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To: Members of the Executive Board

From: The Secretary

Subject: **Jordan—Selected Issues**

This paper provides background information to the staff report on the 1998 Article IV consultation discussions with Jordan, and the fourth review under the Extended Arrangement, which was circulated as EBS/98/65 on April 1, 1998.

Ms. Eken (ext. 36511) or Mr. Helbling (ext. 36051) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

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JORDAN

Selected Issues

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Approved by the Middle Eastern Department

April 13, 1998

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¹Mr. Wetter, a staff member of the World Bank, participated in the work of the mission.

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I. INTRODUCTION

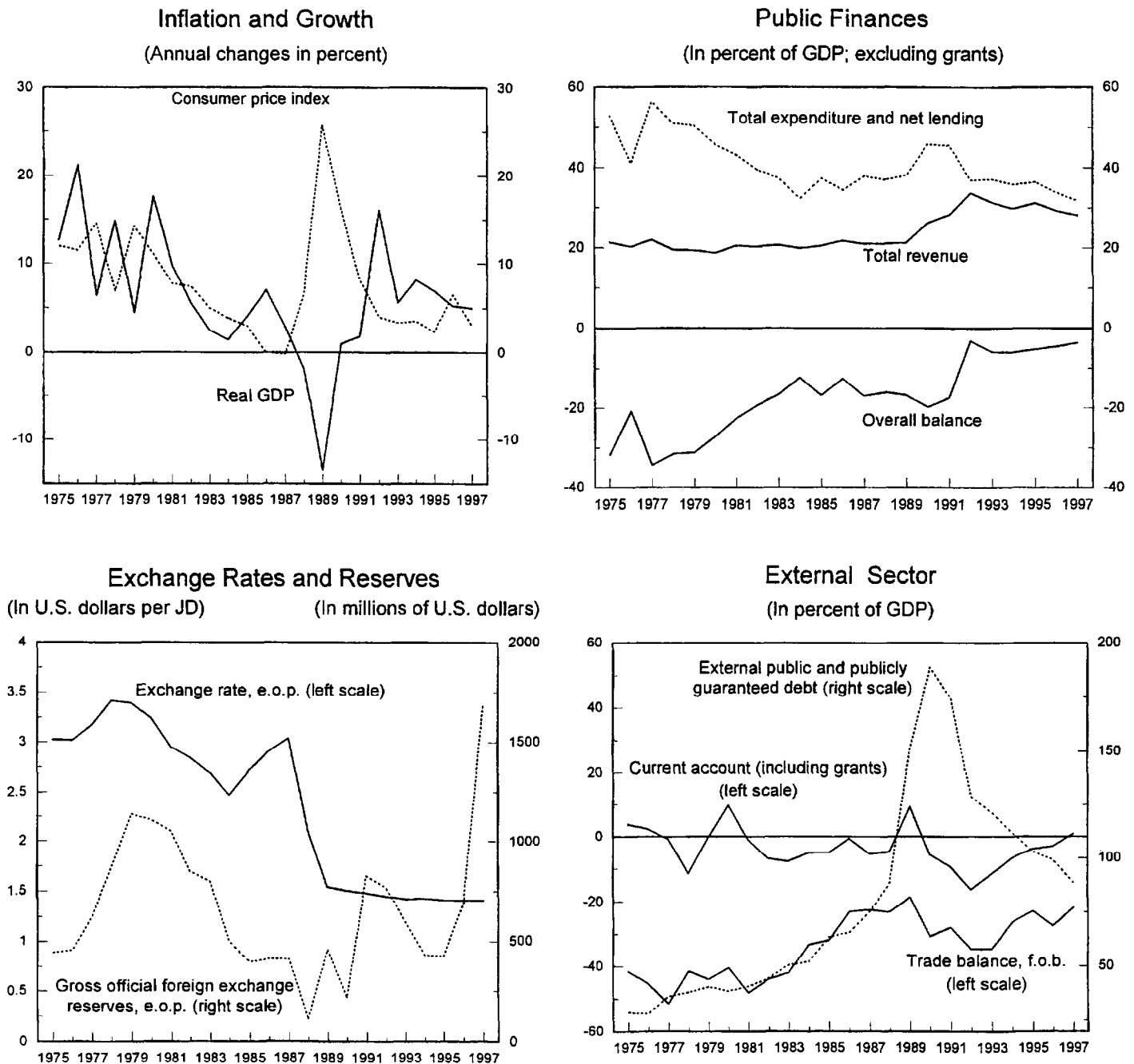
1. During the 1970s and the first half of the 1980s, Jordan experienced favorable macroeconomic conditions aided by foreign grants and the regional economic boom associated with the sharp rise in oil prices during this period. GDP growth was high at 8 percent per annum; annual inflation remained relatively modest at about 8 percent; and the external current account registered on average a deficit of 2 percent of GDP (Chart I-1). Investment was kept high with private investment being financed largely through workers' remittances while public sector investment was funded to a great extent by grants and loans from oil-exporting countries in the region. Given the incentive structure and price signals, much of private investment was directed to housing construction and mineral-based processing sectors, and efficient import-competing and export-oriented domestic manufacturing activities could not develop.

2. During the second half of the 1980s, as the flow of foreign grants from the region and inflows of workers' remittances started to decline in the aftermath of the oil price collapse, Jordan's underlying imbalances came to the fore. The authorities responded to these developments initially by resorting to external and domestic commercial bank borrowing to finance unsustainable levels of aggregate demand and increasingly large budget deficits (as high as 20 percent of GDP). As a result of an easing of the credit stance and a large devaluation, inflation started picking up and reached 25 percent. Moreover, with the slowdown in economic activity in Jordan and high interest rates in world markets, the debt burden reached unsustainable proportions, and Jordan's external vulnerability was exacerbated. By the end of the 1980s, the external debt exceeded annual GDP by nearly twofold and official foreign exchange reserves declined below one month of imports.

3. To address the rapidly growing imbalances, Jordan adopted an adjustment program in 1989, which resulted in some progress in the reduction of macroeconomic imbalances and the introduction of structural reforms. However, the adjustment and reform efforts were interrupted by the Gulf War in 1990-91, when external aid and trade flows were disrupted and about 300,000 Jordanians (10 percent of the population) returned from neighboring countries, leading to a sharp decline in remittances and a massive increase in unemployment. When the Gulf crisis ended, the Jordanian authorities resumed their adjustment and reform efforts.

4. Since 1992, Jordan has been implementing a series of comprehensive macroeconomic adjustment and structural reform programs. These programs have been supported by arrangements with the Fund, structural adjustment and sectoral loans from the World Bank, balance of payments support from bilateral creditors in the form of new loans and debt relief through restructuring agreements, and debt and debt service reduction operations with commercial banks. Key policy elements of the programs since the early 1990s have been prudent demand management policies and wide ranging structural reforms.

Chart I-1
Jordan: Selected Economic Indicators, 1975-97



Sources: Data provided by the authorities; *International Financial Statistics*, *Government Finance Statistics*, *Balance of Payments Statistics*; and staff estimates.

5. Prudent demand management policies were implemented to reduce internal and external imbalances. The overall fiscal deficit was reduced significantly, mainly through containing current expenditures but also through enhancing revenue, despite reductions in import tariffs. The reductions in the fiscal deficit helped in improving the external current account position and, together with a tight monetary policy, in containing the growth of net domestic assets of the banking system. Monetary policy was geared toward maintaining the attractiveness of financial assets denominated in Jordan dinars in support of the nominal exchange rate anchor, and building up official foreign exchange reserves to a comfortable level to reduce the vulnerability of the economy to exogenous shocks. Consistent with this policy, interest rate differentials in favor of assets denominated in Jordan dinar were increased. Meanwhile, the authorities pursued a cautious external debt management, limiting new borrowing to only concessional terms. This policy, together with the regularization of external debt-service obligations, contributed to a sharp reduction in debt and debt-service ratios.

6. Wide-ranging structural reforms were undertaken to prepare the groundwork for a balanced and sustainable medium-term private sector-led growth. These reforms, inter alia, involved: (i) reform of the indirect tax system, through the introduction of a general sales tax, and the direct tax system, including reductions in the number of rates and the maximum tax rates; (ii) introduction of indirect monetary control mechanisms, following the issuance of central bank certificates of deposits; (iii) liberalization of the trade system with replacement of nontariff barriers with tariffs initially, and continuous reductions in tariff rates as well as in the number of tariff bands subsequently; (iv) liberalization of the exchange system with the move to external current account convertibility in 1995 and to capital account convertibility in 1997; (v) a major overhaul of the subsidy system by elimination of the general wheat subsidy and the coupon system for other commodities, and their replacement by direct cash transfers; (vi) improvement of the regulatory framework for domestic and foreign investment, and the abolishment of limits on foreign equity investment in all sectors except construction, mining and trade; (vii) strengthening of banking supervision and regulatory framework, and development of financial markets, including the stock market; and (viii) reform of the public enterprises, which has involved their commercialization and corporatization, and sales of government shares in several enterprises.

7. The Jordanian economy responded well to the adjustment and structural reform efforts. Despite the continuing difficult and uncertain regional environment, the outcome in terms of macroeconomic indicators has been positive during 1992–97: growth has averaged about 7.5 percent; inflation was kept under control and averaged less than 4 percent; the external current account deficit (including grants) was reduced gradually from over 14 percent of GDP in 1992 and turned to a small surplus in 1997, for the first time since 1989; the external debt was reduced by 50 percent of GDP to below 90 percent; and debt service payments as a ratio to exports of goods and nonfactor services were halved to 23 percent. Nevertheless, Jordan had difficulties in building up foreign exchange reserves until mid-1996 because of adverse effects that the unsettled regional environment as well as

the structural changes in the financial markets of the West Bank and Gaza Strip had on the demand for the Jordan dinar. Subsequently, with the implementation of effective macroeconomic policies, in particular a responsive interest rate policy, coupled with substantial external financial support, a turnaround was achieved, and official foreign exchange reserves increased from a low of about US\$200 million in mid-1994 to US\$1.7 billion (equivalent to 5.5 months of imports) by end-1997.

8. Economic growth, although remaining relatively high at 5 percent during 1996–97, has shown signs of slowing down, reflecting primarily deterioration in the regional environment. This has led to a wait-and-see behavior by investors, and also contributed to an interrelated cyclical moderation in construction-related investment demand. In view of the rapidly growing labor force and the need to improve living standards, the Jordanian authorities are concerned about the recent decline in GDP growth. With the reductions in internal and external imbalances in the Jordanian economy and the buildup of official foreign exchange reserves, they are now attaching high priority to the objective of raising the medium-term growth rate of real GDP.

9. To increase the medium-term growth rate, the Jordanian authorities have formulated a policy package aiming at accelerating the implementation of structural reform measures that would promote private sector activity and investment, strengthen the economy's supply response and foster the investment in productive capacity, while further reducing financial imbalances. The challenge of sustainable high rates of growth in an uncertain regional environment is not an easy one. However, the authorities' comprehensive reform agenda and its determined implementation holds the promise of contributing to a virtuous economic and financial cycle in Jordan.

10. This selected issues paper aims to contribute to the analysis of recent developments in the Jordanian economy and its policy challenges in the medium term. Following this introductory section, Section II examines the sources of growth in Jordan during 1975–96 in order to: (i) determine permanent and transitory factors explaining the growth dynamics; (ii) analyze the potential sources of long-term growth; (iii) identify the constraints on continued high growth; and (iv) assess policy strategies to stimulate growth. It concludes that among policies aimed at promoting long-term growth, those that target raising investment are the most likely to lead to more immediate tangible results, with those that aim at raising total factor productivity being more effective in contributing to growth over the medium term.

11. Section III reviews developments in Jordan's trade performance during the past decade; discusses the trade liberalization efforts; and attempts to identify the major determinants of the foreign trade performance. Understanding the factors affecting trade is essential as, given the size of the domestic market, future increases in investment and growth have to be export-driven. In this context, the vulnerability of Jordan's exports to adverse regional developments suggests the need to diversify export markets. Moreover, the sensitivity of nontraditional exports to relative price movements underscores the importance

of competitiveness in maintaining the momentum of export growth, through an appropriate exchange rate policy as well as structural measures to increase productivity, reduce labor costs, and increase labor market flexibility.

12. Given the crucial role of financial markets in promoting growth through the efficient mobilization and allocation of domestic and foreign savings, Section IV focuses on financial sector developments and issues. Specifically, it reviews the evolution of the financial sector in recent years in the context of financial sector reforms that have been implemented; attempts to identify the strengths and remaining vulnerabilities in Jordan's financial sector; and considers the measures needed to enhance the process of financial intermediation in increasingly globalized financial markets. Although important progress has been made in modernizing the financial system and in strengthening banking supervision and the regulatory framework, the role of the financial sector in promoting growth could be further enhanced by increasing competition in the banking system, improving accounting and disclosure requirements, and deepening financial markets.

13. Transparency to achieve policy credibility and build confidence in a globalized environment is being increasingly recognized as an important element to promote macroeconomic stability and growth. Section V discusses aspects of fiscal transparency in Jordan, focusing on the transparency of the institutional framework, the separation of the private and public sectors, and the transparency of policy indicators. In these areas, it attempts to document the extent to which Jordan follows transparent practices and, on that basis, to identify areas where improvements can be made. It concludes that while fiscal practices at the central government level could serve as a model of transparency for other countries, transparency at public enterprise and agency level could benefit from improvements and enhance the understanding of the potential influence of fiscal policy over the short and long term.

14. During the past decade, poverty has increased and income distribution has worsened in Jordan. Section VI provides an overview of the current dimension of poverty in Jordan; reviews ongoing efforts at poverty alleviation; and summarizes the Social Productivity Program launched with support from the World Bank. While implementing policies to achieve high levels of growth and address effectively social problems over the medium term, the Jordanian authorities are also intensifying specific complementary efforts to alleviate unemployment and poverty problems in the short term. These efforts are considered essential to sustain the ongoing macroeconomic adjustment and structural reforms, and to ensure that the benefits from enhanced growth be shared by the whole population.

II. THE DYNAMICS OF ECONOMIC GROWTH IN JORDAN

A. Introduction

15. During 1992–95, the Jordanian economy benefited from strong economic growth (average annual growth rate amounted to more than 9 percent), which was associated with the construction boom resulting from the demographic shifts after the regional crisis of 1990–91 on the one hand and a sequence of programs of adjustment and structural reforms since 1989 on the other. In 1996 and 1997, real GDP growth declined to about 5 percent according to official estimates. This growth slowdown is likely to have reflected, *inter alia*, a deterioration in the regional environment compared with 1994–95 but also a return to the historically observed long-term trend growth rate. However, in view of the rapidly growing labor force and the need to improve living standards, the Jordanian authorities are concerned about this decline in real GDP growth. They attach a high priority to raising the sustainable long-term rate of growth to provide employment opportunities for the new entrants to the labor force and to alleviate poverty.

16. This Section attempts to contribute to the understanding of the authorities' policy challenge through an empirical analysis of Jordan's growth performance during 1975–96. Two broad issues are particularly relevant. First, during the period 1975–94, external income shocks (e.g., shocks to workers' remittances and grants) were the most important sources of fluctuations in growth in Jordan and affected the structure of both demand (e.g., a large share of residential investment in total investment) and production. While such shocks were mostly favorable during most of the 1970s, the early 1980s, and, to a lesser extent, the mid-1990s, they turned out to be of an adverse nature from the mid-1980s until 1991. In the future, external income shocks are unlikely to generate growth stimuli similar in nature and size to those of the 1970s and early 1980s given the prospects for the regional environment.² Nevertheless, external stimuli will remain important for future growth, but they will have to emerge from the export of goods and nonfactor services. Second, starting with the boom of the mid-1970s, the role of the government in the economy became pervasive in its impact on growth, the production structure, and the incentive structure in the context of an inward-oriented development strategy. Jordan's experience, like that of so many countries, confirmed the limitations and problems of such a policy strategy. Thus, future growth must emerge from private sector activities, and from participating in the international economy, which will require, *inter alia*, increased private sector investment.

²See El-Erian (1996).

17. Against this background, the Section examines empirically the sources of growth during the period 1975–96³ in order to (i) determine permanent and transitory factors explaining the growth dynamics; (ii) analyze the sources of long-term growth; (iii) identify the constraints on continued high growth; and (iv) assess policy strategies to stimulate growth. The empirical analysis in this Section is based on time series methods, which can yield important insights into the country-specific aspects of the growth dynamics in Jordan. The results are complementary to the insights that have been gained from the recent empirical studies on the determinants of long-run growth obtained with cross-sectional (cross-country) methods.⁴ However, time series methods tend to be more demanding in their data requirements, and the empirical results in this Section should be considered highly tentative given the significant data limitations that had to be dealt with in the analysis.

18. The Section is organized as follows: Subsection B provides the background to the analysis and proposes the analytical issues that need to be addressed. In Subsection C, the role of external shocks in the growth dynamics is discussed. In Subsection D, the contribution of labor force growth, capital accumulation, and productivity increases to growth is examined. The conclusions and policy implications follow in Subsection E.

B. Growth, Investment, and Savings—An Overview

19. This Subsection provides a general overview of growth, savings, and investment during the period 1975–96, using charts and some descriptive statistics. It aims at developing the main stylized facts and policy issues.

Growth

20. During 1975–96, Jordan registered an average annual growth rate of 6.1 percent, which compared favorably with the growth performance of other Arab countries. As a group, the latter recorded an average annual growth rate of 3.1 percent during the same period. In comparison with all developing countries and with Asian developing countries in particular, which registered average annual growth rates of 5.1 and 7.1 percent, respectively, Jordan's growth performance was also respectable. A comparison of per capita GDP real growth rates, however, shows a slightly different picture since Jordan's population grew very rapidly during this period (the average annual population growth rate amounted to 3.5 percent).

³The focus on the period 1975–96 reflects mainly the limited availability of data prior to 1975. Throughout the paper, the empirical analysis will generally be restricted to the period 1975–94 because the national accounts data for 1995–96 shown in the charts are still estimates rather than actual figures.

⁴See Barro (1991), Levine and Renelt (1992), Fischer (1993), and Barro and Sala-i-Martin (1995).

Accordingly, the average per capita GDP growth was 2.5 percent per annum during this period while developing countries and Asian developing countries recorded average annual per capita GDP growth rates of 2.8 and 5.2 percent, respectively.

Phases of growth

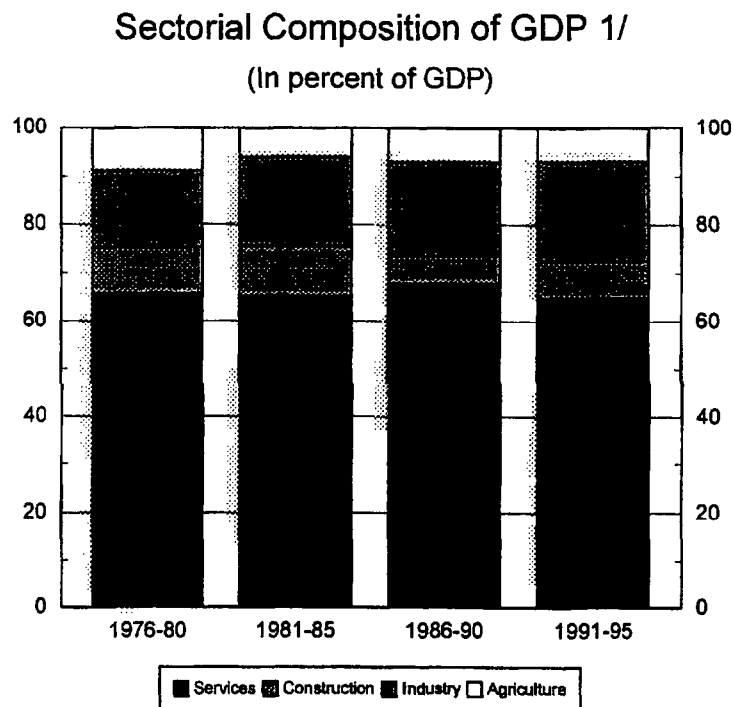
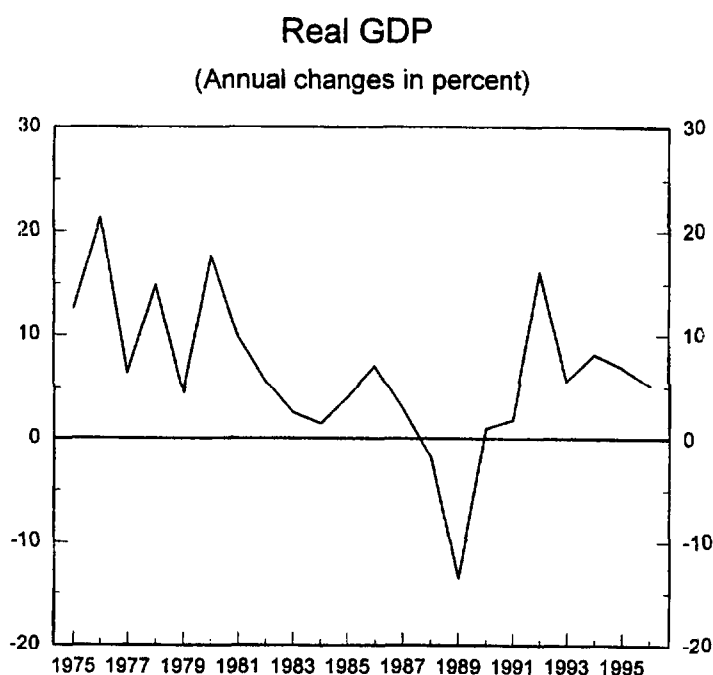
21. As shown in Chart II-1, Jordan's growth dynamics has been characterized not only by a strong cyclical pattern, but also by noticeable structural breaks, which need to be examined in order to understand the long-run annual growth rate during 1975–97. During this period, three phases of economic growth in Jordan can be distinguished (Charts II-1 and II-2):

- ◆ The years 1975–82 marked a period of high growth, with the average annual growth rate averaging 11.6 percent. The large increase in world market prices for crude oil stimulated domestic growth through its positive effects on national disposable income, mainly through the channels of workers' remittances and official grants. Initially, export prices for the two most important primary export commodities (phosphate and potash) provided additional growth stimuli. Monetary and fiscal policies were expansionary, reflecting the supporting foreign currency inflows. During this phase, two salient features of the Jordanian economy emerged. First, the important role of remittances, which was the result of the government's strategy of developing Jordan as a provider of skilled manpower and trade-related services in the Arab region, led to a national disposable income that exceeded GDP by a substantial margin.⁵ Second, the public sector expanded quite dramatically, not only administering the infrastructure projects and social welfare programs financed with very sizable external grants, but also owning and managing many enterprises, and regulating virtually every sector of the economy. This expansion of both government bodies and interventions was the outcome of the state-led, import-substitution based development strategy that Jordan, like so many other countries, had adopted.⁶

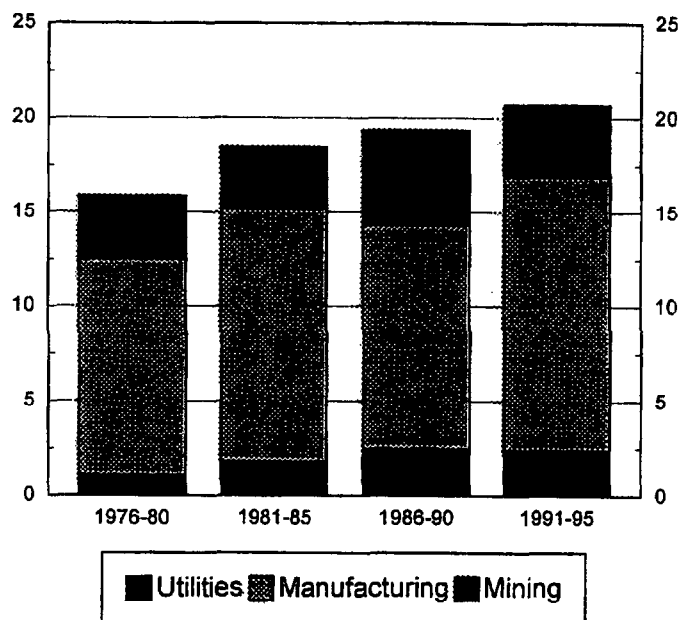
⁵See Maciejewski and Mansur (1996) for an overview of developments in the Jordanian economy during the 1970s and 1980s.

⁶See Moalla-Fetini and Waterbury (1997) for a survey on the development strategies adapted by selected countries from the Middle East and North Africa region during 1966–95.

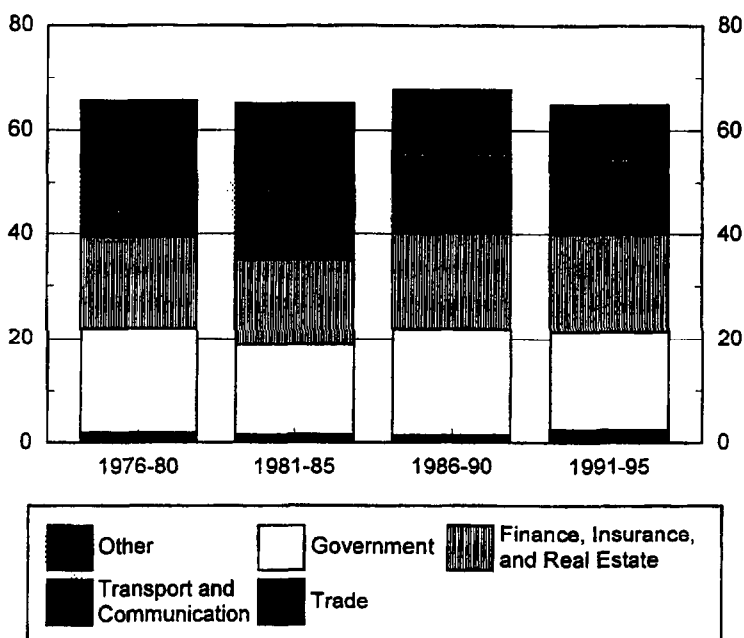
Chart II-1
Jordan
Growth and its Sectoral Composition, 1975-96



Industry: Composition of Value Added 1/
(In percent of GDP)



Service Sector: Composition of Value Added 1/
(In percent of GDP)



Sources: Data provided by the authorities; *International Financial Statistics*; and Fund staff estimates.

1/ Period averages.

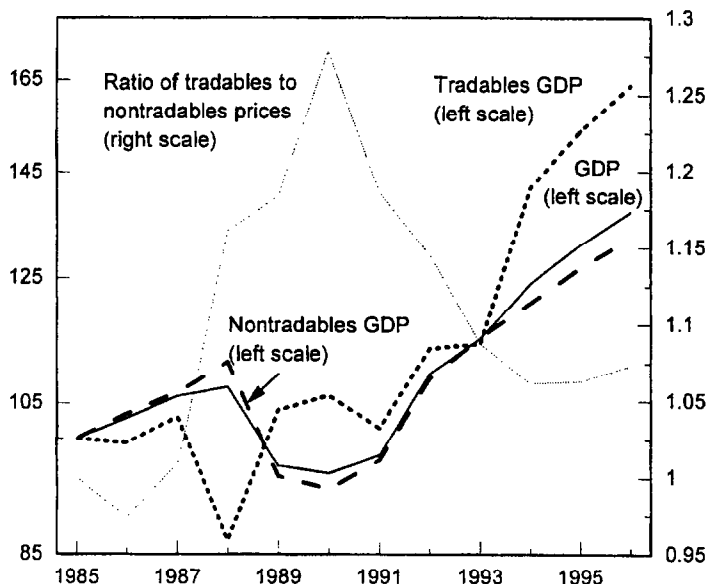
Chart II-2
Jordan

Growth: Composition of Sources and Uses, 1975-96

GDP: Tradables and Nontradables

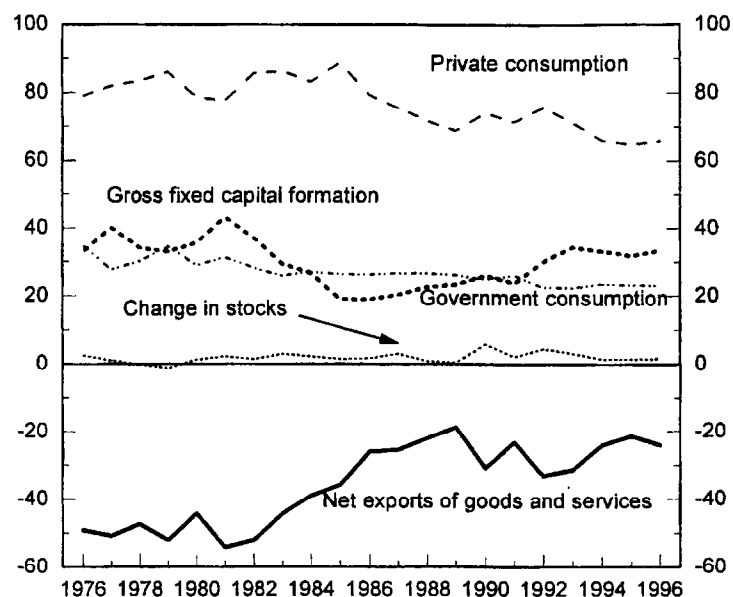
(1985=100)

(1985=1)



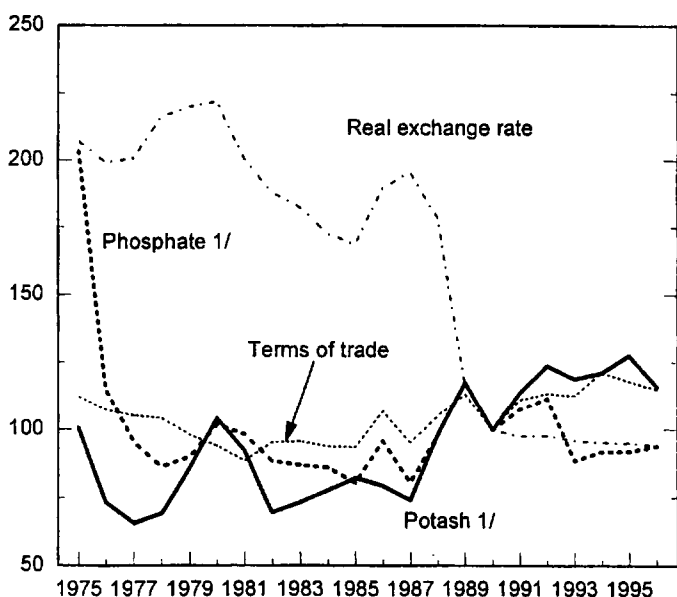
GDP: Use of resources

(In percent of GDP)



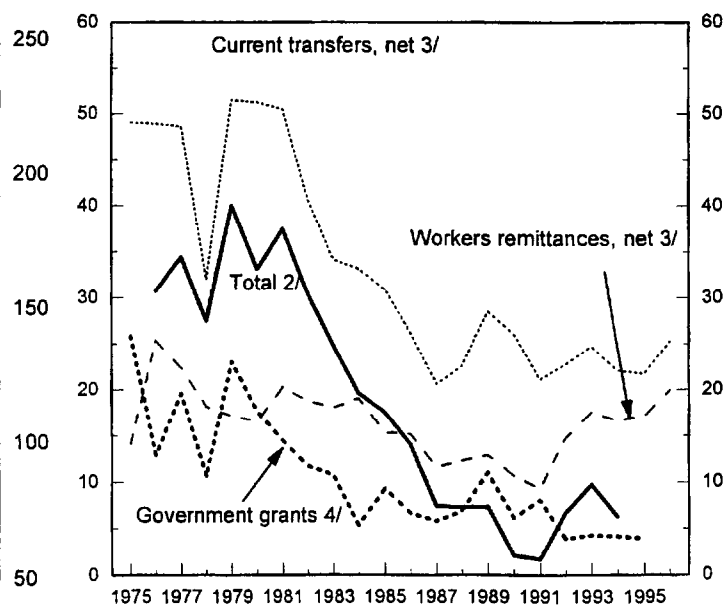
Real Exchange Rate and Terms of Trade

(1990=100)



Income From Abroad

(In percent of GDP)



Sources: Data provided by the authorities; *International Financial Statistics*, *Government Finance Statistics*, and *Balance of Payments Statistics*; and staff estimates.

1/ Commodity terms of trade (in terms of import prices).

2/ National accounts data.

3/ Balance of payments data.

4/ Government finance data.

Economic development in Jordan therefore featured some “Dutch disease” characteristics, i.e., the crowding out of the sectors producing tradable goods and services through foreign exchange inflows largely unrelated to domestic production.⁷

- ◆ During the years 1983–91, the Jordanian economy was subject to adverse external shocks, which were in part amplified through domestic policy responses. The economy had to adjust to a weakening of the external growth stimuli following the decline in international oil prices, which were reflected in a sharp reduction of workers’ remittances and foreign grants (as percent of GDP), and a fall in the world market prices for potash and phosphate. Furthermore, during 1988–91, Jordan suffered greatly from the adverse effects of a balance of payments crisis and the Gulf war. As a result, the average annual real GDP growth rate declined to 0.6 percent. Initially, investment expenditures and government consumption bore the brunt of the adjustment. The adjustment of private consumption expenditures to these shocks was slow, with inflexible administered prices being among the reasons underlying this reaction. During this period, monetary policy remained expansionary until 1989, while government expenditure first contracted before becoming expansionary again during 1985–89, which ultimately led to the balance of payments crisis of 1988.
- ◆ In 1992, after the Gulf war, the Jordanian government was in a position to embark on an adjustment program that aimed both at macroeconomic stabilization and structural reforms to overcome the economic problems of the late 1980s.⁸ The adjustment was facilitated by the increased domestic demand following the repatriation of assets and

⁷The share of nontradables sector in GDP depends on factors such as preferences, technology, and the regulatory framework, but also on external receipts. In an economy in which external receipts are mainly the result of exports, GDP tends to be the relevant income concept on average. However, if external receipts are unrelated to domestic production, GDP and gross national disposable income tend to differ, and the latter is the relevant income concept. The effect of the “Dutch disease” factor on the production structure can be roughly approximated by the equilibrium share of nontradables demand in the excess of gross national disposable income over GDP. Based on Ogaki’s et al (1996) estimates of the parameters of an intratemporal CES-utility function for the consumption of tradables and nontradables in Egypt and Morocco (the best comparator countries in the sample) and the ratio of the tradables to the nontradables GDP deflators (see below), the excess of gross national disposable income over GDP in 1985 of 17.5 percent of GDP led to a share of nontradables in GDP that was between 8 to 11 percent of GDP larger than otherwise. Unfortunately, this rough calculation cannot be performed for the years prior to 1985 because of data limitations, but the lower right panel of Chart II-2 clearly shows that the Dutch disease effects of the large net external transfers on the production structure must have been much larger.

⁸The Jordanian government had already embarked on a stabilization and reform program in the aftermath of the 1988–89 balance of payments crisis. However, these efforts were interrupted by the regional crisis of 1990–91.

income by Jordanian nationals returning to their home country during the regional crisis of 1990–91. As a result, an impressive growth recovery materialized, and the average annual real GDP growth rate during the **period 1992–95** amounted to 9.1 percent. The recovery was again based to a significant degree on the increased demand for nontradables, which was associated with a real estate construction boom financed through foreign exchange inflows. Unlike in earlier periods, these inflows were not only in the form of workers' remittances but also in the form of inflows generated by the liquidation of assets acquired and held abroad previously. Nevertheless, a solid export growth was also registered.

22. In 1996–97, real GDP growth slowed to about 5 percent according to preliminary official estimates. The slowdown has been attributed to the deterioration in the regional environment, which has led to a wait-and-see behavior by investors and contributed to the cyclical moderation in construction-related investment demand after the boom of 1992–95. While such a growth performance remains respectable, it has nevertheless brought the issue of the future sources of growth to the forefront of the policy discussions.

The sectoral composition of growth

23. In view of the dramatic decline in external current transfers and the associated real exchange rate adjustments during 1975–96, one would have expected to observe some noticeable shifts in the shares that the sectors producing nontradable goods and services had in the value added. Unfortunately, it is difficult to construct measures of the output produced by the tradables and the nontradables sectors because some services (medical services, tourism, business services), which should be considered part of the tradable sector, cannot be isolated in the national accounts data. Consequently, the analysis is based on both the usual sectoral breakdown of GDP and some rough estimates of the gross value added in the tradables and the nontradables sectors.

24. The share of the dominant service sector in the total gross value added fluctuated within narrow margins during the period 1976–95, and it is difficult to detect any significant change in the overall role of this sector. Within the service sector, the share of the value added resulting from transportation and communication activities increased while that of wholesale and retail trade and real estate declined. This shift is likely to have been the result of the infrastructure development, the increases in per capita income, and the growth in tourism and trade. The share of government services remained almost constant during the same period.

25. The share of construction in gross value added varied considerably during the period 1971–95 because of the typical cyclical variation in expenditure on residential buildings (see below). In view of the rapid development of the economy during the 1970s and the early 1980s and the emphasis on industrial development, it is not surprising that the share of agricultural output was declining during 1976–85. Since 1986, it has remained almost

constant because of measures aimed at strengthening the productivity of the sector. The share of mining and manufacturing in total output have, on average, been rising during 1976–95. Industries in this sector typically produce tradable goods, and the rising share is probably the clearest reflection of a relatively faster growth in the tradable sectors of the economy since the mid-1980.

26. A rough estimate of the real tradables sector GDP (including manufacturing and mining) confirms that the growth in this sector always exceeded that of the nontradables sector GDP after 1988.^{9 10} Its share in total GDP at factor costs rose from 15.5 percent in 1985 to 18.5 percent in 1996. The ratio of tradables to nontradables prices, based on the implicit GDP deflators, shows that the devaluations of the Jordanian dinar in 1988 and 1989 led to a sharp improvement in this ratio. This increase in the relative unit price of tradables shifted the incentives for producers from nontradables to tradables. Between 1991 and 1993, the ratio fell on account of the increased domestic demand associated with the return of Jordanians after the Gulf war, which again led to an increased demand for nontradables. From 1994 onward, the ratio remained virtually unchanged.

Investment

27. The evolution of investment expenditures closely mirrored the growth phases described above. During the period of high growth (1975–82), the favorable external factors led to an acceleration in investment expenditure, and the ratio of gross fixed capital expenditure to GDP averaged 36.4 percent (Chart II-3). The adverse external shocks and the subsequent domestic policy reactions during 1983–91 were reflected in the sharp drop in the average investment ratio to 23.3 percent of GDP. A turnaround in the investment ratios emerged in 1992 when the housing and employment needs of Jordanians repatriated during the Gulf war in conjunction with the government's macroeconomic stabilization and structural reforms led to an acceleration in expenditures on gross fixed capital formation. As a result, the investment ratio increased to an average of 32.5 percent of GDP during 1992–96.

28. While the pattern of the ratio of total investment to GDP reflected the growth dynamics quite closely, the structure of investment expenditure underwent a noticeable change. After the mid-1980s, central government capital expenditure remained low (in terms of GDP), first on account of the sharp decline in foreign grants (as a percent of GDP),

⁹The gross value added by sector in constant factor prices is available since 1985.

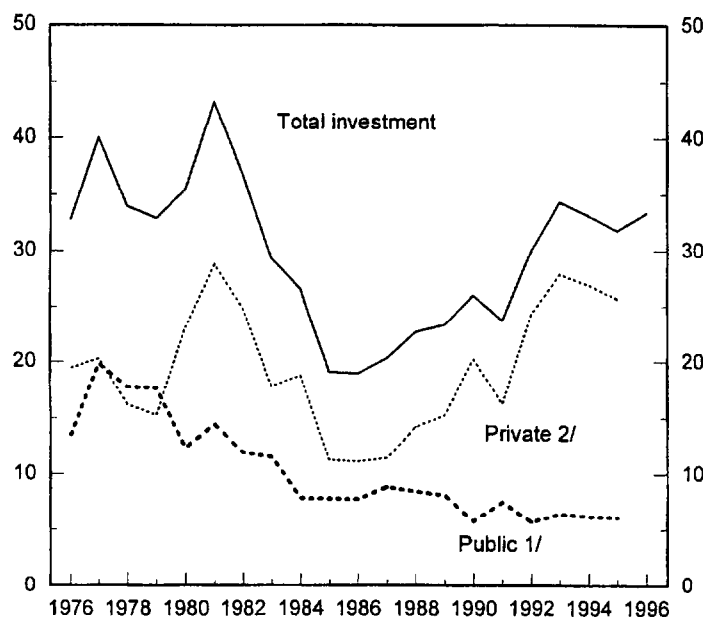
¹⁰The agricultural sector could also be considered part of the tradables sectors. It contributed significantly to exports during the period 1975–96; typically, its share in total domestic exports amounted to at least 15 percent. If the agricultural GDP were included in the tradables sector, the share of the latter in total GDP at constant factor cost would have increased from 21.2 percent in 1985 to 24.8 percent in 1996.

