case, growth would be stimulated in the existing urban centers near to tourist attractions such as the desert castles, Wadi Rum, Petra, Aqaba and the Dead Sea.

### Housing and the Urban Sector

Urban growth will place additional strains on housing. Both private and public investment will need to expand in the housing sector if the increased demand pressures are to be met. But house construction rates in Jordan have lagged the rate of family formation since the mid-1980s. Resourcefulness at the household level has allowed Jordan to avoid some of the worst symptoms of housing shortages, such as homelessness, thus far, but average room occupancy levels of 3.3 in Jordan are higher than those found in other countries with similar income levels (Table 6.1).

The major constraints to increased investment in housing are: a shortage of plots affordable to middle and low-income groups; a limited supply of land with security of tenure adequate for collateralized borrowing; a shortage of formal long-term finance; and limited availability of rental housing. Underlying these housing market conditions is an inappropriate regulatory framework and a lack of financial

instruments for housing sectors. Other distortions in the housing market in Jordan include high building standards and time-consuming approval procedures that increase the cost of housing.

Although Jordanian law allows for the provision of smaller plots, most urban land has been zoned for plots of 500 square meters or more. In Greater Amman, for example, in 1991 only 14 percent of the plots provided for in its zoning were under 300m<sup>2</sup>. Extensive areas zoned for large plots have been occupied at densities of more than one dwelling per plot; but these dwellings are not accepted as collateral by mortgage lenders nor can they be formally sold, as the plots cannot readily be subdivided and separately conveyed. The majority of legally zoned plots are at densities which are unaffordable to most Jordanians. A shortage of infrastructure also constrains the operation of the housing market. Local Authorities lack the resources for providing the roads and drainage systems for which they are responsible. Households cope by making their own illegal water and electricity connections and developing on-site sewage disposal facilities. This method of obtaining services is reflected in high levels of "unaccounted for" water and electricity. Drainage is poor and secondary roads are not surfaced in many middle and low income neighborhoods, especially the refugee camps.

Only about 20 percent of households in Jordan are renting. This is attributable to the custom of subletting to family members that often goes uncounted, but also to a lack of rental units. The tax system in Jordan creates a set of perverse incentives. Annual taxes on vacant land are nominal while transfer taxes are a significant 10 percent of the market value. The rent control laws impose a heavy regulatory tax on landlords who are virtually unable to get rid of undesirable tenants or their heirs or to raise rents. Extensive tracts of land, some of which are serviced, are therefore held for speculation and are unavailable for housing. Houses and apartments which are not needed immediately by their owners are also left vacant.

There is very little long-term housing finance available in Jordan. Due to the nature of their tenure most households in Jordan do not qualify for collateralized borrowing. In addition to the construction of more than one dwelling on a plot in disregard of zoning, there are several reasons for this, notably the system of land and inheritance laws and inaccurate land survey records. Mortgage loans for less

**Table 6.1: Occupancy Levels**

Category	Households per dwelling unit <sup>a</sup>
Low income countries	1.20
Low-mid income countries	1.15
<b>Jordan</b>	<b>1.87</b>
Mid income countries (including Jordan)	1.11
Mid-high income countries	1.03
High income countries	1.01
Industrialized countries	0.98
Category	Persons per room <sup>b</sup>
Low income countries	2.47
Low-mid income countries	2.24
<b>Jordan</b>	<b>2.30</b>
<b>Jordan refugee camps</b>	<b>6.25</b>
Mid-income countries (including Jordan)	1.69
Mid-high income countries	1.03
High income countries	0.66
Industrialized countries	0.66

a. Ratio between the total number of households and the total number of dwelling units of all types in the urban area during the survey year (n = 47; mean = 1.134; standard deviation = 0.261; min = 0.790; max = 1.930).

b. Ratio between the median number of persons in a dwelling unit and the median number of rooms in a dwelling unit (n = 49; mean = 1.673; standard deviation = 1.060; min = 0.330; max 5.530).

Note: Fifty-two countries were covered in the survey. They were divided approximately evenly into the following five categories: Low Income countries with per capita incomes between \$130 and 390 p.a.; Low-Mid Income \$500-1,220; Mid-Income \$1,260-2,450; Mid-High Income \$2,470-10,450; and High-Income \$14,360-23,810

Source: *The Housing Indicators Program, Vol. III, Preliminary Findings*, United Nations Center for Human Settlements and the World Bank, June 1992; Jordan Data Sheets for above study; UNRWA Fact sheets and World Bank mission estimate of number of rooms per dwelling in refugee camps. The high levels of occupancy in Jordan and in Jordan's refugee camps suggest supply constraints in the housing market

than JD 10,000 (US\$14,700. equivalent) are extended only by the Jordan Housing Bank based on privileged access to foreign loans and rediscounts from the Central Bank. Most formal mortgage financing from the financial sector is offered for only about one-third of the capital cost and is repayable over five to ten years. Employer financing is also an important formal source.

Households complement the limited formal finance available with savings, sale of other assets (mainly jewelry), and informal financing. Informal financing is available from other family members and building material suppliers and builders for periods of up to five years. The builders and building material suppliers, in turn, depend on bank loans to finance their own lending. These informal sources are likely to shrink as the flow of remittances declines and as financial sector liberalization occurs.

#### *Responding to the Housing Shortage*

In the short run the Government can provide incentives to Local Government and other public or private developers to increase the supply of affordable building plots and rental housing. This can be done by:

- Revising zoning.
- Enabling private developers, NonGovernment Organizations, Community-Based Organizations and Local Authorities to use the affordable standards that are now only available to the Housing and Urban Development Corporation (HUDC).
- Providing community facilities and community infrastructure (as opposed to neighborhood-level roads which should be paid for directly by households through the price of their homes).
- Reducing speculative demand for holding vacant land by developing alternate long-term savings instruments; taxing vacant land and buildings instead of the transfer of land.
- Exempting new contracts from rent control law.

Government can also take actions to increase the availability of long term finance for housing. It can reduce segmentation of the financial market by: (i) allowing all banks to participate in mortgage financing on an equal footing; (ii) removing privileges and requirements governing lending to spe-

cific groups by the Housing Bank; and (iii) allowing banks to charge market rates for all mortgage loans. The supply of mortgage funds may also be increased by developing securitization of mortgage loans.

Over the medium- to long-term the Government should also replace its focus on direct production and excessive regulation by privatizing those functions of the HUDC that could be undertaken by the private sector (land development, property management, mortgage loan servicing etc.). It can then focus on constraints of a more long-term nature, such as the rationalization of tenure and inheritance systems, improvement of the accuracy of land surveys and the further development of incentives to encourage the Local Authorities and the utility companies to provide affordable plots.

#### **Jordan's Refugee Population**

Although the term "refugee" is used to describe those who flee for safety, especially to a foreign country, in the context of the Middle East peace process the term applies only to approximately 100,000 persons who fled the West Bank during the 1948 war and their descendants. Based on UN Resolution 194, they have the right to return to their homes or to be compensated. Jordan has granted full citizenship to the 1948 refugees living within its borders, while continuing to insist on their right to return. During the hostilities of 1967 some 234,000 persons fled to Jordan. About 1,000 of these "displaced persons" were already refugees. UN Security Council Resolution 237 declared that they also have a right to return or to compensation. During this period also, refugees who had been settled in the Jordan Valley were moved further east as military operations in the Valley escalated. Following the 1991 Gulf Crisis, another wave of forced migration occurred. Some 350,000 persons returned to Jordan from other states within the region. The number of refugees among them is not known. However, it is thought that a significant proportion are refugees, as the number of registered refugees increased by 6 percent between 1991 and 1992 while Jordan's natural population growth rate was only about 3.5 percent.

The current estimate is that Jordan now accommodates some 1.1 million refugees, 406,000 other displaced persons and 325,000 returnees. Together they comprise about 50 percent of Jordan's popula-

tion (Table 6.2). The 1.1 million registered refugees, account for approximately 38 percent of the total Palestinian refugee population, equivalent to the refugee populations of the West Bank and Gaza strips combined (Table 6.3).

While some observers both within the West Bank and Gaza and Jordan and outside expect a large scale return of displaced persons to a newly autonomous Palestinian entity, the assessment of the labor market in Chapter V tells a more cautionary tale. Population movements are likely to be slower than initially predicted, and to the extent that Jordan can continue to maintain its recent growth, economic incentives may cause Jordanians of Palestinian origin to choose to remain in Jordan permanently.

### *The Refugee Camps*

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) was established in 1950 to provide essential education, health, relief and social services to Palestinian refugees. The Agency now employs 6,102 local staff and eight international staff in Jordan. The Government and its agencies have provided land and basic infrastructure in refugee camps and additional land nearby for community buildings for which there was no space in the camps. The camps are administered by agencies of the Government of Jordan.