Chart II-3
Jordan

Investment, 1975-96

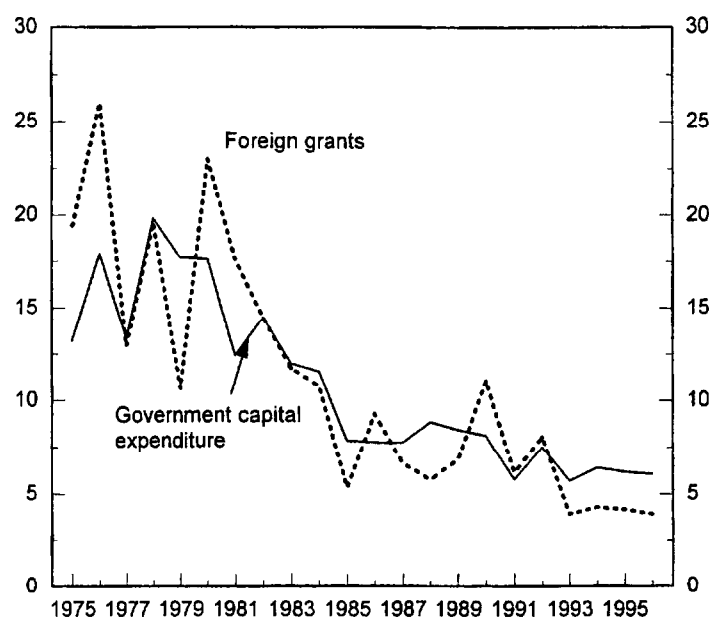
Private and Public Investment

(In percent of GDP)



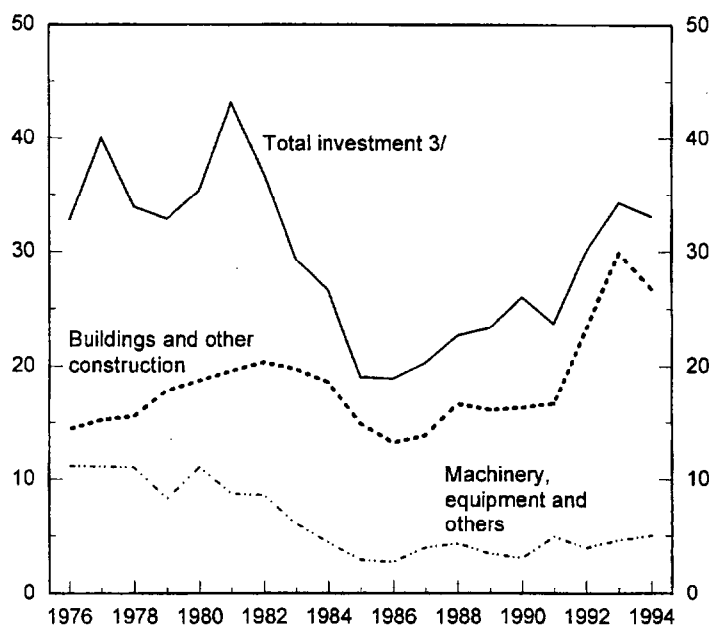
Government Investment and Grants

(In percent of GDP)



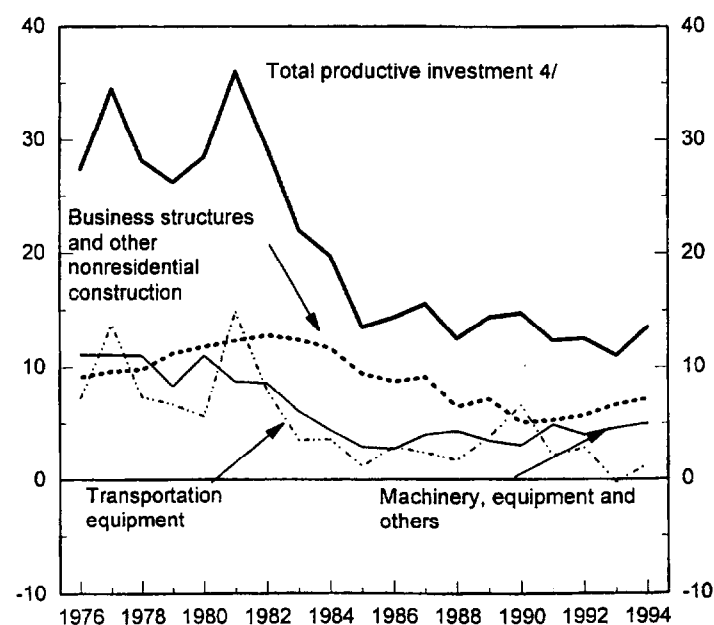
Investment by Type

(In percent of GDP)



Productive Investment by Type

(In percent of GDP)



Sources: Data provided by the authorities; *Government Finance Statistics*; and Fund staff estimates.

1/ Central government capital expenditure only; excludes capital expenditure by public sector enterprises.

2/ Including capital expenditure by public sector enterprises.

3/ Also includes expenditure on transportation equipment.

4/ Total productive investment is defined as the sum of investment into (i) machinery, equipment and others, (ii) transportation equipment, and (iii) business structures and other nonresidential construction.

later on account of the fiscal adjustment and the redefinition of the role of government in the adjustment and reform program. Similarly, productive investment—defined as total fixed investment minus expenditures on residential construction—also remained low from the mid-1980s onward. Residential investment, however, increased substantially, in particular after 1991. This change in the structure of investment expenditure toward residential construction has, of course, altered the structure of the economy's capital stock, with important implications for productivity and long-term growth to be discussed below.

Savings

29. Consistent with the empirical literature on savings behavior¹¹, the growth pattern was also reflected in savings (Chart II-4). During the 1980s, a sharp decline in the savings ratio was registered. The growth recovery of the 1990s coupled with the government's significant fiscal adjustment efforts and the turnaround in the growth rate of workers' remittances after 1991 had a positive impact on the savings ratio through both increased central government and private sector savings. Nevertheless, the ratio of private savings to GDP remained somewhat lower than the average in comparable countries, and the private sector gap has increased during the 1990s.^{12 13} In the very recent years, however, private savings as a percent of GDP appears to have increased substantially.

Growth, savings, and investment, a synthesis

30. Jordan's growth experience during the period 1970–96 is similar to that of other non-oil exporting Arab countries.¹⁴ The structural break in the levels of income received from abroad in the 1980s led to a strong adjustment need for both the level and structure of domestic final demand as well as for the relative share of the tradable sector in the economy.

¹¹See Deaton (1989), Giovannini (1985), and Masson et al (1995).

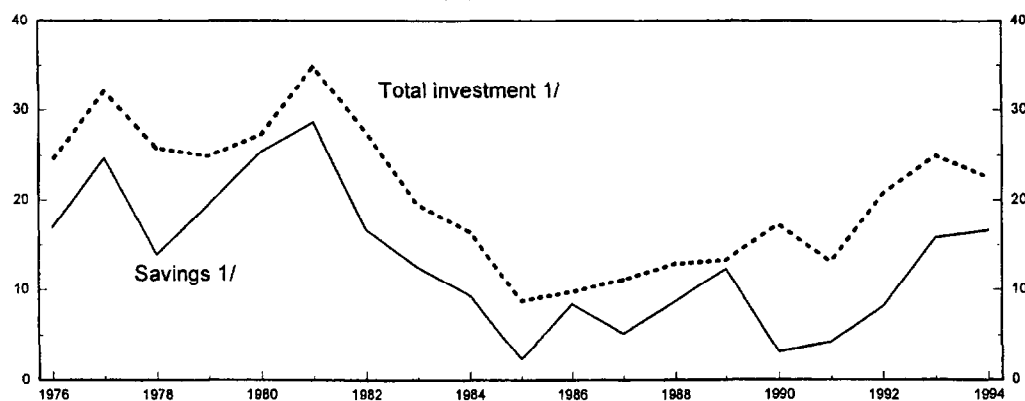
¹²Due to data limitations, the definition of private sector savings in Chart II-4 includes the savings of public sector enterprises that are not accounted for in the central government's accounts.

¹³As a caveat, it should be noted that cross-country comparisons of private savings rates are subject to measurement problems, and the private savings rates reported in the literature tend to differ for the same countries. Masson et al (1995), who also provide a survey on some of the related measurement problems, report average private savings rates in excess of 20 percent of GDP for low- and middle-income developing countries during the period 1988–93.

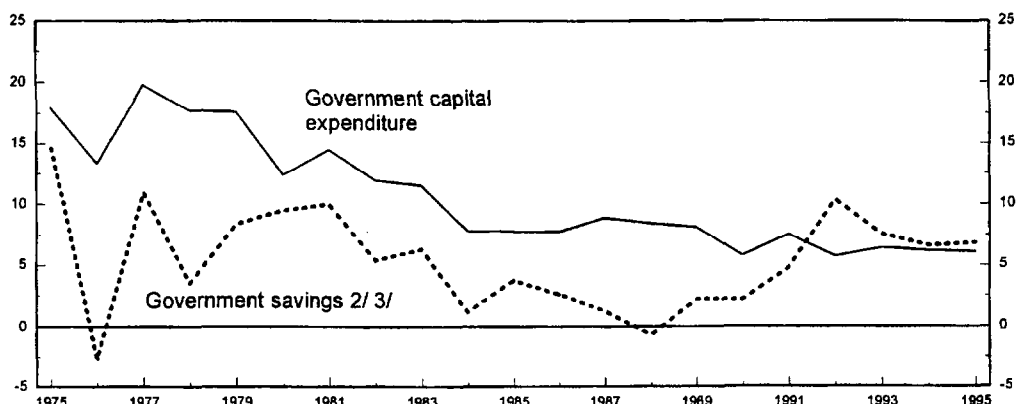
¹⁴See El-Erian et al (1996) and IMF (1996) for recent overviews of the growth experience of and policy issues in countries of the Middle East and North Africa region.

Chart II-4 Jordan Savings, 1975-95

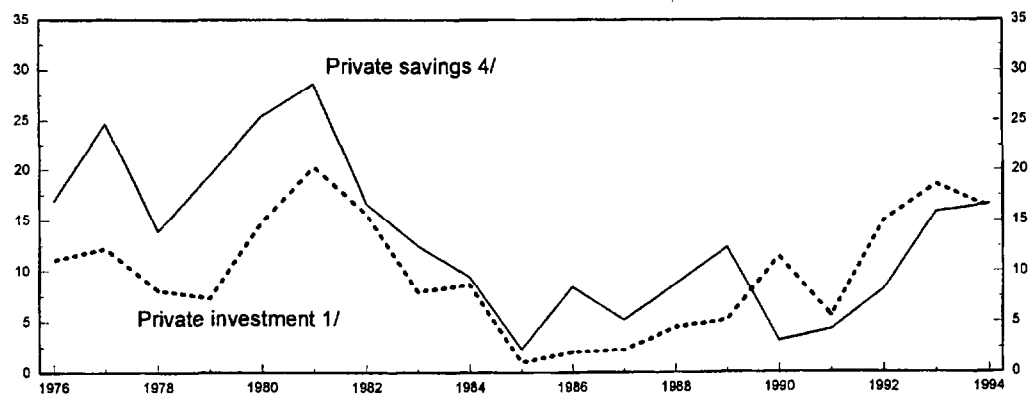
Savings and Investment
(In percent of GDP)



Government Savings and Investment 2/
(In percent of GDP)



Private Savings and Investment
(In percent of GDP)



Sources: Data provided by the authorities; *Government Finance Statistics*; and Fund staff estimates.

1/ National accounts data, derived from disposable income. To allow for a comparison with savings, which is shown on a net basis, investment is shown net of the consumption of fixed capital.

2/ Central government only.

3/ Derived from budgetary data as reported in *GFS*.

4/ Derived as a residual.

What was required was at least a partial reversal of the “Dutch disease” process experienced earlier. This reversal was not easy to accomplish, given the large size of government expenditure compared with domestic demand, the economy’s regulatory framework, the government’s ownership of a significant share of the productive capacity, and the small share of the sectors producing tradable goods and services in overall output.

31. Initially, the adjustment of the necessary macroeconomic policies was delayed, which induced large, unsustainable macroeconomic imbalances and led to the 1988–89 balance of payments crisis. Subsequently, Jordan embarked on an extensive program of macroeconomic stabilization and structural reforms. Stabilization efforts focused on closing the gap between domestic absorption and production through a reduction in the government’s overall balance. At the same time, many structural reform measures aimed at facilitating this process of adjusting domestic demand, raising the trend growth rate, reorienting the production structure of the economy toward the sectors producing tradable goods and services, and increasing the efficiency of the economy. These reform measures included the liberalization of the external trade regime, the liberalization of key prices and the elimination of price distortions, the overhaul of the regulatory framework, the reform of the tax system and the financial sector, and, more recently, the privatization and divestment of government assets.

32. Under the adjustment and reform program, the macroeconomic policies have been largely successful in restoring macroeconomic stability, and the structural policies have led to improvements in the general regulatory framework, which are consistent with the general policy recommendations based on recent empirical studies on cross-country differences in long-run growth rates. Against this background, the analysis can focus on a few selected issues that arise from specific aspects of Jordan’s growth experience:

- ◆ A high and sustained growth requires reinforcing of the domestic sources of growth, in particular through the strengthening of the sectors producing tradable goods and services. Moreover, given the vulnerability to external income shocks discussed above, an increase in the flexibility of the economy would facilitate the adjustment to these shocks and reduce their effect on medium-term output fluctuations. In this context, two analytical issues arise. First, the dynamic response of the economy to external shocks in the past should be examined. Second, the factors that limited the flexibility of the adjustment to external shocks need to be identified.
- ◆ High and sustained growth is ultimately determined by the growth of factor inputs and total factor productivity. In this regard, it is important to examine the sources of long-run growth in the past in order to ascertain the necessary policy strategy.
- ◆ Productive investment has stagnated in terms of GDP since the mid-1980s. Higher long-run growth rates will require increases in both the share of productive investment and, possibly, private sector savings in gross national income. The development of policy strategies addressing these weaknesses requires an understanding of the recent investment performance.

C. The Role of External Income Shocks in the Growth Dynamics

33. In the short synopsis of the growth dynamics during 1970–96 in Subsection B, the important roles of external income shocks and government expenditure in the growth dynamics were emphasized. However, the discussion was descriptive in nature, and an empirical examination of the relative importance of these factors in the growth dynamics is needed for a policy analysis. This task is undertaken in this Subsection. The empirical investigation focuses on the impact of shocks to income received from abroad on growth.¹⁵ Given Jordan's small factor income receipts and balance, the analysis focuses on shocks to net external current transfers. While shocks to domestic policy parameters, e.g., public sector demand, appear to have had an important impact on growth, they will not be examined independently for two reasons. First, the growth in net external current transfers to the budget was an important element underlying public expenditure growth, implying that government spending shocks were unlikely to have been independent sources of fluctuations. Second, public finances have already been subject to substantial reforms in the context of the government's adjustment and reform program during the past few years.

External income shocks and growth dynamics: theoretical considerations

34. The theoretical framework underlying the empirical analysis in this Subsection is based on the different time profile of the demand and supply effects of a shock to income received from abroad. In the following summary, the mechanics underlying the GDP effects of such shocks is illustrated on the basis of a positive external income shock. The immediate effect of such a shock on growth would operate through an increase in the level of nominal demand, which would affect both the demand for tradable goods and services and nontradable goods and services (hereafter referred to as tradables and nontradables). If the structure of production in the economy were biased toward the nontradables sectors and if prices and the intersectoral allocation of resources are subject to short-term rigidities as commonly assumed, the increase in the level of income received from abroad would raise the level of the real demand for nontradables, and the sector would experience a boom. If the sector dominated, as in Jordan during the period 1975–94, such a positive external income shock would have a positive impact not only on the sectoral growth rate but also on the overall growth rate of the economy. Over time, however, these demand driven growth effects should gradually disappear as the supply side adjustments would accommodate the increase in level of the real demand for nontradables. Real exchange rate changes would be associated with the reallocation of resources between sectors, and the economy would gradually converge back to the long-run trend growth rate, which is determined by fundamentals such

¹⁵ While the literature on open economy macroeconomics emphasizes the importance of terms of trade shocks, an empirical analysis along the lines of this Subsection but with the terms of trade as a dependent variable in the empirical model does not support the hypothesis that such shocks were important determinants of the growth dynamics.

as preferences, labor supply growth, productivity growth, and the macroeconomic and regulatory policy environment. While the long-term growth effects of an external income shock would therefore be zero, it would have a permanent effect on the level of the nontradables GDP and on the level of real GDP. In some circumstances, the supply response can be weak, be it for a lack of supporting macroeconomic policies or for rigidities in the system that hamper the relative price adjustments and the reallocation of resources. Shocks to external income could then lead to large fluctuations in the capacity utilization in this sector, with correspondingly large level effects on GDP.

External income shocks and their impact on growth in Jordan

35. In the following empirical analysis, the specification and estimation of external income shocks will be a key issue. Following recent trends in empirical macroeconomics, the external income shocks will be estimated with a simple structural vector autoregressive model (VAR), which, following Blanchard and Quah (1989) and others, allows for the identification of the relative contribution of various structural shocks to the dynamics of variables of interest (Box 1).¹⁶ In this framework, shocks to external income will be in the set of fundamental, that is, structural shocks.

36. The VAR-model, estimated with annual data for the period 1975–94, includes the first differences of the log-levels of GDP at constant market prices, net current external transfers in constant prices¹⁷, and the real effective exchange rate.¹⁸ It also incorporates a 1-0 dummy variable that takes the value one in 1989 to reflect the special circumstances prevailing during the balance of payment crisis of 1988 and 1989.^{19 20} This set-up allows one

¹⁶See also Lippi and Reichlin (1993) and the references therein.

¹⁷External current transfers in constant prices were constructed with the implicit GDP deflator.

¹⁸The sample period was constrained by the availability of actual data. Details of the estimation procedures and results are reported in Appendix II-I.

¹⁹While the regional crisis of 1990–91 led to stagnation of the real GDP in levels, it did not have a similar impact on the growth rate.

²⁰The inclusion of the dummy in the estimated model is equivalent to treating the 1989 balance of payments crisis as a specific one-period shock that is exceptional and should not be subsumed under the model's three structural shocks. While the inclusion of the dummy improves the conventional model test statistics, the underlying assumption may be debatable from a conceptual point of view. To evaluate the robustness of the results with respect to this assumption, the model was also estimated without the dummy variable, and some of the

(continued...)

to identify three structural shocks, which determine the dynamics of the exogenous variables. For the present purpose, it is useful to distinguish between temporary and permanent structural shocks. Two of the model's three structural shocks are allowed to have permanent effects on the log-levels of the three endogenous variables. The first of these two shocks is a shock to external income transfers, referred to as the external shock hereafter. The other permanent shock captures other factors that permanently affected the real GDP in log-levels. It can be interpreted as a shock to the productive capacity and is referred to as GDP shock hereafter. This shock is not necessarily the result of domestic policies and events only.

Box 1. Identifying and Estimating Structural Shocks in VAR-Models

VAR models have become a standard tools for dynamic econometric analysis because they require relatively few restrictions on the dynamic linkages among a set of endogenous variables. The basis for an empirical analysis along this line is the estimation of a simple linear autoregressive model for a vector of time series X_t . The estimated model can then be transformed into the vector moving-average (VMA) representation, which shows the dependence of the data vector X_t on the estimated present and past residuals. Given the simple autoregressive model, these residuals have the character of reduced form residuals, that is, they are a linear combination of the underlying fundamental shocks, e.g., supply and demand shocks. To recover the fundamental shocks, the estimated residuals have to be orthogonalized. This operation requires the imposition of some identifying restrictions on a matrix that maps the structural shocks into the reduced form residuals. Typically, these restrictions are founded on theory-based, a priori expectations about the short-term or long-term impact of the structural shocks on the variables in the data vector X_t . Short-term restrictions are based on the assumption that the contemporaneous correlations between some structural shocks and some of the endogenous variables in the data vector X_t are zero. Restrictions of this nature imply that some variables included in the system are predetermined. Policy variables such as reserve money growth or exogenous variables such as external shocks in a small open economy are standard examples in this regard. Long-term restrictions are based on the assumption that certain structural shocks do not have a cumulative effect on certain variables in X_t in the long-run. Typically, these characteristics are attributed to demand shocks. Once these structural shocks have been recovered, their dynamic impact on the history of some or all the variables in X_t can be simulated.

²⁰(...continued)

specific implications of the exclusion of the dummy variables will be discussed in the presentation of the results. As shown in Appendix II-I, most of the results are robust with respect to the exclusion of the dummy variable.

However, its external content is by construction uncorrelated with the shocks to net external current transfers. The reduction in demand from Iraq following the U.N. sanctions imposed after the Gulf war would be an example for such a GDP shock. The third shock is a transitory shock that has no effect on the long-run real GDP growth rate. It reflects not only domestic nominal shocks, but also transitory shocks to the real exchange rate that have their origin in events in partner countries.²¹ To recover these three shocks, three restrictions had to be imposed on the matrix that maps the vector of structural shocks into the vector of the estimated reduced form residuals. The first restriction required that the transitory shocks only have a short-term effect on growth and no permanent effect on the log-level of real GDP. The second and third restriction enforced that the net external current transfers are only a function of past but not present GDP and transitory shocks. The growth rate of net external current transfers in constant prices was therefore assumed to be predetermined. However, it should be noted that the transitory shocks can have permanent feedback effects on this variable in this set-up, therefore allowing for possible repercussions of macroeconomic instability on income received from abroad, e.g., through the inflows of remittances.

37. To assess the implications of the estimated model on the role of external shocks on the growth dynamics in Jordan, the results are presented with three sets of measures:

- the forecast error variance decomposition of real GDP;
- the impulse response functions implied by the vector moving-average representation of the estimated model; and
- the historical decomposition of real GDP.

The impact of permanent shocks on growth fluctuations

38. The first set of measures consists of the contributions of the various shocks to the forecast error variance in 12-step ahead in-sample forecasts. The measures allow one to derive conclusions about the relative impact of the shocks over time. In the top left panel of Chart II-5, the relative contributions of a GDP shock and an external shock in the initial period on the real GDP (in log-levels) over a subsequent 12-year period are shown.²² The following conclusions emerge from these computations:

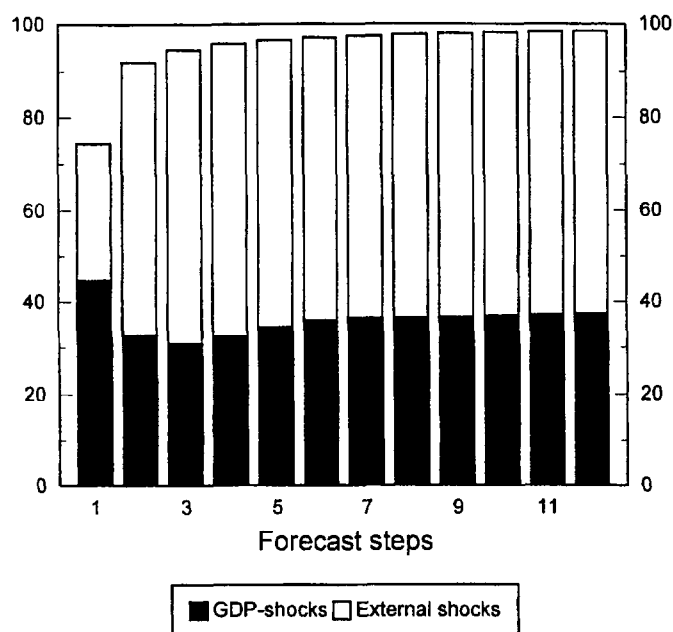
²¹Permanent shocks with origin in events abroad (other than those arising from external shocks) can have permanent effects on the log-level of GDP and the real exchange rate in this set-up. The effects of such shocks would be captured by the GDP shock.

²²The complete set of results for the forecast error variance decompositions for both the logarithmic growth rates and the variables in log-levels is shown in Table II-2 in Appendix II-1.

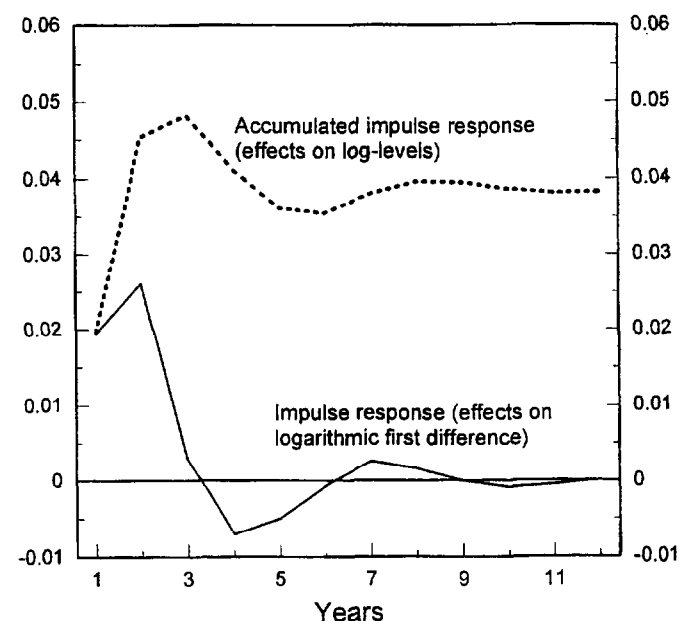
Chart II-5
Jordan

External Shocks and Growth Dynamics

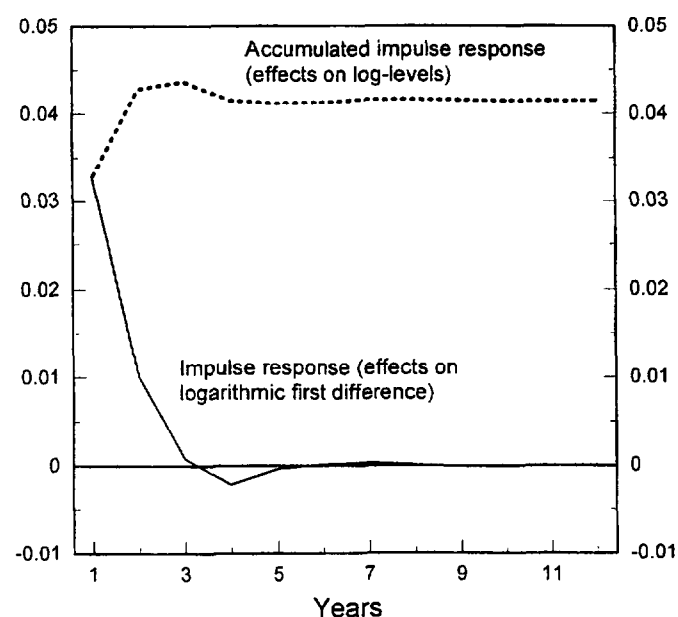
Forecast Error Variance Decomposition: GDP 1/
(In percent)



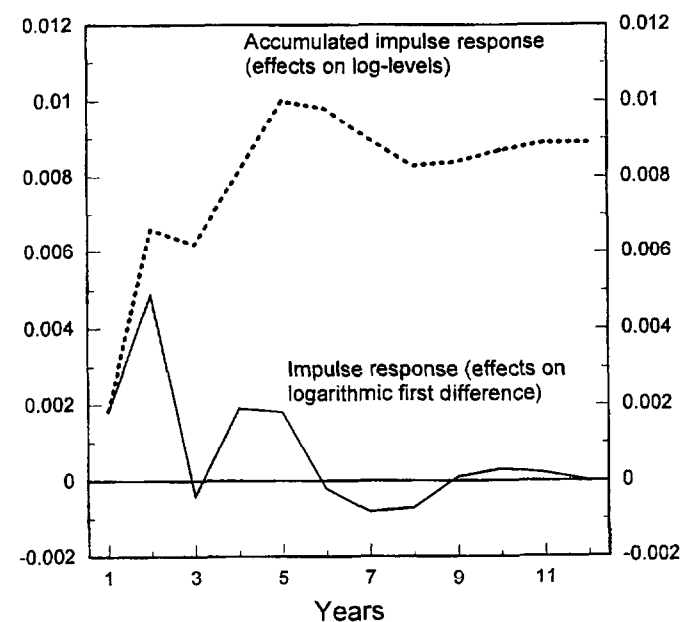
GDP: Dynamic Response to External Shock 2/
(In Logarithms)



RER: Dynamic Response to GDP Shock 2/ 3/
(In Logarithms)



RER: Dynamic Response to External Shock 2/ 3/
(In Logarithms)



Sources: Data provided by the authorities; and Fund staff calculations.

1/ See Appendix II-I for details of the empirical model.

2/ Dynamic response to a one unit shock.

3/ RER denotes the real effective exchange rate.

- ◆ **GDP shocks** explained a relatively moderate fraction of the forecast error variance of real GDP during the sample period 1975–94. They appear to reach their full impact on GDP already after two years. From the third year onward, their contribution to the overall forecast error of GDP growth remains almost constant at about 37 percent.²³
- ◆ **External shocks** contributed substantially to the forecast error, explaining about 61 percent of the forecast error variance of real GDP through periods 3 to 12.²⁴ They are thus the single most important source of the forecast error in this simple 3-variable system. The time profile of their contribution to the forecast error of GDP shows that their effects reach a maximum in period 3, which suggests that the effects of external shocks materialize only with a lag.

39. As shown in Appendix II-I, the forecast error variance decomposition of the real net external current transfers (for both growth rates and log-levels) reveals that the repercussions from the GDP shocks on this variable were limited. External shocks explained about 86 percent of the forecast error variance of net real external current transfers after 12 years; only about 3 percent of the variance of this variable can be attributed to supply shocks in the long run. Transitory shocks explained about 10 percent of the forecast error variance after 12 years, suggesting some feedback from macroeconomic stability on transfers and remittances. Nevertheless, as this share was small, the analysis supports the notion that the growth rate of real net external current transfers was largely exogenous during 1975–94.

The dynamic response of growth to external shocks and the associated real exchange rate pattern

40. In the other panels of Chart II-5, some key impulse response functions implied by the estimated model are shown.²⁵ In the upper right panel, the dynamic response of GDP to a positive one unit external shock in year 1 over a 12 year-period is presented. The impulse response function reflects the period-by-period dynamic response of real GDP growth to such a shock while the accumulated impulse response function illustrates the cumulative effects on the log-level of GDP. The dynamic response of GDP growth to a positive external shock is characterized by a strong initial effect during the first two years, an effect of almost zero

²³In the model without the dummy variable, the contribution of the GDP shock to the forecast error variance of real GDP amounted to about 30 percent during periods 6 to 12.

²⁴In the model without the dummy variable, the contribution of the external shock to the GDP forecast error variance during periods 3 to 12 amounted to about 68 percent.

²⁵The complete set of impulse response functions for the estimated VAR is presented in Appendix II-I. The pattern of the dynamic response does not appear to be affected by the inclusion or exclusion of the dummy variable.

during the third year, and a small negative effect during the fourth and fifth year. From year 6 onward, the effects become negligible as expected in light of the previous theoretical discussion. The full cumulative effect that an external shock has on GDP in log-levels is already reached after 2 years; in fact, the accumulated impulse response slightly overshoots its long-run level during years 2 and 3, possibly reflecting the overheating following the boom associated with a positive external income shock. The accumulated impulse response function confirms that the effects of an external shock on real GDP (in levels) are not only persistent but also large in size. As shown in the charts of Appendix II-I, the long-run impacts on the log-level of GDP of a GDP shock and an external shock in period 1 of the same size were different in magnitude. The long-run impact of the external shock exceeded that of a GDP shock by about 25 percent. This outcome may be explained by the rigidities in the economy, e.g. price controls on certain goods and other factors that limited the supply response (see below).

41. As discussed above, real exchange rate changes are an important factor in the adjustment process following external and GDP shocks. The impulse response functions shown in the lower panels of Chart II-5 confirm the theoretical a priori expectations about the dynamic adjustment of the real exchange rate. A positive GDP shock, which increases GDP growth temporarily and raises the GDP level permanently, is associated with an immediate appreciation of the real exchange rate. Similarly, a positive external shock, which raises the level of demand and thus GDP permanently is also associated with a real exchange rate appreciation. The time profile of the dynamic response closely mirrors the dynamic response of GDP to these shocks, indicating that the domestic prices and real GDP were both characterized by similar pro-cyclical dynamic patterns in the sample period. An interesting facet of the dynamic responses of the real exchange rate to GDP and external shocks is the difference in their magnitudes. While the dynamic response of real GDP to a one unit GDP shock is similar in magnitude to that to a one unit external shock, the magnitudes in the real exchange rate responses to these shocks are different. The real exchange rate reaction to a one unit GDP shock with permanent effects is stronger than that to a one unit external shock. This difference provides further evidence of some inertia in the intersectoral allocation of resources, which implied large fluctuations in the capacity utilization in the sectors producing nontradables as one would expect from a traded-nontraded goods model with rigidities.

42. In view of the many recent structural reforms that should have facilitated the supply response to external shocks, it would have been interesting to test whether the magnitude of the GDP response to external shocks has been reduced. Unfortunately, the small sample does not allow for such tests.

A historical decomposition of GDP

43. The forecast error variance decomposition allows one to assess the relative contribution of the fluctuations in the structural shocks to growth fluctuations while the dynamic response of growth to these shocks can be gauged from the impulse response

functions. However, these measures do not reveal the actual magnitude and pattern of these shocks during the period 1975–94, which would be essential for an assessment of the importance of external shocks in the growth dynamics. To this end, comparisons between the actual real GDP and simulated GDP figures based on the estimated VAR-model are shown in Chart II-6.²⁶ The comparison between the simulated values based on the deterministic components of the VAR model only (referred to as deterministic in the chart) and the values based on the deterministic components and one structural shock (referred to as shocks) allows one to gauge the relative contribution of the corresponding shock to the growth dynamics in Jordan.²⁷ Since the variables are presented in (log) levels, the simulated values reflect the cumulative effects of the structural shocks rather than their period-to-period effects. The simulations support the following conclusions:

- ◆ The short-term fluctuations in GDP growth observed during 1975–94 were mostly attributable to external shocks, which were at times substantial. The short-term fluctuations caused by GDP shocks were much smaller in size. The fluctuations due to transitory shocks were negligible.
- ◆ Between 1975 and 1987, the effects of both the external and the GDP shocks on the log-level of GDP were positive. From 1988 onward, the divergences between the path of actual GDP and the simulated GDP path based only on external shocks imply that positive GDP shocks offset negative external shocks. The latter had a negative cumulative effect on the log-level of GDP during 1988–94, lending support to the hypothesis that external income shocks did not provide growth stimuli in recent years.
- ◆ The simulated GDP path using only the estimated GDP shocks is characterized by its small deviation from the path generated by the deterministic component of the simulated GDP.²⁸ This suggests that the cumulative effects of the GDP shocks on the

²⁶A full set of charts with the historical decompositions for all variables can again be found in Appendix II-I.

²⁷The simulated values were computed using the cumulative sums over the period 1975:1 1994:1 of the growth rates implied by the deterministic components of the VAR model as well as those implied by the estimated structural shocks.

²⁸The kink in the “deterministic” path is explained by the effect of the dummy variable in 1989.

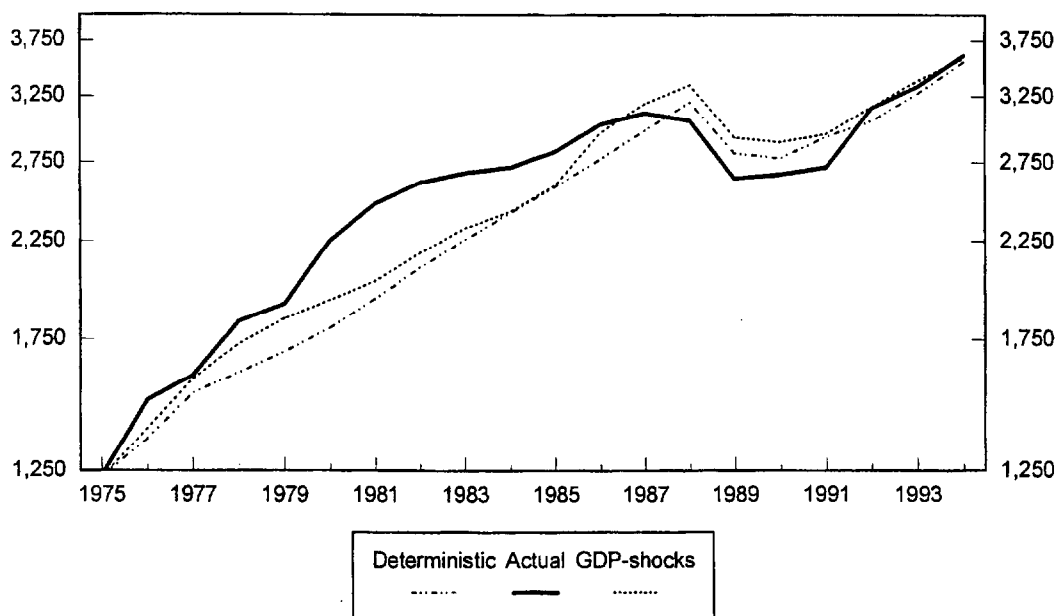
Chart II-6

Jordan

External Shocks and Growth Dynamics II, 1975-94 1/

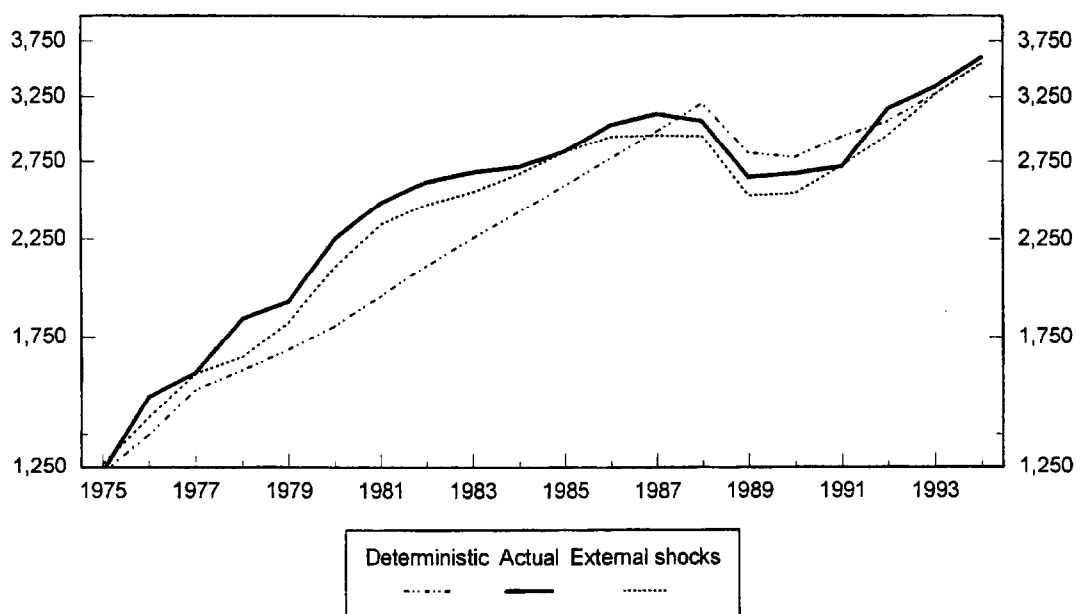
GDP: Actual and GDP Shocks

(In millions of JD; in constant 1990 prices)



GDP: Actual and External Shocks

(In millions of JD; in constant 1990 prices)



Sources: Data provided by the authorities; and Fund staff calculations.

1/ Deterministic refers to the simulated values of real GDP implied by the deterministic components of the VAR model presented in Appendix I. Shocks refers to the simulated values of real GDP implied by the deterministic components of the VAR model and the corresponding structural shock. At each point in time, the difference between the deterministic and the shock values reflects the cumulative values of the shock in question since 1975.

log-level of GDP were relatively small in size. The deterministic component was therefore an important element in the long-run trend growth in Jordan during 1975–94.²⁹

44. Overall, the empirical results confirm the important impact of external income shocks, through their effect on real net external current transfers, on the growth dynamics in Jordan. However, the results also suggest that there is an important deterministic trend growth element governing the long-term growth dynamics, an issue addressed in the next Subsection.

The persistent effects of external income shocks on growth, origins and policy issues

45. Before turning to the issue of the determinants of the long-term trend growth in Jordan, however, an attempt is made to answer the two main questions that emerged from the empirical analysis in this Subsection: Why did external income shocks have such a persistent and large effect on the growth dynamics? What policy measures could help in reducing the vulnerability of the growth dynamics to external shocks?

46. The answer to the first question needs to include several factors. First, any answer needs to make reference to the fact that external income shocks were large and variable in size (see Appendix II-I). The dynamic pattern growth rate of real net external current transfers, while characterized by a smaller mean than real GDP growth, was associated with a standard deviation that was about three times as large as that of real GDP growth. Moreover, net external current transfers remained large compared to GDP despite a gradual trend

²⁹The historical decomposition of GDP growth depends, of course, on the interpretation of the dummy variable. In Chart II-6, the dummy variable is included in the simulation of the deterministic GDP path. While the specification of the model with respect to the inclusion or exclusion of the dummy variable has a negligible impact on the average annual growth rate of the deterministic GDP path, it has an impact on the simulated “shock” paths as shown in Appendix II-I. In the specification with the dummy variable, the average annual growth rate of the deterministic path between 1975 and 1994 amounts to 6 percent. If the dummy is excluded, the implied average annual growth rate is 6.1 percent. Given the standard deviation of GDP growth during this period, this difference is not significant. Similarly, the overall cumulative effects of the two permanent shocks on GDP during 1975–94 does not appear to be affected by the model specification. The period-to-period cumulative effects are slightly different, however. The basic difference concerns the magnitudes of external and GDP shocks during 1986–89. Without the dummy, the positive GDP shocks during 1986–88 and the negative GDP shock in 1989 are larger, while the external shocks are correspondingly smaller during this period.

decline since the mid-1980s and led to a gross national disposable income that was substantially larger than GDP. As argued above, this structural feature of gross national income has favored the development of the nontradables sectors, thereby creating a natural bias against the tradables sectors. Second, until the late 1980s, Jordan's growth strategy was inward-oriented. It is not surprising that this strategy was associated with a protectionist external trade regime characterized by high tariff and nontariff barriers, thereby reinforcing the natural bias against the development of tradable goods and services producing sectors at least until 1989 (the year in which the Jordanian authorities began to implement trade reforms and devalued the Jordanian dinar). Moreover, Jordan's exporters (except those exporting phosphate, potash, and other mining products) were selling primarily to neighboring countries which had equally protectionist trade regimes, and trade patterns were governed by bilateral protocols rather than relative prices. Third, the government, through its ownership of capital and enterprises and through its role in the redistribution of the sizable external grants, also contributed to the home bias. In addition, government regulations, particularly administrative price controls, weakened the signaling effects of price incentives. All these factors are likely to have contributed to strengthening the demand effects of and to weakening the supply response to an external income shock during 1975–94.

47. From a policy perspective, macroeconomic and structural policies should be such that the vulnerability of the economy to external income shocks is reduced. Such policies are all the more necessary if the economy is subject to frequent and large external income shocks and if the sectors producing tradable goods and services are relatively small as in the case of Jordan. It should be noted, however, that the adjustment to external income shocks of the magnitude experienced by Jordan during 1975–94 would have been difficult to cope with even with supporting macroeconomic and structural policies. While it is difficult to assess the magnitude of the real exchange rate adjustment, the analysis nevertheless allows one to conclude that the direction of the relative price adjustment and the associated macroeconomic policies as evidenced by the dynamic pattern of the real exchange rate response to GDP and external shocks have generally been supportive of the supply side adjustment. However, given theoretical a priori reasoning and the recent cross-country evidence on the determinants of long-run growth, one may conclude that the structural factors described above may have hampered the supply response. Policies that aim at raising the long-run growth rate will therefore have to address these supply side problems.

48. In the meantime, many structural impediments to the supply response have already disappeared or been lowered as the government has carried out its program of structural reforms. The external trade regime has been liberalized substantially. Most nontariff barriers have been replaced by tariffs, and tariff rates have been decreased. Moreover, the tariff system has been simplified, and state trading monopolies have been eliminated. The access to foreign markets outside the MENA region will be facilitated through the planned WTO accession and the recently concluded Association Agreement with the European Union. The government's role in the economy as measured by government spending has been greatly reduced with the fiscal adjustment during the period 1989–97. Moreover, the problems

associated with the inertia and low responsiveness to price signals of government owned companies are being addressed through the gradual corporatization, commercialization, and privatization of these companies.

49. As a result of these structural reforms, many of the preconditions for long-run growth based on a more balanced contribution of the tradables and nontradables sectors are, therefore, already present. The new, outward-oriented growth strategy should raise the medium-term growth rate for two reasons. First, it will allow the Jordanian export sector to diversify its foreign markets and to benefit from the high growth in world trade. Second, increased trade in goods and services would also allow for increased transfers of technology and knowledge to Jordan, thereby raising productivity growth (see below). Nevertheless, the expected acceleration in the development of the tradables sector could be slow to materialize. As the regional economic and political environment remains subject to uncertainties and as intra-regional trade continues to be hampered by high trade barriers, higher tradables sector growth in the future is likely to require the tapping of new markets outside the region. The access of new markets could prove difficult, however, given the small basket of exportable goods and the large share of small enterprises in the manufacturing sector. Some observers argue that the export of Jordanian goods and services to other markets outside the region is suffering from marketing and distribution problems. The recent decrease in the bias in the trade regime against exports has raised the incentives for the private sector to move on this front.

D. The Sources of Long-term Growth

50. In the previous Subsection, a constant trend element emerged as an important determinant of long-term growth in Jordan in the empirical analysis. To understand the origin and magnitude of this element, one needs to identify the sources of long-run growth, that is, the long-term trends in the growth of capital and labor, the two primary factor inputs, and productivity. The contribution of these sources of growth on Jordan's long-term real GDP growth rate will be examined with a growth accounting approach.

Growth theory and growth accounting

51. Growth theory distinguishes two sources of long-term growth: (i) extensive growth, that is, growth generated by increases in the quantities of factor inputs (capital and labor); and (ii) intensive growth, that is, growth accounted for by increases in the efficiency in the use of inputs. The latter source of growth is labeled as technological progress or total factor productivity (TFP).

52. The identification of sources of growth is an important element from the perspective of neoclassical growth theory, which emphasizes the importance of increases in TFP on sustained long-term per capita income and GDP growth. Specifically, policies that affect the accumulation of knowledge and technology have long-run effects on economic growth.

Policies that only support extensive growth, i.e., the accumulation of physical capital, tend to have a more limited impact in the long run given the declining marginal productivity of capital. Recent developments in growth theory, focusing on endogenous growth models, have provided other important insights. In some models, government policies that support the accumulation of physical capital can have a permanent effect on the rate of growth, primarily because of positive spillovers or externalities. Nevertheless, intensive growth based on increases in TFP remains a key determinant of long-run economic growth.

53. Growth accounting³⁰ exercises are typically based on Cobb-Douglas production functions:

$$y_t = A_t K_t^\alpha L_t^{1-\alpha} \quad (1)$$

where y denotes output (GDP at factor costs), A is the level of technology, K stands for the amount of (physical) capital, L denotes the labor force employed, and t is a time index. The parameter α represents the share of capital in the total compensation of factors of production. Equation (1) implies that the growth rate of output can be decomposed into the growth rate of technology and the weighted growth rates of the input factors capital, and labor:

$$\frac{\Delta y_t}{y_{t-1}} = \frac{\Delta A_t}{A_{t-1}} + \alpha \frac{\Delta K_t}{K_{t-1}} + (1-\alpha) \frac{\Delta L_t}{L_{t-1}} \quad (2)$$

TFP growth is measured by $\Delta A_t/A_{t-1}$ and typically follows as a residual, that is, as the unexplained portion of growth once the weighted growth of capital and labor has been taken into account.³¹ As it is well known that TFP is a procyclical variable, TFP measures reported

³⁰Sarel (1995, 1997) provides an in-depth overview of methodological and data issues arising in growth accounting exercises. See Bisat et al (1997) for a recent application to Arab countries.

³¹While the growth accounting mechanics is simple, its empirical application raises several data issues. The parameter α , for example, is crucial in the determination of TFP growth. Typically, it is derived from one of the following three methods: (i) a priori measures, (ii) national account estimates, or (iii) regressions estimates. A frequently used a priori measure is 0.3 for industrial countries and 0.5 for developing countries (See, for example, Sarel (1995) or Obstfeld and Rogoff (1996)). National account measures are based on the actual compensation of labor and capital as reported in national income accounts. Regression measures are based on econometric estimates of equations such as (1) or (2). All three methods are subject to some caveats, and none of them has yet been identified as the most appropriate technique for growth accounting purposes.

in the literature are usually averaged over many years in order to isolate spurious effects unrelated to long-run growth.

Application to Jordan

54. Before the question of the extent to which factor accumulation and TFP growth contributed to long-term growth in Jordan can be addressed, three data problems had to be resolved. First, no figures for expenditures on gross fixed capital formation in constant prices are available in Jordan's national account statistics. Second, the official economic statistics do not provide estimates of the capital stock. Third, the available labor force and employment statistics are subject to measurement problems. To overcome some of these problems, two steps were taken.³² First, proxy measures for gross fixed capital formation in constant prices were derived using the implicit GDP deflator.³³ Second, two time series for the capital stock (in constant prices) were constructed using the perpetual inventory method under the assumptions that (i) the initial capital stock in 1969³⁴ was either 1 or 2, a range which is consistent with Jordan's per capita income in 1969 given recent cross-country empirical evidence, and (ii) the annual depreciation rate was constant at 5 percent.³⁵ All the following

³²Unfortunately, the problems with the labor force and employment statistics could not be resolved. To measure employment, a time series for the Jordanians employed was used. However, employment of expatriate workers has been substantial and possibly growing. Data on the employment of expatriate workers has only been available recently. If the employment of expatriates were proportional to the employment of Jordanians, only the levels of some of the variables derived in this Subsection would be affected. However, if the proportion changed over time, the growth rates would also be affected.

³³Proxy measures based on expenditures on machinery and equipment (including transportation equipment) that were deflated by world market prices for manufactured goods yielded similar results.

³⁴National accounts data for GDP by type of expenditure in current prices is available for the years 1969–94.

³⁵For a comparison, another capital stock series was constructed following the approach of Sarel (1995), which is based on the assumptions that (i) the capital stock in 1900 was zero, (ii) the annual growth rate of real gross fixed capital formation during the period 1901–68 could be approximated by the average annual growth rate over the period 1971–94, and (iii) the annual depreciation rate was constant and amounted to 5 percent. On this basis, the capital-output ratio in 1970 was either 2.25 or 2.41, depending on the underlying investment series (see below). As shown later, such high initial capital-output ratios lead to implausible factor share estimates.

calculations and estimations were performed using the two different capital stock series so as to illustrate the sensitivity of the results with respect to the initial capital stock.³⁶ In the construction of the capital stock series, one also faces the problem that investment expenditure in Jordan include a substantial and time-varying share of real estate investment, which is typically considered to have less technological progress embodied than equipment investment. While housing services are, in principle, included in the sectoral GDP measure, they are subject to specific measurement problems given the substantial share of family owned buildings.³⁷ During 1985–1994, the share in GDP of the finance, insurance, real estate, and business services sector, which incorporates the services provided by the real estate capital stock, was roughly constant both in current and constant prices. Between 1975 and 1980, this share declined from 19 percent of GDP to 18 percent of GDP (in current prices). Given the substantial increase in the computed share of real estate capital in the total capital stock during the period 1970–94, these developments already imply that productivity measurements will be obscured by the increasing share of real estate investment in total investment. To account for these problems, capital stock measures using productive investment as input series were also constructed using the same assumptions as above. The comparison of the estimated TFP measures implied by the two different capital stock concepts will allow for an assessment of the implications of the changes in the structure of investment expenditure.

³⁶The results are, of course, also sensitive to changes in other assumptions. For example, if the index of the relative price of capital goods (relative to the GDP deflator) were, on average, to deviate from 100, the outcome of the analysis could also be very different. Unfortunately, the data situation does not allow for a sensitivity analysis in this regard.

³⁷The imputed rents for “dwellings free of charge” were included in the sectoral value added of the finance, insurance, real estate, and business services sectors, which are consolidated into one sector, in the revised national accounts data of 1994. The imputed rents are based on data obtained from the 1992 household income and expenditure survey, which were also used to revise the data prior to 1992. See Department of Statistics (1994).

Investment, capital stock growth, and labor productivity in Jordan, a Synopsis

55. The capital stock figures shown in Chart II-7 closely reflect the phases of growth described in Subsection B:

- ◆ During the years 1975–82, the growth of the average capital stock per worker exceeded that of GDP at factor cost, thereby leading to a capital deepening which was reflected in an increase in the average labor productivity. The various capital stock measures used in the analysis all show the same pattern of growth during this period.
- ◆ During the years 1983–91, the decline in the ratio of investment to GDP was reflected first in a stagnation of the average capital stock (per worker) between 1983 and 1989 and then in a decline. Capital intensity measures based on productive capital were more affected by the relative decline in investment than measures based on the overall capital stock. The average labor productivity declined during the entire period, however, because of the continuous increase in the labor force.
- ◆ Conclusions about the capital stock growth during the years 1992–94 depend critically on the capital stock measures. Overall capital stock measures show a recovery in the average capital stock per worker while measures based on the productive capital stock show a continuation of the decline registered since the mid-1980s. The average labor productivity slightly increased during this period, possibly reflecting an increase in the capital utilization. As argued below, these developments are of concern because a decline in the capital intensity will eventually be reflected in the medium-term rate of growth and in real wages.

Growth accounting and total factor productivity developments³⁸

56. In a next step, the capital stock data was used for a growth accounting exercise. The capital share α used in the derivation of TFP growth was estimated by applying an instrumental variable estimator to equation (2).³⁹ The estimated capital shares range between 0.5 and 0.68 in the case of the overall capital stock measure and fall in the interval from 0.38 to 0.46 in the case of the productive capital stock measure. These capital share estimated are in line with Dhareshwar and Nehru (1994) for developing countries and World Bank (1994) for Jordan, but they appear to be somewhat large when compared to other estimates reported in the literature (e.g. Sarel, 1997). The implications for the period 1975–94 are shown in the

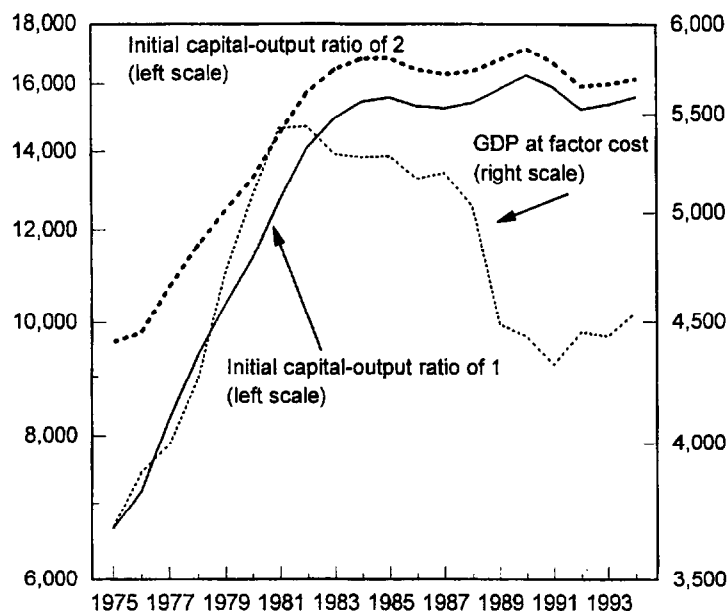
³⁸Previous growth accounting exercises were performed by World Bank (1994) and McDermott (1996). McDermott used coefficients from other sources to derive the TFP residuals. In the World Bank study, TFP growth was estimated by applying an ordinary least squares estimator to a Cobb-Douglas production function.

³⁹See Appendix II-II for details of the estimation and the results.

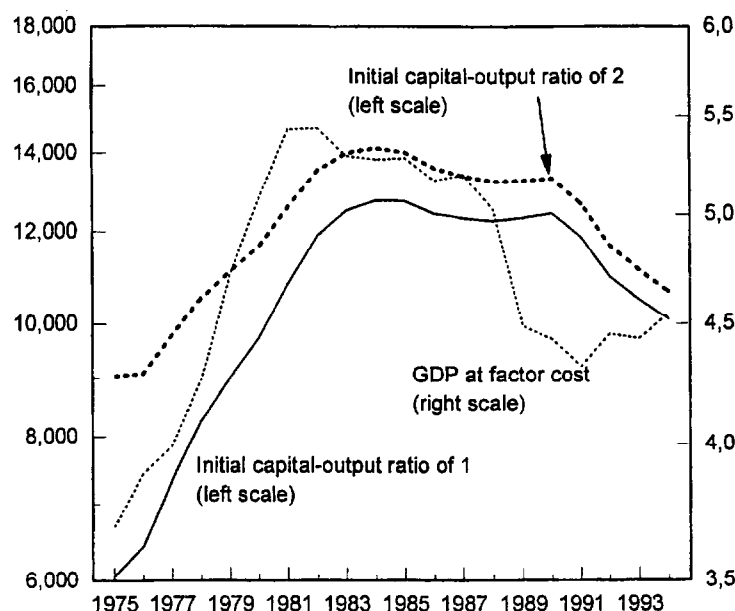
Chart II-7
Jordan

Capital Intensity and Labor Productivity, 1975-94

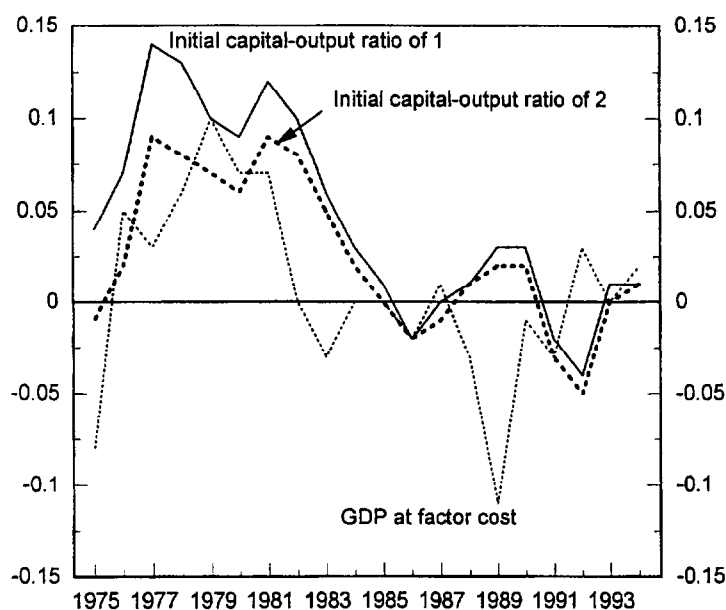
Capital Stock and GDP at Factor Cost 1/
(In constant 1990 prices per worker)



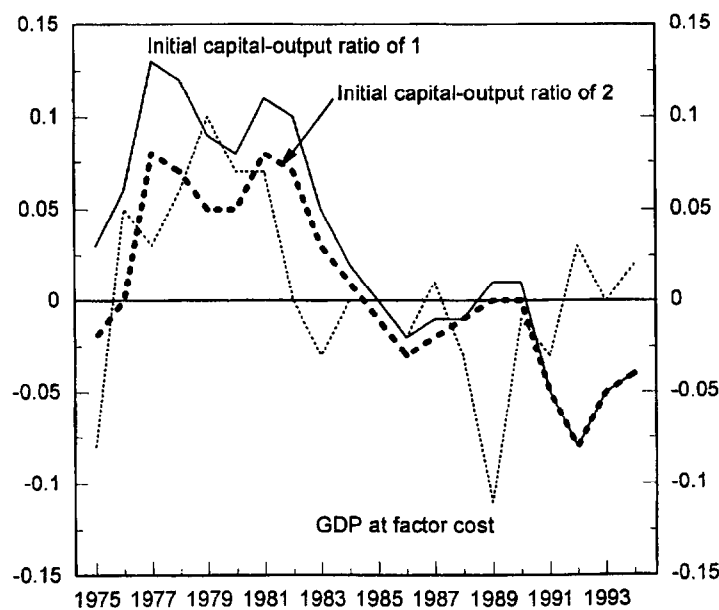
Capital Stock and GDP at Factor Cost 2/
(In constant 1990 prices per worker)



Capital Stock and GDP at Factor Cost 1/ 3/
(Annual percentage change)



Capital Stock and GDP at Factor Cost 2/ 3/
(Annual percentage change)



Sources: Data provided by the authorities; and Fund staff calculations.

1/ Capital stock measure derived from total gross fixed investment expenditure.

2/ Capital stock measure derived from total productive fixed investment.

3/ In constant 1990 prices per worker.

top two panels of Chart II-8.⁴⁰ The results in the left panel reflect the capital stock derived from total gross fixed capital formation while the results in the right panel are based on total gross fixed productive investment. The following results emerge from the growth accounting exercise:

- ◆ Capital stock measures based on total gross fixed investment expenditures (including residential construction) imply negative average annual TFP growth rates during the period 1975–94. For the two sub-sample periods 1975–82 and 1983–91, negative average annual TFP growth rates were also recorded. It follows that general productivity improvements were absent or even unfavorable during most of the period 1975–94 and that GDP growth was basically extensive in nature during that period.⁴¹
- ◆ The conclusion from this growth accounting exercise should be interpreted with the necessary caution. The inclusion of residential construction in the capital stock is likely to overstate the productive capital stock. Given the rapid increase in the share of residential investment in total investment in Jordan since the end-1980s, this problem seems particularly relevant. Accordingly, the “true” TFP growth is likely to be understated.⁴²
- ◆ Capital stock measures based on productive gross fixed investment expenditure confirm that the inclusion of residential construction is indeed one reason behind the negative average annual TFP growth rate experienced during the period 1975–94. As illustrated in the top right panel of Chart II-8, estimates of equation (2) using productive capital as an explanatory variable show a positive average annual TFP growth rate. The rapid expansion of the capital stock during the period 1975–82 was therefore associated with an increase in the productivity of the economy.
- ◆ During the growth recovery in 1992–94, a turnaround in total factor productivity in both kinds of capital stock measures was registered. However, the overall productivity increase was much stronger for the capital stock measures based on productive investment than for the measures based on total gross fixed capital formation. The magnitude of the productivity increases recorded during 1992–94 is striking, in particular when compared with the available empirical evidence from

⁴⁰A dummy variable was included in the estimated equation in order to account for the balance of payments crisis in 1988–89. It is for this reasons that the weighted capital stock growth rates and the TFP growth rates shown in Chart II-8 do not exactly match the GDP growth rates during the entire period and during the period 1983–91. See Appendix II-II for a discussion.

⁴¹This conclusion coincides with those reached by McDermott (1996) and World Bank (1994).

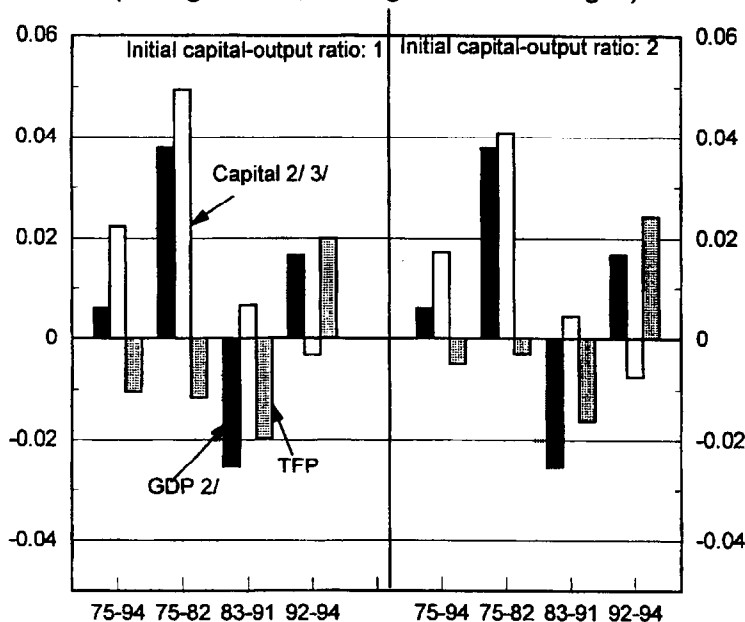
⁴²Employment growth is likely to be understated, however, as the increasing employment of expatriate labor is not included in the data. Accordingly, TFP growth could be overstated.

Chart II-8
Jordan

Growth Accounting, 1975-94

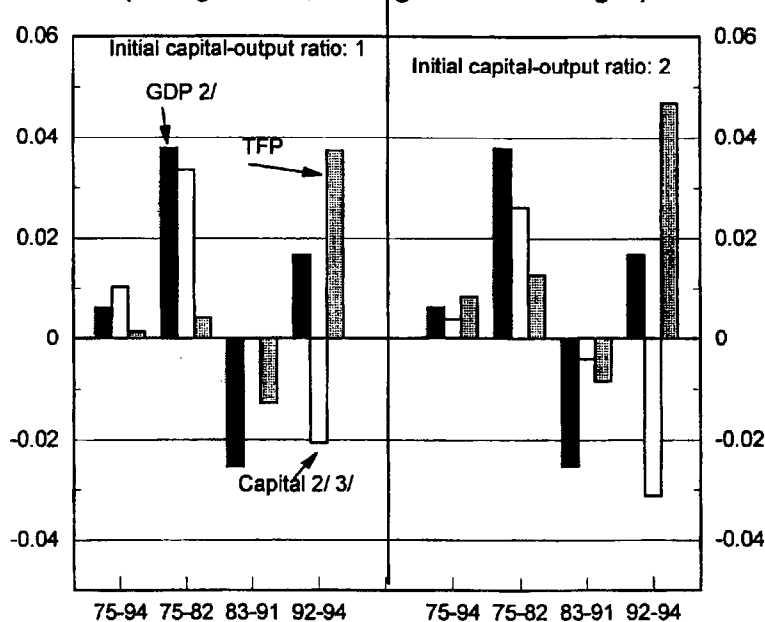
GDP, Capital, and TFP 1/

(In Logarithms; average annual changes)



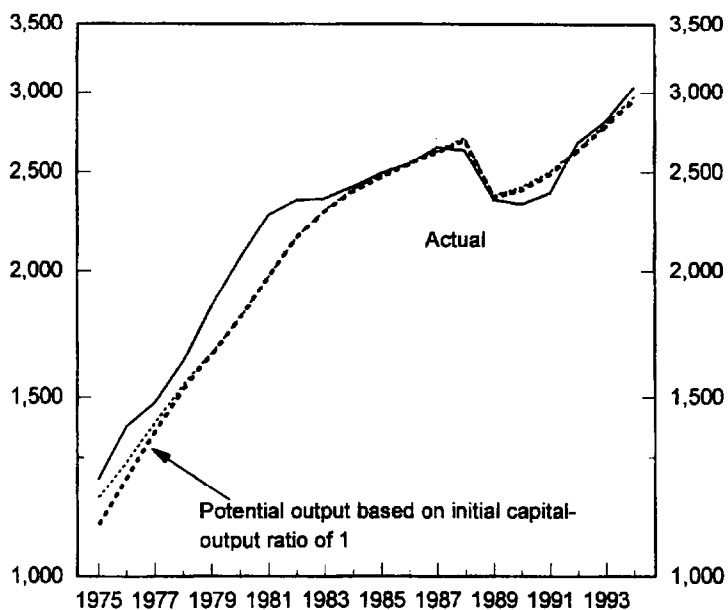
GDP, Capital, and TFP 4/

(In Logarithms; average annual changes)



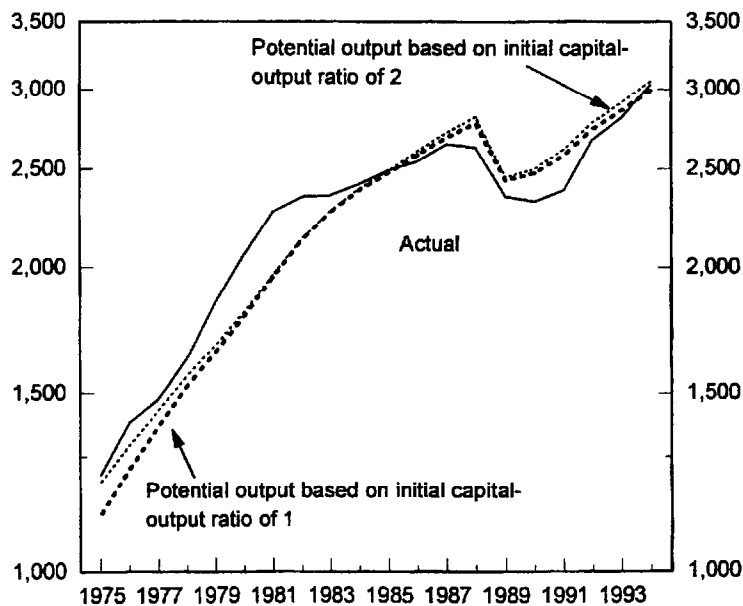
GDP: Actual and Potential 1/

(In constant 1990 prices)



GDP: Actual and Potential 4/

(In constant 1990 prices)



Sources: Data provided by the authorities; and Fund staff calculations.

1/ Capital stock measure derived from total gross fixed investment expenditure.

2/ In constant 1990 prices per worker.

3/ Capital stock growth weighted by capital share.

4/ Capital stock measure derived from total productive fixed investment.

other countries. It is unlikely that productivity increases of such a magnitude would be sustainable in the long run. In this regard, another striking feature of this recent growth recovery was the negative capital stock growth, especially for the productive ones, which suggests that besides reflecting the cyclical growth recovery the turnaround in the productivity of the Jordanian economy was the result of the structural reforms implemented during 1992–96.

- ◆ The qualitative results of this growth accounting exercise are robust with respect to the initial capital-output ratio. The magnitude of the annual average percentage changes in total factor productivity, however, depends on the initial capital-output ratio. Moreover, as shown in Appendix II-II, the magnitude but not the sign of the average productivity growth rate also depends on the applied methodology.

57. If, as it is argued here, the productive capital stock is the relevant concept for the capital input in an economy, the growth accounting exercise presented above suggests that the Jordanian economy enjoyed TFP growth rates which appear to be within the range given by the experience of other countries that have enjoyed high and sustained economic growth.⁴³ If the average TFP growth and the capital share are estimated on the basis of equation (2), the productivity growth appears to be at the lower end of this range. However, if the same parameters are estimated with equation (1), the productivity growth is at the higher end of the range. Given the statistical uncertainties about the “true” labor force and employment levels and growth as well as the classification of construction investment into business and residential structures, one should not draw strong conclusions about the absolute magnitude of the average TFP growth rate. Moreover, the argument that the productive capital stock is the relevant concept for the capital input is based as much on strong assumptions as on analytical reasoning. In fact, if one used the overall capital stock measure, one would have to conclude that the Jordanian economy suffered from serious productivity problems.

58. Despite these uncertainties, one may conclude from this growth accounting exercise that it is primarily the recent trend in the level and the structure of capital accumulation rather than in productivity growth, which is an obstacle to higher medium-term growth in Jordan. The turnaround in the TFP growth rate during 1992–94 is an encouraging sign for the beneficial effects of the structural reforms on economic efficiency. These productivity improvements, however, would have to be supplemented by increased productive investment. This conclusion remains relevant even if one assumes higher employment growth in the future in light of the high growth rate of the labor force. A constant share of productive investment in GDP is not sufficient to maintain the capital stock growth in line with GDP growth given the capital-output ratio observed during 1990–94. Raising the medium-term GDP growth rate would therefore require increases in investment expenditure as a share of

⁴³See Sarel (1997) on the TFP growth experienced in South-East Asian countries. See also World Bank (1993) and Young (1992, 1994, and 1995).

GDP, particularly increases in investment into the productive capital stock since the latter has, on average, been growing at a lower rate than output since the mid-1980s. Increased investment would also be beneficial from a productivity perspective. As illustrated by De Long and Summers (1991, 1992), technological progress is often embodied in new equipment. While the recent structural reforms in Jordan were likely to have ensured that productivity developments were favorable in the recent past despite a low and stagnating equipment investment ratio, future productivity growth may require increased investment.

59. To develop policy strategies to promote high and sustained growth, it is therefore essential to understand the factors explaining the recent investment performance. Before turning to this issue, however, it is useful to examine the potential output implied by the production function that was estimated in the course of the growth accounting exercise.

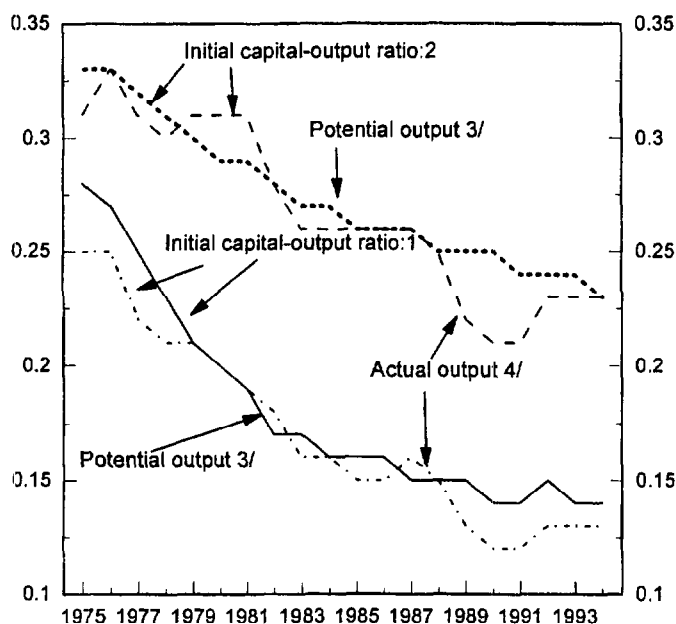
***Growth accounting and the implications
for potential output and factor prices***

60. The growth accounting exercise presented above also allows one to calculate potential output and the marginal products of capital and labor. The comparison between actual and potential output estimates shown in Chart II-8 reveals the dramatic output loss during the 1988–89 balance of payments crisis and the 1990–91 regional crisis. By end-1994, after 7 years, actual output had finally caught up with potential output. The chart also shows that the relatively flat slope which characterized the potential output measures during the 1980s continued to apply during the 1990s. If recent investment trends continue, potential output will grow much less than during the 1970s, and the deviations between actual and potential output are likely to have been at best small in 1996 and 1997. The potential output measures are another illustration of the fact that potential output growth in the medium term could be constrained by the persistent decline in the share of expenditures on productive investment in total domestic absorption and that increases in investment ratios, in particular for productive investment, are needed to sustain a higher growth rate of potential output in the future.

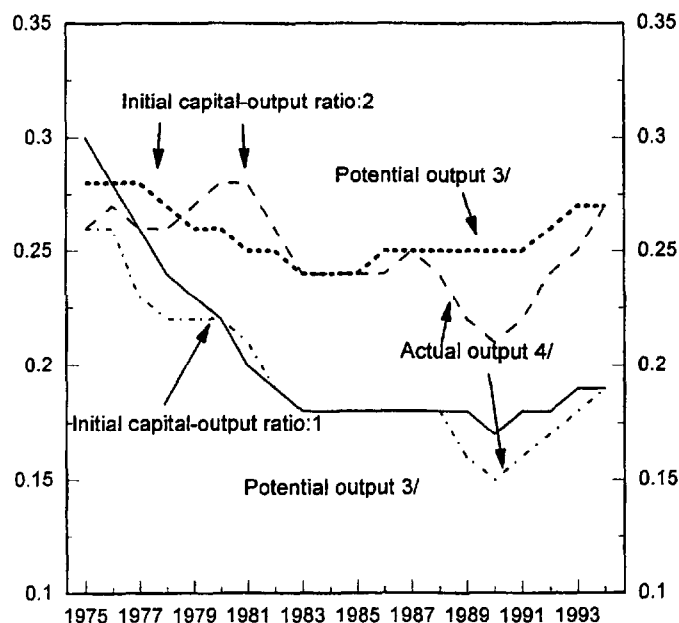
61. In Chart II-9, the implications of the growth accounting exercise on the marginal products of capital are shown. From the mid-1970 onward, the marginal productivity was declining for both kinds of capital until the mid-1980s; a development that was likely to have reflected the easy availability of loanable funds associated with the foreign currency inflows associated with the substantial net external current transfers. After the mid-1980s, however, the marginal productivity varies according to the type of capital. While the marginal product of capital continued to decline until 1994 for capital stock measures based on total fixed investment, the marginal product of the more relevant productive capital stock measures first stagnated and then began to rise again in the late 1980s. Given the tightening of monetary policy after 1989, the gradual decline in the capital intensity of production and the structural reforms, this turnaround in the marginal product is not surprising. It could be the basis for an acceleration of investment expenditure provided that some of the fundamentals for increased

Chart II-9
Jordan
Growth Accounting II, 1975-94

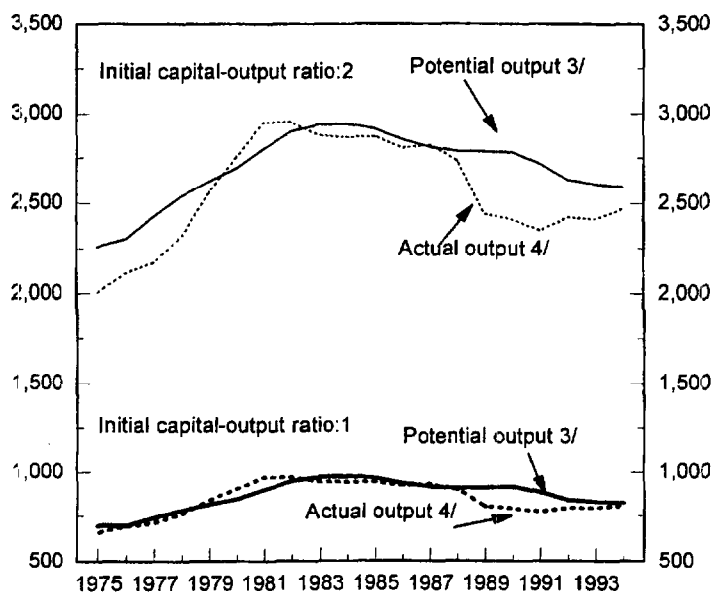
Marginal Productivity of Capital 1/
(In percent 2/)



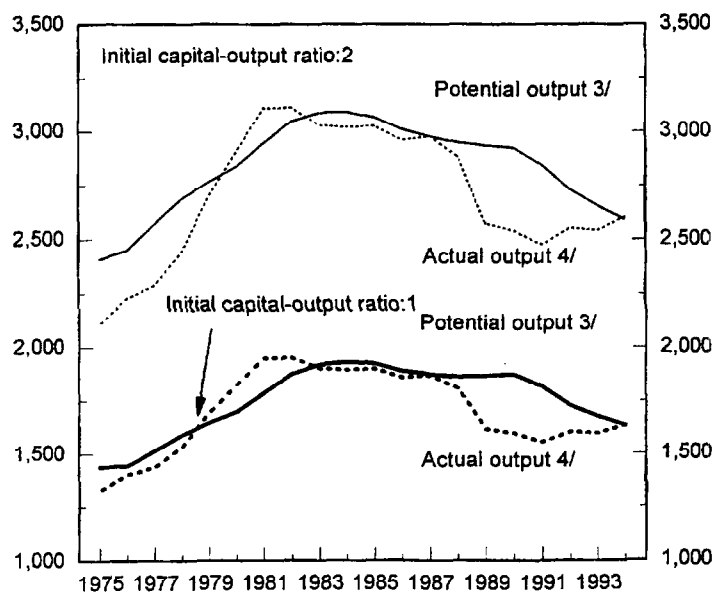
Marginal Productivity of Capital 5/
(In percent 2/)



Marginal Productivity of Labor 1/
(In constant 1990 prices per worker)



Marginal Productivity of Labor 5/
(In constant 1990 prices per worker)



Sources: Data provided by the authorities; and Fund staff calculations.

1/ Capital stock measure derived from total fixed investment.

2/ In one hundredth of a percent.

3/ Marginal products calculated on the basis of potential output.

4/ Marginal products calculated on the basis of potential output.

5/ Capital measure derived from productive fixed investment.

capital formation are put in place (see below). The decline in the marginal product of labor from the mid-1980s until 1994 shows that productivity growth was not sufficient to prevent a decline in real wages, given the rapid labor force growth coupled with the reduction in the capital intensity of production.