The 13 refugee camps (10 of which are recognized by the United Nations) accommodate only about 23 percent of registered refugees in Jordan and an even smaller percentage (about 10 percent) of the total population. Almost all (565 HA out of a total of 605 HA) of the land on which the refugee camps are situated is rented from private owners. The Government pays JD 48,000 per annum for rental. The camps were established outside of the main urban centers, but many have since become integral parts of these centers. They have very limited capacity for further growth due to their high densities. There are also some 29 "refugee concentrations" where living conditions are poor. Site densities in the areas occupied primarily by refugees are high due to the high number of occupants per plot, the small size of the plots for extended family use, the narrow roadways and the limited range of amenities provided. Camp layouts were not comprehensive and insufficient space was reserved for uses other than residential, such as roads, primary

**Table 6.2: Refugees, Displaced Persons and Returnees in Jordan**

	Number
Registered refugees	1,072,560
Other displaced persons	400,000
Returnees	325,000
Total	1,797,560

Source: UNRWA fact sheets.

**Table 6.3: Refugees Registered in Each of UNRWA's Fields of Operation**

Country/territory	Number of registered refugees	Percentage of registered refugees
Jordan	1,057,342	38
Gaza Strip	591,742	21
West Bank	476,236	17
Lebanon	325,886	12
Syria Arab Republic	310,271	11
Total	2,761,477	100

Source: UNRWA fact sheets.

schools and primary health care facilities. The Government has already had to purchase land outside of the camps for social facilities to serve the camp residents due to the lack of space within the camps. Greater Amman Municipality recently identified 20 areas of serious service deficiency—some of which are refugee concentrations.

Initially UNRWA provided tents for the refugees as the camps were being established, followed by prefabricated units. Most residents of the camps have since built more permanent structures, but a significant minority still occupies the original prefabricated units. Many of those who upgraded their units to concrete structures still use stones and blocks to anchor their corrugated metal sheet roofs. Very few buildings are more than one story high. Most dwellings have two multi-purpose rooms, a kitchen and a toilet, and UNRWA records indicate average plot densities of 9.2 to 16 persons per plot. This suggests average room occupancy levels of at least four and as high as eight persons per room.

In the 13 official camps, the Government and other public sector agencies have provided water to nearly all of the plots and sewerage to a large proportion. They have also paved the main streets and provided electricity and telephone services. Most secondary and tertiary roadways and footpaths, and related drainage systems, have been con-

structed with financing from grants and by self-help. Others have been provided by Central and Local Government authorities and the utility companies, which required the residents of the camps to pay for the services provided. The roadways are narrow and, especially on weekends, commercial activities extend out into the main roadways, making them barely passable for vehicular traffic. Storm water and waste water drainage is inadequate due to the noncomprehensive nature of the infrastructure plans and poor site conditions in some camps. This is particularly so in Baqa'a, the largest camp, which houses about 25 percent of camp residents.

UNRWA provides education through grade 10 to some 71,000 students in 110 schools (in 55 buildings), of which 87 of the schools are located in the camps. All of the schools operate on a double shift and some are still in prefabricated structures. Post-secondary facilities are limited to two adult training centers in Jabal El Husein camp. UNRWA also operates 11 primary health care facilities (clinics and Mother and Child Care Centers).

#### *Viability of Camps as Permanent Settlements*

The official temporary status of the camps may change during the peace process implying possible further movements of population and pressures for upgrading the existing sites. The change in a major population group from long term guests to permanent residents will have important impacts on the level and allocation of investment in housing and urban development. The lines between the refugee camps and the larger society are blurred. Besides the movement of refugees out into Jordanian society, nonrefugees may have moved into the camps which are said to attract low-income Jordanians who are unable to find affordable shelter elsewhere.

The viability of the camps as permanent urban settlements depends on: (i) their location in relation to job opportunities and their internal capacity for job creation; (ii) site conditions (notably drainage and soil conditions) that affect the cost of building and the feasibility of providing services such as water supply and removal of storm- and wastewater and sewage; and (iii) the availability of basic urban services and infrastructure or the feasibility of providing them. Social aspects of the communities also affect the viability of the camps as permanent settlements through its effect on the overall quality of life. Infrastructure systems are better

maintained where the communities are cohesive and have a strong sense of ownership, as the residents themselves help to keep the common areas clean. This helps to minimize clogging of drains and sewerage systems.

The camps are an integral part of or near to well-established urban centers. All have populations of over 5,000, the minimum threshold for urban centers in Jordan. It is also very likely that all would also meet more rigorous criteria for "urban" locations, which take the proportion of the male labor force in nonagricultural occupations into account. All also appear to have significant levels of commercial and other nonresidential activity, especially on the main streets. Almost all of the camp sites are therefore viable urban settlements in terms of their location in relation to job opportunities.

Site conditions in all of the camps, except Baqa'a, seem to be suitable for building and installation of infrastructure at reasonable cost. The camps have basic infrastructure services and education facilities. However, the drainage system in some is deficient. Due to already-high residential densities, to provide a full range of infrastructure and services, a significant number of households would need to be relocated. Local Authorities are likely to face severe pressure from the residents of the camps for permission to build additional stories if and when the settlements are deemed permanent. The infrastructure and community buildings in place, or for which space has been reserved, would be unable to accommodate such growth. Building regulations would need to be continually enforced to avoid further exceeding the capacity of their limited infrastructure and social services. New sites also need to be developed to accommodate population growth.

Baqa'a camp requires further study, especially of the cost of improving its drainage. Its density also presents a more serious problem than in the smaller camps. Due to its large size (159 HA) in addition to the community-level facilities, Baqa'a also needs land for city-level facilities. As the surrounding area is not densely developed, however, the opportunity exists for relocating some households and locating some of the additional facilities needed adjacent to the present site. In the cost analysis, it is assumed that Baqa'a can be upgraded at a reasonable cost.

The social structure of the camps tends to be very cohesive as people originating from the same areas were allocated plots in close proximity to each other, thereby reinforcing family ties and the bond



of a common (refugee) status. These ties form the basis for informal assistance in cash and in-kind, and contribute to maintenance of common areas. All of the camps have also been in existence long enough for at least a full generation of adults to have been born there. Most buildings in the camps are made of permanent materials and represent major investments by the household sector that cannot economically be moved to other locations. As earlier refugee concentrations were upgraded, the residents demonstrated strong preferences to remain and, after upgrading, they have contributed to maintaining their communities. The same preferences may be expected of camp residents. A change of the official status of the camps from temporary to permanent would therefore be unlikely to result in a net loss of population.

### Upgrading Options

Jordan's program of upgrading of informal settlements has evolved over time. The idea of upgrading instead of demolition and wholesale relocation was introduced during the first round of upgrading projects initiated in the early 70s. Through its ongoing program, the Government has improved almost all of the larger communities with extensive service deficiencies. Over time also, community participation in deciding on upgrading interventions has increased.

Three options are examined for upgrading the refugee camps: full upgrading, partial upgrading, and tenure regularization only. All options would include tenure regularization involving purchase of the site from its owners, surveying, planning, reparation, retiling and the sale of the lots to the existing occupants. Full upgrading would involve the provision of a full range of infrastructure and community buildings within the site. The infrastructure would include items like upgraded roads, footpaths, public stairs, retaining walls, upgraded water and sewerage systems where needed, drainage, electricity, telephones and open space. Social facilities would include primary, preparatory and secondary schools, health clinics, community centers, emergency centers, adult training centers and police stations. The definition of the "full" range of infrastructure and social services is based on national norms including: widening of some roads to ensure that all dwellings are within reach of a fire hose; ensuring that all sewerage pipes have

an adequate combination of slope, pipe diameter and number and size of manholes to ensure the flow of sewage; provision of new community buildings to meet national norms of space per person or to accommodate the number of professionals, such as doctors and dentists; and provision of new community buildings to meet national targets, such as single-shifting of primary schools.

Partial upgrading recognizes the trade-off between a full range of infrastructure and community facilities and the high financial and human costs involved. The trend has been for the communities consulted to select partial solutions. About 10 percent of the households would need to move to carry out this option. From a citywide perspective this choice will influence the location of the supplemental facilities rather than whether or not they are provided. The overall cost, except for relocation costs, would remain similar regardless of the communities' choice. Several communities approached by the Government for upgrading recently have selected tenure regularization only. All the communities accepting this option so far have had much lower density development than the camps, and camp residents are unlikely to choose this option.

Under any option short of full upgrading population densities remain very high. Vehicular access, including that of emergency vehicles, is very limited; residents that own vehicles have to park them further from their homes with associated security risks; light may not penetrate to the ground-floor of buildings; children do not have appropriate places to play; adults lack space in which to congregate; and, community residents, including children, have to travel further to obtain services such as health care and education. Leaky water and sewerage systems and inadequate drainage would also contribute to a poor quality of life in such areas.

### *The Costs of Upgrading*

The major cost element of full upgrading would be relocation costs for moving households to make space for the new facilities. Besides the financial costs, the human costs would also be high, as about 15 percent of existing households would have to move. Areas near (or adjacent) to camps would need to be developed to accommodate these households and some additional social facilities. The residents would be expected to respond by improving their houses. In sites upgraded under the Govern-

ment's program, the residents also pay for infrastructure services associated with roadways less than eight feet wide. Within the camps, however, other cost-sharing arrangements might have to be developed, as the residents were already charged for the services they now have or contributed

"sweat equity" to their development. They might, therefore, be unwilling to pay again.

Some communities in the refugee camps are likely to choose minimum partial upgrading. The level of service desired is likely to vary with the characteristics of each camp and its neighbors. The

**Table 6.4: Options For Upgrading the Refugee Camps**

<i>Jordan: impact of the peace the urban development and housing sectors options for upgrading the camps</i>	Option 1 (full upgrading: 15% relocation)	Option 2 (minimum upgrading: 10% relocation)	Option 3 (land regulation only; no relocation)
Purchase of rented land	57,406	57,406	57,406
Opportunity cost of government land	3,150	3,150	3,150
Purchase of nearby land for community buildings and resettlement of households and businesses	9,083	6,056	3,028
<i>Civil and building work</i>			
Site preparation	16,072	15,307	
Off-site infrastructure (financed from general revenues)			
Roads over 8m wide	953	908	
Water supply	826	787	
Sewerage	32	30	
Drainage	1,271	1,210	
Electricity	1,779	1,694	
Street lighting	191	182	
Telephones	1,969	1,876	
On-site infrastructure (paid for in house price)			
Roads 8m or under 8m wide & footpaths	16,008	15,246	
Water supply	6,797	6,474	
Sewerage	20,328	19,360	
Drainage	254	242	
Electricity	1,207	1,150	
Street lighting	127	121	
Telephones	508	484	
Community facilities (including furniture and equipment)			
55 New and 25 replaced primary schools	32,424	30,880	30,880
50 Health/M&C centers	5,066	4,825	4,825
25 Other community buildings	2,533	2,413	2,413
Subtotal civil and building work	108,345	103,185	38,118
Overheads			
Design, supervision, implementation	7,584	7,223	
Project management	5,959	5,675	
Relocation costs			
Compensation (included in site prep.)	0	0	2,668
Income restoration	16,072	15,307	2,096
Total (5/93 prices): works, goods, relocation	137,959	131,390	42,882
Inflation factor (not applied to land)	0.045	0.045	0.045
Total (2/94 prices)	144,168	137,302	44,812
Land	69,639	66,612	63,584
Total in Jordanian Dinars	213,807	203,914	108,396
Exchange rate	0.69	0.69	0.69
Total (US\$ equivalent '000)	309,865	198,989	64,945

**Assumptions:**

(i) Estimates based on a comparison with Agaba, for which pre-upgrading conditions were similar to that of the refugee camps.

(ii) Additional Primary Schools needed would double the number of schools serving the population in the camps to eliminate double-shifting & replace school buildings made of prefabricated panels.

(iii) Compensation comprised between 10% and 15% of investment costs for upgrading in Agaba. In Agaba relocation costs and contributions to income restoration are provided by Departments of the Local Authority and the Regional Authority.

(iv) It is assumed that income restoration would cost as much as compensation.

(v) Population estimate is official (UNRWA & DPA) number \*1.5. (546,000)

(vi) Additional land purchase for community buildings and relocations estimated at: 15% for full upgrading, 10% for Minimum upgrading and 5% for land regulation only.

(vii) Construction of 50 additional health clinics would bring the service level to 1:9,000.

Source: UNRWA fact sheets, lowest bid prices for Old Town North, Agaba, May 1993.

mid-point between full upgrading and minimum upgrading is taken as the most likely average level selected by the residents. Cost estimates are derived from several sources (Table 6.4). Cost determinants fall into three main categories: land values, civil and building works and population. The greatest uncertainty arises from the population estimates, and these influence the cost of relocation (compensation and income restoration). The population size assumed is 546,000 or 1.5 times that of the UNRWA estimate. The price of the land also leads to considerable uncertainty as it responds to economic fluctuations differently from other assets. The land price used here is that at which the individual plots were being sold illegally in January 1994, as determined by the Housing and Urban Development Corporation (HUDC) staff.

The cost of relocation of households to make way for infrastructure reflects current international standards which require that dislocated people are to be made no worse off by the action. This results in a significantly higher cost than the previous practice whereby people were fully compensated for

their assets only. Jordan's policy for relocation already goes beyond compensation for lost assets, but has not yet incorporated the principle of income restoration. Relocation costs have been estimated at JD 3,000 per household displaced to cover compensation for lost assets as well as investments to restore income-earning opportunities. Between 10 percent and 15 percent of the population is assumed to be dislocated by the upgrading program. The cost estimate is tentative due to the untested nature of the income restoration concept in Jordan.

On the basis of the above assumptions, the cost of fully upgrading the camps would be about US\$300 million. Minimum upgrading would cost about US\$200 million and land regularization would cost about US\$65 million. The most likely cost is US\$255 million, the mid-point between full upgrading and minimum upgrading. If land costs have been underestimated by 50 percent, the most likely cost would increase to US\$300 million. An increase in relocation costs of 20 percent would result in a new cost total of US\$262 million. If both increases occur, the total cost would be US\$312 million.

## VII. Managing Water Resources

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Water and its effective and equitable management is critical to the political and economic future of Israel, Jordan and the West Bank and Gaza. More than 40 years of conflict (and the lack of diplomatic relations among the belligerents) have severely inhibited the management of water resources in the Jordan Rift Valley.<sup>30</sup> With the agreement by Israel and Jordan to end their "state of belligerency" it is now possible for the two parties to deal directly with each other on water management issues, and water will occupy center stage in their coming bilateral discussions.

### The Current Water Situation

Israel's water situation appears to be manageable over the next 10–15 years, but thereafter demand will exceed renewable resources, including treated wastewater. Gaza on the other hand faces immediate, acute water shortages while the West Bank suffers from a lack of water development. Israel, thus, enjoys the luxury of time, both for its negotiations with other affected parties in the region and for developing alternative water sources, such as desalination. For the WBG the central issue is whether to integrate itself into a network with Israel in a joint water system. While such an integrated network has technical and economic merits, it does not appear to be acceptable to either the Palestinian authorities nor to the Israelis. Independent management of the WBG water system will place additional pressure on all parties to reach equitable water sharing arrangements in the Jordan river basin.

Jordan faces imminent water scarcity. Its population, unlike that of Israel and the WBG, is concentrated inland at higher elevations, making water imports and/or desalination of sea water much more expensive. Moreover, while Jordan has begun a series of steps to control demand and improve the efficiency of water use, it must move quickly to increase supplies. Access to a larger share of Jordan basin surface water resources would greatly ease the short term constraint, but because of pumping costs it will be expensive to exploit and, alone, will not eliminate the longer term problem of excess

demand. Jordan will thus need to reinforce demand management and reduce the proportion of available water committed to irrigated agriculture particularly in the highlands in addition to seeking agreements (and making new investments) to increase its access to existing surface water.

### Opportunities for Water Management

While the contrast between Israel with its currently manageable situation and Jordan and the WBG with their present and growing water deficits is striking, it may obscure the underlying reality that all three parties will need to deal with water scarcity in the medium term. By 2010 Israel is projected to have excess water demands which by 2040 will be as large in absolute terms as those projected for Jordan. This suggests that as the peace process unfolds Jordan will need to seek cooperative solutions to two sets of issues: (i) immediate agreements on revised water sharing in the Jordan basin, including resolution of the management of the Yarmouk River; and (ii) longer term cooperative approaches to increasing supply.

Technical and economic analyses of the management of water resources in Israel, Jordan and the WBG are too rudimentary to permit detailed discussion of how Jordan might approach cooperative solutions to the water problem. The existing studies, however, suggest five major considerations which will be important in the process of reaching any agreement:

- The volume of water in dispute between the riparian countries (and its economic value) are not great, relative to their combined projected needs;
- irrespective of any reallocation, substantial additional supplies will be required on a regional basis in the next century;
- seawater desalination may prove to be the most technically and economically feasible source of new medium to long term supplies for the coastal plain, but water imports by land and sea may also be possible;

- the costs of additional supplies (eg. through desalination of seawater) can probably be accommodated by Israeli users without major dislocations, but would be inconsistent with projected levels of consumption in Jordan and the WBG; and
- the timing of—but not the ultimate need for—new supplies can be affected by international agreements, enhanced demand management, the volume of wastewater treatment, and the extent to which irrigation can be restricted.

Thus in the short run Jordan will probably wish to concentrate on resolving the longstanding dispute over the sharing of water from the Yarmouk river, including the possible construction of the proposed Unity Dam, and on tripartite negotiations for water management in the Jordan basin with Israel and the Palestinian entity. Resolution of the Yarmouk dispute, however, must inevitably also involve Syria, and any strategy for integrated water development in the Jordan basin or shared aquifers would be likely to require Israel to surrender resources to Jordan and/or the WBG. Given the extreme political sensitivity (on both sides of the Jordan River) to surrendering existing water, the short run negotiations on revised water sharing arrangements are likely to be drawn out and contentious.