The stagnation of productive investment, origins and policy issues

62. The growth accounting exercise discussed above showed that increases in the share of productive private investment (equipment and non-residential structures) are needed to sustain a medium-term growth above the range of the historically observed trend growth rates of about 6 percent (given the trend growth of the labor force and total factor productivity during the last 10 to 15 years).⁴⁴ To address the related policy issues, the stagnation in the ratio of productive fixed investment to GDP needs to be understood. Explaining this stagnation after 1991, however, is difficult for two reasons. First, data for standard investment determinants such as long-term lending or deposit rates are not available. The discussion will therefore have to remain qualitative in nature. Second, the developments in some standard investment determinants such as current real GDP growth and macroeconomic stability (which is often proxied by the inflation rate) suggest a rebound of the ratio of productive investment to GDP after 1991.

63. Other factors, however, are consistent with a stagnation of the ratio of productive investment to GDP:

- ◆ **Uncertainty:** Jordan is a small open economy. Many plans that involve large scale irreversible investments are likely to require exports in order to be profitable. However, the political uncertainty associated with Jordan's traditional export markets (e.g., Iraq) has not been conducive to undertaking such investments as the value of the option to wait can thus exceed the net present value of the investment if executed under the current circumstances.
- ◆ **Real wages, real interest rates and financial liberalization:** Standard macroeconomic theory suggests that the investment ratio is negatively correlated with the ratio of the real user costs of capital to real wages. Recent empirical evidence suggest that the latter have been decreasing at least since 1991 as a result of the pressure implied by the increase in the labor force growth. Following the financial liberalization and the tightening of macroeconomic policies during the 1990s, the real use costs of capital are likely to have increased, implying that the ratio of the real user costs of capital to real wages has increased.

⁴⁴The long-term trend growth rate depends critically on the estimation period of the production function. For the period 1975–94, the estimated annual trend growth rate of real GDP amounts to 5.8 percent.

64. While a high degree of uncertainty and a high value for the ratio of the user costs of capital to real wages are likely to remain relevant in the near future, they need not necessarily continue to exert a negative impact on the ratio of productive investment to GDP. Recent structural policy measures have aimed at removing implied obstacles to investment and growth. Multilateral trade liberalization has increased the market access outside the region (see above), thereby reducing some of the risks associated with the regional uncertainty. The negative impact of the recent increase in real interest rates is likely to be reduced with the recent measures aiming at increasing the efficiency and depth of financial markets, which will improve the allocation of loanable funds to the private sector. Moreover, with the overhaul of laws and regulations related to fixed investment, limits on foreign ownership in most sectors were abolished, and the administrative procedures for the registration and licensing of companies and activities were streamlined.

E. Concluding Remarks

65. Jordan's growth performance during 1975–96 was generally favorable. The average annual growth rate of real GDP amounted to about 6 percent, implying an increase in per capita GDP of about 3 percent. However, the variation in the growth performance has been substantial as both periods of sustained high growth and periods of low growth were experienced. External growth stimuli, mainly in the form of workers' remittances and external grants, in the context of an inward-oriented growth strategy were a major determinant of the growth dynamics. The empirical analysis confirms the hypothesis that a large share of the fluctuations in GDP growth can indeed be associated with fluctuations in net income received from abroad. External factors cannot be relied on to provide similar growth stimuli in the future, and it will be important to diversify the sources of growth in order to achieve a high and sustained rate of growth. To this end, the government has started to put in place the measures for a more outward-oriented growth strategy, which would provide for external stimuli through exports rather than through net current transfers from the region. In this regard, the recent and forthcoming efforts to liberalize the trade regime and reduce the role of the government in the economy have been essential in lowering the bias against the tradables sector in the Jordanian economy.

66. The empirical analysis also revealed the contribution of supply-side factors to the growth dynamics in Jordan. A growth accounting exercise showed that the increases in per capita income have been associated with both extensive growth in the form of capital accumulation and labor force growth and, albeit to a lesser extent, intensive growth in the form of productivity increases. The exercise also showed that the recent stagnation in productive investment could be a constraint for higher long-term growth rates. Among all policies aimed at promoting long-term growth, those that target raising investment ratios are thus the most likely to lead to more immediate tangible achievements. Other policy measures, particularly those that aim at raising total factor productivity, are less likely to be effective in the short term. Nevertheless, an integral policy strategy aiming at promoting long-term growth should not neglect measures to foster productivity growth in the future. Trade liberalization will also be key in this respect since it provides for greater access to markets outside the region and, therefore, greater integration into the world economy, which will facilitate the transfer of technology and knowledge.

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Determining the Impact of External Shocks on Growth Using A VAR Model

67. The dynamic analysis of the vector autoregressive model is based on the following dynamic linear model that was estimated with annual data for the period 1975–94:

$$z_t = A + \sum_{s=1}^2 B_s z_{t-s} + C d_t + e_t$$

where the column-vector z_t includes the (logarithmic) growth rates of real GDP, real external current transfers (net), and the real exchange rate: $[\Delta \ln y_t, \Delta \ln(ct/p_t), \Delta \ln RER_t]$. A is 3-by-1 vector of constants, B_s denotes a 3-by-3 matrix of coefficients, C stands for a 3-by-1 vector of coefficients for the dummy variable d_t , and e_t denotes a column-vector of serially and contemporaneously uncorrelated residuals. d_t stands for a 1-0 dummy variable that was set equal to 1 in 1989 in order to account for the balance of payments crisis during that year. Basic univariate time series statistics for the three endogenous variables are shown in Table II-1; all three variables appear to have been stationary during the sample period. The estimation results are not shown because the individual coefficients are not meaningful. For the forecast error variance decomposition and the computation of the impulse response functions, the estimated model needs to be rewritten in the vector moving-average (VMA) representation:

$$z_t = A + C d_t + \sum_{s=0}^{\infty} \Psi_s e_{t-s}$$

where Ψ_s denotes a 3-by-3 coefficient-matrix and where Ψ_0 is the identity matrix. For the analysis, a structural VMA-model of the form:

$$z_t = A + C d_t + \sum_{s=0}^{\infty} F_s \epsilon_{t-s}$$

is proposed. The vector ϵ_t contains the structural shocks, that is, the GDP shock, the external shock, and the transitory shock:

$$\epsilon_t = \begin{bmatrix} \epsilon_t^g \\ \epsilon_t^x \\ \epsilon_t^r \end{bmatrix}$$

Table II-1. Univariate time series statistics, 1975-94

Variable	$\Delta \ln y_t$	$\Delta \ln(ct/p_t)$	$\Delta \ln RER_t$
Mean	0.059	0.035	-0.039
Standard deviation	0.074	0.207	0.109
ADF 1/	-7.735	-6.679	-4.437

Source: Staff estimates based on data provided by the authorities.

1/ Augmented Dickey-Fuller t-statistics; lag length determined by the t-statistics of the last lagged first difference of the dependent variable included in the regression.

The mapping of the estimated residuals in the vector e_t into the vector of structural shocks, requires the identification of a matrix F_0 such that:

$$e_t = F_0 \epsilon_t$$

The fact that the variance-covariance matrix Ω of the residuals e_t must be equal to $F_0 F_0'$ provides some of the restrictions needed to identify F_0 . Other restrictions are obtained by setting some elements of F_0 equal to zero (short-term restrictions) or by imposing restrictions on the matrix $F = F_0 + F_1 + F_2 + \dots$, which measures the long-run impact of elements in e_t on z_t . For the empirical model at hand, it was assumed that the elements f_{21} and f_{23} of F_0 and the element f_{13} of F are equal to zero. The forecast error variance decompositions and the impulse response functions resulting from this model are shown in Table II-2 and Chart II-10, respectively. Chart II-11 shows the simulated values of the log-levels of the endogenous variables based on the cumulative values of the following j-step ahead in-sample projections for the period 1975–94:

$$z_{t+j}^m = A + C d_{t+j} + \sum_{s=0}^{j-1} F_s H \epsilon_{t+j-s} + \sum_{s=j}^{\infty} F_s \epsilon_{t-s}$$

where H denotes a 3-by-3 matrix, in which the diagonal element (m,m) is equal to one while all other elements are equal to zero. These in-sample projections illustrate the growth rates that would have prevailed if all but one of the structural shocks had been zero during the sample period.

As discussed in the main text, the inclusion of a dummy variable to account for the 1989 balance of payments crisis is debatable from a conceptual point of view. The model was therefore also estimated without the dummy variable. The forecast error variance decompositions resulting from this model are shown in Table II-3. Chart II-12 shows the simulated values of the log-levels of the endogenous variables based on the cumulative values of the j-step ahead in-sample projections for the endogenous variables during the period 1975–94.

Table II-2. Jordan: Forecast Error Variance Decomposition, 1975-94 1/
(In percent)

A. Decomposition of Growth Rates

Variable:	$\Delta \ln y_t$			$\Delta \ln(ct_t/p_t)$			$\Delta \ln RER_t$		
Shock:	GDP	External	Transitory	GDP	External	Transitory	GDP	External	Transitory
Step									
1	44.69	29.66	25.65	0.00	100.00	0.00	60.07	0.18	39.75
2	26.49	47.86	25.65	1.43	97.60	0.97	52.91	1.21	45.88
3	26.24	47.05	26.71	1.18	78.00	20.82	51.31	1.18	47.51
4	23.95	44.97	31.08	1.23	78.07	20.70	51.32	1.34	47.34
5	23.71	45.47	30.82	1.31	78.02	20.68	51.06	1.48	47.46
6	23.71	45.46	30.84	1.31	77.25	21.44	50.99	1.48	47.54
9	23.55	45.49	30.96	1.32	77.21	21.47	50.95	1.52	47.52
12	23.53	45.50	30.96	1.32	77.20	21.48	50.95	1.53	47.52

B. Decomposition of Variables in Log-Levels

Variable:	$\ln y_t$			$\ln(ct_t/p_t)$			$\ln RER_t$		
Shock:	GDP	External	Transitory	GDP	External	Transitory	GDP	External	Transitory
Step									
1	44.69	29.66	25.65	0.00	100.00	0.00	60.07	0.18	39.75
2	32.82	59.16	8.02	0.73	98.77	0.50	51.77	0.84	47.39
3	30.96	63.63	5.41	1.39	92.00	6.61	54.41	0.97	44.62
4	32.47	63.38	4.15	2.29	88.81	8.90	54.69	1.27	44.03
5	34.59	61.97	3.44	2.69	86.71	10.00	55.39	1.69	42.91
6	35.98	61.08	2.94	2.82	86.94	10.24	55.51	1.94	42.55
9	36.69	61.34	1.97	3.00	87.14	9.85	55.71	2.09	42.08
12	37.39	61.13	1.48	3.22	86.63	10.15	55.84	2.21	41.90

Source: Staff calculations based on data provided by the authorities.

1/ The forecast error variance decompositions for a variable show the percentage shares of the variance of the forecast error for j-steps ahead that can be attributed to each shock.

Chart II-10. Jordan: Impulse Response Functions (In logarithms)

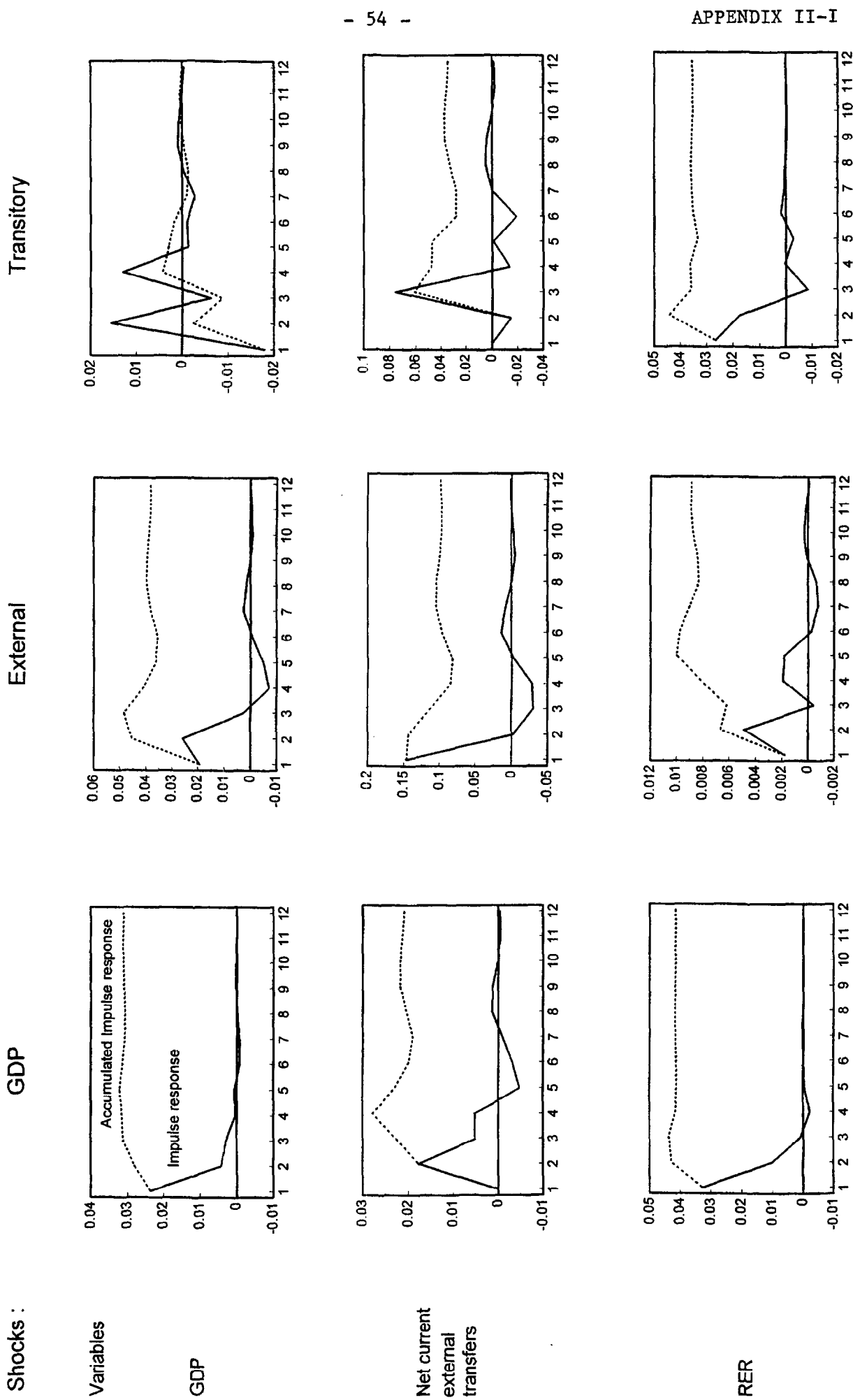
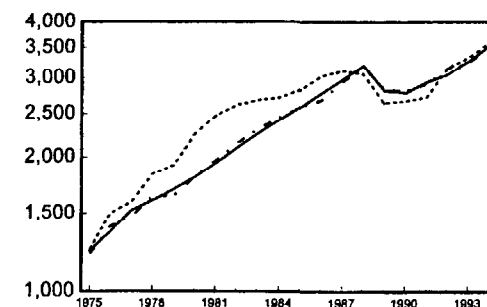
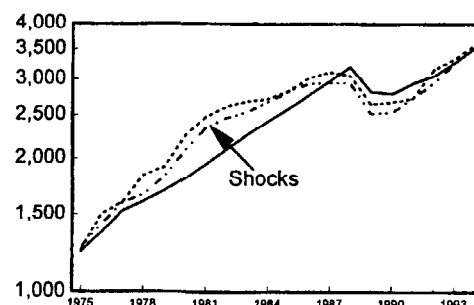
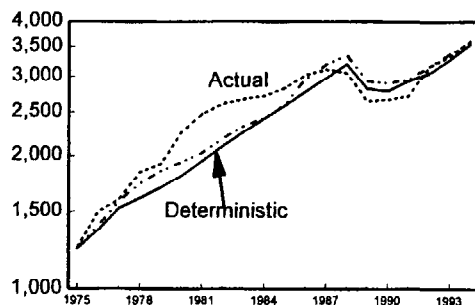


Chart II-11. Jordan: Actual and Simulated Variables

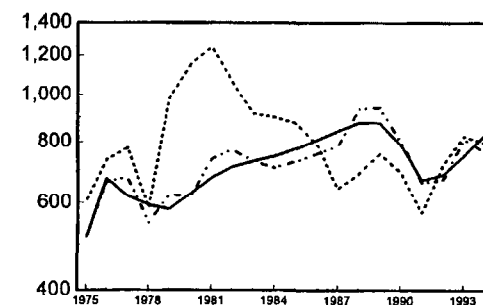
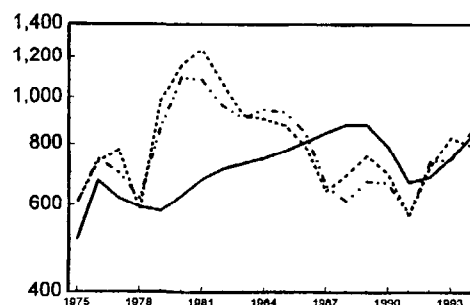
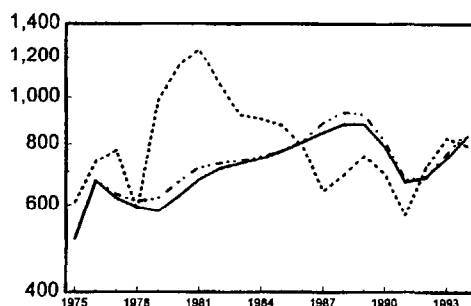
Shocks: GDP External Transitory

Variables

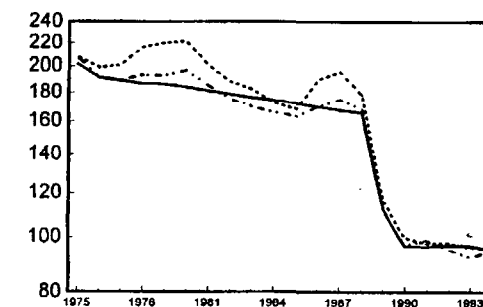
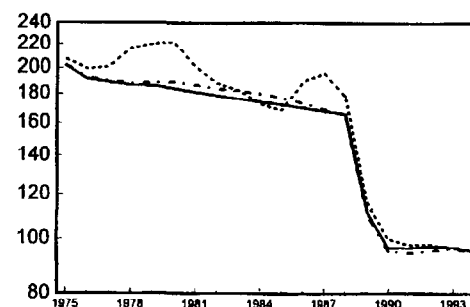
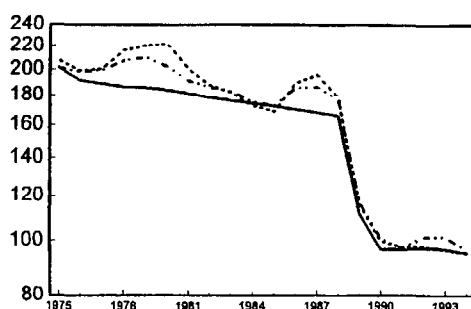
GDP
(In millions of JD;
in constant 1990
prices)



Net current
external transfers
(In millions of JD;
in constant 1990
prices)



RER
(1990=100)



Sources: Data provided by the authorities; and Fund staff calculations.

Table II-3. Jordan: Forecast Error Variance Decomposition; Model Without 1989-Dummy Variable, 1975-94 1/
(In percent)

A. Decomposition of Growth Rates

Variable:		$\Delta \ln y_t$			$\Delta \ln(ct_t/p_t)$			$\Delta \ln RER_t$		
Shock:		GDP	External	Transitory	GDP	External	Transitory	GDP	External	Transitory
Step										
1		44.68754	29.66383	25.64863	0	100	0	60.07058	0.17749	39.75193
2		25.74069	47.01709	28.24222	1.50913	97.59268	0.8982	49.85772	1.68713	48.45514
3		24.10806	48.33335	27.55859	1.30773	77.01405	21.67822	43.27191	12.00485	44.77325
4		23.19804	46.60603	30.19592	1.4611	76.86643	21.67248	41.23946	15.39442	43.36612
5		22.94019	47.05829	30.00152	1.55577	76.81073	21.6335	41.06469	15.38468	43.55063
6		22.88741	47.15523	29.95736	1.56783	76.0235	22.40867	40.0225	16.52261	43.45488
9		22.7804	47.08481	30.13478	1.58262	75.89392	22.52346	39.62746	16.96483	43.40771
12		22.76421	47.08562	30.15018	1.58427	75.86502	22.55071	39.57803	17.00755	43.41442

B. Decomposition of Variables in Log-Levels

Variable:		$\ln y_t$			$\ln(ct_t/p_t)$			$\ln RER_t$		
Shock:		GDP	External	Transitory	GDP	External	Transitory	GDP	External	Transitory
Step										
1		44.68754	29.66383	25.64863	0	100	0	60.07058	0.17749	39.75193
2		34.73744	57.79401	7.46855	0.77432	98.76482	0.46086	50.51501	1.04918	48.43581
3		29.72643	66.29684	3.97673	1.56696	91.43715	6.99589	50.47186	6.51134	43.0168
4		28.64893	68.55823	2.79284	2.71185	87.83079	9.45736	48.74206	13.1636	38.09434
5		29.31941	68.2781	2.40249	3.11492	86.17979	10.70529	47.38482	16.2157	36.39948
6		30.03296	67.73065	2.23639	3.18079	86.84086	9.97836	46.7435	16.24024	37.01626
9		30.09221	68.32671	1.58108	3.39184	86.56863	10.03953	46.37582	16.10767	37.51652
12		30.29199	68.38493	1.32308	3.56024	86.33498	10.10478	46.07461	16.54661	37.37878

Source: Staff calculations based on data provided by the authorities.

1/ The forecast error variance decompositions for a variable show the percentage shares of the variance of the forecast error for j-steps ahead that can be attributed to each shock.

Chart II-12. Jordan: Actual and Simulated Variables (Model without 1989-dummy variable)

Shocks:

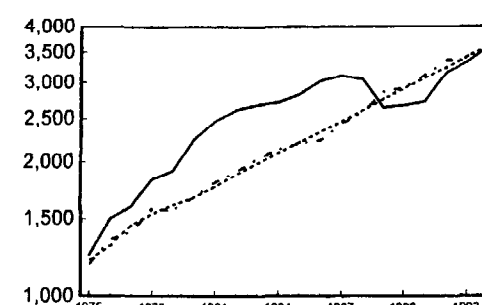
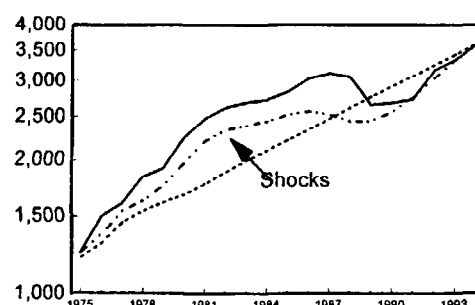
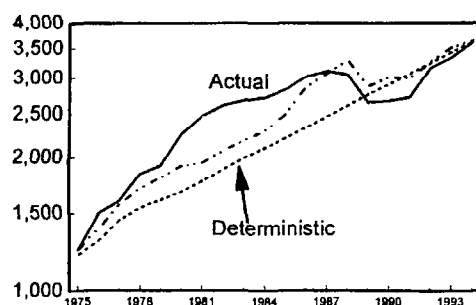
GDP

External

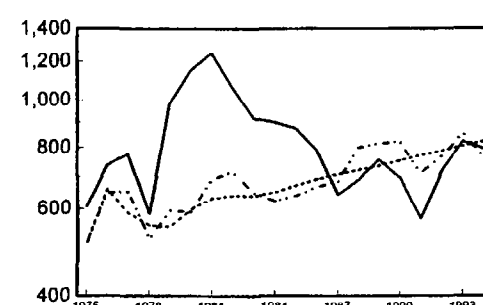
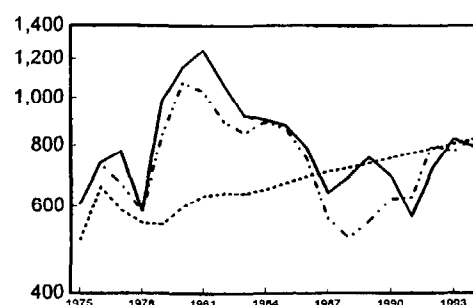
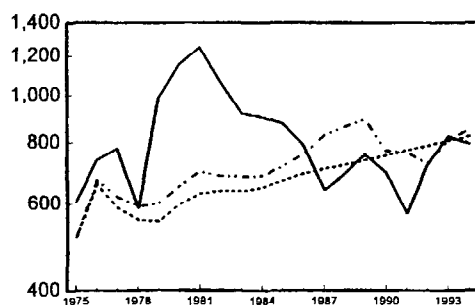
Transitory

Variables

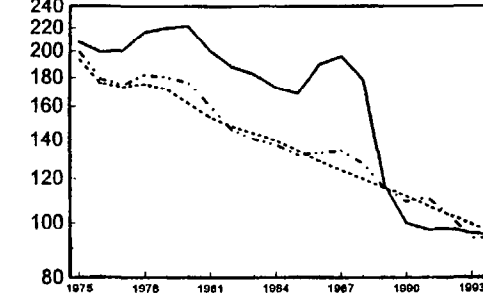
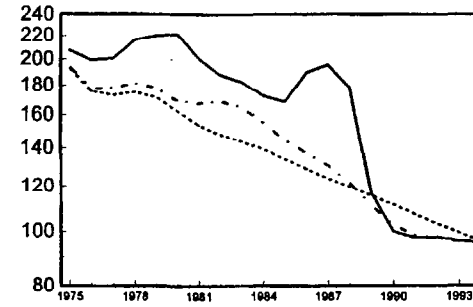
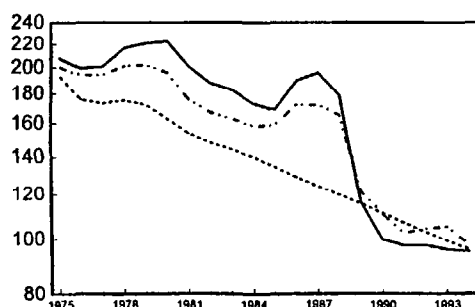
GDP
(In millions of JD;
in constant 1990
prices)



Net current
external transfers
(In millions of JD;
in constant 1990
prices)



RER
(1990=100)



Sources: Data provided by the authorities; and Fund staff calculations.

Growth Accounting Regressions for Jordan, 1971–94

68. The growth accounting results discussed in Subsection D are based on the estimation of equation (2) for the period 1975–94. The estimated equation was specified as follows:

$$\Delta \ln \left(\frac{y_t}{L_t} \right) = \gamma + \alpha \Delta \ln \left(\frac{K_t}{L_t} \right) + \delta d_t + v_t \quad (i)$$

where, in addition to the notation of Subsection D, v denotes a stationary residual and d_t again stands for a 1-0 dummy variable that was set equal to 1 in 1989 in order to account for the balance of payments crisis during that year. The dummy variable turned out to be necessary; otherwise the estimated capital shares turned out to be implausibly large. Equation (i) was estimated with an instrumental variable (IV) estimator using a constant, the dummy variables, and lagged values of the dependent and the explanatory variable as instruments. The constant γ represents the estimated, average, annual TFP growth rate. The results are reported in Table II-4. All standard errors in Table II-4 are autocorrelation- and heteroskedasticity-consistent (Newey-West estimates based on a Bartlett window with 2 lags).

69. For the estimation of potential output and for a comparison with the first difference estimates discussed above, a Cobb-Douglas production function in log-levels was also estimated (equation (1) in Subsection D). The estimated equation was specified as follows: where η denotes a stationary residual and where, for the reasons discussed above, I_t stands for a 1-0 dummy variable that was set equal to 1 for the period 1989–94. The coefficient γ again represents the average annual TFP growth rate. The estimations were performed using Stock and Watson's (1993) dynamic lead-lag OLS (LLOLS) estimator to address the simultaneity

$$\ln \left(\frac{y_t}{L_t} \right) = \beta + \gamma t + \alpha \ln \left(\frac{K_t}{L_t} \right) + \delta I_t + \eta_t \quad (II)$$

bias arising from the small data sample. The fitted values of equations (II) are shown as potential output in Chart II-8.

Table II-4. Jordan: Growth Accounting Regressions 1/

	Overall capital stock measure				Productive capital stock			
	1	2	1	2	1	2	1	2
Specification	I	I	II	II	I	I	II	II
Estimation method	IV	IV	LLOLS 2/	LLOLS 2/	IV	IV	LLOLS 2/	LLOLS 2/
Sample period	1975-94	1975-94	1975-94	1975-94	1975-94	1975-94	1975-94	1975-94
Dependent variable								
GDP per worker 3/	0.052	0.052	0.117	0.117	0.052	0.052	0.117	0.117
Explanatory variables								
TFP growth rate (gamma)	-0.011 (0.936)	-0.005 (0.527)	-0.003 (0.519)	0.001 (0.307)	0.002 (0.163)	0.009 (0.924)	0.01 (2.202)	0.016 (5.133)
Capital share (alpha)	0.504 (2.282)	0.678 (2.105)	0.569 (6.251)	0.685 (6.267)	0.384 (1.824)	0.5 (1.667)	0.457 (5.027)	0.485 (4.708)
R-squared	0.418	0.440	0.930	0.932	0.784	0.784	0.897	0.89
Standard error of estimate	0.04	0.039	0.031	0.031	0.041	0.041	0.038	0.039
D.W.	1.57	1.756	1.14	1.234	1.417	1.496	1.05	1.101
ADF 4/	...	...	-3.085	-3.281	...	...	-2.613	-2.835

Sources: Data provided by the authorities; *International Financial Statistics*; World Bank; and staff estimates and calculations.

1/ See text for details of the regressions. Absolute t-values reported in parenthesis. Regressions include a constant and a dummy variable (results not reported).

2/ Stock and Watson's (1993) single equation lead-lag cointegration estimator.

3/ Sample standard deviation of dependent variable.

4/ Augmented Dickey-Fuller t-test statistics, for 2 lags of the first difference of the estimated residuals.

III. TRADE LIBERALIZATION AND TRADE PERFORMANCE, 1989-97

A. Introduction

70. Export-led growth has been a pillar of Jordan's development strategy in recent years. In this regard, in the context of their adjustment and reform program, the authorities have implemented wide-ranging reforms in the external trade system since 1989. The goal of the external sector reforms was to improve external competitiveness, encourage an outward-oriented growth strategy, and place the economy in a better position to benefit from regional and world market developments. The reforms, therefore, aimed at reducing distortions, enhancing productivity, and increasing integration with regional trading partners and world markets

71. With these reforms, the role of trade in the economy has increased dramatically. Exports rose from an average of 14.3 percent of GDP over 1986-88 to an average of 25.2 percent over 1989-96, while imports rose from an average 42.0 percent of GDP in 1986-88 to 59.7 percent of GDP in 1989-96 (Chart III-1). At the same time, the diversification of exports improved. The average share of traditional exports of mining and mineral products in fell from 36.1 percent over 1986-88 to 26.2 percent over 1989-96; while that of manufacturing exports rose from 54.4 to 65.1 percent; and that of chemicals rose from 25.3 to 28.5 percent.⁴⁵

72. After several years of rapid growth in the first half of the 1990s, however, export and import growth declined somewhat in 1996-97. The main reasons behind this outcome are not clear, given the diversity of economic and political developments in the region; and consequently the prospects for the future are difficult to identify. In order to better understand Jordan's recent trade performance, this section attempts to identify the main factors affecting foreign trade performance by evaluating recent trade liberalization measures, the behavior of the real exchange rate, and estimating standard trade equations.

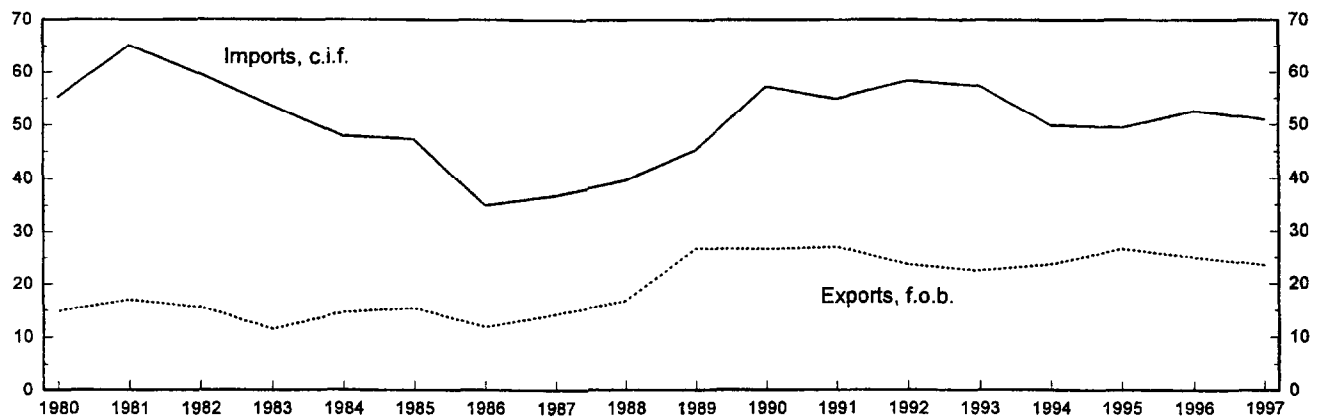
73. The econometric work provides several insights. The elasticity of Jordan's exports with respect to trading partner output is quite high. This relationship, which reflects the strong export links with neighboring countries, demonstrates the vulnerability of the exports to adverse regional developments. Movements in relative prices, while not significant determinants of traditional exports (such as potash and phosphates), do appear to affect nontraditional exports. Nevertheless, as the real appreciation of the Jordan dinar (JD) in recent years was modest, the impact of relative price movements has probably been limited. Estimates of the demand for imports in Jordan reveals fairly standard income elasticities, but low price elasticities. The two price elasticities taken together imply that the trade balance is reasonably responsive to movements in relative prices.

⁴⁵Source: United Nations, *International Trade Statistics*.

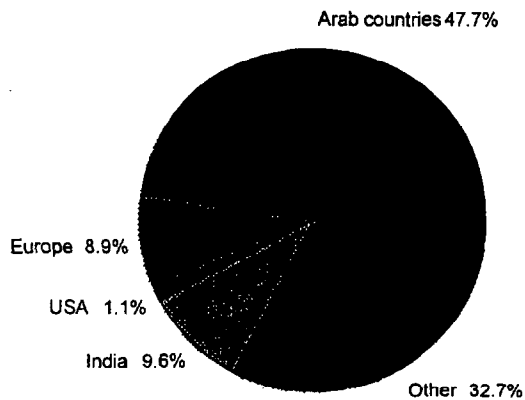
Chart III-1

Jordan: Selected External Trade Indicators

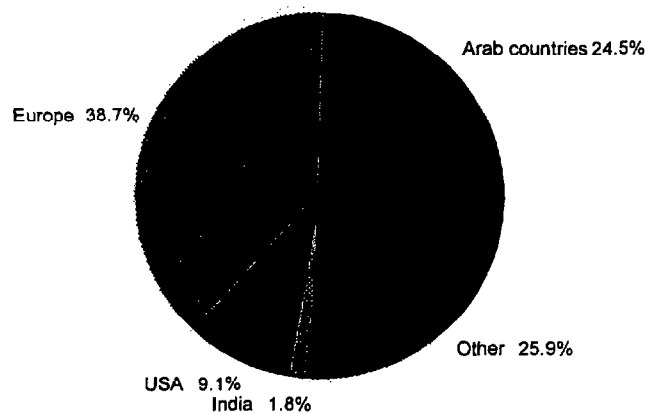
Merchandise Exports and Imports, 1980-97
(In percent of GDP)



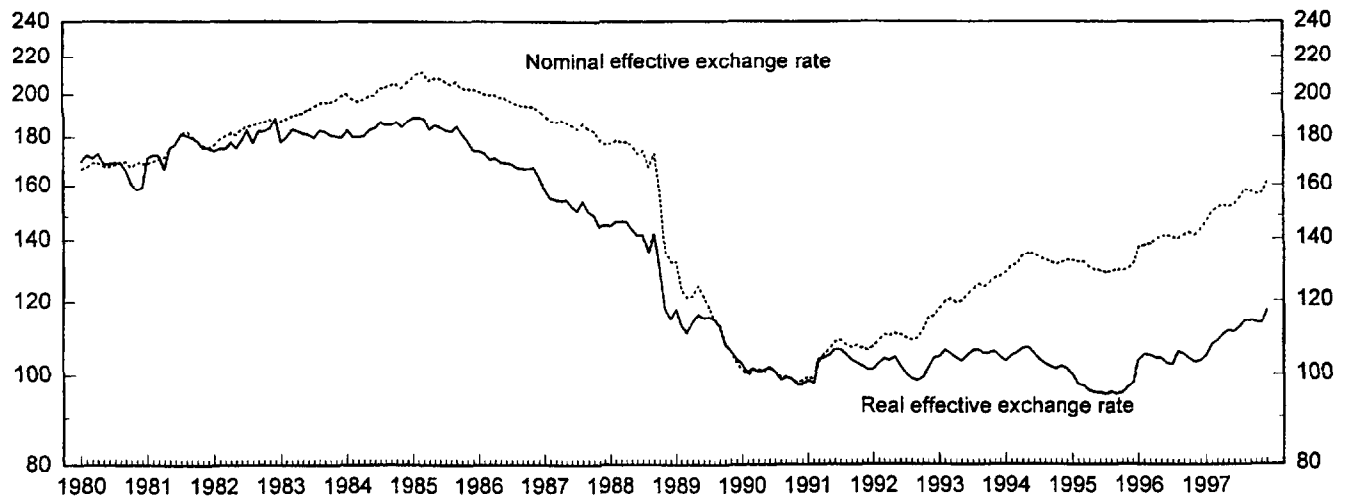
Destination of Exports, 1995-97
(Shares in percent; annual averages)



Source of Imports, 1995-97
(Shares in percent; annual averages)



Nominal and Real Effective Exchange Rates, 1980-97
(1990=100)



Sources: Data provided by the authorities; and IMF, *Information Notice System*.

74. This Section is organized as follows: Subsection B reviews developments in the external current account, with a focus on the composition and geographical structure of merchandise exports and imports. The recent trade liberalization measures are surveyed in Subsection C. Subsection D evaluates the behavior of the real exchange rate. The results of the econometric analysis of trade equations for Jordan are presented in Subsection E. Conclusions follow in Subsection F.

B. Recent Developments in the Current Account, 1995–97

75. Jordan's external current account is characterized by a large merchandise trade deficit, which averaged some 29.4 percent of GDP over 1995–1997 (Statistical Appendix Table 24), with imports exceeding exports on average by 220 percent. During the same period, the trade deficit was partially offset by a surplus in the services account, averaging 22.5 percent of GDP, which largely reflected net remittances (averaging 17.8 percent of GDP) from Jordanian workers abroad. Consequently, the current account excluding grants has registered an average deficit of 7.5 percent of GDP. Jordan also received sizeable foreign grants, averaging 5.1 percent of GDP, from United Nations Agencies, the European Union, the U.S., Japan, and several other industrial countries, and a grant in the form of low-priced oil imports from Iraq. Including grants, the current account deficit averaged 2.4 percent of GDP during 1995–97.

76. These average numbers mask a sharp improvement in external balances in recent years, reflecting the success of the authorities' adjustment efforts. During 1994–97, as a percentage of GDP, the trade balance declined from 32.4 percent to 25.1 percent; the current account deficit excluding grants declined from 12.0 percent to 4.1 percent; and the current account balance including grants improved from a deficit of 6.4 percent to a surplus of 0.9 percent. Net remittances and foreign grants remained roughly constant as a percent of GDP over the same period.

Developments in exports

77. The Jordanian economy is relatively open to foreign trade: exports averaged 24.4 percent of GDP over 1995–97. Export performance over the period, however, was mixed. After growing at 24.4 percent (in U.S. dollar terms) in 1995, export growth declined to 2.6 percent in 1996 and 2.3 percent in 1997 (Statistical Appendix Table 25). The export volume index (Statistical Appendix Table 29) indicates an annual average export volume growth of 4.7 percent over 1995–97.

78. Exports can be divided into three main categories. Traditional exports—phosphates, potash, and fertilizer—reflect Jordan's natural resource base, constituting on average 27.7 percent of total exports over 1995–97. These exports are sold on international markets, especially to Asian countries, including India, Japan and China, but also to major industrial

countries.⁴⁶ Solid growth in both price and volume of traditional exports over 1995–96 was largely offset by a sharp decline in 1997 when production problems hindered exports of potash and fertilizers. The share of traditional exports in total exports remained relatively constant before 1997, averaging 28.5 percent in 1995–96.