There will be some economic benefits from regional cooperation in the development of new

supplies. Desalination plants and import terminals must be located on the coast. If constructed, there is obvious economic sense in their serving the densely populated coastal regions in place of renewable resources currently pumped from inland areas. The inland resources could then be released to meet the demands of Jordan and the WBG. The magnitude of the benefits from such joint investments and management have not been adequately quantified.<sup>31</sup> Given the long gestation periods required for investments in new water supplies, however, one of the major costs of lack of cooperation on water management issues is the loss of time. If negotiations over short run reallocation of existing water postpone planning and investments for new water supplies the economic costs to Jordan's economy, could be substantial.

While water allocation and management issues will occupy much of the bilateral discussion between Jordan and Israel, cooperative arrangements either to share existing water more equitably or to develop new supplies will not offer a panacea for long run water scarcity in Jordan. The keys to addressing the longer term water challenge are further improvements in demand management, especially appropriate pricing of water to all users, and more rapid economic growth in order to make the substantial investment costs of new supplies under any scenario more affordable.

## VIII. Capital Flows, Debt, and External Financing Needs

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We have argued that for the citizens of Jordan the dividend from peace will ultimately be measured in terms of a return to sustained economic growth. Peace will not restore, however, the migration and official transfers of the past. Rather, Jordan's future growth will depend on its ability to increase domestic savings and attract private sector financing of investment from both internal and external sources. A central question then is: can a strategy built on attracting private sector finance succeed given the existing public sector debt?

### Investment and Growth

This issue is addressed by developing a simple simulation model to test whether Jordan can attract the financing needed to grow faster than its external (official) debt without having to cut consumption unduly. The model assumes implementation of a strong domestic reform program (as indicated in the recent World Bank CEM), and the continuation of the peace process. It also takes into consideration the current structure of demographics and production (using a fitted production function). While no simulation model can handle all the underlying determinants of growth, the capital-based model used here is useful for quantifying the financing requirements associated with alternative growth paths.

We begin by specifying growth rates of GDP that will be sufficient to absorb the expanding labor force and allow for a gradual rise in real per capita income. We also assume that total factor productivity rises 20 percent in the next 10 years, based on the assumption that a vigorous reform program continues to be implemented, investment risk falls as the security situation improves further, and a regional boom leads to increased regional demand for Jordanian goods. The assumed medium-term impact on the variables—the efficiency of investment, the extent of public and private sector investment, and the resulting growth in per capita GDP are summarized in Table 8.1.

High levels of public investment will be required in order to integrate returnees and

refugees effectively into Jordanian society and the economy, but we have made very restrictive assumptions concerning the growth of public investment. Public investment—which was sharply cut in the past decade before rebounding in 1993 to 7.1 percent of GDP—is assumed to rise to 8 percent of GDP by 1995, before falling back to 5.0 percent by 2003. We then compute the private investment rate needed to achieve the targeted GDP growth. In order to attain the target growth rate, large private investments are required to employ the new entrants to the labor force—population growth rates are expected to remain high for the next decade (above 3 percent a year). In addition, an early burst of growth is required to employ those presently unemployed, and to fully utilize the skills of the recent returnees. Overall, the required private investment rate is around 21 percent of GDP in 1994, falling slowly to 20 percent in 1998, and staying at that level through 2003. Consumption will grow moderately in real per capita terms, while public consumption is expected to remain stable at 28 percent of GDP per year before falling after 1998. These assumptions imply that the domestic savings rate will rise slowly from its current level of 0.1 percent of GDP, to 16 percent by 2003.

By historical standards, these are not implausible targets. Private investment was very high in the late 1970s and early 1980s. The challenge for the next decade however is to have both high and efficient investment. This will require a substantial rise in nonresidential investment above the levels reached in the past, and would consequently require continued policy action to shift incentives toward the efficient production of tradables. Total factor productivity growth of the magnitude that is projected occurred during 1976–86, when it contributed 24 percent to growth.<sup>32</sup>

The immediate fiscal impact of peace arises from the possibility of a complete loss of seignorage revenue of about US\$50 million (or 1 percent of GDP) if a new Palestinian currency replaces the JD, or a partial loss of seignorage revenue if JD continues to be in circulation but the cash intensity in the WBC

**Table 8.1: Enhanced Policy Reform and Growth Scenario, 1993–2003**

	1993	1994	1995	1996	1997	1998	2000	2003
GDP (current \$)	5,193	5,571	6,045	6,927	7,967	9,124	11,029	14,110
GDP real growth (%)	5.8	5.5	5.8	9.0	8.5	8.0	7.0	5.5
ICOR (%)	5.5	5.5	4.9	3.0	3.2	3.4	3.6	4.5
(percent of GDP)								
Investment	30.1	28.6	27.4	27.0	27.0	25.0	25.0	25.0
Public	7.1	7.9	8.0	7.0	6.0	5.0	5.0	5.0
Private	23.0	20.7	19.4	20.0	21.0	20.0	20.0	20.0
Consumption	103.0	101.0	97.8	93.5	90.8	90.1	86.6	82.0
Public	24.9	23.8	22.3	21.9	21.6	21.3	20.7	20.0
Private	78.1	77.2	75.5	71.6	69.2	68.8	65.9	62.0
Current account deficits	-12.5	-9.7	8.0	-7.0	-6.0	-5.0	-4.0	-1.2
Fiscal revenues	32.4	32.0	31.9	31.5	31.3	30.8	26.6	25.6
Total expenditures	38.7	37.4	36.2	35.2	34.3	33.3	29.5	28.0
Non-interest	25.3	24.1	22.6	21.8	21.2	20.5	18.0	17.5
Interest payments	13.4	13.3	13.6	13.4	13.1	12.8	11.5	10.5
Budget deficit	6.4	5.4	4.3	3.7	3.0	2.5	2.9	2.4
Domestic savings	-2.1	0.1	3.1	5.9	8.3	8.6	11.5	16.0
Public	0.1	2.0	3.4	4.0	4.7	5.3	3.6	3.6
Private	-2.2	-1.9	-0.3	1.9	3.6	3.3	7.9	12.4

economy is to be sharply reduced. The other additional fiscal outlays are related to the financing of the refugee camp upgrading. The public investment costs have been estimated in the range of US\$ 200 million to US\$ 300 million. Assuming that the upgrading will be implemented over a period of seven years, the fiscal outlay per annum is between US\$ 28–45 million (or 0.6–0.8 percent of GDP). A further (quasi-fiscal) cost is likely to arise from the need to sterilize financial inflows. In the last three years however, the authorities have successfully managed the financial inflows without incurring significant sterilization cost. Should the financial inflows substantially increase (for example by US\$ 300–400 million), the sterilization costs (i.e. mainly in terms of interest rate differentials at about 2–3 percentage points) for the incremental inflows would be less than US\$ 12 million (or less than 0.3 percent of GDP) annually. On the positive side, import tax revenues, now estimated at about only 9 percent of total imports may increase significantly in response to the increased trade with the WBG and further trade liberalization. In particular, the volume of imports is likely to increase with the reductions of prohibitive tariff rates, and the removal of the remaining import restrictions, and import revenues will increase with the reductions of tariff exemptions.

In sum, the incremental fiscal costs are not likely to exceed 2 percentage points of 1994 GDP. The relative importance of these costs will decline as cur-

rent GDP growth continues. These costs could be accommodated provided that current fiscal efforts continue to be maintained, and key structural adjustment measures will be effectively implemented.<sup>33</sup> The fiscal benefits as envisaged in the enhanced growth and adjustment scenario (see Table 8.1) would then fully offset the additional fiscal costs. Increased concessional financing and debt and debt service relief in connection with the peace would provide further fiscal relief.

#### *Public Sector Savings*

Government revenues stabilized in 1993 at about 33 percent of GDP (of which 18 percent is tax revenues), up from an average of about 24 percent in 1989. It is difficult to imagine that revenues can be increased further without seriously hurting the competitiveness of the economy and its ability to attract business. Instead, the growth scenario assumes that as the VAT system becomes fully operational, the efficiency of revenue collection will improve while its level will fall, resulting in a stabilization of the ratio of revenue to GDP at 31 percent in 1998, about 2 points below the current ratio.

On the expenditure side, noninterest current expenditures have been already adjusted by about 3 points (from 28 percent of GDP in 1989 to 25 percent in 1993), mainly on account of cuts in food subsidies, military expenditures, and a slow growth in public sector salaries. This fall has occurred despite

the rise in spending required to accommodate the flow of return migrants. It is assumed that the aggregate public expenditures will keep growing at a slower rate than GDP, resulting in a ratio of current expenditures to GDP of 23 percent by 2003. The cuts occur late in the decade, mainly on account of further cuts in subsidies (about 1 percent of GDP) and further reductions in military expenditures (another 1 percent of GDP). Overall, the public sector's saving rate will slightly fall before rising again by the end of the decade. The overall central government deficit is expected to fall from 6.4 percent of GDP in 1993 to about 2.5 percent in 1998, staying at that level through 2003.