79. Nontraditional exports have increased in importance, rising from 51.4 percent of total exports in 1994 to 56.1 percent in 1997. These exports consist of items such as fruits and vegetables, manufactures (transport equipment, cement, textiles, cardboard and paper), and chemicals and pharmaceuticals. The growth rate of nontraditional exports has been high but volatile in preceding years. In contrast to traditional exports, nontraditional exports are sold mainly to trading partners within the region.

80. The share of re-exports has fallen from 20.2 percent in 1994 to 18.0 percent in 1997. Re-exports largely consist of foodstuffs and other consumer goods, several types of intermediate goods, and parts and accessories used by an aircraft maintenance center operated by the Royal Jordanian Airlines. Following rapid growth in 1995, re-exports grew slowly over the next two years. As with nontraditional exports, re-exports are directed at regional trading partners; about 12 percent of re-exports go to Iraq.

81. Statistical Appendix Table 28 contains data on the destination of domestic exports (excluding re-exports). The share of exports to Arab countries has increased from 42.4 percent in 1994 to 51.5 percent in 1997, reflecting a 14.3 percent average annual growth of exports to these countries, compared with 7.2 percent average annual growth in total domestic exports. Most of Jordan's major export partners—Iraq, Saudi Arabia, Syria, and the United Arab Emirates—are located in the region.⁴⁷ The most important exports to the region include, exports of food and live animals (29.8 percent of regional exports); chemicals and pharmaceuticals (34.0 percent); manufactured goods (15.7 percent); and animal and vegetable oils (16.1 percent); these shares have remained roughly constant over time. The share of exports to the European Union also increased.

Developments in imports

82. Imports averaged 53.8 percent of GDP over 1995–97. As with exports, imports delivered a mixed performance over the period, growing in U.S. dollar terms by 12.8 percent in 1995–96, but falling by 6.1 percent in 1997. The import volume index indicates an annual average real import growth of 1.0 percent over the period.

⁴⁶Jordan is a price-taker, accounting for only a small share of the world market in these products.

⁴⁷India is the largest export partner outside the region.

83. Food and live animals accounted for 17.7 percent of total imports in 1997. These items have displayed widely divergent behavior in recent years. A rise in world food prices, combined with a buildup of food stocks by the Ministry of Supply, contributed to a 61.7 percent growth rate of food imports in 1996. These imports declined by 26.5 percent in 1997, reflecting a fall in world food prices, the sale of the previously accumulated food stocks, and lower consumption of grains due to the subsidy reform. Other important categories of imports include petroleum and petroleum products, discussed below (13.9 percent of total imports); machinery and transport equipment (27.8 percent of total imports); and manufactured goods (15.1 percent of total imports).

84. Data on imports by economic function indicate that as an average share of total imports over 1995–97, consumer goods imports equaled 23.6 percent; raw material and intermediate goods imports equaled 54.6 percent; parts and accessories imports equaled 6.3 percent; and capital goods imports equaled 15.3 percent. These shares remained relatively constant over the period.

85. There is an important difference in the geographical origin of imports and the geographical destination of exports (Chart III-1). Although more than half of exports went to regional countries, only 24.5 percent of imports originated from the region in 1995–97. Most imports come from industrial countries. Over 1995–97, European countries accounted for 38.7 percent of imports; the U.S. accounted for 9.1 percent; and Japan accounted for 4.3 percent. These shares remained relatively constant over the period.

Trade with Iraq

86. Iraq is an important destination for Jordan's exports—receiving 13.8 percent of domestic exports over 1995–97—as well as the source of Jordan's oil imports. Since the regional crisis in 1990, Jordan's trade with Iraq has been conducted under a special arrangement, in compliance with the U.N. sanctions, in which exports of goods (mainly food and medical items) are allowed in return for oil imports, which Iraq provides at a subsidized rate, usually about half of the world market price. The amount of exports allowed under this arrangement has had a strong effect on exports to Iraq. For example, the amount of trade allowed in 1997 was US\$255 million, a sharp decline from the level of US\$400 million in 1995. In recent years, additional goods were exported to Iraq under the U.N. food-for-oil program.

C. Trade Liberalization

87. The government initiated a program of trade liberalization in 1989. Under the program, import bans were substantially reduced—the weighted average tariff rate (including fees and surcharges) fell from 34.4 percent in 1987 to 25.0 percent by 1994. The coverage of quantitative import restrictions, which affected about 40 percent of production in 1987, was reduced substantially.

88. Important distortions, however, continued to exist, thus limiting to some extent the attractiveness of engaging in the production of non-traditional manufactured goods for exports. These distortions were partly the result of the trade regime and partly the consequence of domestic regulatory policies. At an average of more than 25 percent, tariffs were still high. Some 500 products (21.5 percent of total tariff items), accounting for 17 percent of all imports, had tariff rates in excess of 50 percent. Maximum combined tariffs (including surcharges and fees) stood at 340 percent on automobiles and 260 percent on goods other than cars, alcohol, and tobacco. Variation in tariff rates was also quite high, both within and across sectors and product groups. The effective average rate of tariff protection was above 30 percent, and domestic taxes on a number of imports were higher than on domestically produced goods. Tariff exemptions further increased the effective variation in the incentive structure facing firms and investors, undermining the legal tariff and surcharge structure in a nontransparent way.

89. While outright import bans had largely been removed, import licensing requirements were still in effect. In addition, implementation of regulations related to the enforcement of product standards and of customs regulations, in particular relating to classification and valuation of goods, was sometimes quite lengthy and nontransparent.

90. Recognizing that developing and maintaining an outward orientation in trade and investment is critical if Jordan is to expand exports and raise productivity, further trade liberalization became a key element of the government's development strategy since the mid-1990s. In addition to the reductions and restructuring of import tariffs discussed below, the government removed import licensing requirements except for the areas of health, security, safety, and religious matters; streamlined customs administration through the adoption of EU-consistent procedures and documents; signed a partnership agreement with the European Union in late 1997; and began the process of WTO accession, which includes the adoption of WTO-consistent rules and regulations related to protocol trade, national treatment, safeguard mechanisms, and product standards. These efforts were supported by the extended arrangement with the Fund and the World Bank's Economic Reform and Development Loans (ERDL I, 1995; and ERDL II, 1996).

Import tariff reductions and restructuring under the current EFF

91. Under the current extended arrangement, the government initially reduced, in January 1996, all combined tariffs (including surcharges and fees) to a maximum of 50 percent, with the only exceptions being tobacco, alcohol, and passenger cars. Previously the maximum combined tariff was 70 percent, with an "exceptional" list of 506 tariff items, for which the maximum ranged as high as 220 percent. In addition to the removal of tariff bands above 50 percent, the number of tariff bands was further reduced by eliminating the 45 and 35 percent rates. Furthermore, tariffs on 492 capital goods were reduced to 0, 5, or 10 percent.

92. A second round of tariff reduction and band simplification followed in April 1997, when all import tariffs, surcharges, and licensing and other fees were consolidated into one basic tariff rate. At the same time, three intermediate tariff bands (16, 21, and 25 percent) were eliminated, and a six tier rate structure was adopted, with the maximum rate set at 40 percent, excluding alcohol and tobacco (in the case of motor vehicles, the reduction in the maximum tariff was countered by the adoption of additional sales taxes, thereby ensuring that this change was revenue neutral). Tariffs on 492 capital goods were set at zero; tariffs on 218 additional capital goods, including computer and telecommunications equipment were set at 10 percent; tariffs on parts for such capital equipment were set at a maximum of 30 percent.

Average tariff rates

93. As indicated in Table III-1 (below), the consolidation of tariff bands and reductions in maximum tariffs in 1996 and 1997 led to considerable declines in import-weighted average tariffs and tariff dispersion (as measured by standard deviations). The average import-weighted tariff declined by 5.4 percentage points to 16.5 percent during 1995-97. Among the major categories of imports, the largest absolute decline in average tariff rates was in consumer goods (11.1 percentage points); this, of course, largely reflects the decline in maximum combined tariffs over the period since they are primarily applied to this category.⁴⁸

Tariff exemptions and their revenue impact

94. Prior to 1995, significant amounts of potential customs revenue was lost due to exemptions from tariffs. During 1994, 30.6 percent of all imports (by value) were imported by tariff-exempt institutions; collected revenue was 78.2 percent of "calculated" revenue (the amount which results from multiplying import values by tariff rates on a line-by-line basis).⁴⁹ As part of its program of trade liberalization, the government has begun to eliminate tariff exemptions except for those resulting from export and investment development schemes (e.g., temporary admission); international obligations (e.g., diplomatic missions, UN organizations); existing legal concession (exemption to be removed upon expiration of concession); and the tax free status of certain other institutions and organizations (e.g., royal court, armed forces, and charitable organizations). As a result, collected revenue—including customs duties; excise duties, consumption taxes, GST collected by customs, and additional taxes on imports—as a share of calculated revenue has increased in 1997 (Table III-2).⁵⁰

⁴⁸The calculations are based on full-year import data for 1995 and 1996, and the first eleven months of 1997.

⁴⁹Based on a data sample for the first eight months.

⁵⁰The temporary increase in the implied revenue loss in 1996 reflected the increased tariff-exempted purchases of cereals by the Ministry of Supply.

Table III-1: Import-Weighted Average Tariff Rates and Standard Deviations

(In percent)

	1995	1996	1997
Average tariffs:			
Total	21.9	21.2	16.5
<i>Of which:</i>			
Agricultural goods	9.5	9.9	9.2
Manufactured goods	25.6	25.3	19.0
Consumer goods	35.9	35.5	24.8
Intermediate goods	20.0	19.4	16.0
Capital goods	22.5	22.1	17.0
Standard deviations:			
Total	23.8	24.0	16.5
<i>Of which:</i>			
Agricultural goods	14.7	15.6	15.2
Manufactured goods	24.2	24.7	16.9
Consumer goods	49.0	50.1	32.2
Intermediate goods	24.5	24.1	21.2
Capital goods	30.3	22.5	23.6

Source: Fund staff calculations based on data provided by the authorities.

Table III-2: "Calculated" Versus "Collected" Customs Revenue and Implied Revenue Loss Due to Tariff Exemptions

(In millions of Jordan dinars)

	1995	1996	1997
"Calculated" Revenue	563.4	642.7	494.6
"Collected" Revenue	521.1	583.3	465.0
(In percent of calculated revenue)	92.5	90.8	96.0
Implied Revenue Loss	42.3	59.4	39.6
(In percent of total revenue)	2.9	4.0	2.5

Source: Fund staff calculations based on data provided by the authorities.

Effective rates of protection

95. Overall, the effective rate of protection (ERP) accruing to Jordanian industry has been declining over recent years. The economy-wide average ERP declined from 31.5 in 1995 to 27.3 in 1997 (Table III-3).⁵¹ During the same period, the ERP declined from 51.0 to 43.0 in manufacturing, it increased slightly from 24.2 to 25.5 in agriculture; and became negative in the minerals and mining sector, decreasing from 2.4 to -2.5.

96. Jordan's tariff structure, like that of most countries, is characterized by the phenomenon of tariff escalation, that is, tariffs in both nominal and effective terms tend to be higher as one moves from primary goods through intermediate goods and to finished consumer goods. Consequently, the reductions in the maximum tariff have implied decreases in value-added from the domestic production of those goods and, therefore, in ERP for most industries over the past two years (the tariff reductions on capital and intermediate goods, although considerable in number, were not large enough to increase the value-added of domestically produced final goods and to offset the decline in ERP from maximum tariff reduction).

⁵¹A simple formula for calculating the effective rate of protection (ERP) is: $(V-V^*)/V^*$, where V is the domestic value added per unit of the good at domestic (tariff inclusive) prices, and V^* is value added at world prices (zero tariffs). Value added per unit is defined as the gross value of output minus the cost of inputs used in production, i.e., $V = t_f P_f - t_i P_i X$, where t_f and t_i are the tariffs on a good and its inputs, P_f and P_i are the output and input prices, and X is the amount of inputs used to produce a unit of the good. Value added at world prices is simply $V^* = P_f - P_i X$, as tariffs in this case do not exist.

Table III-3. Effective Rate of Protection
("Tariff equivalent" on services: 0 percent)

	1995	1996	1997
Economy-wide	31.5	32.9	27.3
Agriculture	24.2	31.4	25.5
Minerals and mining	2.4	2.2	-2.5
Manufacturing	51.0	48.9	43.0

Source: Fund staff calculations based on data provided by the authorities.

97. Because aggregate ERP measurements can mask significant variation in nominal and/or effective rates across the tradable goods industries, cross-country comparisons of overall ERP are not particularly revealing. Indeed, an overall average value of zero—implying no protection—is possible, despite considerable protection in some sectors. Nor is the ERP a measure of the cost of protection, since all it does is provide information on differences in the level of protection across industries without taking into account the quantity of output that is protected (industry size) or divergence between private and social costs for each marginal unit of output. However, ERP analysis can be useful in providing quantitative information on the relative impact to individual industries of changes in the investment incentive regime caused by trade liberalization.

98. Of the 38 goods-producing sectors in the Jordanian economy, eight industries enjoyed very high (albeit declining) ERPs of above 100 percent in 1997: beverages; tobacco products; wearing apparel and knitted clothes; leather and leather products; soap, perfume, cosmetics, and toiletries; paints; rubber and plastic products; and transportation equipment, including spare parts. At the same time, eight other industries had negative ERPs reflecting average tariffs on inputs which are sufficiently larger than the tariff on the output (in these cases, the domestic production of the output good is effectively taxed). These eight sectors were: field crop cultivation; all three minerals and mining sectors—phosphates, potash, and other mining and quarrying products, bakery products, chocolate and confectionery, pharmaceuticals, and fertilizers and insecticides.

99. In addition, ERP analysis can also be useful in determining the relative sensitivity of industries to various types of domestic distortions, such as administrative ("red tape") costs and the implicit tax that an inefficient service sector imposes on nontraded service inputs. The costs of these distortions are equivalent to those of tariffs and are captured by so-called tariff-equivalents. Increases in the tariff-equivalent of regulatory policies and inefficiencies in the provision of services have the same effect on the ERP that increases in tariffs have on traded inputs. Given the importance of services in the production process, it is clearly necessary to take into account the extent to which regulatory regimes raise the costs of services, thereby imposing a tax on manufacturing and agriculture.⁵² Unfortunately, there is no reliable and comprehensive data available to allow estimation of the appropriate "tariff equivalents." The calculations reported above assume that the "tariff equivalents" for inputs from the services sector are 0 percent. If these service "tariffs" are set at 10 percent, ERPs across industries are reduced, depending on the extent to which these services are inputs in the production process, and ERPs in two additional industries become negative: livestock, and printing and publishing materials.

D. The Real Exchange Rate

100. This section provides an overview of recent developments in the real effective exchange rate to assess in a qualitative fashion the potential impact of relative price movements on international trade. The bottom panel of Chart III-1 graphs the trade-weighted real effective exchange rate index (REER). This index, of course, is an imperfect measure of competitiveness since it is based on relative CPIs, which include nontraded goods also. However, the series is the only readily available indicator in the case of Jordan, given the difficulty of obtaining indicators of labor costs or traded goods prices.

101. After a sharp nominal and real depreciation in the late 1980s, the REER remained relatively stable over the period 1991–97. The dinar was de facto pegged to the dollar in October 1995, and the modest real appreciation since that time reflects the rise in the dollar against the Japanese yen, the German mark, and other international currencies. In 1997, the average REER stood at 7.0 percent over its 1994 average level.

102. As discussed above, the origin of imports and the destination of exports are quite different. Consequently, movements in this aggregate REER index may not accurately measure movements in export competitiveness. As imports are much larger in value than exports, the trade-weighted REER index places more weight on Jordan's import partners, which are mainly industrial countries. Jordan's export partners, however, tend to be regional countries, as well as developing and newly industrialized countries in Asia.

⁵²These costs are not limited to direct price-increasing effects. Insofar as their effect is to reduce quality of services, users are also confronted with an implicit increase in prices.

103. To circumvent this problem, it is necessary to examine the real exchange rate relative to key individual export partners. This exercise reveals that the real exchange rate vis-à-vis key trading partners has appreciated in recent years, chiefly as a result of nominal depreciations in these countries. The real exchange rate vis-à-vis Syria, for example, has appreciated by 39 percent since 1990, due to a nominal devaluation in 1995. There has been a modest (11 percent) appreciation relative to Saudi Arabia since 1990 (where the currency is also pegged to the U.S. dollar), reflecting the relatively higher inflation rate in Jordan.

104. Real exchange rates vis-à-vis several Asian countries have also appreciated, although most exports to this region are raw materials, and may be less sensitive to movements in prices. The real exchange rate vis-à-vis India, the most important export market in Asia, has appreciated by 42 percent since 1990, reflecting sizeable nominal depreciations beginning in 1991. Although real exchange rates vis-à-vis Indonesia and Korea remained relatively stable through the 1990s, they have appreciated sharply in recent months, reflecting the large depreciations of these currencies. Given the rise in the U.S. dollar, real exchange rates vis-à-vis several other countries have appreciated as well, although to a much lesser extent. In some cases, the Jordan dinar has depreciated in real terms in recent years; for example, the real exchange rate versus Egypt has fallen by 21 percent since 1990. Consequently, the appreciation of the REER constructed using export weights equals 9.8 percent since 1994, only slightly above the import-weighted figure.

105. This real appreciation, although modest, could affect export performance. To determine if this is the case, it is necessary to have a view on the price elasticity of demand for Jordan's exports.

E. An Econometric Analysis of the Trade Performance

106. The authorities have experienced some success during their adjustment program in liberalizing the trade regime, encouraging export growth, and improving the diversification of exports. One key question is why, despite the continuation of trade liberalization and structural reforms, the momentum of export growth has been difficult to sustain in recent years. To answer this question, this subsection examines the determinants of import and export performance suggested by a standard econometric models of international trade.

The model specification

107. The econometric model used on the export side combines demand factors (such as trading partner output growth) with supply factors (such as increases in domestic production capacity). Both factors are potentially important determinants of exports in Jordan. Ignoring constant terms, the external demand for exports is expressed as a log-linear function:

$$x^D = -\alpha(p_X - p_W) + \beta y_W, \quad (1)$$

where x^D denotes the volume of export demand; p_x , the price of domestic exports; p_w , the prices of trading partner goods; and y_w , trading partner output. The parameters α and β represent the price and income elasticities of export demand, respectively. The supply of exports is expressed in log-linear form as:

$$x^S = \lambda(p_x - p) + \theta k. \quad (2)$$

In this equation, x^S represents the volume of export supply and p represents the price of domestic goods (proxied by the CPI). To capture the effect of increases in domestic production capacity on exports, the equation includes k as a measure of the capital stock net of residential construction.⁵³ Setting $x = x^D = x^S$ and solving for x yields the following reduced form equation:

$$x = a(p_w - p) + by_w + ck, \quad (3)$$

where $a = \alpha/\Delta$, $b = \beta/\Delta$, $c = \alpha\theta/\lambda\Delta$, and $\Delta = (1 + \alpha/\lambda)$. The variable $p_w - p$ in this expression is the relative price of trading partner goods relative to domestic goods, and can be proxied by the trade-weighted, CPI-based real exchange rate. The coefficient on this variable will be insignificant if either the demand or supply price elasticity of exports is low. As the price and income elasticities of traditional and nontraditional exports may differ in magnitude, equation (3) will be estimated for both traditional and nontraditional exports.

108. The second equation estimated is a standard log-linear import demand equation:

$$m = \eta(p - p_M) + \tau y, \quad (4)$$

where m denotes import volume and y denotes domestic activity. The variable $p - p_M$ denotes the relative price of domestic goods (measured by the CPI) relative to that of imports; in the estimates below, the real effective exchange rate is also used to proxy this variable. The parameter η represents the price elasticity of imports, while τ represents the income elasticity of imports. The choice of a domestic activity variable will depend on the use of imported goods. To the extent that imports are raw materials or intermediate goods, domestic output will be an appropriate variable. To the extent that imports are consumer or capital goods, national income will be an appropriate variable.

⁵³Equation (2) may be thought of as a linearized version of the production function approach to measuring export supply, as described in Diewert and Morrison (1988).

Data preliminaries

109. Data to estimate these equations were taken from various sources. The export and import volume and price indexes were obtained from the *Monthly Statistical Bulletin* of the Central Bank of Jordan. The trading partner output series was obtained from the WEO database, while the real exchange rate series was taken from the Information Notice System. The domestic income series was obtained from the Department of Statistics at the Ministry of Planning, and from staff estimates (for recent years). The capital stock series was taken from the data set used in Section II. All equations were estimated with annual data over the period 1975–1996.

110. As can be expected, given the limitations of the dataset, the time series properties of the data were difficult to identify. Table III-4 contains the results of Augmented Dickey-Fuller tests for the stationarity of the variables used in the analysis. The total export volume series appeared to be trend-stationary. The traditional export volume series appeared to be stationary in levels, although at a low level of significance. The test rejected the unit root hypothesis for the import volume series in favor of both the level- and trend-stationary alternatives, but only at the 10 percent significance level in the case of level stationarity.

111. As for the independent variables, the relative price series also appear to be level- or trend-stationary, but only once a dummy variable was included to capture the effects of the 1989 devaluation.⁵⁴ The capital stock is stationary, while the unit root hypothesis cannot be rejected for either of the output series.

Parameter estimates

112. Table III-5 contains standard least squares estimates of the parameters in equation (3); in the presence of autocorrelation, the t-statistics were corrected as suggested by Newey and West (1987).^{55 56}

⁵⁴The inclusion of a dummy variable requires the critical values from Perron (1989).

⁵⁵Given the results of the unit root tests, the variables were tested for cointegration. These tests were generally passed, although occasionally at low levels of significance.

⁵⁶All equations contain a dummy variable to isolate the period 1986–89. The growing external imbalances during this period are not well captured by standard trade equations. Dummy variables to capture the effect of regional crises (for example, during 1990–91) turned out to be insignificant.

Table III-4. Augmented Dickey-Fuller Tests for Stationarity 1/

Series	I 2/	II 3/
Total export volume index	-1.81	-4.67 **
Traditional export volume index	-2.91 *	-1.61
Nontraditional export volume index	-1.64	-5.04 ***
Total import volume index	-2.78 *	-3.86 **
CPI-based real effective exchange rate 4/	-5.36 ***	-5.33 ***
Price of imports relative to the CPI 4/	-2.52	-4.08 **
Gross national income	-1.19	-2.23
Trading partner GDP	-1.71	-3.07
Capital stock	-3.92 ***	-3.15

Source: Fund staff calculations based on data provided by the authorities.

1/ All variables are in logarithms, and all tests include a lagged first difference term. ***, **, and * denote test statistics that are significant at the 1, 5, and 10 percent level, respectively.

2/ The alternative hypothesis is that the series is stationary.

3/ The alternative hypothesis is that the series is stationary around a trend.

4/ Includes a dummy variable to capture the devaluation in 1989.

Table III-5. Estimated Export and Import Elasticities 1/

		Elasticity w.r.t.		
		Price 2/	Income 2/	Capital Stock
I.	Export Equations			
	Total exports	-0.70 (-5.89)	2.02 (12.55)	0.90 (6.80)
	Traditional exports	... ...	2.33 (13.20)	0.78 (3.57)
	Nontraditional exports	-1.80 (-4.20)	1.64 (4.18)	... ...
II.	Equations for total imports			
	Price variable = CPI/price of imports	0.60 (2.82)	1.09 (9.68)	... ...
	Price variable = real exchange rate	0.17 (1.70)	1.35 (9.16)	... ...

Source: Fund staff calculations based on data provided by the authorities.

1/ t-statistics are in parentheses.

2/ As defined in the text.

For total exports, the real exchange rate elasticity is significant, but below unity. As an increase in the real effective exchange rate index used indicates an appreciation, the results indicate that a 1.0 percent appreciation would lower total exports by about 0.7 percent. The income elasticity is highly significant and large in magnitude, falling close to 2.0 in value; while the parameter on the capital stock suggests that domestic investment has had significant positive effects on total exports. To determine whether exports are more sensitive to movements in regional output, this equation was also estimated using two output indexes: one for OECD countries, and a regional index for the countries of the Middle East and North Africa. In this specification (not reported in Table III-5), the parameter on the regional index was similar to that reported in Table III-5, while the parameter on the OECD index became insignificant. This suggests that exports are more sensitive to movements in regional output, possibly because the share of nontraditional exports to regional countries is much higher.

113. The equation was then reestimated using volume indices for traditional and nontraditional exports as dependent variables.⁵⁷ The price elasticity of traditional exports was insignificant, and was thus dropped in the reported results. The income and capital stock elasticities remained significant. For nontraditional exports, the price elasticity was much higher, suggesting that movements in the real exchange rate have a significant impact. The income elasticity declined somewhat, while the capital stock became insignificant. This latter result perhaps reflects the drawbacks of using a measure of the aggregate capital stock, as disaggregated data on the capital of the traditional and nontraditional sectors is not available.

114. Table III-5 also contains estimates of equation (4). Two alternative relative price measures were used: the price of imports relative to domestic goods implied by equation (4), and the real effective exchange rate, for comparability with the export equations. In both cases, the elasticity is of the correct sign, small in magnitude, and significant (although only at the 10 percent level with the real exchange rate as the relative price variable). This may reflect the large share of food, oil, and raw material goods in total imports—items which may have low price elasticities. The income elasticities are highly significant and reasonable in magnitude, falling close to 1.0 in value; similar magnitudes were obtained when domestic output, rather than income, was used for y .

115. In an attempt to identify the impact of trade liberalization, the share of trade taxes to total imports was included on the right-hand side as a crude measure of trade distortions. Disappointingly, however, this variable was not significant, indicating that a more accurate variable is needed.⁵⁸

⁵⁷Attempts to estimate the export and import equations at a more disaggregated level proved unsuccessful, due to the volatility of the disaggregated trade series.

⁵⁸The absence of a trade distortion measure could bias the estimates of price and income elasticities.

F. Conclusions

116. The results reported suggest that movements in trading partner output are important determinants of domestic exports. This is consistent with Jordan's experience. Exports grow rapidly when the region booms and trading partner demand increases. Imports grow rapidly as well, as grants increase and Jordanian workers find employment abroad. These results highlight the benefits of diversifying export markets and reducing the vulnerability of the Jordanian economy to developments in the region.

117. Although relative price developments may still affect trade performance at the margin, their actual impact during 1994–97 in the data has been modest. The implications of price movements given current estimates are likewise small, implying that the 7 percent real appreciation since 1994 has lowered export growth by four percentage points over the past three years.

118. Nevertheless, the paper finds evidence that movements in relative prices do affect exports. Thus, when real exchange rate appreciates, as it has in recent years, structural measures to increase productivity, reduce labor costs, or increase labor flexibility, become important in maintaining the momentum of export growth—especially in the nontraditional export sector. These reforms can have an additional impact on exports, to the extent that they increase investment. The authorities are aware of these issues, and plan to maintain the pace of structural reforms in coming years.

119. Finally, the results reported here should be interpreted with care. The reported parameters were estimated using data over the past two decades; however, the parameters—and the price elasticities in particular—may have increased in recent years, as the composition of foreign trade has changed.

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IV. JORDAN: FINANCIAL SECTOR ISSUES AND DEVELOPMENTS

A. Introduction

120. Financial systems play a crucial role in promoting growth, through mobilizing savings, allocating capital, facilitating transactions, and easing risk management. However, as illustrated by the recent experiences of several Southeast Asian countries, financial systems are also subject to important vulnerabilities and their weaknesses can increase the risks associated with globalization. Financial sector issues and reforms have thus come to the forefront of policy agenda in many countries.

121. Since the late 1980s, Jordan's financial sector has been subject to extensive reforms aiming at improving its structure and efficiency. Progress so far includes, most notably, the introduction of market-based interest rates, the adoption of indirect instruments of monetary policy, the considerable strengthening of the regulatory and prudential framework for banks, and the liberalization of most financial transactions. However, despite a sounder banking system and a more liberal financial environment, progress has remained limited in a number of areas: the financial system is still dominated by a small number of banks and competition appears to be limited; the transmission of the changes in the interest rates targeted by the Central Bank into banks' interest rates is sluggish; the interbank market is thin; domestic capital markets for debt instruments are still at their infancy; and access to international capital markets remains scarce.

122. The purpose of this paper is to analyze recent developments in Jordan's financial sector, identify its strengths and remaining vulnerabilities, and discuss policy measures that would help its development and enhance financial intermediation in the context of globalized capital markets. The structure of the paper is as follows: Subsection B provides an overview of Jordan's financial reforms from the beginning of the 1990s through 1997. Subsection C focuses on areas where the reforms have been successful: the banking sector, in particular its regulatory and supervisory framework and its soundness, the stock market, and the recent debut in international capital markets. Remaining challenges for the future are covered in Subsection D. Envisaged reforms to further develop financial markets are presented in Subsection E. Subsection F proposes some concluding policy recommendations.

B. Financial Sector Reforms, 1989-97

123. Following the balance of payments crisis in the late 1980s, the authorities adopted various measures to enhance the effectiveness of monetary policy and restore financial stability through controlling liquidity expansion.⁵⁹ The measures included, inter alia: increases in the rediscount rate, T-bill rate, and reserve requirements on JD deposits; the

⁵⁹For a detailed description of these policies and reforms, see Maciejewski and Mansur (1996).

introduction of a 35 percent reserve requirement on foreign currency deposits; and the liberalization of deposit rates in September 1989 and lending rates in February 1990. Nevertheless, liquidity continued to grow at a fast rate in 1989 and 1991 (Chart IV-1). In response, the CBJ adopted new measures in 1992–93: (i) auctions for T-bills, previously sold at fixed rates, were introduced; (ii) reserve requirements for commercial banks were raised; (iii) a capital to credit ratio of 10 percent was enforced; (iv) the credit to JD deposit ratio was capped at 90 percent; and (v) a new one-year deposit facility with the CBJ was created in February 1993. Meanwhile, the regulatory framework was strengthened following the collapse of the Petra Bank in 1989. As a result, a number of regulatory measures on loan provisioning, capital-adequacy ratios and portfolio management were issued in 1992.

124. While the above measures helped strengthen monetary control and increase the role of market forces in the financial system, monetary policy continued to rely on direct instruments of monetary control, which hindered the development of market-based instruments to mobilize and allocate savings efficiently. As a result, the CBJ started moving towards indirect instruments of monetary control in late 1993.⁶⁰ As of September 1, 1993, weekly auctions of CBJ Certificates of Deposit (CDs) with maturities of 3 and 6 months were introduced. Progressively, the reliance on instruments of direct credit control diminished: the credit to deposit ratio was eliminated in 1994; deposit facilities at the CBJ were phased out as they came to maturity; and the capital to credit ratio was abolished. Moreover, to encourage the development of an interbank market, the CBJ excluded interbank deposits from the base subject to JD reserve requirements. Overall, the reforms implemented since 1989 were highly successful in restoring financial stability through improved management of liquidity in the system.

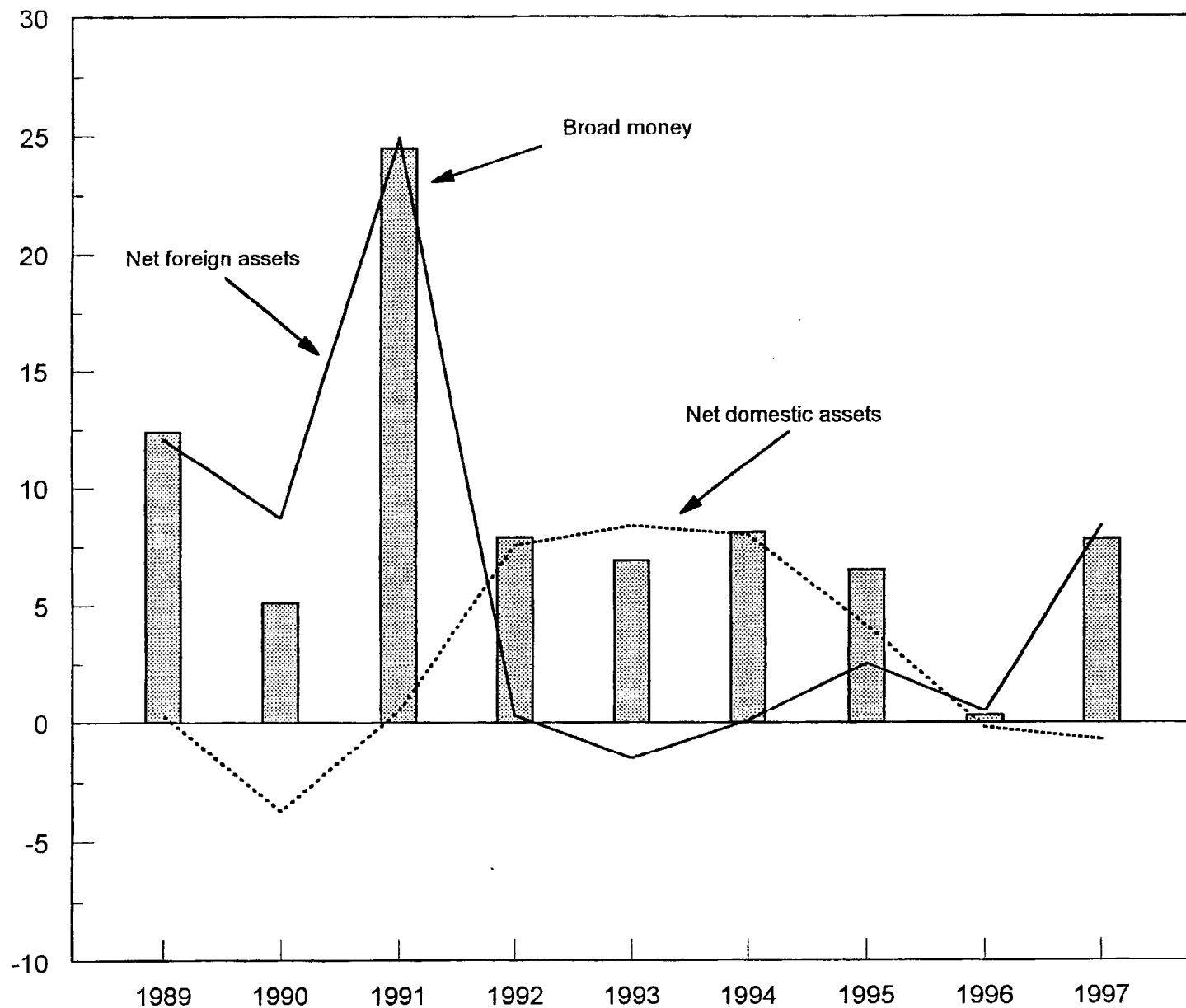
125. Efforts to reform the banking and financial sector intensified during 1995–97. The authorities formulated a more comprehensive strategy and started to implement reforms aiming at: (i) improving the efficiency of the banking system and enhancing competition among banking institutions by creating a level-playing field; (ii) further strengthening the banking prudential framework; and (iii) liberalizing and developing financial markets.

Measures to increase efficiency and competition in the banking sector

- In 1996, the CBJ's rediscount subsidies and preferential credit facilities were eliminated, except for the agricultural, handicrafts and export sectors.
- The prior approval requirement for foreign currency lending to exporters was eliminated in 1996. Moreover, commissions charged by banks were liberalized.

⁶⁰In mid-1993, an MAE mission technical assistance mission helped the CBJ in designing proposals for the reform of monetary policy instruments.

Chart IV-1
Jordan: Money, Net Foreign Assets and Net Domestic Assets, 1989-97
 (Annual change in percent of beginning of period broad money stock)



Source: CBJ.

- At end-1996, the CBJ introduced more flexibility in holding required reserves. Banks were permitted to maintain a daily minimum balance of 80 percent of their required reserves with the CBJ during a one-month maintenance period; the remaining 20 percent could be held on a period-average basis.
- In November 1996, to eliminate discrimination against the JD, reserve requirements on foreign currency deposits were lowered to 14 percent, the same as applied to JD deposits, and their remuneration was eliminated.
- Privileges of specialized credit institutions started being phased out. In 1997, the Housing Bank, by far the largest specialized credit institution, was commercialized and transformed in a regular commercial bank.
- In 1997, reserve requirements applied on investment banks were gradually increased to the same level applied to commercial banks.
- Steps started being undertaken to improve the payment system. At the retail payments level, check clearing was automated in mid-1997.

Measures to strengthen the prudential framework and bank supervision

- In 1995, the CBJ raised the minimum capital of banks to JD 20 million, effective by end-1997.
- The risk-weighted capital-adequacy ratio was raised progressively, from 8 percent to 10 percent on January 1, 1996, and further to 12 percent effective June 1997.
- The CBJ started taking steps to change reporting requirements for banks and bring them to internationally accepted standards.
- Off-site and on-site inspection of banks were strengthened.

Measures to liberalize and develop financial markets

- A new Investment Law was enacted in 1996 allowing equal treatment of domestic and foreign investors, and further opening financial markets to foreign participation.
- In the context of the Companies Law, adopted in 1996, measures were introduced to develop secondary markets.
- At end-1996, the distinction between residents and nonresident accounts for several types of operations was abolished for a number of transactions: residents and non-residents accounts in foreign currency were granted equal treatment; and banks were

permitted to manage investments in foreign currency for both residents and non-residents. Swap operations in foreign exchange were also permitted.

- In July 1997, a new Securities Law was enacted to improve the structure of the Amman Financial Market (AFM), Jordan's stock exchange. Steps were initiated for the automatization of trading, clearing, settlement and centralized depository systems.
- In July 1997, capital account transactions in capital markets securities and money market instruments were liberalized; virtually no capital account restrictions remain on these transactions.

C. The Financial System Today and Impact of the Reforms

126. Jordan's current financial system has been and still is largely dominated by commercial banks, while nonbank financial and securities markets continue to play a minor role. This is partly due to the fact that the authorities' reform efforts to develop financial markets have accelerated only in the second half of the 1990s. It is difficult to assess the impact of reforms described above, since developments in the financial system have been driven by other factors also, including the progress under the authorities' stabilization program, the uncertainties related to the political environment in the region, and, to a lesser extent, developments in other emerging markets. This Subsection focuses on three specific areas where tangible results of reforms have been witnessed: the banking sector, the stock exchange, and Jordan's integration with international capital markets. The discussion will also provide a brief overview of the banking sector given its prominent role.

The banking system

127. Jordan's licenced banks currently include 14 commercial banks, of which 5 are non-Jordanian, 5 investment banks, and 2 Islamic banks (one of which became operational as of February 1, 1998, as a subsidiary of a major bank). Jordan's banking system is quite concentrated, with the five largest banks accounting for 65 percent of the credit market and one half of the banks accounting only for about one sixth of it (Table IV-1).

Table IV-1. Jordan: Indicators of Banking Sector Concentration, 1997

(In percent of total)

	Lending	Deposits	Capital
Top five banks	65.0	69.0	60.0
Medium five banks	19.0	16.0	12.0
Smaller eleven banks	16.0	15.0	28.0

Source: CBJ.

128. Banks fund their activities mainly through deposits, which represent the largest share of banks' liabilities (more than 40 percent of total liabilities in 1997). In particular, deposits of residents in JD deposits expanded in 1997, against a contraction in foreign currency deposits. These developments reflected both strengthened confidence in the JD related to the strong economic performance under the authorities' stabilization and reform programs, and changes in the reserve requirements applied to foreign currency deposits.⁶¹ Meanwhile, capital and reserves and allowances strengthened considerably, reflecting tighter prudential regulations (see below). Increased confidence was also reflected in the maturity structure of private sector residents' deposits. The share of demand deposits in total deposits has declined considerably over the years, as the inflation performance improved; and the shares of saving and time deposits have essentially remained stable.

129. Banks assets represented more than 170 percent of GDP at end-1997 (Table IV-2). Balances with the CBJ in JDs have been growing considerably over the last five years, and in 1997 they represented almost 20 percent of total assets and more than 30 percent of GDP. Meanwhile, balances with the CBJ in foreign currency declined substantially, as a result of the change in the reserve requirements applied on foreign currency deposits as of end-1996. Credit facilities to residents (which include both the private and the public sector) represent the largest share of assets. Credit developments over the period 1990-97 are summarized in Chart IV-2. In 1997, growth of credit to the private sector increased despite an overall decline in total credit growth, due to a contraction in outstanding credit to the public sector. Banks' loans continued to be dominated by overdrafts (about 35 percent of total bank credit in 1997), although the maturity composition of loans and advances continued to improve, with credit extended for more than 12 months increasing to 31 percent of total credit. Credit distribution to economic sector was stable, and reflected the sectoral distribution of GDP (Statistical Appendix Table 13); lending in foreign currency to residents, while increasing in recent years, remained small as a share of total credit (see below).

Banks' regulatory and supervisory framework

130. Prudential regulations and banking supervision have been strengthened considerably in recent years. Developments in and current policies with regard to minimum capital and capital-adequacy ratios, liquidity requirements, lending concentration limits, loan grading and provisioning, and foreign exchange exposure are discussed below. Table IV-3 presents developments in the legal ratios applied to banks.

⁶¹These reserve requirements were lowered from 35 percent to 14 percent, and are no longer remunerated; as a result, banks lowered interest rates on foreign currency deposits.

Table IV-2. Jordan: Financial System Assets, 1989-97 1/

(In millions of Jordan dinars)

	CBJ	Commercial banks 2/	Assets		Social Security Corporation 4/	Capitalization Amman Financial Market	Memo item: GDP
			Specialized credit institutions 3/ with HB	w/o HB			
1989	1,358	3,780	957	...	308	946	2,372
1990	1,632	4,090	1,029	...	366	1080	2,668
1991	2,019	5,599	1,208	...	434	1198	2,855
1992	2,013	6,311	1,397	...	490	1396	3,493
1993	2,790	6,748	1,312	...	575	1582	3,802
1994	3,114	7,528	1,400	415	665	1838	4,201
1995	3,288	8,430	1,551	426	748	2077	4,655
1996	3,414	8,858	1,569	414	865	2364	5,147
1997	3,695	9,679	... 5/	417 5/	991	2738	5,606
As a share of GDP							
1989	57.2	159.4	40.4	...	13.0	39.9	
1990	61.1	153.3	38.6	...	13.7	40.5	
1991	70.7	196.1	42.3	...	15.2	42.0	
1992	57.6	180.7	40.0	...	14.0	40.0	
1993	73.4	177.5	34.5	...	15.1	41.6	
1994	74.1	179.2	33.3	9.9	15.8	43.7	
1995	70.6	181.1	33.3	9.2	16.1	44.6	
1996	66.3	172.1	30.5	8.0	16.8	45.9	
1997	65.9	172.7	...	7.4 6/	17.7	48.8	

Source: CBJ Bulletin, various issues.

1/ Effective December 1993, data were reclassified according to new definitions.

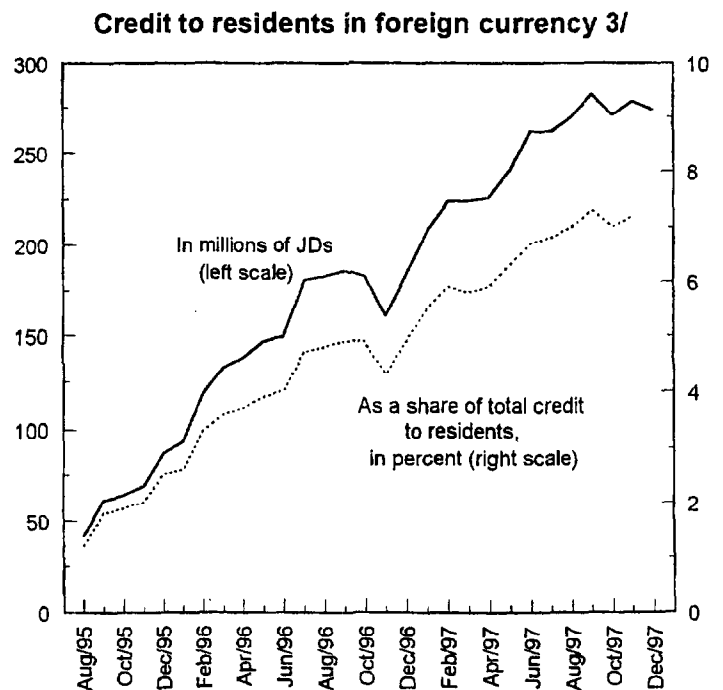
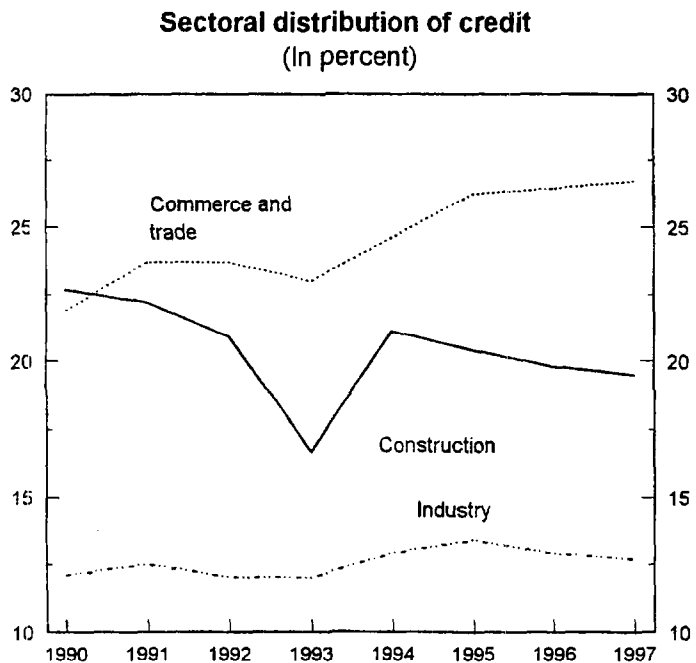
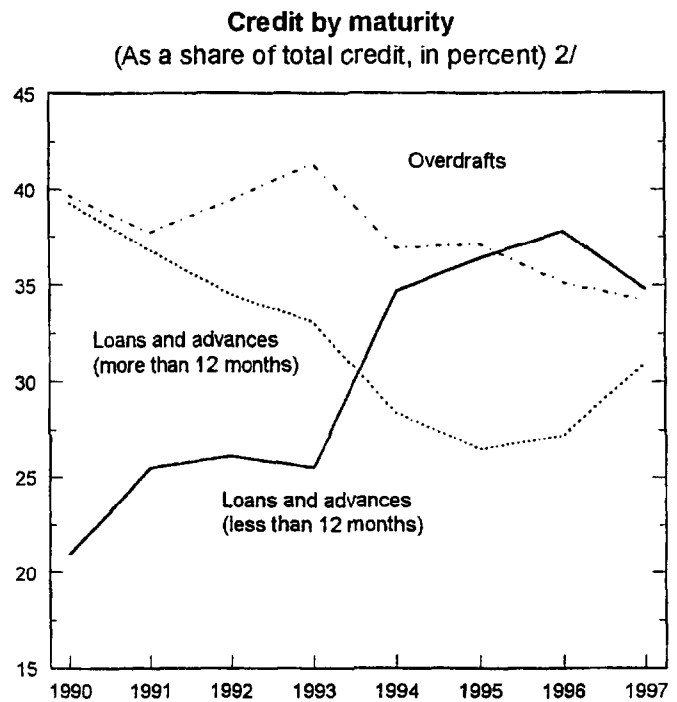
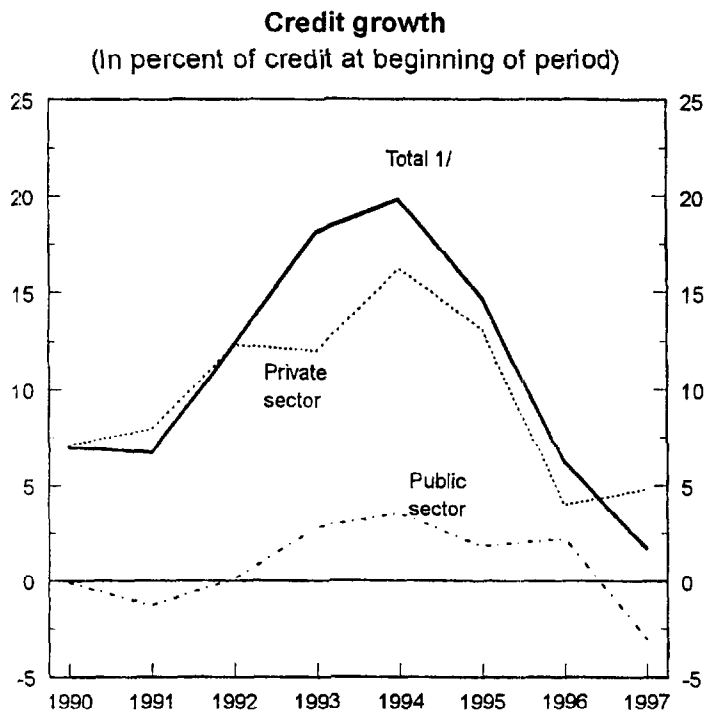
2/ Includes commercial banks, investment banks, and the Housing Bank (HB).

3/ The Housing Bank (HB) used to be considered a specialized credit institution. However, the consolidated balance sheet of licensed banks also included it. In 1994, it was decided to exclude it from the latter group.

4/ Created in 1980.

5/ Data refer to September 1997.

Chart IV-2
Jordan
Credit Indicators, 1990-97



Sources: CBJ Bulletin, various issues; and data provided by the authorities.

1/ Total credit is the sum of credit to private and public sector and a residual component, not shown.

2/ Excludes bills discounted.

3/ Allowed as of August 1995.

Table IV-3. Jordan: Major Legal Ratios on Licensed Banks, 1989-97

	Reserve ratio			Liquidity ratio		Credit to deposits ratio 2/		Capital to deposits ratio	
	in JD	Actual in JD	in FC 1/	Min. legal	Actual	Max. legal	Actual	Min. legal	Actual
1989	11.0	11.6	35.0	30.0	51.8	70.0	52.4	7.5	11.6
1990	11.0	10.1	35.0	30.0	50.4	70.0	54.1	7.5	11.8
1991	11.0	11.1	35.0	30.0	66.5	70.0	39.1	7.5	9.2
1992	13.0	11.9	35.0	30.0	65.2	70.0	38.9	7.5	7.2
1993	15.0	15.4	35.0	30.0	59.6	70.0	44.0	7.5	9.8
1994	15.0	14.8	35.0	30.0	55.5	...	...	7.5	9.5
1995	14.0	16.1	35.0	30.0	53.1	...	...	7.5	10.0
1996	14.0	13.1	14.0 2/	30.0	53.1	...	...	7.5	10.8
1997	14.0	17.1	14.0	30.0	56.7	...	...	7.5	16.5

Source: CBJ.

1/ Deposits of residents in foreign currency (FC) were allowed as of May 1989.

2/ The credit to deposit ratio was abolished in 1994.

3/ Effective as of November 1996.

131. The **minimum required capital for domestic banks** was raised by the CBJ in 1995, from JD 10 million to JD 20 million, while branches of foreign banks were encouraged to raise their capital from JD 5 million to JD 10 million. To comply with the new regulations by June 1997, one merger between two banks took place, and another bank is now merging with a financial company to strengthen its capital position. In 1997, the Housing Bank raised capital abroad for US\$162 million. The **minimum capital-adequacy ratio** (as a percentage of risk-weighted assets) was also raised, from 10 percent to 12 percent by end-1997. The average for the total banking sector is above this benchmark (Table IV-4).⁶² The applied risk weights seem to be generally within the ranges recommended by the Basle Capital Accord. However, some weights tend to be on the low end of the required ranges: for example, domestic treasury bills are assigned a zero risk weight, compared to a 10 percent weight applied in other countries; and all cash balances with the CBJ, regardless of the currency of denomination, have a zero weight, while the Basle Accord recommends foreign currency deposits held with the central bank to have a risk weight of up to 50 percent.

132. The CBJ applies a 30 percent minimum **liquidity requirement**, that is, 30 percent of total deposits has to be kept in liquid assets (including, inter alia, cash, balances with the CBJ, and government or government guaranteed securities maturing within a maximum of one year). The effective liquidity ratio is well above this benchmark (Table IV-3), despite the fact that liquid balances with the CBJ are not remunerated.

133. As to **lending concentration limits**, credit to a single borrower cannot exceed 25 percent of a bank's paid-up capital and statutory reserves; the CBJ is currently considering lowering this ceiling to 15 percent of capital, in line with the practice in OECD countries. In any case, as a rule banks have to seek the CBJ approval for credit to a borrower exceeding 10 percent of capital; for such cases, banks have to provide comprehensive information on the prospective borrowers.⁶³ In the past, requests for loans exceeding the legal limits for certain public and private companies were approved, when the loan financed a project that was considered beneficial for the country. In case of violation, an amount equivalent to up to 50 percent of the excess credit has to be placed in an interest-free account with the CBJ until the exposure is reduced. For connected lending, banks have to seek approval for lending more than JD 1,000 to a member of their board of directors; each board member cannot be lent more than 5 percent of capital, and total lending to board members is limited to 25 percent of capital. Moreover, connected companies cannot receive loans in excess of 10 percent of capital.

⁶²The rules for the calculation of this ratio were issued in April 1992. Since then, they were modified twice, the last time in 1997.

⁶³ The CBJ is considering eliminating the approval procedure; banks' compliance will be monitored through supervision. Moreover, a unit at the CBJ collects information on all loans exceeding JD 30,000.

Table IV-4. Jordan: Some Indicators of the Soundness of the Banking System

(In percent, unless otherwise indicated)

	1993	1994	1995	1996	1997
Portfolio performance					
Average return on equity	...	1.7	1.2	1.2	...
Average return on assets	...	16.5	18.5	18.3	...
Capital adequacy					
Total capital (in millions of JDs)	222	241	265	291	391
Total capital/Total assets	3.3	3.2	3.1	3.3	4.0
Risk-weighted capital asset ratio average ^{1/}	15.4	14.4	15.4	16.9	...
Minimum	8.3	10.3	11.0	11.1	...
Maximum	46.5	35.0	35.0	38.0	...
Official risk indicators					
Nonperforming loans (in millions of JDs) ^{2/}	238	174	160	...	...
Total provisions (in millions of JDs) ^{3/}	85	109	124	...	...
Total provisions/Non-performing loans	35.7	62.6	77.5	...	...
Share of non-performing loans in total credit to private sector ^{1/}	10.3	6.3	5.0	...	...
Financial sector risk factors					
Total deposits in foreign currency (in millions of JDs)	514	588	783	836	839
Share of deposits in foreign currency in total deposits	15.0	15.6	19.0	19.8	18.3
Share of lending in foreign currency in total private sector credit ^{4/}	0.0	0.0	2.7	5.5	7.7
Share of real estate sector in private credit	16.7	21.1	20.4	19.8	19.5

Source: Central Bank of Jordan.

^{1/} Risk weights are within the ranges recommended in the Basle Capital Accord.

^{2/} Nonperforming loans are defined as loans whose interest is past due more than 180 days.

^{3/} Includes data on general and specific provisions, not available separately.

^{4/} Lending to residents in foreign currency was allowed as of August 1995.

134. **Loan grading and provisioning** rules apply as follows, according to the current regulation. Loans past due up to 180 days are rated as good loans, and are provisioned for 1–2 percent of the principal balance not covered by cash deposits or by government or first-rate bank guarantees. Loans past due between 180 and 360 days are rated as nonperforming loans, and banks are obliged to provision against them for 50 percent of the loan amount not covered by collateral; the accrual of interest is suspended. Loans past due more than 360 days are rated as doubtful loans, and banks have to provision in the first year 100 percent of the portion not covered by an acceptable cash, real estate or in-kind guarantee. After the first year and during a period not exceeding the fifth year, banks are required to increase the provision gradually up to 100 percent of the whole loan amount regardless of guarantees, unless the loan is repaid. A loan that cannot be repaid according to a court deliberation is classified as a dead loan, and a 100 percent provision is immediately required.⁶⁴ In case of insufficient provisioning, a bank has to comply within a five years period; in the meantime, no profits can be distributed. However, in practice it has taken between 6 to 12 months to bring provisions within the required limits.

135. The CBJ applies zero **foreign exchange exposure** limits for on-balance-sheet items of banks, that is, there can be no mismatch between the amounts of assets and liabilities denominated in foreign currency. However, according to the new foreign exchange regulations introduced in July 1997, the CBJ allows a limited exposure of 15 percent for contingent liabilities; for example, for letters of credit. Banks are entitled to keep foreign currency holdings equivalent to the maximum of either JD 1 million or 15 percent of their contingent liabilities, whichever is smaller. Amounts in excess should be sold to other banks or to the CBJ within one week after the excess occurs. Banks are also permitted to engage in the following transactions for their customers: management of investment portfolios, joint funds in foreign currency, and dealing in foreign currency on the basis of swaps of assets. Forward transactions in the foreign exchange market are restricted; banks can engage in forward contracts for sales of JDs and bank forward sales of foreign currency are allowed only for payments of imports. Banks cannot use more than 50 percent of their foreign currency liabilities for foreign currency loans, foreign currency bonds (above the BBB Standard and Poor rating) and bonds and money instruments issued in foreign currency by the Jordanian government or by Jordanian companies either inside or outside Jordan. As to

⁶⁴ The following are the valuation rules for non-cash collaterals: (i) motor vehicles, machines and equipment are valued at 70 percent of their estimated market value, after applying an annual depreciation rate of 15 percent of their book value; (ii) traded stocks and securities are valued at 75 percent of the closing prices on specified dates; and (iii) real estate collateral is valued at the minimum between 75 percent of the estimated value of the property and the value of the mortgage plus interest accrued as of the mortgage date (not exceeding the loan amount). The seizure of real estate collateral usually takes a minimum of six months after the court decision to liquidate it (for example, its sale has to be announced in a newspaper three times; usually, banks prefer not to resort to such action).

foreign currency credit to residents, it has to be approved by the CBJ in case there is not an underlying export transaction; credit in foreign currency has increased over time, but it is still much lower than credit in JDs (Chart IV-2).

136. Regarding **on-site inspection and off-site surveillance**, the CBJ is actively improving its banking supervision department, which currently employs more than 50 inspectors. They conduct on-site inspection of all banks once a year. A detailed written report is compiled for each inspection, and a summary report is sent to the bank. A unit at the CBJ monitors the action taken by the bank to correct any noted deficiency and follows up on external audit reports. A detailed and upgraded manual for compiling the written inspection report is being introduced. Moreover, banks are required to report various indicators to the CBJ for off-site surveillance purposes, including annual and semi-annual complete balance sheets externally audited, income statements, nonaccrual loan reports, grading reports on a biannual basis, and weekly returns for liquidity and reserve requirements. The CBJ has issued guidelines to ensure uniform reporting of data. In this regard, the CBJ is also working toward implementing the CAMEL rating system,⁶⁵ both for in-site and off-site supervision.

Indicators of banking soundness

137. As a result of the reforms in the prudential regulations, Jordan's banking system has strengthened considerably during the 1990s; the CBJ considers it to be relatively sound. Some indicators of banking soundness presented in Table IV-4 for the period 1993–97 provide the following evidence:

- The capital base of banks has been enhanced considerably over the past few years. The level of capital almost quadrupled since 1989 and almost doubled since 1993 (Statistical Appendix Table 14); as share of total assets, capital increased from 3.3 percent to 4 percent over the period 1993–97. The average risk-weighted capital adequacy ratio was well above the minimum 8 and 10 percent, as required through 1993 and 1996, respectively. The minimum ratio was increased to 12 percent effective by June 1997; although final data are not yet available for that year, the CBJ confirmed that all banks complied with that minimum.
- Nonperforming loans have declined over the years, and amounted to 5 percent of total loans in 1995, down from more than 10 percent in 1993. Meanwhile, the share of general provisions has increased considerably, and amounted to about 78 percent of nonperforming loans in 1995.⁶⁶

⁶⁵The CAMEL system is widely used in OECD countries. It is based on a number of indicators aiming at assessing the capital adequacy, asset quality, management, earnings/profitability, and liquidity of banks.

⁶⁶Data on specific provisions were not available.

- Credit concentration risk remains limited, as the credit distribution broadly reflects the sectoral composition of GDP.
- Exposure to the real estate sector appears to be limited. This, coupled with a low inflation in asset prices (despite a temporary boom in the AFM during the summer of 1997), and a low level of leverage in the economy, could indicate that the risks of a systemic crisis in Jordan have so far been contained.⁶⁷
- Information on the asset-liability maturity mismatch is not available. In principle, it is also difficult to measure it, since most credit is extended in the form of overdrafts, which do not have a specific maturity.⁶⁸
- The CBJ monitors banks' exposure to foreign currency risk. Although data on bank's off-balance sheet positions were not available, the CBJ indicated that banks' off-balance sheet operations were restricted.⁶⁹

The stock market

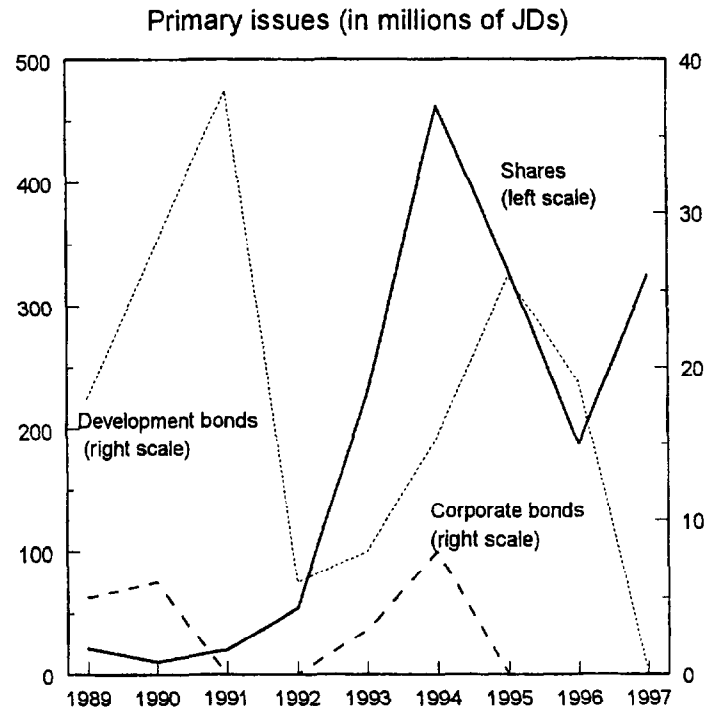
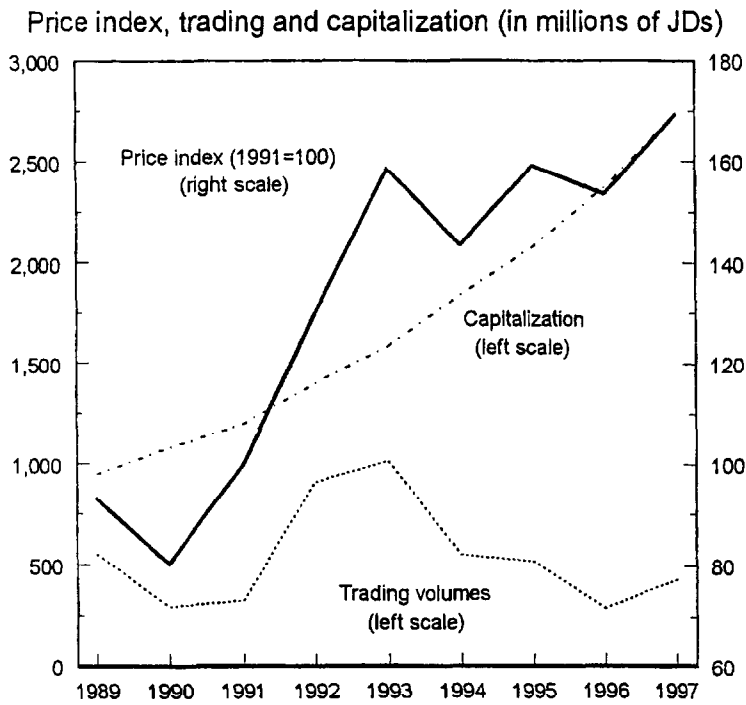
138. The Amman Financial Market (AFM), Jordan's stock exchange, was created in 1976 and is owned and run by the government. It is one of the largest markets in the region in terms of capitalization, reaching almost US\$4 billion at end-1997, equivalent to 50 percent of GDP, although its trading activities remain limited. Currently, 114 companies are listed. A boom in its activities took place in 1992-93, which reflected mainly increased trading related to the return of expatriate Jordanians following the Gulf war; afterwards, growth in its trading activities decelerated on account of political uncertainties in the region, and possibly lack of investment opportunities (Chart IV-3 and Table IV-5). In 1997, the total number of traded shares did not increase over the 1996 level, and it was still less than a third of the level registered in 1992, the boom year. However, the price index (weighted by the number of shares traded) increased by about 10 percent from 1996, reflecting increased demand mainly in the banking and finance sectors. As a result of higher prices, the value of trading rose to JD 304 million, an increase of more than 40 percent from 1996.

⁶⁷After the collapse in 1989 of the Petra Bank (the second largest bank at the time; for details, see Maciejewski and Mansur, 1996), there has been another episode of bank failure. The bank involved was taken over in 1997 by another major bank, with no consequences for depositors.

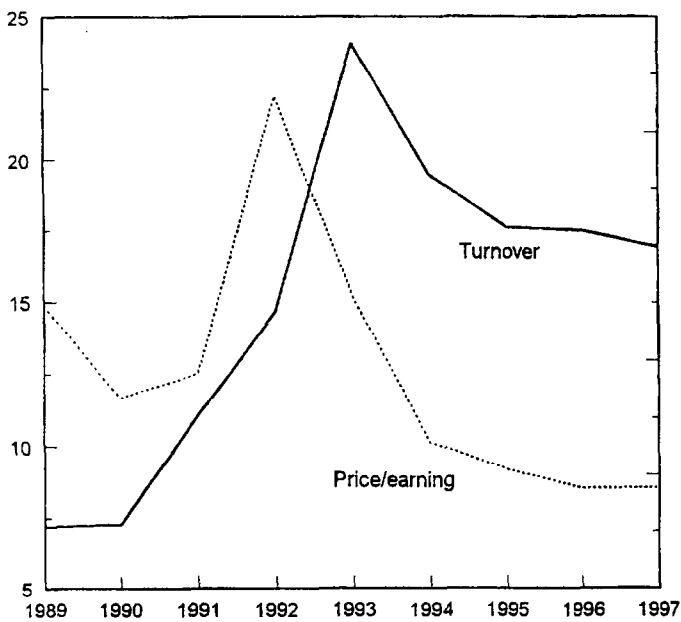
⁶⁸Overdrafts averaged about 35 percent of total credit over the period 1994-97.

⁶⁹The CBJ has one off-balance sheet position from an operation with a domestic bank for an amount of JD 5 million (about US\$7 million)

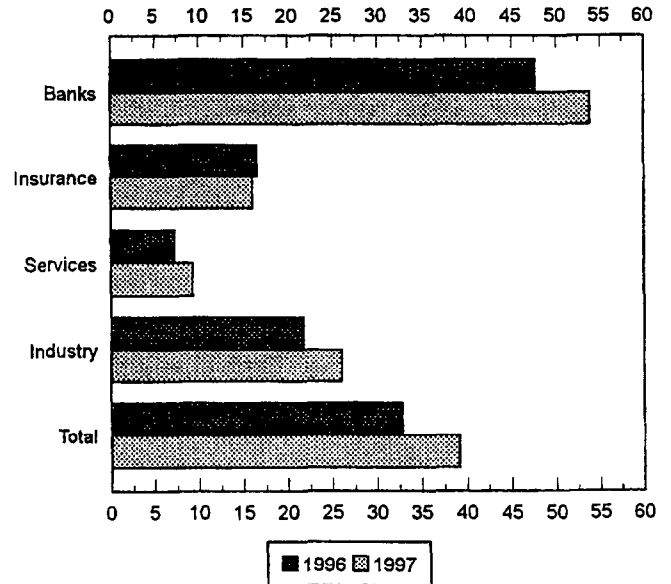
Chart IV-3
Jordan
Amman Financial Market Indicators, 1989-97



Aggregate price/earning and turnover ratios



Foreign ownership by sector, 1996-97
(In percent)



Source: Data provided by the authorities.

Table IV-5. Jordan: Amman Financial Market Indicators, 1989-97

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Value of Trading (In million of Jordan dinars)									
Manufacturing and mining	240.3	158.0	177.8	527.8	510.1	165.7	123.1	82.0	102.8
Banking and finance	85.5	71.2	75.5	202.8	282.6	186.8	149.6	83.1	165.4
Services	31.6	30.8	34.4	123.8	107.8	70.0	82.0	42.5	31.4
Insurance	7.8	6.4	4.8	25.3	32.9	7.8	7.4	3.1	4.5
Total	365.2	266.4	292.4	879.8	933.4	430.3	362.1	210.7	304.1
Number of Traded Shares (In millions)									
Manufacturing and mining	129.7	71.0	80.8	167.2	116.3	47.8	50.6	53.3	47.0
Banking and finance	28.1	23.5	35.9	80.7	69.9	56.8	44.8	29.3	37.4
Services	30.8	36.4	37.5	87.6	49.2	27.0	27.2	17.6	15.4
Insurance	4.0	3.5	2.6	9.4	8.9	2.3	2.5	1.1	1.9
Total	192.6	134.4	156.8	344.8	244.3	133.8	125.1	101.3	101.7
Traded Shares Price Index 1/ (1991=100)									
Manufacturing and mining	83.1	73.1	100.0	145.2	154.2	128.1	130.0	116.2	115.5
Banking and finance	106.9	92.8	100.0	115.6	164.2	157.8	188.3	194.4	232.3
Services	93.5	80.1	100.0	161.3	143.7	131.4	129.9	115.3	116.6
Insurance	91.3	77.1	100.0	144.0	159.8	138.2	130.8	120.8	122.9
General Index	93.3	80.4	100.0	129.9	158.5	143.5	159.2	153.5	169.2

Source: Amman Financial Market.

1/ Weighted by the number of traded shares; annual averages.

139. A number of factors could explain the gained momentum in 1997 and are likely to help foster activity in the AFM in a durable fashion, together with other reforms in the pipeline (Subsection D).

- A Securities Law separating the technical and regulatory functions related to the stock market was enacted in June 1997. The law instituted the Jordan Securities Commission (JSC) which has supervisory authority over the operations of the stock market and reports to the Council of Ministers. Under the law, four other institutions are being established: (i) a private sector stock exchange (JSE), which will be the only agency authorized to operate as a formal market for trading securities in Jordan; (ii) a private sector depository (JSD) that will operate as a clearing house and bookkeeper; (iii) an institute that will provide training on dealing in securities; and (iv) an association that will represent participants in the securities industry in its relations with the JSC.

- In July 1997, the regulations limiting foreign ownership to 50 percent of equity in the banking, insurance, transportation, telecommunications and agricultural sectors were lifted. As a result, foreign participation in the equity market increased (Chart IV-3).

- Moreover, the increase in stock prices was also induced by expectations that shares in government held companies (for example, the Jordan Cement Factory) would be floated in the AFM as an initial step toward their privatization.

Debut in international capital markets

140. Until mid-1997, there had been no access to international capital markets, apart from a Eurobond issue in September 1995 for US\$50 million by the Jordan Telecommunication Corporation guaranteed by the World Bank. However, two corporate issues in international capital markets took place in 1997:

- In July, the Jordan Phosphate Mines issued a five-year floating rate Eurobond for US\$100 million, with a spread of about 150 basis points over LIBOR. The issue was fully subscribed, although mainly by domestic banks and financial institutions in the region (US\$55 million were subscribed by non-Jordanians). It seems that the tight spread and the still below investment grade credit rating carried by Jordan (BB- according to Standard and Poor) was a deterrent to attract more interest by non-Arab investors.

- In December, the Arab Potash Company issued global depository receipts (GDRs) for about US\$33 million. The price of each GDR was US\$9.03, in line with the price of the share in the AFM at that time, and not at a premium. The issue of the first Jordanian international equity offering was oversubscribed, mainly due to demand from European investors.

141. The two corporate issues were a breakthrough in tapping international capital markets, despite the still low participation by non-Arab investors, and the limited size of the issues which may hamper liquidity of these instruments in the secondary markets. In the future, improved financial disclosure rules (see Subsection E) and the planned issuance of a sovereign Eurobond should help in attracting the interest of foreign investors in Jordanian securities.

D. Challenges Ahead in the Financial Sector

142. Despite the considerable progress in the development of the financial system since 1989, the transmission of monetary policy into banking rates remains slow, interbank market is still limited, and capital markets are nascent.

The slow transmission of monetary policy

143. There is a shortage of reliable data on interest rates in Jordan which may hinder the analysis of the developments in bank rates. The only published data for both deposits and lending rates are the announced minimum and maximum levels;⁷⁰ moreover, it appears that Jordanian banks are somehow reluctant to officially publish reference rates such as the prime rate, reportedly for fear that all customers would demand such favorable rate. It is thus difficult to assess the developments in interest rates due to the lack of comprehensive published data.⁷¹

144. Two major facts emerge from an analysis of the available data on interest rates. First, since the implementation of the early reforms in 1989, there has been a lack of flexibility in bank interest rates, and the spread between lending and deposit rates has tended to widen or remain constant over the years (Table IV-6). For example, data in Table IV-6 show that the spread between maximum lending and deposit rates (for 12 months maturity) increased from 4.75 to 5.75 between end-1993 and end-1997, while the spread between the minima of the same rates remained constant at 4 percent.

⁷⁰This practice has led to the some confusion. For example, data in the CBJ Bulletin indicate that demand deposit rates range from 0 to 5 percent, although demand deposits typically do not earn interest in Jordan.

⁷¹For example, a bank indicated that a reduction of 1 ½ percent in its maximum announced rate corresponded to a decrease in its average rate of only ½ percent.

Table IV-6. Jordan: Deposit and Lending Rates Announced by Banks, 1993-97

(In percent)

	Deposit rates 1 month		Deposit rates 12 months		Lending rates 1/ (within 12 months)		Lending rates 1/ (over 36 months)		Spreads 2/ (12 months)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1993 March	3.00	8.25	5.50	8.75	9.75	14.00	10.00	14.25	4.25	5.25
June	3.00	8.25	5.50	8.75	10.00	14.00	10.00	14.25	4.50	5.25
Sep.	3.00	7.75	5.00	8.13	9.00	13.00	10.00	14.25	4.00	4.87
Dec.	3.00	7.75	5.00	8.25	9.00	13.00	10.00	14.25	4.00	4.75
1994 March	3.00	7.75	5.00	8.25	9.00	13.00	10.00	14.25	4.00	4.75
June	3.00	7.75	5.00	8.25	9.00	13.00	9.00	14.25	4.00	4.75
Sep.	3.00	7.75	5.00	8.75	9.00	13.00	9.00	14.25	4.00	4.25
Dec.	3.00	7.50	5.00	8.75	9.00	14.00	9.00	14.50	4.00	5.25
1995 March	3.00	7.50	5.00	9.00	9.00	14.00	9.00	14.50	4.00	5.00
June	4.00	7.50	5.00	9.00	9.00	14.00	9.38	14.25	4.00	5.00
Sep.	4.00	7.50	5.00	9.25	9.00	14.00	9.50	14.25	4.00	4.75
Dec.	4.00	8.50	5.00	9.25	9.00	14.00	9.50	14.25	4.00	4.75
1996 March	4.00	9.00	6.00	9.50	9.50	15.00	9.75	17.00	3.50	5.50
June	4.00	9.50	6.00	9.75	9.50	15.00	9.75	17.00	3.50	5.25
Sep.	6.00	9.50	6.00	10.00	9.50	15.00	9.75	17.00	3.50	5.00
Dec.	6.00	10.00	6.00	10.10	9.50	15.50	9.75	17.00	3.50	5.40
1997 March	6.00	10.50	6.25	10.50	10.25	16.00	10.50	16.50	4.00	5.50
June	6.00	10.50	6.25	10.50	10.25	16.00	10.50	16.50	4.00	5.50
Sep.	6.50	10.50	6.75	10.50	10.25	15.50	10.50	16.00	3.50	5.00
Dec.	6.50	10.00	6.75	9.75	10.75	15.50	8.00	16.00	4.00	5.75

Source: CBJ Bulletin.

1/ A commission ranging from 0.25 to 1 percent is usually applied.

2/ Computed as the difference between the lending rate (within 12 months) and the deposit rate (12 months).

145. Second, the recently experienced sharp decline in CD interest rates, the main instrument of monetary policy has not been fully reflected in bank rates (Box IV-1). While interest rates on CDs declined by about 300 basis points over the period June-December 1997, lending rates started to decline only toward the end of the year, and only by 100–150 basis points. The following are possible reasons for the inflexibility of banking rates and the lack of transmission from lower CD rates into banking rates:

- The high level of concentration in the banking system may imply that competition in the banking sector is limited, and the banks' lending policy may be dictated by a few banks. This lack of competition may be responsible for constant or even increasing bank rate spreads and sluggish interest rate adjustments.
- Banks fund their lending activities mainly through their deposits (the share of private sector credit over private sector deposits averaged more than 85 percent over the period 1994–97). As a result, banks cannot afford to reduce the remuneration on deposits for fear of losing them. Moreover, since time deposits, which represented about 65 percent of total residents' deposits in 1997, have a fixed remuneration until they expire, banks are not in a position to immediately lower their cost of funds. Accordingly, banks lower their lending rates with a time lag.
- The tightening of prudential regulations may have induced banks to keep higher lending rates to allow them to increase their provisions and reserves. In the same vein, the increase in (unremunerated) reserve requirements since 1989 may have had an impact on interest rate margins, since they represent a cost that has to be absorbed by the bank.
- Given the uncertain regional environment, banks might consider the recent declines in CD rates to be temporary. Under the circumstances, they may prefer liquid cash reserves to increased lending.
- After a prolonged period of stable CD rates, banks might have been slow in reading market signals, and thus reacted slowly to lower CD rates.
- While the announced ranges for interest rates did not change much over the second half of the year, it is not clear whether these ranges reflected prevailing rates on existing loans or rates applied to new loans.

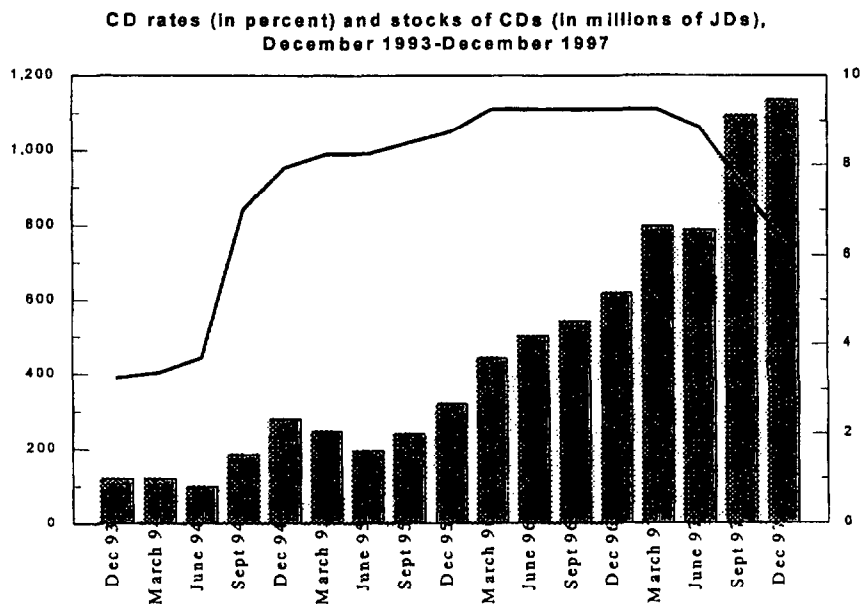
Box IV-1. The Use of CBJ Certificates of Deposit

Background. Certificates of deposit (CDs) have been used flexibly to strengthen confidence in the JD. Starting in mid-1994, as Jordan began to experience increasing difficulties in building up foreign exchange reserves due to uncertainties in the region and pressures emanating from the redemption of the JD in the West Bank (with related spillover effects into Jordan itself), both stocks of and interest rates on CDs were increased rapidly.

Regulation and maturity structure. Only licenced banks can purchase CDs. No foreigners or non-bank domestic residents are allowed to buy CDs. The maturity of CDs is 3 months and 6 months. Starting in September 1997, also 12-month CDs have occasionally been issued.

Auction mechanism. The CD auction mechanism was gradually transformed from a regular quantity auction to a sale of instruments at a desired interest rate (the one deemed by the CBJ consistent with the objective of strengthening the foreign exchange reserve position). As a result, for one and a half years (January 1996 through June 1997) interest rates on CDs did not change, and were held constant at 9.25 and 9.50 percent for 3-month and 6-month CDs respectively; the CBJ stood ready to meet all the bids received at those rates. As foreign exchange reserves in 1997 rose to comfortable levels (far exceeding the authorities' objective for the whole year), the auction mechanism was improved. First, bi-weekly auctions replaced weekly issues as of late April to induce banks to diversify the management of their liquidity and help develop the interbank market. Second, in June the auction was changed back to a regular quantity auction, where the quantity is preannounced and the price is market-determined; as a result, interest rates started to decline. Third, in addition to lengthening the maturity structure of CDs, the CBJ started to implement procedures necessary for the trading of free delivery versus payment in order to activate an interbank secondary market.