#### *Domestic Private Savings*

Ultimately, Jordan must finance most of its investment with its own savings. Thus, attempting to encourage the private saving rate to rise above its current, low level will remain an important task for policy-makers in the future. The task will be challenging given the generally low sensitivity of savings to interest rates and the scarcity of other relevant policy instruments. The switch from taxes on savings (such as the inflation tax) to consumption taxation (such as the recent increases in consumption taxes, and the General Sales Tax) will help, as will the reduction in broad-based social programs that will strengthen the incentives for precautionary savings.

The main reason why the saving rate is expected to rise significantly over the next decade is different, however. The recent sharp decline in the domestic saving rate is a transitory phenomenon which will gradually subside as the Gulf crisis returnees become more productive. Before the recent migration, the private savings rate stood at 10 percent of GDP. The integration of the returnees in Jordan has caused a fall in the domestic savings rate as the returnees initially consumed out of their savings without contributing significantly to GDP. The private savings rate fell by 8 percent of GDP during 1990–91, with private consumption rising by about 5 points and investment by 3 points. During this period, GDP rose by 3.5 percent in real terms, while population rose by about 8 percent, and the labor force by about 20 percent. The private savings rate decreased further during 1992–93, but the shortfall was mainly caused by rises in investment,<sup>34</sup> initially in the housing sector, and then increasingly in trade

and manufacturing. At the same time, the returnees are increasingly contributing to GDP: the GDP growth rate rose to 10–11 percent in 1992, and 6 percent in 1993, and unemployment has dropped steadily (from nearly 20 percent in 1991, to 13 percent in 1993). The recent fall in domestic savings ratios is thus a transitory phenomena that will disappear as the returnees become fully integrated in the Jordanian economy.

#### **Financing Needs: External and Internal Deficits**

To be able to compute the net external capital flows that are needed to achieve external balance, projections must be developed for other sources of foreign exchange, and in particular, official grants and workers remittances, as well as for other uses, in particular debt servicing and the build-up of official reserves. In addition, to be able to separate requirements between the private and public sector, a view must be formed with respect to the financing sources of the public sector deficit. These issues are covered in this section which concludes with estimates of public and private financing needs for the next decade.

#### *Grants*

In 1993, official transfers stood at about \$300 million, less than 6 percent of GDP. In contrast, official assistance was over 30 percent of GDP in the mid-1970s at the height of the oil boom. After 1985, Arab assistance declined sharply (with the shortfall initially smoothed by increased commercial borrowing), while other sources remained about constant. Thus, official assistance has been steadily falling in the past decade, with the exception of the period 1990–92 where extraordinary disbursements by the GCFCC were made in the context of the Gulf crisis (about \$1.2 billion of grants and concessionary loans during 1990–92).

For several reasons, the availability of official assistance—from Arab, OECD, and multilateral sources—is likely to become more constrained in the future. Relatively low oil prices, the fall in reserves related to the cost of the Gulf war, and rising domestic expenditures make it unlikely that Arab aid will increase dramatically in the near future. At the same time OECD countries are facing the dual problem of difficult domestic fiscal situations and extraordinary demands for exceptional assistance for the former



Soviet Union and Eastern Europe.<sup>35</sup> Nor can Jordan rely in the future on multilateral institutions for increasing levels of net flows. In some cases because of the large volume of lending in recent years, multilateral institutions have reached exposure levels that limit new lending.<sup>36</sup> More worrisome is that the level received in recent times is uncertain and may not be available in the future. A large share of the current assistance—between \$170 and \$200 million—comes from Iraq in terms of oil deliveries at below international prices. It is not clear that this source will remain once Iraq re-enters the international oil market.

All of this suggests that any future strategy should be based on the presumption that flows of external assistance directed to the public sector are likely to be more in line with those of the 1980s than of the 1970s. In our scenario (Table 8.2), the level of

grants is projected to remain flat in the next decade, implying a fall of its share of GDP (from 6 percent in 1993, to about 2 percent in 2003). We also investigate below by how much grants would need to expand to accommodate the target growth in the absence of other type of official assistance.

#### Private Flows

The critical question then becomes: what can be expected from private flows? The crisis in the Gulf, with the attendant movement in populations, dramatically reduced the level of remittances as Iraq, Kuwait and Saudi Arabia released several million Arab workers. About 300,000 people returned to Jordan during 1990–91. Two important issues need discussion in this connection. What can be expected of remittances in the future? And what can be

**Table 8.2: Jordan—Projection of External Financing Requirement Under the High Case Scenario, 1993–2003**  
(US\$ millions)

	1993	1994	1995	1996	1997	1998	2000	2001	2003
Current account excluding Grants <sup>a</sup>	-507	-613	-570	-563	-559	-539	-630	-651	-417
Buildup of reserves <sup>b</sup>	95	-70	-100	-100	-100	0	0	0	0
Scheduled amortization on LT <sup>c</sup>	-600	-489	-485	-513	-483	-390	-314	-395	-485
o/w London Club Scheduled Amortization	0	0	0	10	10	10	10	10	10
Scheduled interest & arrears	-796	-166	-100	-52	-48	0	0	0	0
o/w London Club scheduled interest	0	31	34	36	36	40	44	43	42
Net other <sup>d</sup>	46	40	100	150	150	175	200	225	225
Decrease in overdue obligation	-113	-11	—	—	—	—	—	—	—
Total financing requirement	-1876	-1309	-1155	-1078	-1041	-754	-744	-821	-677
Financed by:	1876	1309	1155	1078	1041	754	744	821	677
Regular financing sources <sup>e</sup>	1001	636	493	458	665	661	647	697	558
Disbursement on LT Loans excluding Gapfil <sup>f</sup>	626	288	213	178	385	381	367	417	278
Grants	340	348	280	280	280	280	280	280	280
GCFCC grants & loans	35	0	0	0	0	0	0	0	0
Extraordinary financing sources	875	674	662	620	376	93	97	124	119
Debt rescheduling	845	353	318	274	156	0	0	0	0
Paris Club research AMT (1989, 1992, 1993)	49	187	218	222	108	0	0	0	0
Paris Club research INT (1989, 1992, 1993)	49	166	100	52	48	0	0	0	0
Paris & London Club research arrears (1992, 1993)	747	0	0	0	0	0	0	0	0
IBRD adjustment loan	30	60	60	35	30	0	0	0	0
IMF purchases	0	0	0	0	0	0	0	0	0
IMF EFF	0	44	67	67	0	0	0	0	0
Residual balance	-0	217	217	244	190	93	97	124	119
Increase in overdue obligations	0	0	0	0	0	0	0	0	0
<i>Memorandum items:</i>									
Debt/GDP (%)	160.0	149.7	140.3	125.5	111.7	99.9	80.7	72.4	60.0
Post-rescheduling services/EXPGNFS (%)	24.9	21.4	19.0	16.2	16.4	16.5	11.2	10.7	9.0
Pre-rescheduling services/EXPGNFS (%)	30.7	32.3	31.9	29.5	25.1	20.7	14.3	12.9	8.5

a. Excludes official grants and includes transfer of worker savings, after all debt rescheduling.

b. Excludes Net IMF & AMF credits.

c. Before all rescheduling; includes IMF and AMF repurchases.

d. Comprised of net direct foreign investment, private short-term investment, cost of debt restructuring, and errors & omission.

e. Includes GCFCC grants and loans.

f. Excluding gapfil and IBRD adjustment loans.

Source: World Bank staff estimates.

expected of the return of savings associated with the return of migrant workers to Jordan?

In the Gulf, a mixture of political considerations and underlying economic fundamentals suggest that, while the non-national labor force will continue to expand, the share of Arab migrants will continue to fall. For example, if the non-national labor force grows at the 1985–1990 rate of three percent a year and if, as suggested by one source (ESCWA, 1991) the effects of the Gulf crisis result in an Arab share of only 20 percent, the 1995 number of Arab migrants in the Gulf would be well below the 1990 number. On the other hand, better economic performance in the labor-surplus countries and hence better investment opportunities may encourage more remittances per worker. And continued growth in the Gulf countries should also translate into higher remittances per worker. This suggests that at best one might expect remittances to stabilize at their current level, implying a steady decline relative to GNP.

The average remittance sent per worker during the period 1979–87 (for which estimates of Jordanians working abroad exist) suggests that the remittance per worker has amounted on average to \$3000 per year (in 1993 prices). Given that an estimated 80,000 workers have returned out of an estimated total of 340,000, this suggests that remittances may have fallen after 1990–91 by as much as 25 percent, to a level of about \$750 million a year. This also suggests that of the \$1.5 billion of private inflows during 1991–93, about half were remittances, and half were savings transfers.<sup>37</sup> In our scenario (Table 8.2), remittances and transfers of savings are projected to stay at above \$1 billion annually with their shares of GDP continuing to fall throughout the projection period.

#### *Foreign Exchange Reserves*

By end 1993, the level of official reserves stood at about \$600 million, or 2 months of imports. There are several reasons why a sizable increase in reserves seems very desirable at this stage in Jordan's development. The legacies of the recent past offer both an exciting prospect and a difficult challenge. The prospect lies in the possibility of fueling a private sector-led strategy of economic development by attracting savings that are placed abroad back into productive investments. The challenge lies in navigating safely in an environment that can quickly become very unstable.

Besides the uncertainty introduced by the public sector debt overhang (see below), the outlook for official assistance and for workers remittances is not known. In addition, the uncertainty relating to a possible withdrawal of part or all of the Jordanian dinars currently in circulation in the West Bank (estimated somewhere between 15 and 30 percent of Jordan's GDP) will remain high until this issue is ultimately resolved. The existing level of uncertainty can scare away private investors, delay the return of past capital outflows, and thus undermine in a serious way the strategy recommended for the next decade. In such a context, reserve build-up appears crucial: without a high level of reserves, the private sector will be deterred by the existing uncertainty and fears of increased taxation, inflation, or a depreciation of the dinar. In our scenario, the level of reserves is projected to rise by \$100 million a year for the next four years, reaching \$1 billion by 1997 (or 2.7 months of imports).

#### *Interest Payments on Foreign Debt*

Jordan has a very high level of external indebtedness, with debt ratios well in excess of countries with capital market access. Some progress has been made. Debt to the former Soviet Union was bought back at substantial discount, and a debt and debt service reduction agreement has been reached and implemented with the London Club. Servicing of the accumulated foreign debt inevitably calls for higher levels of inflows to sustain the target growth rates. Interest payments on the existing stock of foreign debt amount to about \$300 million in 1992, or 5–6 percent of GDP. They would be expected to grow with the debt, and are not expected to fall, unless more debt and debt service reduction is forthcoming. Since the beginning of its debt crisis in 1989, Jordan has actually paid a small share of the payments falling due. It has been running arrears for several years, but its position with the Paris Club has been regularized with a series of reschedulings (1989, 1992, 1993) affecting 100 percent of the interest and principal due on the debt accumulated before the cut-off date of 1989. The debt that was contracted before the cut-off date represents about 50 percent of the current public and publicly guaranteed debt of US\$7 billion, and accounted for about 50 percent of the debt service falling due in 1993. Current IMF base case projections foresee a continuation of such a strategy until at least 1998.

### **The Debt Overhang: Is the Current Strategy Sustainable?**

The burden of external public debt can depress investment and economic growth through two types of channels: illiquidity effects and incentive effects. The illiquidity effect arises because there are only limited resources to be divided among domestic consumption, investment, and external transfers to service existing debt. The disincentive effects, by contrast, arise because expectations of future debt burdens tend to reduce the incentive for new lending and investment.<sup>38</sup> There are several reasons for this. First, the old debt deters new investors because there is no easy way to guarantee their seniority. Even if they found very profitable investment opportunities, the prospects for profit repatriation will be reduced by the long line of claimants on the country's foreign exchange reserves. New investors will abstain from funding otherwise good investment opportunities out of a fear of being "taxed" by the old creditors.<sup>39</sup> Second, the incentives for domestic investment are also affected. The servicing of external public sector debt requires both an external transfer (from the country to the creditors) and an internal transfer (from the private to the public sector). To earn sufficient foreign exchange, devaluations may be needed. And to collect the foreign exchange from the private sector, various taxes may have to be imposed, including the inflation tax, or domestic public debt must be accumulated. These events—as well as the expectations that they may take place in the future—depress investment and growth, and lead to capital flight.<sup>40</sup>

The uncertainty created by the debt overhang exerts a destabilizing influence on domestic financial markets causing them to become less effective in intermediating between savers and investors. Financial instability is exacerbated when the public sector also has large explicit and implicit liabilities at home, such as the implicit guarantee of private savings deposited in the domestic banking sector, social obligations contracted in the past, or liabilities toward social groups that would stand to lose disproportionately from reform.<sup>41</sup> Because capital accumulated abroad by domestic residents cannot be tapped by the public sector, these effects can appear even when the private sector has sizable foreign assets.

Illiquidity and disincentive effects can pull highly indebted countries in a downward spiral.

The country suffers because potentially productive investments are left unexploited. The country's creditors suffer because the unrealized growth depresses their payoffs. In such a situation, coordination among creditors can lead to improvements involving the provision of liquidity and/or debt relief. Coordination between creditors and the debtor can improve matters further, but both parties must commit themselves to some future action. Creditors must provide liquidity and credible assurances that in the future they will not extract repayments that are too large by agreeing to some combination of new loans, debt write-offs, and lower interest rates on rescheduled debt.<sup>42</sup> And the debtor must show evidence of a commitment to invest a large share of any additional resources under the relief plan.

The recent experience of Latin America is instructive in this regard. Net flows had dried up after the mid-1980s, a reflection of the inability of most of these countries to grow out of their debt crisis. However, after the Brady plan came into effect, the international financial market quickly recognized and rewarded improvements in creditworthiness. For these countries, the restructuring of external debts has facilitated re-entry to international capital markets, and contributed to an environment where strong policies were easier to sustain.

### **Can Jordan Grow Out of Debt?**

Jordan's lack of external creditworthiness will discourage private capital inflows and direct foreign investment. The relevant policy question is: Is Jordan likely to be able to grow out of its debt overhang through successive rescheduling of debt service obligations? In other words, will a series of reschedulings be sufficient to allow a return to creditworthiness sometime in the not-too-distant future? What is the highest debt ratio at which a country retains its creditworthiness? Two indicators, the ratios of debt to export plus remittances (D/X) and of debt to GDP, can be used as the relevant indicators of the capacity to service debt in the long run.<sup>43</sup> A review of recent evidence suggests that credit ceilings are reached when the D/GDP and D/X ratio of a country falls somewhere below 75 and 150 percent respectively. While the exact figure must be country-specific, it remains true that the levels of these ratios in Jordan are way above the levels characterizing creditworthy countries elsewhere.

We have simulated the performance of the economy to compute the residual net capital inflows Jordan needs to receive in order to insure external balance. The goal of the exercise is to find out whether, given the growth objectives and the financing requirements needed to achieve this growth, the outstanding debt of the public sector is too large compared with the country's capacity to service debt; if the answer is yes, a market-based strategy of growth out of debt will be unlikely to succeed because it would be difficult to convince the private sector that austerity will be maintained long enough to resolve the public sector imbalances and that the fruits from investment will not be taxed away in the future.<sup>44</sup>

The results of the simulation are detailed in Table 8.2. They suggest that a strategy of growth out of debt is not feasible given the objectives of growth and of attracting foreign and private investment over 1994–99. Under quite favorable assumptions about reform and the supply response, the time required for output to outgrow debt sufficiently to allow for voluntary access to the private capital markets is more than 10 years. The external public debt to GDP ratio is projected to fall from 160 percent of GDP (in 1993) to 100 percent in 1998, and 72 percent in 2001. These are indeed large decreases, but they remain clearly insufficient to produce market access.

At the same time, the needed private inflows are large, amounting to an average of 20 percent of GDP during 1994–98. That these inflows would be forthcoming seems a remote possibility given the uncertain prospects related to the debt overhang, which is likely to deter particularly those flows oriented to investments in long-gestation projects. During the interim, Jordan will have to roll-over a large part of its debts, therefore piling up new debt in order to afford the required investments and keep steady consumption growth. Clearly, these are not very realistic prospects. And even if a reform agenda is followed, the need for constant reschedulings is likely to create uncertainty and reduce the strength of the private sector's supply response.

### **The Extent and Form of Debt Relief**

Two approaches to debt relief have been pursued in the Middle East: debt reduction and extraordinary increases in grants. In Egypt, debt relief took the form of unilateral debt reduction (in 1990–91 from

the Gulf states and the US) followed by a Paris Club conditional debt reduction (1991–94). The Paris Club debt reduction of 1991 (50 percent in present value terms) was made conditional on reform and is to be delivered in three tranches, of which the second was approved in September, 1993. In the case of Israel on the other hand, a pure grant method was followed. The improvement in Israel's overall external debt position since 1984 is directly related to the shift in U.S. Government assistance from loans to grants, following more than a decade of rapidly rising net foreign debt. While in neither case was debt relief sufficient to boost growth dramatically, it nevertheless was an important component in stabilizing domestic financial markets, and in boosting creditworthiness. In Israel, where the commitment of a single donor was evident to the private sector, this strategy allowed for a major rise in the accumulation of the private sector's liabilities abroad, while in Egypt, it precipitated a reversal of capital flight. These examples suggest that there is no single strategy that dominates all others; different countries with different types of debt overhangs arising from differences in donor groups and in growth potentials should follow different strategies.

To evaluate the feasibility of a grant-based strategy, we compute the factor by which grants would have to be increased to yield a ratio of debt to GDP of 75 percent by 1998. If the grant multiplier is small enough, a grant-based strategy is feasible. If, however, the grant multiplier is large, the feasibility of a grant-based strategy is unlikely. It would be difficult to attract private inflows on a sustainable basis in the absence of debt reduction. In the case of Jordan, the current annual grant level need to increase fourfold to over \$800 million during 1994–98 in order to yield creditworthiness by 1998.