The chart shows developments in total stock of CDs (bar chart, left scale) and 3-month CD rates (line, right scale) for the period December 1993-December 1997 (Source: CBJ Bulletin).



Limited interbank market

146. The interbank market in Jordan is quite shallow, as indicated by the volatility of the interbank rates and the volume of transactions (Chart IV-4), although there appear to be no major institutional obstacles to its development. Until early 1997, the tight monetary policy pursued by the CBJ was a factor in limiting the development of an interbank market, since any amount of excess liquidity was promptly syphoned by the CBJ through issues of CDs. In principle, the situation should have started to change since late April, when the CBJ moved from weekly to bi-weekly auctions (Box IV-1). This should have induced banks to use the interbank market for management of their liquidity and should have also activated the secondary market for short-term securities, for example through repurchase agreements. Moreover, during the second half of 1997, the CBJ reduced the size of its sterilization interventions, thus allowing excess reserves to accumulate in the banking system. However, despite the larger amounts of liquidity, banks still refrained from using the interbank market more actively (or increasing their lending).⁷²

147. The reasons for limited activity in the interbank market may be found in a certain reluctance by larger banks to lend funds in the interbank market, apparently for concerns about becoming permanent providers of funds and thus creating dependence by smaller banks, and for lack of information on counterpart risk.⁷³ Another factor that may hinder the development of a more active interbank market is the lack of an efficient payment system, especially for large-value transfers which are highly labor-intensive and costly. Currently, every transfer has to be hand-delivered to the CBJ, where the corresponding transaction is manually registered.

Nascent capital markets

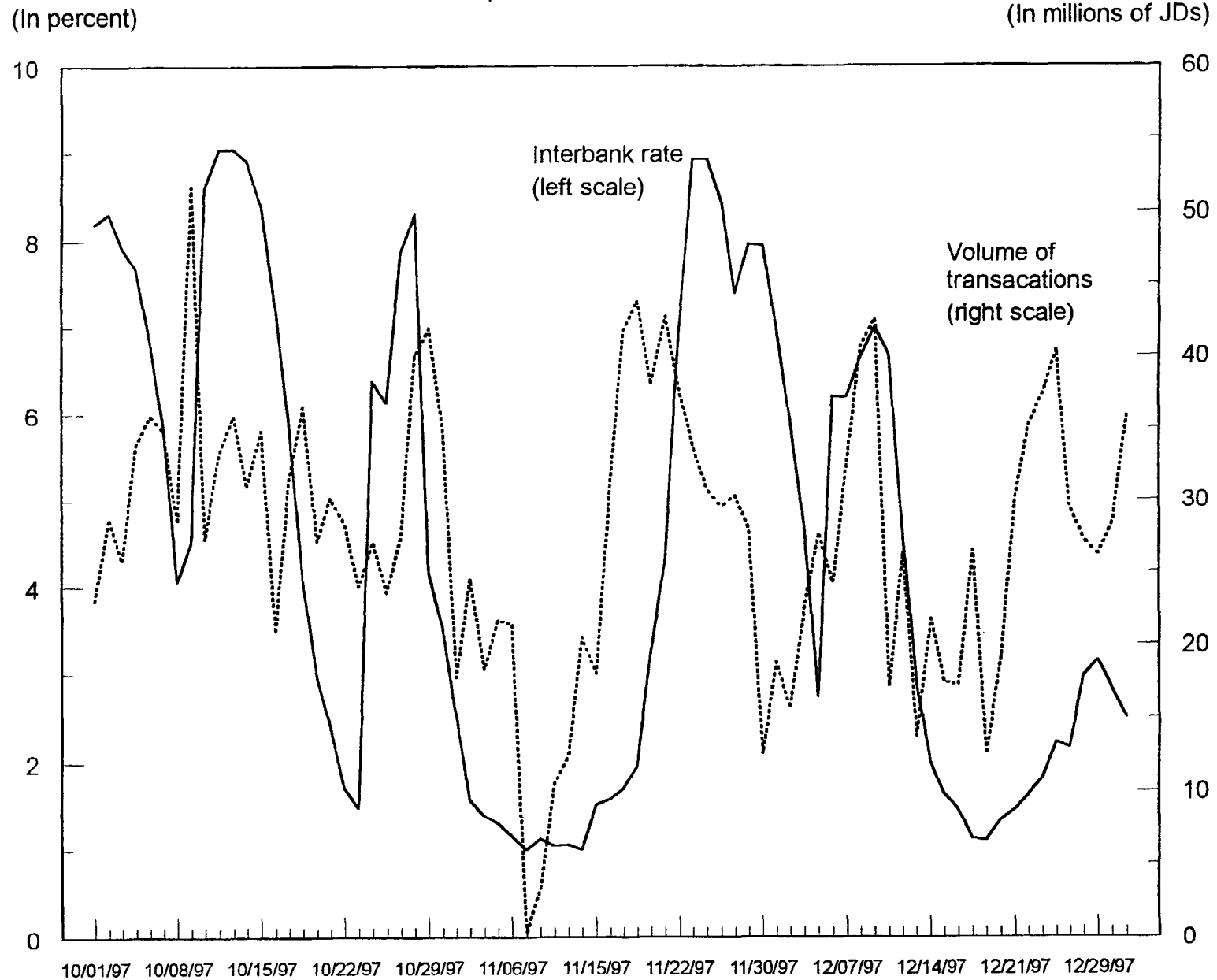
148. Issues and trading in the AFM remain limited. In 1997, the only securities issued in the AFM were shares (for JD 325 million, less than 6 percent of GDP), mostly in the banking and service sectors. No corporate debt instruments were issued (the last issue of corporate bonds took place in 1994, for only JD 8 million, Chart IV-3). It appears that private companies are reluctant to raise funds through the capital markets; bank credit may be a preferable option, given that most companies are small in size and are family-owned (the corporate debt/equity ratio is not higher than 50 percent).

⁷² Data on the distribution of excess reserves across banks were not available. However, it seems that they are mostly concentrated in a number of larger banks. One smaller bank indicated that it is a permanent borrower in the interbank market.

⁷³ The third largest bank, the Jordan Islamic Bank, does not participate in the interbank market due to religious considerations.

Chart IV-4 Jordan: Interbank market indicators

September-December 1997



Source: CBJ.

149. The development of a domestic bond market may have been hampered by the lack of an active market in government securities (Statistical Appendix Table 13). This is explained by the reluctance to issue government securities for monetary policy purposes on one hand (on a net basis, the flows of domestic financing to the government have been negative since 1994), and by the stringent limits set by the 1974 Public Debt Law on government debt stocks and issues on the other hand.⁷⁴ Moreover, existing stocks of government securities are held by the CBJ and banks; nonbank holdings are limited (only about JD 110 million of the JD 584 million of government securities at end-1997 were held by the nonbank sector, of which about one third was accounted for by the Social Security Corporation). There is no secondary market in treasury bills and bonds.

150. Lack of appropriate accounting and disclosure standards may hinder the assessment of risk and profitability of Jordanian companies, thus discouraging both domestic and foreign investors and inducing them to invest in other markets. Currently, the only requirement for a shareholding company to be listed on the AFM is the publication of the annual report and semi-annual financial statements; companies do not have any further disclosure obligations to the public.

151. The prospects for the development of capital markets in 1998 seem promising: the government is planning to issue JD 100 million in securities; and new disclosure and accounting standards will become effective by the end of the year.

E. Toward More Efficient Financial Markets

152. The Jordanian authorities are in the process of implementing an ambitious and comprehensive financial reform program aimed at (i) further strengthening the banking sector; (ii) enhancing the legal framework for capital markets; and (iii) promoting institutional investors. In this regard, a number of laws have been recently formulated or are under preparation.

153. In the banking sector, three laws are at advanced stages:

- The Central Bank Law is being amended to cover, among others, the areas of central bank's objectives, financial and capital provisions, and accountability. The revised law will, inter alia, contain standard limitations to government financing and enhance the independence of the central bank.

⁷⁴According to the law, the stock of T-bills outstanding cannot exceed 25 percent of government revenue (averaged over the previous three years) or currency in circulation, whichever is greater, and issues of government bonds cannot exceed 20 percent of capital expenditure.

- A new Banking Law is ready to be submitted to parliament, thus replacing the 1972 banking legislation. This law will: (i) redefine the scope of the banking business; (ii) set prudential regulation in terms of loan classification, provisioning and credit limits; (iii) define clear licencing procedures; and (iv) establish the right of the CBJ to intervene in problem banks, including bank liquidation procedures.

- New legislation is being drafted on a deposit insurance scheme, establishing a General Bank Deposit Insurance Corporation (GDIC) which will offer insurance on banks' deposits. The legislation will set the coverage limits and the funding arrangements (fully covered by banks without funding from the CBJ). Although not involved in supervision, the GDIC will have the legal authority to liquidate or place in receivership banks declared insolvent by the CBJ.

154. The legal framework for the development of capital markets is being laid out:

- A new Trust Law will allow the introduction of private mutual funds by establishing proper fiduciary requirements and standards (the legal basis for mutual funds is provided by the recently enacted Securities Law and Companies Law). Professional funds managers will provide new savings instruments and help diversify portfolio risk. Moreover, institutional investors like the Social Security Corporation, insurance companies and provident funds could outsource their portfolio management to mutual funds (see below).

- A Secured Financing and Leasing Law will allow for the diversification of financing options by creating non-bank financial services through leasing, factoring, and venture capital companies. The enabling legislation is ready to be submitted to parliament. Moreover, a new Registry for Movable Property will be established to facilitate the implementation of the new legislation.

155. The authorities are also preparing legislation to promote the role of the Social Security Corporation (SSC), provident funds, and insurance companies as institutional investors:

- Founded in 1980, the original mandate of the Social Security Corporation (SSC) was to provide various insurance schemes for non-government workers. Since 1995, all new government employees are covered by the SSC. Over the years, assets of the SSC have grown considerably, reaching almost JD 1 billion by end-1997. These assets are invested in the banking sector (JD 508 million at end-1997), real estate (JD 55 million), local companies (JD 175 million) and capital markets (JD 258 million, of which JD 34 million in government bonds), with an average return to assets of 8.4 percent in 1997. To strengthen this institution's investment policy and options, amendments to the current SSC Law are being prepared.

- There are currently about 80 provident funds, whose assets were estimated at about JD 250 million at end-1997. These assets are mainly invested as deposits with local banks (their average return has been about 2 percent). About 60 provident funds (for JD 145 million) belong to private companies, 10 belong to professional associations, and the rest to the public sector (4 for universities and 6 for semi-government independent entities, such as the CBJ, the SSC, and the Royal Jordanian Airlines, for total assets of JD 27 million). Little statistical information is available on their activities; however, they represent important prospective investors in Jordan's financial markets, since they pool long-term savings as employees' funds are tax-favored. A new regulatory framework for these institutions is being discussed.

- At end-1996, there were 24 insurance companies operating in Jordan, whose assets amounted to about JD 140 million. They are licenced and supervised by the Ministry of Industry and Trade. A new insurance law based on EU-compatible solvency margins was drafted and distributed for comments to the insurance sector in January 1998. A new independent Insurance Supervision Agency (ISA) will be created to monitor insurance companies' compliance with the new requirements.

156. Moreover, to foster the activities in the AFM, new reporting and disclosure standards, in line with international practices, will be enacted by the JSC by end-1998. These standards would facilitate a transparent and regulated flow of information between market institutions, participants and investors. The full automation of the operations at the JSE and JSD are scheduled to be completed by end-1998.

157. In addition, the CBJ is also considering various options for the improvement of the payment, clearing and settlement system. The objective is to strengthen both the retail payment system, based on efficient and low-cost services, and introduce a wholesale system comparable to the large-value real-time settlement systems existing in a number of EU countries. For this purpose, a Payment System Committee was established within the CBJ to formulate and supervise the payment system modernization program.

F. Conclusions and Policy Implications

158. Jordan has made significant progress in enhancing the effectiveness of monetary policy and modernizing and reforming its financial system. The banking sector has been strengthened considerably over the past few years; steps to upgrade the functions and the regulatory framework for the stock exchange have been initiated; and various laws are being prepared and discussed to promote the development of financial markets.

159. In the future, to enhance the mobilization of domestic and foreign savings and ensure their efficient allocation, elements necessary to restore higher rates of growth in the economy, reforms efforts in the following areas are important.

In the banking system:

- More transparency will be essential in improving the efficiency of banks' services. Increased transparency, for example through publishing information on banks' applied rates and their liquidity, solvency, and profitability would also help develop an active interbank market.
- Given the quasi-oligopolistic structure of the banking system, more competition will be key in allowing a prompter transmission of monetary policy, and reducing spreads between deposit and lending rates. In this regard, a further tightening of prudential regulations will contribute to create a leaner, more responsive and thus competitive banking sector.
- The reform of the payment system, in particular for large-value payments, will contribute to improve risk management in the financial markets and promote the development of interbank and securities markets.

In the financial markets:

- The establishment of a proper regulatory framework for mutual funds and contractual savings institutions will help create competition with banks by deepening the financial system.
- The government intends to issue its own securities in 1998. These securities will provide alternative saving opportunities and help the development of financial markets. In particular, to deepen the domestic capital markets, it will be essential that the planned issue be the first of a series of regular issues of government paper. To this end, there may be a need to amend the Public Debt Law.
- Proper accounting and disclosure standards will enhance the transparency of doing business in Jordan and will help attract foreign financing for investment. It will also contribute to increase the recourse to issues of equity and debt instruments, potentially a major source of financing for the private corporate sector and important saving instruments for the public.

160. Looking ahead, Jordan's challenges in achieving high sustainable rates of growth are unlikely to ease in the near future. In addition to its continued vulnerability to the politically unsettled regional environment, Jordan will also be increasingly exposed to challenges associated with the globalization of financial markets, more so following the recent liberalization of its capital account. Reaping the benefits of globalized financial markets in terms of growth and prosperity for the population, while managing the associated risks, will be achieved through the intensification of comprehensive financial sector reforms.

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V. ASPECTS OF FISCAL TRANSPARENCY IN JORDAN

A. Introduction

161. The Interim Committee adopted the Partnership for Sustainable Global Growth in September 1996, in which it noted the risks to growth and financial stability from large and unsustainable fiscal deficits, and excessive public indebtedness. Importance was, therefore, attached to achieving budget balance, strengthening fiscal discipline, and enhancing the transparency of fiscal policy. At its September 1997 meeting in Hong Kong SAR, the Interim Committee stressed the importance of openness and accountability of economic policy making in general, and of transparency in particular, to achieve policy credibility and confidence building in a globalized environment⁷⁵ Since then, developments in Asia have further highlighted the need for transparency, including the transparency of fiscal policy.

162. It is imperative that all countries aim at establishing the highest possible standards of fiscal transparency. However, because of the variety of fiscal management systems and the different cultural, constitutional, and legal environment across countries, there can be no uniform approach to achieving fiscal transparency. More important, countries do not share the same capacity to move quickly to fully transparent systems.⁷⁶ It is understood that transparency in a country such as Jordan, at its stage of development, cannot be expected to achieve the level of industrial economies. Nevertheless, it is important that some effort be made to identify both transparent and nontransparent practices, and that moves toward greater fiscal transparency are made. Indeed, the Jordanian authorities are committed to improving the transparency of government policy and reducing the level of bureaucracy.

163. The purpose of this paper is to define what is meant by fiscal transparency, to document the extent to which Jordan follows transparent practices, and to identify areas where improvements can be made. It concludes that, for its stage of development, the central government has adopted many transparent fiscal practices. In addition, the access to plentiful, high-quality historical fiscal information is good and various tax laws and regulations are publicly available. However, the fiscal activities of public enterprises, and to a lesser extent of some public companies, blurs the role of the government in the economy. It would also be useful to begin to develop some additional analytical measures of fiscal policy that would improve the understanding of the potential influence of fiscal policy over the short and long term, and to institutionalize the role of such measures in the budget process.

⁷⁵Kopits and Craig (1998) consider the arguments for and against transparency, what is meant by fiscal transparency, and the implications for the work of the Fund.

⁷⁶New Zealand, in its endeavor to achieve full fiscal transparency, adopted the "Code of Fiscal Responsibility" that legislates and defines how fiscal transparency will be achieved. New Zealand now serves as the model by which other countries are often judged. See Cangiano (1996), and Scott (1996) for a fuller discussion of the efforts that New Zealand has made in this area.

B. Assessment of Fiscal Transparency in Jordan

164. There is no single, all encompassing definition of transparency of fiscal policy. The concept can take many forms and the distinction between issues related to governance and transparency is murky. There has been some work in this area related to Jordan, and the government has expressed its own concern about the slowness of the bureaucracy.⁷⁷ The relationship between good governance and fiscal and economic performance has been identified in several studies using various indices of corruption.⁷⁸ It is worth noting that out of the 54 countries rated by Transparency International, with the industrial countries occupying the first 20 places, Jordan ranks 30th, the highest in the Middle East, and ahead of some more advanced economies. Fiscal transparency is also a central component of good governance, and increasing transparency should help countries gain credibility with the public and, equally importantly, financial markets. There are several alternative ways to present information on fiscal transparency. This section discusses three aspects of fiscal transparency: (i) the strengths and weaknesses in the institutional framework; (ii) the clarity of the role of government in the domestic economy; and (iii) the extent to which policy indicators are publicly available.

Transparency of the institutional framework

165. According to the generally accepted principles of transparency, there should be a comprehensive legal and administrative framework for fiscal management that prescribes requirements for budget preparation and execution, and standards of accountability for public officials and government. There should be an explicit legal basis for all taxes, with limits set on administrative discretion in implementation of the tax law. The legal framework for fiscal policy is one area where Jordan may be viewed as providing a high standard, although as described below, it only applies to the central government.

Strengths

The legal framework for the budget process

166. There are laws that clearly provide the basis for the annual central government budget and governs the process of enacting that budget into law. At the conclusion of the annual budget cycle, a document is widely available that includes the minister of finance's speech before the legislature, and all the details of the budget, including the finances of the

⁷⁷Kassay (1997) describes some of these issues in Jordan.

⁷⁸See in particular, Tanzi and Davoodi (1997), Mauro (1996), Kaufman and Wei (1997), and Transparency International (1997). Using various measures of corruption, these authors relate the level of corruption to growth and other economic and fiscal indicators.

individual ministries and agencies that must legally report to the ministry of finance (MOF). The MOF has established a well-defined set of procedures related to the implementation of the budget law. To this end, the Budget Department of the MOF has an internal document that describes all the procedures in the budget process as well as the responsibilities of the budget officers who oversee the budgets of the individual ministries.⁷⁹ Accordingly, each year the MOF sends a directive to all the ministries with guidelines and assumptions to facilitate the preparation of their submission.⁸⁰ The major issues contained in this directive are usually reported in the newspaper. On that basis, each ministry and agency prepares a detailed budget, divided into various categories according to the law, including current and capital expenditures. The budget officers at the MOF review each submission with the relevant ministry. The staff of the MOF, under the guidance of the minister of finance, keeping in mind the deficit target and the overall macroeconomic environment, compiles a comprehensive set of budgetary figures. This document is then sent to the legislature and various committees and sub-committees for their consideration, as well as to public libraries.

167. In this budget document, detailed figures, accompanied by an explanatory writeup, are provided for each ministry. These writeups usually explain the goals of each ministry and the working assumptions behind the individual revenue and expenditure items. A few ministries, on an experimental basis, are providing *performance-based indicators* that are used in assessing their requests, and should eventually be an important input in evaluating the success or failure of various government programs and activities. In general, the various budget authorization laws are identified by specific line items. The minister of finance then delivers a policy statement on the budget in a speech before the legislature, and is subject to detailed questioning. The speech includes the policy objectives, the assumptions, and the financial implications. After passing the legislature, an official budget document is created and is available to the public (in Arabic, and with a longer delay, in English).

Expenditure control and monitoring

168. Spending control, related to the execution of the central government's budget, is highly transparent and well understood within the government and contains several checks and balances. The MOF sends out directives to each department explaining their spending authorization. Ministries and agencies then request their allotment for current expenditures each month which cannot exceed 1/12 of their annual amount except with the approval of the

⁷⁹ "The General Budget in Jordan: Current Situations and Future Reforms," (1997), is an internal document prepared by the staff of the Budget Department of the MOF in Jordan.

⁸⁰ A copy of the directive is found in the previously cited document. The directive includes assumptions of growth, the rules regarding salaries, etc. Since Jordan has a program with the IMF, the deficit target is agreed to with the Fund, and the directives to the ministries are consistent with that goal.

MOF. The release of the funds for current expenditures of most ministries is then made centrally at the MOF as payment orders are received. However, some agencies, which must make a large number of individual payments, receive a lump sum to spend as needed. In this situation, the MOF assigns a financial officer to that ministry to keep records. Thus the MOF has significant control over budgetary finances. Within the year, and subject to the approval of the budget reviewing office and the MOF, various ministries are allowed to change expenditures within their own budget, although there are some restrictions on the movement of funds between spending categories. In past years, ministries would run arrears related to the payment of rent, oil, electricity, or water and then transfer the funds allocated to these expenditures to purchase items where arrears were not possible. Since payments for these utilities were to government agencies and enterprises that generally provided transfers to the budget, this practice was tolerated, but tended to create inter-enterprise arrears, and a worsening of the cash deficit. Since 1998, ministries have not been allowed to transfer funds allocated to these items to other expenditures. In addition, transfers from one agency to another are not allowed.

169. For capital expenditures, disbursements are made as needed, but on site verification is required to determine the feasibility of each project. For each capital expenditure item, a proposal is sent to the ministry that has the implementation and oversight responsibility of the project.⁸¹ That ministry will be in charge of evaluating the project and sending out requests for tender offers. The tenders are evaluated before any spending takes place.⁸² The government prioritizes all its capital projects, in case some adjustment needs to be made during the year to overall capital expenditures.

170. The monitoring of the budget is done both by the MOF, through the budget officers, and by the Audit Bureau, which reports to the financial committee of the lower house of parliament. Their role is to verify that spending requests are covered in the budget law according to some well specified classifications. These requests are, in turn, sent to the finance section within the MOF to ensure that there are sufficient funds on any given day to cover the corresponding financial obligations. If not, a decision will need to be made by the minister of finance on how to resolve the impending financing shortfall. This is generally achieved through spending delays in less critical areas.

⁸¹Most capital spending projects are overseen by the Ministry of Planning or the Ministry of Public Works.

⁸²The public tenders department at the Ministry of Public Works will soon place a construction databank on-line to provide information to contractors who will be submitting tenders.

Taxation

171. The government has a well-defined set of tax laws. All proposed tax legislation, laws that have been approved by the Parliament, and new regulations and procedures that have been agreed to by the Council of Ministers are published in a special government newspaper that is widely available. In addition, the government regularly publishes, both in Arabic and English, the tax laws including the relevant Articles for each type of tax, and guidelines related to enforcement. These documents are relatively concise and straightforward to understand for the average citizen. In addition, several private organizations, such as the Jordanian Businessman's Association, produce pamphlets that provide the essential elements of tax laws. By mid-1998, the GST and Custom Laws will be available on the Internet. Although the information about the laws are transparent, there are several policies that are not very transparent and could benefit from reform, including the tax treatment of contributions to provident funds. Nontransparent tax policies represent economic distortions, and special tax treatment of income also tends to encourage fraud and nontransparent rent-seeking behavior.

Public debt

172. The legal basis for public debt is provided in the 1974 Public Debt Law.⁸³ In particular, Article 5 determines the maximum amount of new debt that can be issued as well as the stock of debt that can be outstanding. Furthermore, Articles 47-55 of the 1971 Central Bank Law explicitly states the relationship between the Central Bank of Jordan (CBJ) and the Government of Jordan, including provisions related to government debt and deposits with the CBJ.

Weaknesses

Financial control over off-budget public enterprises and agencies

173. There are many areas where the framework for control over general government finances is in need of improvement. Although, as explained above, coordination and management of the budget process for the central government is quite good, the same cannot be said when one takes account of public enterprises (referred to as PEs). There are several types of these PEs, and although there are differences in their purpose and organizational structure, they share some common characteristics. They were generally created by special laws in order to divorce their activities as much as possible from the political process of legislative interference. In some cases, the government wanted them to be run independently (e.g. Jordan Television and Broadcasting Corporation), and in other cases, the government and parliament wanted to ensure that the central government would not have direct access to

⁸³Central Bank of Jordan (1994).

their funds (e.g. Social Security Corporation - SSC).⁸⁴ Most of their workers are generally classified as civil servants, although neither their expenditures, including most wages and purchases of goods and services, nor their revenues are included in the budget. Their principal relationship to the central government's budget is that there is often a special line item that identifies a subsidy to, or transfer from, the PE. Some of these PEs receive funds in the form of a loan under "net lending." Capital expenditure by these enterprises and their financing are generally outside of the central government's capital budget.⁸⁵ Their budgets may be examined by the MOF (with several notable exceptions such as the Central Bank of Jordan and the SSC), although this is not required by law.

174. The independence of the PEs may have important effects on total public sector finances. PEs that receive a subsidy will affect directly government finances. Others may influence the financial position of the public sector indirectly by borrowing from banks through government guarantees. The latter may not have a direct bearing on the current year's budget, but it may have implications for future budgets.⁸⁶ For those PEs that receive an explicit subsidy from the budget, the MOF has some potential control over their spending. However, the PE can still go to the cabinet and receive special appropriations or guaranteed loans from the financial system.⁸⁷

175. Twenty six PEs prepare their budgets in line with the principles and standards established for the central budget, but have their budgets approved by the Cabinet.⁸⁸ Their budget requests are first sent to Cabinet, who generally send them to the MOF to be

⁸⁴Although the SSC's asset portfolio includes government debt, the government does not have direct access to SSC surpluses.

⁸⁵Although this information is often available in the Ministry of Planning and Public Works Department, this is one reason why the external financing reported by donors tends to be larger than the information available through the MOF.

⁸⁶This would be the case with the development funds that loan money and receive interest.

⁸⁷Some of these PEs even received loans from the SSC.

⁸⁸These PEs include: Port Corporation, Housing and Urban Development Corporation, Free Zones Corporation, Jordan Civil Consumption Corporation, Ministry of Al-Awqaf for Islamic Affairs, Health Insurance Fund, Postal Savings Fund, Public Administration Institute, Jordan TV and Broadcasting Corporation, Water Authority, Aqaba Railway, Jordan Investment Corporation, Public Transportation Corporation, Vocational Training Corporation, Aqaba Regional Authority, Jordan Hijaz Railway Corporation, Arab Language Academy, Kidney Fund, Development and Employment Fund, Public Environment Protection Corporation, Investment Promotion Corporation, Natural Aid Fund, Al-Maawaf, Standards and Specifications Corporation, Telecommunications Regulatory Commission, and Royal Jordanian Airlines.

evaluated and then discussed with the relevant PE. These PEs are not subject to the same oversight by the MOF as ministries covered by the budget law. Although the Cabinet has requested that these agencies report their financial statements to the MOF on a monthly basis, the experience to date has been disappointing. Since their spending appropriation is not part of the budget law, they have no compelling reason to report their financial situation.⁸⁹ They do, however, submit annual performance reports to the Cabinet for accountability purposes.

176. There is another group of ten PEs whose budgets are approved by a Board.⁹⁰ The intent of this procedure is to guarantee that the political process will not interfere with their activities. By the same measure, it also removes them from government oversight. The difference in the budget process for this group of PEs is that the MOF does not have jurisdiction over their budget process, and their Board is responsible for their financial control. However, the MOF has some control over their budgets since the Boards of these enterprises usually have a representative from the MOF. One of these PEs is the CBJ. Indeed, the independence of the CBJ, as defined in the Central Bank Law of Jordan, is viewed positively since it provides an important line of demarcation between monetary and fiscal policy.⁹¹ However, government finances are affected by central bank activities since the CBJ is required to transfer its profits to the MOF. In another way, the relationship between the CBJ and the MOF is nontransparent because of the interest-free obligations of the government that are on the books of the CBJ, permitted according to the provisions of the Central Bank Law. Non-interest bearing debt affects the profit position of the CBJ.⁹² Proper fiscal accounting would require that the MOF provide the CBJ with the interest payments that should be due on this debt.⁹³

⁸⁹A directive issued in February 1998 reaffirmed that detailed financial reports must be submitted to the MOF. Any PE failing to do so will not receive any further funds. However, not all PEs receive subsidies from the MOF; rather, many of them provide revenues to the government.

⁹⁰These PEs include: Social Security Corporation, Industrial City Fund, Amman Financial Market, Orphans Fund, CBJ, Farmers Cooperative Organization, Cities and Villages Development Bank, Agricultural Credit Corporation, Jordan Export Development Corporation, and Commercial Centers Corporation.

⁹¹Even though the CBJ does not prepare a budget or submit its balance sheet to the MOF, its books are audited by a certified accountant. Furthermore, since late 1995, its operations have been audited by the Audit Bureau. One other characteristic sets the CBJ apart from other government agencies is that the workers are not civil servants—a situation not unique to Jordan.

⁹²At the same time, the government holds non-interest bearing deposits with the CBJ.

⁹³There are also seven government-supported universities that are treated in a similar manner to the ten PEs that report to a Board of Directors.

177. Royal Jordanian (RJ) is one PE that is in a class of its own. It was created by Decree 10, and is run very much like a business, but is not a company according to Jordanian law. The budget of this enterprise is not submitted to the MOF, yet the MOF has been assuming some of its financial obligations, some workers are civil servants, and RJ is continuing to receive government guarantees on its loans. If RJ had been subject to the same controls as ministries, it is quite conceivable that RJ's current financial problems could have been identified at an early stage and the magnitude of its difficulties could have been contained.

178. All of the PEs, including RJ, share most of the attributes of government, but they are not subject to the same standards as the central government. The underlying problem is that they have a special status that provides a nontransparent cover to their activities. Ultimately, the cabinet has responsibility for their finances, and it is the Cabinet that is overseeing RJ's privatization strategy. These enterprises often create debt financing that is outside the domain of the MOF, yet is guaranteed by the government. The SSC could lend to other PEs, creating debt obligations that are even outside the monetary accounts. In fact, the SSC's asset portfolio includes significant amounts of loans to the government or enterprises that have received a government guarantee. In this way, a PE could fund its current expenditures through obligations to the SSC and without regular reporting to the MOF. As of February 1998, the SSC has been banned to grant loans to any ministry, public enterprise, or public or private sector companies. To gauge the potential for this type of deficit financing, in 1995, the SSC held debt of the central government of 0.2 percent of GDP, and debentures and loans to other PEs of 3 percent of GDP.⁹⁴

Public corporations

179. Potentially problematic from the viewpoint of control over total public finances, although not necessarily in practice, are the activities of the commercially run corporations (e.g. Arab Potash Company) that may have been created by special laws, and have received special concessions. These are defined as public companies because their shares are either totally or partly owned by the government, but they have no direct relationship with the MOF.⁹⁵ Unlike the PEs, they are subject to the same company laws as privately owned companies, and are required to pay all relevant taxes. They are not required to report to the MOF. It is arguable whether the operations of public companies should be part of government finances. On the one hand, their operations are governed by laws and many of these companies are realizing profits; however, there is the potential for losses and, with the agreement of the Council of Ministers, they may receive government guarantees.

⁹⁴Social Security Corporation (1996).

⁹⁵These include, for example, companies listed on the Amman Financial Market such as Arab Potash, Jordan Cement Factory, Jordan Petroleum Refinery, and the Phosphate Mines Company, as well as some that are not publicly traded such as Jordan Telecommunications Corporation. A full list of the holdings of the Jordan Investment Corporation (JIC), the government holding company, is given in Table V-2.

Budget presentation

180. Although in many ways the budget presentation is very transparent, there are some areas where certain changes would improve the understanding of the budget document that is presented to parliament. First, existing policy commitments should be distinguished from new initiatives. In evaluating a budget, it is important to identify the spending measures that are the result of existing programs, and those that represent new spending programs. Second, a clear distinction should be made between spending that is required by law (including entitlements), and expenditures that are truly discretionary. Third, and related to the above considerations, the budget should be placed in a medium-term framework to gauge the outlook for future expenditures and revenues. For each item, the medium- and long-term revenue and spending requirements should be identified. In some countries, there is a well-identified group within the government that is responsible for "costing" and evaluating a new program before it can be included as a new spending initiative in a ministry's budget. This helps the government and the legislature to evaluate the long-term implications of any new initiative. Finally, major fiscal risks should be identified, including the budgetary impact of variations in economic assumptions (e.g. changes in output, inflation, and the external environment), as well as contingent liabilities that might be called (e.g., guarantees) and other liabilities that might have to be honored.

The role of government in the domestic economy

181. A key aspect of fiscal transparency is the existence of a framework that clearly identifies the role of government. One very crude measure of the importance of government is to evaluate the size of the government sector relative to GDP. Expenditures of the central government have fallen dramatically since 1990, from over 45 percent of GDP to about 30 percent of GDP in 1997. In the case of Jordan, this represents an underestimate of the role of the government since expenditures of the PEs are not included in the central government's budget. As indicated earlier, generally only the net position of the PEs is included in the budget and data on the PE's expenditures are not publicly available. According to data provided by the MOF, 1996 central government expenditures amounted to 33 percent of GDP, while public sector expenditures, including those of the 26 independent public agencies, were about 42 percent of GDP. Another measure of the size of government is the share of total civil service and the PE's noncivil service employees as a share of the total labor force. Table V-1 indicates that this figure is 36 percent. However, this is an admittedly biased measure since the government is a service industry, and its activities are generally labor intensive.

182. Although the laws that define the legal status of public institutions are generally known, as described previously, the dividing line between the government and private sector is clouded by the commercial activities that are currently conducted by the public sector.

Table V-1. Public Sector Employees, 1995

Civil Servants	134,000
Military Service	150,000
Staff of PEs	58,400
Total Public Sector Work Force	342,400
Total Active Labor Force	960,000
Public Sector/Active Labor Force (in percent)	36

Source: Ministry of Finance.

Examples of PEs that conduct commercial activities are in the areas of radio and television, water and irrigation, and airlines. These PEs are not subject to income tax, although a tax can be imposed on them with the approval of cabinet, and until mid-1997, these PEs were not subject to customs or the GST. In some cases, the PE may be run as a commercial enterprise, but in many other instances, it may have monopoly protection, or receive special concessions thus discouraging private sector participation. In some other cases, the PEs that were set up for a specific, noncommercial purpose, may own enterprises that compete with the private sector. The SSC's control of the Amra Hotel is one example of the latter.

183. More generally, the government has undertaken corporatization of some PEs with a view toward their privatization, but government ownership of enterprises pursuing commercial activities is still pervasive. Some examples of companies that have been corporatized are in the areas of potash, phosphate, cement, telecommunications and activities related to tourism. This partly reflects a long history of government participation in various endeavors largely as a result of a concern that the private sector would not undertake these activities, and many of them receive special protection and concessions.⁹⁶ There may be a strong rationale for this support, but that should be made explicit so that potential competitors understand why these institutions receive special treatment.

184. From a statistical point of view, many of these corporatized companies are classified in the Government Finance Statistics (GFS) as public institutions because of the size of government ownership. However, the Jordanian authorities argue that by most other standards these are commercial enterprises since many of them have been run on a commercial basis for many years and their shares are sold on the Amman Financial Market.

⁹⁶For example, the Housing Bank is generally not taxed on the interest it receives, although more recently, it has been exempt only on income derived from housing loans.

The recent issue of an unguaranteed Eurodollar bond by the Jordan Phosphate Mines and the GDR issued by Arab Potash Company provide further evidence that these corporations are private enterprises. However, it is still possible that any company, including these two, could receive government guarantees in the future. Thus, there may be a perception that the government would agree to bail out these companies if they faced difficulties.

185. To gauge the size of the government involvement in commercial activities, it would be useful to get a measure of government commercial holdings relative to the total value of all companies listed on the Amman Financial Market (AFM). A crude estimate can be constructed on the basis of the holdings of the JIC shown in Table V-2. This measure would be only suggestive, since it would omit private companies that are not sold to the general public as well as PEs that have not been corporatized and not listed in the AFM. Nevertheless, the estimated JD 769 million market value for these companies is over 18 percent of the capitalized value of the AFM. If the value of Jordan Telecommunications Corporation (JTC) (estimated at around JD 500 million or 13 percent of the AFM capitalization), the JIC shares that were not priced in Table V-2, and the commercially based PEs were all included, this figure could be well over 50 percent. This indicates that the government has a considerable influence over activities that are usually in the domain of the private sector.

186. Recently, the government has progressively granted financial and administrative independence to PEs to encourage them to become self sufficient with a view toward eventual commercialization and privatization. The government has started a privatization program for many companies. In addition, it has recently corporatized some of the PEs (JTC) or started to put some PEs on a commercial basis (Jordan TV and Broadcasting Corporation). However, until the privatization process is complete, these PEs will enjoy either explicit or implicit government protection. In the interim, tax and regulation laws should be reformulated when they favor these PEs or companies. An important move in this direction was made in 1997, when the Cabinet made all public institutions subject to the same GST and custom laws as the private sector. However, since PEs are not subject to income tax laws, they still have a clear competitive advantage.⁹⁷

Price regulation

187. The role of the government is also affected by various regulations. Regulations should be designed to supplement, but not interfere with the working of the private sector. The government, with the assistance of the World Bank, has been attempting to reduce its involvement in price setting, but there are still prices (mainly for utilities) that are subject to government control or pricing formulas. Price controls can discourage the private sector from participating in commercial activities in related markets.

⁹⁷The income tax laws indicate that the Cabinet, at its discretion, can impose a tax on any public institution. However, since these enterprises are not run in accordance with company law, taxing profits is a complex issue and this statute has never been employed.

Table V-2. Jordan Investment Corporation Holdings

Company's Name	Capital	% Sharing	Shares	Price	Value
Manufacturing and Mining Sector					
1 - Jordan Cement Factories	66444480	49.43	32843506	2.7	88677467
2 - Jordan Phosphate Mines	44000000	41.45	18238000	3.3	60185400
3 - Jordan Petroleum Refinery	32000000	5.57	1782400	10.3	18358720
4 - Jordan Tobacco and Cigarettes	1500000	13.33	199950	3.6	719820
5 - Jordan Paper and Cardboard Factories	3000000	18.57	557100	2.5	1392750
6 - National Petroleum Co.	13863861	99.93	13854156	0	0
7 - Jordan Spinning and Weaving Co.	5000000	18	900000	1.8	1620000
8 - The Arab Potash	83317500	52.88	44058294	5.8	255538105
9 - The Jordan Worsted Mills	4000000	14.14	565600	6.3	3563280
10 - The Public Mining	1000000	51.34	513400	1.9	975460
11 - Jordan Tanning	1000000	15	150000	5.5	825000
12 - Jordan Ceramic Industries	2500000	4.02	100500	2.1	211050
13 - National Textile and Plastic Industries*	2500000	10	250000	0.3	75000
14 - United Glass Industries	10000000	5	500000	0	0
15 - Al-Safi Complex Co. for Ind. Workshop*	4865	11.04	537	0	0
16 - Al-Safi Salt Co.*	12000000	5	600000	0	0
17 - Arab Engineering Industries*	10000000	15	1500000	1.5	2250000
18 - Jordan Dead Sea Industry Co.	60000000	10	6000000	0	0
19 - Jordan White Cement Co.*	10000000	15	1500000	0	0
20 - Arab Co. for Gypsum Industries*	2200000	13.64	300080	0	0
Banks and Financial Companies					
1 - Cairo Amman Bank	10000000	10	1000000	3.1	3100000
2 - The Housing Bank	26060000	51	13290600	4.9	65123940
3 - Export and Finance Bank	2000000	1.25	25000	0.9	22500
Hotels and Tourist Co.					
1 - Arab International Hotels/Marriott	9000000	32.8	2952000	4.9	14464800
2 - Jordan Himeh Minerals	1745	34.6	604	5.2	3140
3 - Coral Beach*	300	43	129	0	0
4 - Alias Gateway Hotel*	14587682	70	10211377	0	0
5 - Hotel Education College*	1000000	50	500000	0	0
6 - Duty Free Shop Co.*	5000000	20	1000000	0	0
Press and Information Co.					
1 - Jordan Press Foundation/Al-RAI	2000000	15	300000	9.5	2850000
2 - CCIP*	300000	1.85	5550	0	0
3 - Jordan Technology Group*	1300	23.08	300	0	0
Transport, Main					
1 - Jordan National Shipping Lines	593657	18755	111340370	2.2	244948815
2 - Machinery, Equipment & Maintenance	1200	28.25	339	0.6	203
3 - Tourist & Transport Co.	285500	8.43	24068	1.1	26474
4 - General Maintenance*	700000	25	175000	0	0
5 - Petra Transport Co.*	10000000	1	100000	0	0
6 - Real Estate Co.*	95000000	87.05	82697500	0	0
7 - Industrial Cities Corporation*	12000000	57.5	6900000	0	0
Agriculture and Food Industries Sector					
1 - Jordan Poultry Processing and Marketing	5048719	40.86	2062907	1.34	2764295
2 - Jordan Dairy Co.	1750	12.810	224	2.88	646
3 - The Ind. Com. Agr/Pro	5000	2.850	143	0	0
4 - Glucose Food Manufacturing Co.*	2500	10	250	0	0
5 - Agricultural Marketing & Processing Co.	15875	88.98	14126	0	0
6 - Jordan Vegetable Oil Industries Co.	443889	40.3	178887	0	0
7 - Modern Food Ind. & Veg. Oil Co.	2302420	39.08	899786	0	0
8 - Jordan Bio-Industrial Center*	1250000	20	250000	0	0
9 - National Co. (Shafa) Food Processing*	8000000	77.08	6166400	0	0
Total "Value" calculated on "Price" available					767696865

*Private Companies

Source: Jordan Investment Cooperation.