In order to evaluate the feasibility of a pure debt-reduction strategy, we compute the factor by which debt would have to be reduced to yield a ratio of debt to GDP of 75 percent by 1998. The results suggest that debt will have to be reduced by about 25 percent, or by about \$1.7 billion. This scenario foresees additional net public borrowing of \$200 to \$300 million a year. This would involve larger gross borrowing given the existence of principal repayments arising from existing debts (parts of which would have been reduced). Given the regained creditworthiness, the availability of such borrowing should not be an issue as long as existing policies generate credible expectations of strong economic growth.

### The Impact of Partial Debt Relief

To what extent would a combination of grants and debt reductions equivalent to US\$ 1.7 billion help improve Jordan's future economic prospects? Our assessment (Table 8.3) shows that GDP growth, especially in the medium term, could be increased significantly, and with increased growth in income and output, real per capita consumption would increase. Specifically, a debt reduction of US\$ 1.7 billion in 1994 would entail net external debt service relief (after accounting for services on new financing) of about US\$ 200 million a year during 1995–1999, and US\$ 130 million a year during 2000–2003. The greater part of this relief could be used to finance additional imports while building up official reserves (see Table 8.3).

Increased imports would allow higher GDP growth than envisaged in Table 8.1. Government investment could be maintained at 9 percent of GDP instead of the 5–7 percent shown. At the same time, the pace of restoring internal and external balances would accelerate. Increased growth and additional imports would also enable Jordan to afford relatively more consumption expenditures, thus strengthening public support for the Peace Process, as well as for Government adjustment efforts.

### The Case for Full Debt Relief

The debt reductions as discussed above would allow Jordan to achieve a debt to GDP ratio of 75 percent by 1998. This obviously would still leave a great deal of uncertainty surrounding Jordan's

macroeconomic prospects and a lot to be desired if Jordan is to show rapid, tangible results of the Peace. What would happen to growth, investment and consumption, if all of Jordan's official and bilateral debt were to be forgiven. Our projection (shown in Table 8.4) indicates that full debt forgiveness (of US\$ 3.3 billion) in 1994 would permit the following outcomes:

- While maintaining the same build-up of additional reserves as in the case of partial debt forgiveness, Jordan could use the savings from debt relief to finance additional imports at levels of above US\$ 220 million a year, thus boosting GDP growth especially for 1995;
- The additional reserve build-up during 1995–1999 of US\$ 80 million a year would enable Jordan to better cope with the redemption of Jordan Dinar in the WBG;
- The debt-to-GDP ratio would be nearly cut in half, substantially reducing the uncertainty surrounding Jordan's macroeconomic outlook;
- The additional financing from debt relief would also allow Jordan to substantially increase its Government capital spending, particularly that related to alleviating the infrastructure bottlenecks and upgrading of refugee camps directly attributable to the needs of the peace;
- With accelerated growth real per capita consumption would grow at faster pace than in the case of partial debt forgiveness, while the pace of restoring macroeconomic imbalances would accelerate as well.

**Table 8.3: Jordan—Effects of Partial Debt Forgiveness**

	1993	1994	1995	1996	1997	1998	2000	2001	2003
GDP growth rate	5.8	5.5	9.4	8.3	9.7	7.4	5.9	6.2	3.9
Growth of real imports (\$) <sup>a</sup>	4.2	5.2	9.4	8.3	9.7	7.4	5.9	6.2	3.9
Investment/GDP	30.1	28.6	33.0	32.0	29.0	27.0	27.0	27.0	27.0
Private investment/GDP	23.0	20.7	24.0	23.0	20.0	18.0	18.0	18.0	18.0
Public investment/GDP	7.1	7.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Incremental capital output ratio	5.5	5.5	3.1	4.0	3.3	3.9	4.3	4.3	6.9
Net exports of GNFS/GDP	-33.1	-28.6	23.8	22.0	-18.5	-16.8	-12.8	-11.2	-8.0
Consumption/GDP	103.0	100.0	90.8	90.0	89.5	89.8	85.8	84.2	81.0
Consumption per capita growth	3.3	-0.9	-3.8	4.0	5.9	4.6	0.4	1.2	-1.0
<i>Memorandum items</i>									
Relief from debt reductions									
of US\$1.7 billion		8	211	231	228	185	121	140	110
Reserve build-up (US\$ millions)	—	8	80	80	80	80	50	50	50
Financing additional imports	—	—	131	151	148	105	71	90	60

a. Including the additional imports as a result of the debt reductions.

The economic portrait of Jordan with full debt relief is one which significantly enhances the prospects of strong popular support for the peace process. The increases in per capita consumption growth, along with the increases in capital spending, the reductions of the debt overhang and the build-up of reserves, would significantly strengthen Jordan's social and political fabric and make its longer-term macroeconomic outlook more robust.

#### *Grants and Debt Reduction: A Practical View*

Because the existing literature has concentrated mainly on the relation between commercial banks and a set of Latin American countries, the role of grants—an instrument that is used only by official lenders—as provider of relief has not been explored. Yet, the provision of new grants acts to some extent like debt relief: ignoring incentive effects, it increases liquidity without increasing the stock of debt. In fact, the two can be made exactly equivalent in net present value terms. Thus, \$1 of debt forgiveness is exactly equivalent to a stream of future grants which when discounted at the market rate of interest yields a net present value of \$1. In practice, however, this simple equivalence breaks down. The costs related to debt reduction—loss of reputation on the part of the borrower and regulatory costs that have to be borne by the lenders—have been noted and discussed in the context of the Latin American debt crisis. While such a concern should not be exaggerated, it nevertheless supports an approach based on grants rather than debt reduction—a flow of grants can be put in place that pro-

vides debt relief equivalent (in net present value terms) to debt reduction and avoids the costs associated with debt reduction.

There is a powerful argument, however, against the use of grants. This has to do with the credibility that the private sector attaches to a once-only event (debt reduction) versus a possibly protracted process (grants). A strategy based on attracting inflows of private capital rests heavily on the private sector's assessment of both the credibility of the domestic reform program and the likelihood of a successful resolution to the problems arising from the debt overhang. Debt reduction achieves the second in a very convincing way. An equivalent (in net present value terms) approach based on grants achieves the second goal only to the extent that the private sector is convinced that the future grants will indeed be forthcoming. In other words, the certainty stemming from an approach based on debt reduction is replaced by the uncertainty arising from the possibility that future grants will not be forthcoming. Moreover, this uncertainty is likely to increase with the size of the debt overhang because the grants will have to be larger and/or the period during which grants will be required will have to be longer, both of which are likely to decrease the private sector's confidence that debt problems are indeed being resolved.

The uncertainty arises because donors are rarely able to commit to a predetermined flow of grants into the future, and, even if they were, the private sector may still not be convinced. When there are many donors, coordination failures exacerbate the commitment problem and further reduce the value

**Table 8.4: Jordan—Effects of Full Debt Forgiveness**

	1993	1994	1995	1996	1997	1998	2000	2001	2003
GDP growth rate	5.8	5.5	11.2	8.4	9.5	7.0	5.7	6.6	4.2
Growth of real imports (\$)	4.2	5.2	11.2	8.4	9.5	7.0	5.7	6.6	4.2
Investment/GDP	30.1	28.6	31.0	30.0	28.0	27.0	26.0	26.0	26.0
Private investment/GDP	23.0	20.7	21.0	19.0	16.0	16.0	17.0	17.0	17.0
Public investment/GDP	7.1	7.9	10.0	11.0	12.0	11.0	9.0	9.0	9.0
Incremental capital output ratio	5.5	5.5	2.5	3.7	3.2	4.0	4.8	4.0	6.2
Net exports of GNFS/GDP	-33.1	-28.6	23.4	-21.6	-18.2	-16.6	-12.6	-11.2	-7.9
Consumption/GDP <sup>a</sup>	103.0	100.0	92.4	91.6	90.2	89.6	86.6	85.2	81.9
Consumption per capita growth	3.3	-0.9	0.4	4.2	4.6	3.1	1.4	1.7	-0.5
<i>Memorandum items</i>									
Relief from debt reductions									
of US\$3.3 billion		34	300	347	357	318	250	317	280
Reserve build-up (US\$, millions)		34	80	80	80	80	50	50	50
Financing additional imports		—	220	267	277	238	200	267	230

a. including the additional imports as a result of the debt reductions

of a grant-based strategy relative to debt reduction. Donor coordination is typically weakened considerably when the donor group is large and diverse, and when the debt overhang is large, because burden-sharing considerations and strategic behavior become predominant. These arguments suggest that despite the formal equivalence in net present value terms, debt reduction will become more attractive as the debt overhang increases, and as the number of donors increases. In other words, at some point the private sector will hold the view that the level of grants required to resolve the debt problem is so unlikely to be sustained that the feasibility of a grant-based strategy is undermined. This in turn reduces the willingness of donors to pursue such a strategy.

It may be difficult to secure sufficient debt reduction in order to follow a pure debt reduction strategy. Similarly, a pure grant-based strategy is unlikely to be feasible or credible because it involves a large increase in grants in a world with shrinking supply of official assistance. Consequently, the ideal policies will have to be a mix of debt reduction with a temporary rise in grants.

In evaluating what is feasible, several issues must be noted. First, the prospects for a broad and concerted Paris club debt reduction, à la Egypt, are not very good. There are several reasons for that. First, Jordan's income is too high to allow it to benefit from the Trinidad terms offered to low income countries in Africa, and the only middle income

country with a concerted Paris Club debt reduction remains Poland. Second, some key donors are opposed to debt reduction and would want to share in the burden by offering new money at concessional terms. While the Paris Club could conceptually accommodate such a menu, Jordan may not want to be the innovator in this respect. Third, and perhaps more important, the debt under the aegis of the Paris Club amounts to about \$4.5 billion, of which \$1.5 billion has been contracted after the cut-off date of 1989. Thus, the base for debt reduction would be about \$3 billion, which is small relative to the total debt reduction needs even in the best of circumstances.

A more eclectic approach may be more interesting. In particular, one can expect debt reduction to be offered bilaterally by some large creditors after the conclusion of a peace agreement. The US for example reduced Egypt's debt by \$6.5 billion in this fashion after the Gulf war. Military debts (about \$1 billion in the case of Jordan) can also receive special treatment. (Again, there are precedents, such as the reduction/reschedulings of Israel's, Egypt's, and Turkey's debts owed to the US). Finally, the Paris club reschedulings incorporate possibilities for debt swaps that can be fully utilized at the right time if the donors community so wished. This could deliver a maximum of \$2.7 billion of debt reduction. In sum, while the extent of relief needed has been estimated here, the exact approach used must be worked out in close consultation with the donors.

## Notes

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1. For example, Razin and Sadka (1993) report the almost total prohibition on agricultural exports to Israel and the ban on investment in real and financial assets in Israel.

2. Such concerns are heightened by a provision of the Memorandum of Understanding, which says that the Central Bank of Jordan (CBJ) will provide the foreign exchange necessary for the imports of goods and services of the West Bank.

3. There is extensive experience with this problem (known in the literature as the "capital inflows problem") in Latin America and to a lesser extent in East Asia (Indonesia, Thailand and Korea). The summary lesson is that sterilization comes at a fiscal cost when pursued for any length of time and can reduce the benefits the country can expect from participating in international capital markets.

4. Of course if reserves do pay market rates, this policy becomes equivalent to contractionary open market operations with the added constraint that the banks have to hold the bonds sold.

5. Based on interviews conducted in Amman in January 1994.

6. However Jordan is in overall trade deficit with the Arab countries.

7. Receipts on the services account were 25 percent higher in 1992 than in 1991, and that level appears to have been maintained in 1993.

8. This growth rate is very sensitive to the fact that exports in 1983 were temporarily very low; the 1982–1992 merchandise export growth rate is under 3 percent.

9. World Bank (1994a) and IMF, *International Financial Statistics*.

10. See for instance World Bank (1993b).

11. See de Melo and Panagariya (1993).

12. See both the introductory chapter and the concluding panel discussion (by Richard Cooper, Max Corden and Rudiger Dornbusch) in de Melo and Panagariya (1993).

13. Its members are Egypt, Iraq, Jordan, Libya, Mauritania, Syria and Yemen.

14. The members are Egypt, Iraq, Jordan and Yemen.

15. See El-Naggar (1992) for an overview of intra-Arab country trade; the chapter by Jamal Eddine Zarrouk, "Intra-Arab Trade: Determinants and Prospects for Expansion," and the comment on it by Tayseer Abdel Jaber, discuss the experience of regional trade and trade financing arrangements.

16. The Jordan-PLO economic agreement is presented in *Near East Economic Progress Report*, Number 1, March 1994, Institute for Social and Economic Policy in the Middle East, Kennedy School, Harvard University.

17. For details about the transfer of technology resulting from exports in the East Asian countries see Chapter 6 of *The East Asian Miracle*, The World Bank (1993b).

18. See Diwan and Walton (1994) for an elaboration of this issue.

19. This is equivalent to 15–20 years from the time the hotel is operational.

20. El-Khasawneh (1992).

21. El-Khasawneh (1992) estimates that 58 percent of guest workers are Egyptians, 15 percent other Arabs, 26 percent Asians, and 1 percent Europeans in 1989. Because these estimates are based on work permits, they may understate the proportion of Arabs from neighboring countries. In 1993, the Government estimated that there were 120,000 guest workers in Jordan 70,000 of whom had official work permits. Unofficial estimates are the number of guest workers may be as high as twice the official number.

22. Ahmed and Williams (1993). For more details on the Gulf returnees see Van Hear (1992a, 1992b), United Nation's Economic and Social Commission for West Asia (1992), and National Center for Educational Research and Development (1991).

23. Of the total unemployed, the following are the predominant characteristics: single (60 percent), male (58 percent), age 20–29 years (68 percent), community college degree/lower diploma (33 percent), no specialization (53 percent) or social sciences or humanities (33 percent), been unemployed for more than one year (53 percent), new entrants to the labor market (54 percent), supported by their families (74 percent). Based on survey results presented in Amerah, and others (1993).

24. It is important to note that there are significant definitional problems in measuring unemployment in the WBG associated with the prevalence of daily labor and the high turnover of workers. The most recent survey conducted in 1992 reports an unemployment rate of 7 percent for the WBG, 12 percent for Gaza, and 3 percent for West Bank (Heiberg and Ovansen 1993). This seems fairly low, especially in periods when access to the Israeli labor market is restricted.

25. Wages of WBG residents working in Israel are about \$450 per month, which is near the Israeli minimum wage. Although wages in Israel are higher for Palestinian workers than those in the WBG, the differences can be accounted for mainly by transport costs and taxes. The long run trend has been convergence of net earnings between Palestinians working in the WBG and those working in the Israeli economy. Nevertheless, compared to Israeli workers in the same occupation and at similar skill levels, there is clear negative premium of



about 20 percent for Palestinian labor in the Israeli market (Kleinman 1992). Because wages in Israel exceed wages in the WBG, there has been excess supply of Palestinian labor at these higher wage levels and consequent rationing with employment in the WBG as the residual.

26. Ahmed and Williams (1993).

27. Angrist (1992).

28. The PLO is registering these individuals in hopes of placing them in jobs in the WBG as soon as possible.

29. Policies for avoiding a real appreciation associated with upward pressure on wages were discussed in Chapter II.

30. The "Johnston Plan"—the last of a series of attempts to develop a common water resources framework for Jordan, Israel, Syria and Lebanon—is more than 40 years old. Its major elements are regarded by all parties as technically still sound, but politically unacceptable.

31. See Fisher (1993). Fisher and his colleagues are currently working on a model for assessing the economic costs and benefits of various water management schemes in the WBG, Jordan and Israel.

32. World Bank (1994a).

33. See World Bank (1994a).

34. During 1992–93, the 8 percent average fall in private savings was composed of a rise in the consumption share of 3 percent of GDP, and a rise in the private investment of 5 percent of GDP. GDP rose by 17 percent during this period, and the labor force by about 8 percent.

35. In 1993, donors pledged over \$2.3 billion for reconstruction programs in the West Bank and Gaza over the period 1993–98. In spite of promises to the contrary, this is likely to constrain assistance to other countries of the region further.

36. In others, such as the Arab multilaterals, new lending is limited because of capital constraints.

37. In order to base the projections on current behavior, we have attempted to separate the recent private capital flows (which are a single category in the balance of payments) into workers remittances and savings repatriation by the returnees. This is by no means a simple task, and the best one can hope for in the absence of detailed studies is to get a sense of magnitudes.

38. For a discussion applied to other Middle East countries, see Diwan and Squire (1993).

39. See Diwan and Rodrik (1993).

40. See in particular, Krugman (1988), Sachs (1986), and Eaton (1987).

41. See Calvo (1988) on this subject.

42. See Froot (1989) for an analysis of the optimal mix of liquidity and debt relief.

43. Where concessional loans are important, debt service as a proportion of exports is also an important indicator.

44. Increases in internal debt will crowd-out private investment directly. In the sequel, we assume that the internal public debt to GDP ratio remains constant in the next decade.

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**The World Bank**

**Headquarters**

1818 H Street, N.W.  
Washington, D.C. 20433, U.S.A.

Telephone: (202) 477-1234

Facsimile: (202) 477-6391

Telex: MCI 64145 WORLDBANK

MCI 248423 WORLDBANK

Cable Address: INTBAFRAD  
WASHINGTONDC

**European Office**

66, avenue d'Iéna  
75116 Paris, France

Telephone: (1) 40.69.30.00

Facsimile: (1) 40.69.30.66

Telex: 640651

**Tokyo Office**

Kokusai Building  
1-1, Marunouchi 3-chome  
Chiyoda-ku, Tokyo 100, Japan

Telephone: (3) 3214-5001

Facsimile: (3) 3214-3657

Telex: 26838



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