Transparency of policy indicators

188. Governments should provide the public with full information on its current and projected financial position. The Jordanian government provides a large amount of information on the current year's central government budget and historical data. Budget data is classified in accordance with GFS analytical standards. In addition to the budget that is available through the yearly budget law, the CBJ publishes a substantial set of fiscal information in its monthly bulletin, including data on fiscal financing. Furthermore, all of this information is available on the Internet with less than a three month lag.

189. Nevertheless, detailed current and historical information for the central government is only part of the information that should be provided. First and foremost, information on all government activities covered in extrabudgetary accounts should be available in a form that allows a consolidated position for the general government sector to be presented. Second, information on the nature and extent of off-budget activities and quasi-fiscal operations should be provided. Third, in addition to information on the current budget, it is incumbent to have a medium- to long-run perspective on government spending and finances. While relevant analyses are undertaken on an ad hoc basis within the MOF and by the Fund, they should be made available in a systematic basis.⁹⁸

C. Concluding Remarks

190. Although one might expect that the degree of fiscal transparency in Jordan to be substantially short of the standards set by industrial countries, this is not the case for its budget process, at least as it relates to the central government. The central government has a very transparent set of laws that provide the basis for the development and execution of fiscal policy. The implementation stage has numerous checks and balances. However, the public enterprises, which are an important part of the public sector, are not as transparent about their budgetary process, and are not subject to the same level of accountability and control over their spending as the central government. At a minimum, the enterprises must conform to the same standards of reporting and monitoring as that accorded to the central government. Although there is a legitimate rationale to treat them separately from the rest of government—to safeguard them from the political process—they now serve as a potentially important source of leakage of public resources. The government should also move as quickly as possible to sell its share of companies that are already being run on a commercial basis.

191. Regarding information, tax laws are relatively transparent and publicly available. Similarly, there is ample information on the budget and historical performance of the central government. However, the government should provide an ex-post assessment of the actual budget outcome, significantly more information on public enterprises, and medium-term indicators of fiscal sustainability. The government is aware of these needs and is moving forward, inter alia, with a "Program and Performance Based System" which identifies and evaluates performance related to the execution of the budget.

⁹⁸Maciejewski and Mansur (1996) provided an in-depth analysis of the sustainability of fiscal policy.

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VI. POVERTY IN JORDAN: DIMENSIONS AND RESPONSE

A. Introduction

192. During the 1970s and most of the 1980s, Jordan was able to maintain income and consumption levels that exceeded those that could be expected from the available production capacity in the domestic economy. During this period, Jordan's prosperity was widely shared, and absolute poverty was minimal. In the second half of the 1980s, the flow of foreign grants from regional countries' and inflows of workers' remittances started to decline. In response, Jordan began a major restructuring of its economy aimed at reducing its dependence on official assistance and making it an outward-oriented competitor in world markets. This restructuring began with stabilization measures that included a currency devaluation, which, in Jordan's heavily import-dependent economy, seriously eroded real purchasing power. Exacerbated by the closing of traditional Gulf markets and the sudden return of 10 percent of the population during the subsequent Gulf crisis, poverty and unemployment surged. The share of the population below the poverty line rose from 3 percent in 1986-87 to 15 percent in 1992, and a large share of the middle class slipped to near-poverty. During this period, the Gini coefficient, a measurement of income inequality, rose by seven percentage points.⁹⁹ Considering the major shocks Jordan endured in this period, it is a tribute to Jordan's social protection networks that poverty did not rise even higher.

193. Jordan's robust growth since 1992 has not yet reduced poverty, which has continued to increase. By end-1997, the share of the poor was estimated at 20 percent of the population. The persistence of poverty despite growth is the result of several factors, most of them related to labor market problems. A detailed assessment of the contribution of each factor to poverty is difficult, however, given the lack of data in this domain, and the following arguments remain qualitative rather than quantitative. First, the return of about 300,000 Jordanians during the 1990-91 Gulf crisis led to a sharp increase in the level of the labor force, with immediate effects on unemployment. Second, the labor force growth rate, estimated at 5 percent, is very high. Together, these two factors have raised the pressure on real wages, which appear to have stagnated or fallen in recent years. Moreover, they also impose a heavy burden on family incomes in an economy with a labor force participation rate that has traditionally been very low. Third, despite the increase in the labor supply, mismatches between the demand for and supply of labor have raised the structural unemployment rate among Jordanians. These mismatches are partly related to the adjustment and reform program, which has led to a redefinition of the role of the government. The public sector, which is the main employer and which used to absorb a significant share of the new labor

⁹⁹The Gini coefficient is the most common measure of inequality; it ranges between zero for perfect equality, and 1 for perfect inequality. From 1986-87 to 1992, the Gini coefficient rose from 0.36 to 0.43. More recent estimates of the Gini coefficient will be available when the 1997 Income and Expenditure Survey results are published.

market entrants, has been constrained by the need for fiscal adjustment. Meanwhile, many new jobs were created in the manufacturing and services sectors. However, they were often not taken by Jordanians, partly because of an attitude of shame toward menial work in the manufacturing and labor intensive services sectors.¹⁰⁰ Overall, these factors have so far limited the poverty alleviation effects of the high growth experienced during 1992–97.

194. The longer Jordan's poverty problem persists, the greater is the risk that it perpetuates itself. A combination of factors is steadily increasing this risk:

- Poor households spend less on education and information, and acquire less valuable skills. Labor market entrants from these households tend to stay unemployed, underemployed, or employed in very low-wage jobs.
- Poor households have higher health risks, which reduces their on-the-job productivity and their attractiveness to employers. They tend to have less information on how to prevent disease and accidents, and less access to health care.
- Poor households tend to have more children as a form of social insurance. This reduces their ability to save or invest, cuts the opportunity for wives to earn income, worsens poverty, and raises the social costs implied by rapid population growth.
- Well-intentioned cash transfer programs and subsidies to help the poor pose a greater fiscal burden, and, if not very well designed and administered, tend to create an attitude of dependency.

195. It is increasingly recognized that these risks associated with poverty are also risks to future growth as poverty tends to be associated with negative externalities. The government recognizes that it must take urgent and concerted action to eradicate the causes of poverty and alleviate its immediate effects. Subsection B of this paper gives a further overview of the current dimensions of poverty in Jordan. Subsection C reviews ongoing government efforts at poverty alleviation; Subsection D summarizes the government's ten-year strategy to increase "social productivity," and thereby eliminate poverty as a major problem.

¹⁰⁰ In Jordan's traditionally egalitarian society, a new attitude of shame towards traditional and menial work has led many people to remain voluntarily unemployed. Many of those who must do such work because they lack outside support travel to distant places at considerable expense to avoid being seen by their peers. Government officials have begun calling on Jordanians to transcend a "culture of shame" and undertake training in skills that can guarantee employment and help them fill jobs currently held by guest workers.

B. Current Dimensions of Poverty in Jordan

5. According to current estimates of poverty, which are based on data of the 1992 Income and Expenditure Survey that was adjusted for prices, incomes, and consumption, about 860,000 people live on family incomes that are below the benchmark income defining absolute poverty.¹⁰¹ The share of the poor in the total population is therefore about 20 percent. In terms of expenditure, the average poor household spends 26 percent less than the benchmark expenditure associated with poverty.

The socio-economic dimension of poverty

196. The share of the poor who are unemployed (10.1 percent) differs little from the corresponding share of the nonpoor (9.7 percent). The major factor determining poverty is not unemployment but family size: a household with 11 members (the average size for the bottom decile as measured by expenditure) is over six times more likely to be poor than one with 5 members (the average for the top quartile). These large households are burdened with a much larger proportion of dependents—children, homemakers, and the disabled.

¹⁰¹ In recent years, several poverty lines have been put forward, some based on expenditures and others on income. In 1997, the main report of the National Aid Fund Task Force proposed a poverty line based on expenditures on a basket of nutritional and non-food requirements tailored to Jordanian consumption patterns. Using expenditure data contained in the 1992 Income and Expenditure Survey, re-weighted and adjusted for inflation for the years through 1996, the Task Force established that the minimum per capita cash value for meeting these essential requirements was JD 20.60 per month and JD 247.60 per year (approximately JD 17.50, monthly, and JD 210, annually, in 1992 prices).

Previously, Jordan had two official poverty lines, both based on income data: destitute poverty, defined as a family income of JD 61 per month; and absolute poverty, defined as family income of JD 97 per month for families that owned their homes and JD 119 for families that rented their homes (a typical Jordanian family in 1992 consisted of 6.8 persons). Calculated on the income data contained in the 1991 Employment, Unemployment, Returnees, and Poverty Survey, it estimated that 6.8 percent of the population fell below the destitute poverty line in 1992 (an increase from 1.5 percent in 1987), while 21.3 percent of families fell below the absolute poverty line (an increase from 18.7 percent in 1987).

Generally, poverty line estimates based on expenditure data are preferable, since expenditures measure living standards, while income is a measurement of a household's means of supporting itself. Expenditures will differ from income because of factors like drawing down savings, transfers within the family, or social safety net transfers from the government or NGOs. Both income and expenditures are important for public policy, but poverty is more strongly associated with a household's total expenditures than with the sources from which its expenditures are financed.

197. Only 36 percent of the adult poor are actually employed (compared to 42 percent of the nonpoor). Fifty-four percent of the adult poor, mostly housewives and the disabled, do not participate in the labor market (48 percent of the nonpoor). Many of these could participate if given the right incentives and support. Social and policy factors discourage greater participation, particularly by women.

198. Poverty is negatively correlated with education achievements. It is estimated that about 42 percent of the adult poor are illiterate, compared with 22 percent of all adults. The share of the poor with university education is minimal. Home ownership is about the same among the poor and the whole population, but the poor live in smaller premises, often five or more persons to a room, and often lack title.

The regional dimension of poverty

199. About 68 percent of the poor live in urban areas, mainly in very dense low-income settlements where housing conditions, roads, water supply and sanitation, health facilities, schools and other facilities are below minimum standards. Per-room housing occupancy is about double the national average and four times the middle income country average. Water and sewerage are inadequate and frequently unsafe, and narrow roads impede access by ambulances, fire trucks, garbage collection and public transport vehicles. Physical infrastructure serving the rural poor is also deficient, though the dispersed nature of rural poverty makes this less apparent.

200. The largest, most urbanized governorates (Amman, Zarqa, Irbid) have the largest *numbers* of the poor but, because these poor live in such large urban areas, these areas have the lowest *rates* of poverty. Less populous, more rural governorates (Mafraq, Balqa, Karak and Ma'an) have much smaller numbers of poor, but the highest rates of poverty—Mafraq's rate is nearly six times Amman's. Most low-income urban settlements lack the social cohesion and the strong family support networks of rural communities. Squatter settlements, in particular, lack community centers or similar facilities. Moreover, there is no room in most urban low-income settlements to place new schools or health facilities, and those already in place often lack the space, furnishings and supplies to function at acceptable standards.

C. Ongoing Government Efforts to Address Poverty

201. Current government policies to address poverty can be classified into two categories. The first category relates to the government's economic reform program whereas the second includes various program of direct assistance to the poor. The economic reform program alleviates poverty indirectly through its positive impact on growth and employment. Direct assistance is also needed, since poverty alleviation through high economic growth tends to materialize only gradually, and since poverty alleviation tends to be associated with positive externalities.

The economic reform program

202. Jordan's long-term prosperity rests mainly on the success of its economic adjustment and reform program. The primary objective of the program is the creation of a competitive, efficient, outward-oriented and business-friendly economic environment that attracts private investments (domestic and foreign) and generates jobs, thereby reduce poverty and unemployment. This program, with support from multilateral institutions and bilateral sources, has achieved a stable macroeconomic base for structural reforms. Now the authorities are deepening and widening structural reforms to encourage private sector activity and enhance the supply responsiveness of the economy, laying the basis for high sustainable rates of growth over the medium term.

Direct poverty alleviation programs

203. Current programs to assist the poor directly fall into three main categories: (i) public assistance (direct cash or in-kind transfers); (ii) physical and social infrastructure (physical facilities and services in areas where the poor are concentrated); and (iii) employment generation (mainly vocational training and credit for micro-enterprises).

Public assistance

204. Four government programs and one semi-government program currently provide most of the direct assistance to the poor: the National Aid Fund; food subsidies; health cards, cash compensation for the recently abolished universal wheat subsidy; and the Zakat Fund. In 1996, assistance under these programs totaled about JD 83 million.

- The ***National Aid Fund*** (NAF) is the best-targeted of the government programs. It provides cash transfers to those who are not expected to work (the disabled, female-headed households, elderly, and a few other categories). It also provides grants for family emergencies and the care of disabled children, and loans for self-employment of the disabled. Coverage has risen to an estimated 82,000 people (almost 1.9 percent of the population) in 1997, using a budget of JD 21.9 million. Annual cash assistance more than doubled during the 1991–97 period to JD 14.5 million, or an average of JD 14.7 per person per month. However, NAF has too small a budget to provide cash assistance to all those who qualify for it, and reaches only about one-tenth of the poor. It effectively excludes the working poor, and by reducing benefits dinar-for-dinar when beneficiaries earn income it creates a disincentive to work for some. Its rules also tend to over-assist the smallest households at the expense of the larger households.
- The ***food subsidy system*** entitles households whose monthly income is less than JD 600 to a cash subsidy of JD 0.72 per person per month, starting in October 1997. This replaced a quantity-based “food coupon” system for rice, sugar and milk that was not well targeted. The new system increased the actual subsidy value per recipient by about one third, but is still only about 3 percent of the poverty-line consumption level. If the

same budget were targeted at the poor (i.e. those with monthly per capita income of less than JD 20.60), average benefits would rise to a more meaningful 11 percent of poverty-level consumption.

- The *wheat subsidy compensation* makes available JD 15.36 per annum to every Jordanian (JD 24.96 for NAF recipients) to compensate for the abolition of the wheat subsidy. This cash subsidy reaches salaried public sector employees and pensioners automatically, but those outside the public sector and pension plans must go to government offices to apply for it. An estimated 65 percent of those eligible actually receive the subsidy, less than a third of whom are poor. The annual cost of the subsidy is about JD 45 million.
- The *health card program* provides access to subsidized health care for poor households lacking insurance. It covers about 8 percent of the population with average annual benefits of about JD 3.5 per person. The complicated application, centralized decision-making, poor understanding of eligibility, and the stigma associated with applying are believed to have kept coverage of the poor by the program down to about 60 percent.
- The *Zakat Fund* is an independent corporate body that supervises the collection and distribution activities of about 160 Zakat Committees all over Jordan. These local committees collect donations and operate cash and in-kind transfer programs for the poor, as well as rehabilitation and income-generation projects. The Fund transferred about JD 1.7 million in 1996. About 85 percent of its support was through one-time grants; it also provided recurrent support averaging about JD 4 per month to about 5,400 households.

Physical and social infrastructure

205. Most public infrastructure investments serve the poor by supporting overall economic activity. Several, however, are more carefully targeted at the poor:

- The largest ongoing efforts to improve the physical environment and services for the poor are through the United Nations Relief and Works Agency for Palestinian Refugees (UNRWA) and the Department of Palestinian Affairs (DPA). UNRWA's budget of about US\$75 million per year is inadequate to support needed capital improvements. Over 80 percent of it finances education and health services. A further 10 percent is used to operate training centers for women, rehabilitation centers for the disabled, a program of food aid and other relief to the poorest, and a small self-support program for income generation. DPA also provides some similar services.
- The Ministry of Public Works operates a program to build rural roads in remote areas now largely isolated from the national economy. The road works are relatively labor intensive, and provide temporary employment for unemployed local residents.

- The Ministry of the Interior coordinates a small program to improve roads, water supply, schools, health facilities and other infrastructure in five municipalities in Jordan. The Badia Development Program, aimed at the small but very poor population in Jordan's arid regions, supports similar kinds of infrastructure.
- Several NGOs operate small infrastructure projects in low-income settlements, but they lack the funds for major capital improvements.

Employment generation

206. The government has traditionally placed employment above cash transfers and infrastructure as the best long-term solution to the poverty problem. Its economic growth policies are the main tool for employment promotion, but it also has two direct avenues for boosting employment among the poor: (a) vocational training support; and (b) services for small and micro-enterprises.

- **Vocational training.** Jordan invests heavily in vocational secondary education and the largely vocational community colleges. About a third of the roughly 107,000 secondary school students follow the Ministry of Education's vocational curriculum; about 41,000 others attend the 35 schools run by the Vocational Training Corporation (VTC); and a further 23,000 attend the 55 community colleges. The annual cost per student of providing vocational training ranges from JD 300 in business training and an average of JD 337 in community colleges, to JD 600 in agriculture and JD 1,000 in hotel skills, compared to only JD 224 for general secondary education. Experience of vocational institutions in preparing students for the job market is mixed, however; the unemployment rates of their graduates are higher than for general secondary graduates.¹⁰² Only about 60 percent of graduates from VTC programs find jobs in their field of training within a year after graduation. The problem lies partly in VTC courses not providing the quality of skills desired by employers.
- **Small and micro-enterprise services.** Small and micro-enterprises account for more than two-thirds of the employed labor force, and create new jobs at a much lower cost than larger firms. The government provides support for them mainly through credit. Credit programs for these enterprises are run by the Development and Employment Fund (DEF, the largest program), UNRWA, NAF, the Ministry of Social Development (small social community projects), the Agricultural Credit Corporation, and the Small-Scale Industry and Handicraft Fund. Several NGOs also provide credit. The impact of these programs has been limited: the total number of loans outstanding is probably under 7,500. In any case, field operations show that credit is less of a constraint than attitudes (especially entrepreneurship) and skills in business management, production technology and marketing.

¹⁰²Some 20 percent of community college graduates were unemployed in 1996, compared with 13 percent of general secondary graduates.

207. The Labor Law passed in 1996 legalizes private employment firms, opening a new avenue for matching job seekers with vacancies, which may attract new participants into the labor market. However, the government has not issued licensing regulations for private employment firms, postponing the potential benefits from the Labor Law's liberalization. Moreover, women are inhibited from greater participation by social and policy factors that discriminate against their employment. Finally, the policy of reducing NAF aid dinar-for-dinar if beneficiaries earn income makes it unattractive for them to work in low-paying jobs.

D. Facing the Challenge: A Strategy to Increase Social Productivity

208. The government has adopted a broad strategy to increase "social productivity," and thereby eliminate poverty as a major problem. Social productivity includes five dimensions: health, education, information and technology, infrastructure, and good governance. Improvements in all five dimensions are considered essential for the creation of an enabling environment for sustained growth of incomes and employment, and the decline of poverty.

209. The social productivity strategy has two "tracks." The first track, the Social Productivity Program (SPP), is a set of measures directly targeting poverty, including improving the infrastructure of low income communities, extending and refining the income supplementation program to all poor households, enhancing the job skills of the unemployed poor and the labor market information system, and strengthening the institutions supporting micro-enterprise development. The second track goes beyond direct assistance to the poor and targets general improvements in the five services noted above in order to increase social productivity, primarily through enhancing and raising government expenditure in these areas. Over time, once the poverty situation will have improved, the government envisions merging the programs concerned with direct poverty alleviation with its other programs targeting social productivity.

The social productivity program

210. The government is pressing forward immediately with the SPP. The over-arching objectives of the SPP are threefold: (i) it is intended to make an immediate and visible impact on the *living conditions* of the poor, towards the goal of providing universal access to good public infrastructure and services; (ii) to make an immediate impact on the *incomes* of the poor, towards the goal of lifting all households above the poverty line; and (iii) to assist the poor in obtaining *productive employment*, towards the goal of sustainable incomes for all those able to work, targeting long-term public cash transfers on the disabled, pensioners, and others not expected to be in the labor market.

211. The SPP will be implemented in two phases—Phase I, lasting about three years, and Phase II, from year four to year ten. During Phase I the government would launch the basic activities including pilot programs, and monitor and evaluate them to provide guidance for their improvement or abandonment during subsequent phases. Emphasis will be placed on learning from experience—modifying and fine-tuning programs so that as they grow and

mature, they become as effective and efficient as possible. Phase II will also support, in addition to ongoing projects, new initiatives prepared during Phase I on a pilot basis. At present, these have not been identified precisely.

212. The SPP is intended as an ongoing development process, in which the government at all levels continues to prepare and field test new ideas for possible adoption nationally, and is prepared to drop programs whose goals can be met better in other ways. The four principal SPP components are summarized below.

- (a) ***The Community Infrastructure Program.*** The Community Infrastructure Program (CIP) is intended to: (i) improve the living conditions of the poor by providing essential physical infrastructure in urban and rural low-income communities currently lacking it; (ii) improve the capacity of selected institutions to deliver infrastructure services to the poor efficiently and effectively; and (iii) test opportunities for stimulating community-level job-creating business investment and economic activity through a combination of community infrastructure investments and integrated support from the other components of the SPP. This third objective reflects the successful experiences in other countries with "grassroots"-based development stimulated by locally-identified communal infrastructure investments.

The CIP's major premise is that community infrastructure can alleviate some of the hardship of being poor, though it cannot by itself make people less poor. It involves construction of such facilities as water supply and sanitation, drainage, street upgrading and lighting, and community centers. The program has been divided into two main parts: one, focusing on underdeveloped poor urban settlements (refugee camps and squatter settlements), and another covering poor municipalities and villages throughout Jordan. The worst living conditions are in the refugee camps and squatter settlements, and the program focuses on rapid, comprehensive upgrading of these settlements. Investments designed to upgrade infrastructure for more isolated and dispersed groups of the poor throughout Jordan will be smaller, and the process will take longer.

- (b) ***The National Aid Fund.*** The NAF component has one main objective: to improve and extend the scope of the social safety net to all poor and disadvantaged Jordanians. It is designed to achieve this while increasing the incentives for able-bodied unemployed poor to find jobs, and without imposing a major new fiscal burden. The NAF component will consist of two main parts: (i) improving the existing cash benefit program, and (ii) creating a new Family Income Supplement (FIS) program covering all Jordanian poor.

The first part will extend assistance to the poor who already are the intended recipients of NAF's current benefits but are not receiving aid. To this end, the government will simplify and slightly loosen the existing eligibility conditions and benefit levels. This may involve, inter alia, letting maximum benefits rise with

household size up to a limit of nine dependents (instead of six); raising to four the number of children who can be cared for by a substitute family; excluding training stipends from the definition of countable income; and maintaining benefits until employment income has become stable for three months.

The second part, the FIS, will provide poor families currently below the severe poverty line but ineligible for NAF cash assistance with an income supplement to cover a part of the gap between the poverty line and their potential household incomes. Current planning envisions two main components for the FIS: a need-based component and a work-based component. Under the need-based component, the FIS benefit would close one quarter of the gap between the poverty line for families of that size and composition and the family's potential income—that is, its capacity to generate income by its own efforts. This capacity depends partly on the family's actual income (from those employed) and partly on what the family's adult members could be expected to earn for themselves based on averages for other Jordanians sharing key characteristics (e.g., age, education, location and gender). This approach has two major advantages. *First*, it maintains strong incentives for people to work as eligible families will benefit by the full amount of any actual increase in their actual income up to the estimated level of their potential family earnings.¹⁰³ *Second*, using earnings capacity rather than actual earnings will reduce the gains from cheating. To benefit from cheating under this benefit structure, a family would have to succeed in concealing more income than its estimated potential earnings capacity.

Under the work-based component, FIS-eligible households with unemployed adults expected to work would be offered a wage subsidy of up to JD 50 per month for up to six months if they find full-time wage employment. These adults would be issued vouchers payable when an employer verifies that he has hired the voucher-holder in a new full-time job (i.e. not replacing a current Jordanian employee), or in a job replacing a non-Jordanian employee, at a specified wage. Intended as a pilot effort to be carried out over a three-year period, it will then be evaluated, modified as appropriate, and extended.

- (c) ***The Micro and small enterprise development program.*** The basic objective of this component is to create effective and sustainable support services for small and micro-enterprises, to help them start up or grow faster. The development of new and existing small and micro-enterprises will be supported in three ways: (a) micro-finance intermediary institutional development—a program of technical assistance to eligible micro-finance intermediaries to enhance and expand their capacity to deliver and

¹⁰³Earnings increases beyond that level will still increase total family income by at least 75 percent of the additional earnings. In effect, the additional earnings will be taxed at a marginal rate of 25 percent (vs. 100 percent under the current NAF rules). At the same time, it will protect families where a wage earner loses a job by assuming for that wage earner a potential income of zero for the next two months.

sustain micro-finance services and programs; (b) small business commercial finance—through technical assistance and a guaranteed loan program to eligible banks, assisting them in building sustainable and profitable micro-and small business loan portfolios; and (c) business support services—the establishment at the governorate level of a network of business bureaus that can assist small and micro-enterprises in the acquisition of basic management skills and access to information, markets, and technology.

- (d) ***The training and employment support program***—The main objective of this component is to increase the amount and relevance of technical and vocational training especially for poor unemployed Jordanians. It will facilitate job placement for the unemployed (giving priority to the poor) and improve the efficiency of public vocational training expenditures by creating a pilot-scale Training Fund and related support services such as occupational needs analysis and employment intermediation. The fund will finance on-the-job training, or institutional training in cases where a participating employer cannot provide on-the-job training, for about 5,000 people. It will cover the incremental costs to employers (or to public and private training institutions) of providing this training and supervising the new employees over a six-month period.

Program cost of increasing social productivity

213. The incremental costs of the Phase I components of the Program would total about US\$233 million, including recurrent costs. These costs and their indicative financing are presented below in Table VI-1. Based on preliminary estimates, about one third of the financing will be from government contributions, about one half from external loans and the remainder from grants. Less than 20 percent of the financing for phase I is expected in 1998, when less costly initial steps, involving program design and planning, will take place. Costs could increase if program implementation goes faster than expected (in effect hastening the start of Phase II), or if policy decisions still to be taken on income transfer programs lead to larger benefits. Cost savings would accrue to the extent that FIS beneficiaries work on CIP subprojects, thereby reducing FIS budgetary costs. During Phase I, the government's share of total costs would average about US\$29 million per year, peaking at about US\$40 million in the third year. This peak amount is potentially large enough to have a negative impact on the government's fiscal balance targets, and would, therefore, need to be covered from appropriate domestic sources. It is, however, well within the range of savings possible from better targeting of current consumption subsidies; indeed, the government intends to take steps to improve targeting of these subsidies during the Phase I period. As indicated earlier, social productivity activities are expected to reach full development during Phase II, spanning years four through ten of the program. The indicative Phase II overall cost of US\$946 million includes US\$118 million of assumed financing from commercial banks for micro-and small businesses.

Table VI-1. Social Productivity Program: Indicative Costs

(In millions of U.S. dollars)

	Phase I (Years 1-3)			Phase II (Years 4-10) Total	Total
	Government	Foreign Financing (loans and grants)	Total		
Community infrastructure program	31.0	111.0	141.0	545.0	686.0
National aid fund	54.7	2.3	57.0	146.5	203.5
Micro- and small enterprise development	0.4	25.2	25.6	183.6	209.2
Training and employment support	0.8	5.0	5.8	62.7	68.3
Program implementation	0.6	2.8	3.4	8.5	11.9
Total	87.5	145.3	232.8	946.3	1,179.1

Source: World Bank

Table 1. Jordan: Selected Economic and Financial Indicators, 1992-97

Quota: SDR 121.70

Population: 4.0 million (1994)

Per capita income: US\$1,610 (1996) (World Bank Atlas Methodology)

	1992	1993	1994	1995	1996	Prel. 1997
(Percent change; unless otherwise indicated)						
National income and prices						
Nominal GDP (billions of U.S. dollars)	5.1	5.5	6.0	6.6	7.3	7.9
Real GDP at market prices	16.1	5.6	8.1	6.9	5.2	5.0
CPI (period average)	4.0	3.3	3.5	2.4	6.5	3.0
(Percent of GDP)						
Saving and Investment						
Gross national savings (incl. grants)	19.6	25.7	27.9	29.4	31.9	31.5
Gross capital formation	34.6	37.4	34.5	33.2	35.0	30.6
Gross fixed capital formation	30.0	34.3	33.1	31.8	33.4	32.0
Central government finances						
Revenue 1/ 2/	33.7	31.3	29.7	31.2	29.2	28.1
Expenditure and net lending 2/	36.9	37.2	35.8	36.5	33.8	31.7
Overall deficit (-) 1/ 2/	-3.2	-5.9	-6.1	-5.3	-4.6	-3.6
(Changes as a percent of beginning of period money stock)						
Money and credit (end of period) 3/						
Money and quasi-money	7.9	6.9	8.1	6.5	0.3	7.8
Net foreign assets	0.3	-1.2	0.0	2.5	0.5	8.4
Net domestic assets, of which:	7.6	8.1	8.0	4.1	-0.2	-0.7
Credit to government	2.2	-0.7	0.4	-0.7	-11.6	-8.0
Credit to private sector	6.1	6.9	13.2	8.9	4.0	4.1
Interest rate on 6-month central bank CDs (end of period; in percent)	...	4.1	7.9	9.0	9.5	6.5
Income velocity of broad money	0.83	0.85	0.87	0.90	0.99	1.01
(In billions of U.S. dollars; unless otherwise indicated)						
Balance of payments						
Exports, f.o.b.	1.2	1.2	1.4	1.8	1.8	1.9
Imports, c.i.f.	3.4	3.5	3.4	3.7	4.3	4.0
Net services	0.9	1.3	1.2	1.4	1.9	1.9
Current account (excluding official transfers)	-1.1	-1.0	-0.7	-0.6	-0.6	-0.3
In percent of GDP	-21.8	-17.9	-12.0	-8.8	-8.7	-4.2
Current account (including official transfers)	-0.8	-0.6	-0.4	-0.3	-0.2	0.1
In percent of GDP	-15.1	-11.7	-6.6	-3.9	-3.1	0.9
Official transfers	0.3	0.3	0.3	0.3	0.4	0.4
Overall balance	-0.5	-0.6	-0.4	-0.3	-0.4	0.3
Reserves						
Gross official foreign exchange reserves (end of period)	0.8	0.6	0.4	0.4	0.7	1.7
In months of imports of goods 4/	2.4	2.2	1.7	1.5	2.1	5.5
Debt						
External debt (public and publicly guaranteed)	6.6	6.7	6.7	6.8	7.2	7.0
In percent of GDP	128.9	121.0	112.0	104.3	100.2	88.9
Debt service ratio	42.5	35.9	30.6	26.4	25.7	22.9
(In millions of SDR; unless otherwise indicated)						
Use of Fund resources						
Purchases	22.2	11.1	65.6	75.8	82.2	96.7
Repurchases	7.2	33.1	25.9	5.6	15.3	16.2
Total Fund credit and loans outstanding						
In percent of quota	54.8	48.5	81.3	139.0	194.0	260.1
Exchange rates						
Jordanian dinars per U.S. dollar (period average)	1.47	1.44	1.43	1.43	1.41	1.41
Real effective exchange rate (percent change; end of period)	3.0	2.7	-3.8	-6.8	5.0	9.4

Sources: Jordanian authorities; World Bank Social Indicators of Development; and Fund staff projections.

1/ Excluding grants.

2/ Starting in 1996, figures exclude the operations of the Jordan Telecommunications Corporation.

3/ Monetary data were reclassified, as of 1993; see Tables 14 and 15 for details.

4/ Excluding imports for re-exports.

Table 2. Jordan: Industrial Origin of Gross Domestic Product
at Current Prices, 1992-97 1/

	1992	1993	1994	Est. 1995	Est. 1996	Est. 1997
(In millions of Jordan dinars)						
Agriculture	246.9	193.3	197.2	213.3	232.9	250.5
Mining	130.5	106.9	102.4	128.1	153.6	164.5
Manufacturing	406.3	427.3	561.4	618.7	688.6	748.4
Electricity and water	66.6	78.7	84.0	90.8	98.2	108.8
Construction	215.3	283.7	300.2	327.8	341.1	368.3
Trade	278.7	317.2	377.0	423.3	480.1	519.2
Transport and communications	450.0	487.1	494.0	531.7	591.8	670.5
Government services	554.7	619.1	671.2	732.9	792.7	849.1
Other services 2/	611.9	691.6	748.3	806.5	881.4	945.5
GDP at factor costs	2,960.9	3,204.9	3,535.7	3,873.1	4,260.4	4,624.8
Net indirect taxes	532.1	596.8	665.6	781.5	886.3	981.5
GDP at market prices	3,493.0	3,801.7	4,201.3	4,654.6	5,146.7	5,606.3
(Annual changes in percent)						
Agriculture	15.6	-21.7	2.0	8.2	9.2	7.6
Mining	4.5	-18.1	-4.2	25.1	19.9	7.1
Manufacturing	18.2	5.2	31.4	10.2	11.3	8.7
Electricity and water	7.5	18.2	6.7	8.1	8.1	10.8
Construction	71.3	31.8	5.8	9.2	4.1	8.0
Trade	9.4	13.8	18.9	12.3	13.4	8.1
Transport and communications	17.6	8.2	1.4	7.6	11.3	13.3
Government services	16.9	11.6	8.4	9.2	8.2	7.1
Other services 2/	16.8	13.0	8.2	7.8	9.3	7.3
GDP at factor costs	18.2	8.2	10.3	9.5	10.0	8.6
Net indirect taxes	52.2	12.2	11.5	17.4	13.4	10.7
GDP at market prices	22.3	8.8	10.5	10.8	10.6	8.9

Source: Department of Statistics.

1/ Estimates for 1995-97 were prepared by the Economic Situation Evaluation Committee, Government of Jordan.

2/ Comprising finance, insurance, real estate, and business services; community, social, and personal services; nonprofit services to households; domestic services of households; and an imputed bank service charge.

Table 3. Jordan: Industrial Origin of Gross Domestic Product
at Constant 1985 Prices, 1992-97 1/

	1992	1993	1994	Est. 1995	Est. 1996	Est. 1997
(In millions of Jordan dinars)						
Agriculture	209.6	154.3	140.4	146.0	150.4	151.9
Mining	53.5	47.4	47.6	56.2	61.8	63.6
Manufacturing	253.7	261.9	336.8	360.4	382.0	401.1
Electricity and water	58.7	67.1	70.2	73.7	77.4	81.3
Construction	138.6	174.1	192.7	202.3	206.4	206.4
Trade	65.4	82.4	101.2	110.3	116.9	122.8
Transport and communications	278.5	289.9	294.0	305.8	324.1	356.5
Government services	415.3	451.6	464.6	490.2	509.8	525.1
Other services 2/	438.3	478.7	519.7	543.9	566.9	596.6
GDP at factor costs	1,911.6	2,007.4	2,167.2	2,288.8	2,395.7	2,505.3
Net indirect taxes	343.5	373.8	408.0	465.1	502.3	537.5
GDP at market prices	2,255.1	2,381.2	2,575.2	2,753.9	2,898.0	3,042.8
(Annual changes in percent)						
Agriculture	17.3	-26.4	-9.0	4.0	3.0	1.0
Mining	-1.1	-11.4	0.4	18.1	10.0	2.9
Manufacturing	15.0	3.2	28.6	7.0	6.0	5.0
Electricity and water	4.4	14.3	4.6	5.0	5.0	5.0
Construction	55.4	25.6	10.7	5.0	2.0	0.0
Trade	10.8	26.0	22.8	9.0	6.0	5.0
Transport and communications	9.2	4.1	1.4	4.0	6.0	10.0
Government services	5.8	8.7	2.9	5.5	4.0	3.0
Other services 2/	9.7	9.2	8.6	4.7	4.2	5.2
GDP at factor costs	12.1	5.0	8.0	5.6	4.7	4.6
Net indirect taxes	44.4	8.8	9.1	14.0	8.0	7.0
GDP at market prices	16.1	5.6	8.1	6.9	5.2	5.0

Source: Department of Statistics.

1/ Estimates for 1995-97 were prepared by the Economic Situation Evaluation Committee, Government of Jordan.

2/ Comprising finance, insurance, real estate, and business services; community, social, and personal services; nonprofit services to households; domestic services of households; and an imputed bank service charge.

Table 4. Jordan: National Expenditure Accounts in Current Prices, 1992-97 1/

	1992	1993	1994	Est. 1995	Est. 1996	Est. 1997
(In millions of Jordan dinars)						
Total consumption	3,439.0	3,568.6	3,764.5	4,104.4	4,588.1	4,974.4
Public	790.6	857.9	990.2	1,081.2	1,200.2	1,334.3
Private	2,648.4	2,710.7	2,774.3	3,023.2	3,387.9	3,640.1
Gross fixed investment	1,049.2	1,303.5	1,391.0	1,479.9	1,716.9	1,793.8
Buildings and construction	811.3	1,137.0	1,125.1	1,203.9	...	...
Machines and equipment	237.9	166.5	265.9	276.0	...	...
Final domestic demand	4,488.2	4,872.1	5,155.5	5,584.3	6,305.0	6,768.2
Change in stocks	159.6	119.2	60.0	67.5	84.4	-80.0
Total domestic demand	4,647.8	4,991.3	5,215.5	5,651.8	6,389.4	6,688.3
Net exports of goods and nonfactor services	-1,154.8	-1,189.6	-1,014.2	-997.2	-1,242.7	-1,082.0
Exports	1,819.9	1,962.1	2,093.4	2,438.2	2,597.1	2,549.6
Imports	-2,974.7	-3,151.7	-3,107.6	-3,435.4	-3,839.8	-3,631.6
GDP at market prices	3,493.0	3,801.7	4,201.3	4,654.6	5,146.7	5,606.3
(In percent of GDP)						
Total consumption	98.5	93.9	89.6	88.2	89.1	88.7
Public	22.6	22.6	23.6	23.2	23.3	23.8
Private	75.8	71.3	66.0	65.0	65.8	64.9
Gross fixed investment	30.0	34.3	33.1	31.8	33.4	32.0
Buildings and constructions	23.2	29.9	26.8	25.9	...	...
Machines and equipment	6.8	4.4	6.3	5.9	...	...
Net exports of goods and nonfactor services	-33.1	-31.3	-24.1	-21.4	-24.1	-19.3
Export	52.1	51.6	49.8	52.4	50.5	45.5
Imports	-85.2	-82.9	-74.0	-73.8	-74.6	-64.8
Memorandum items:						
Gross domestic savings	1.5	6.1	10.4	11.8	10.9	11.3
Gross national savings	19.6	25.7	27.9	29.4	31.9	31.5

Source: Department of Statistics; Central Bank of Jordan; and Fund staff estimates.

1/ Estimates for 1995-96 were prepared by the Economic Situation Evaluation Committee, Government of Jordan.

Table 5. Jordan: Agricultural Production, 1991-96

(In thousands of metric tons)

	1991	1992	1993	1994	1995	Prel. 1996
Field crops						
Wheat	61.8	75.4	57.1	46.9	58.5	42.7
Barley	39.9	68.9	31.8	27.4	31.7	29.2
Tobacco	1.3	3.2	3.4	1.5	4.8	1.1
Lentils	1.2	2.8	4.8	1.4	2.1	2.0
Vegetables						
Tomatoes	275.5	490.3	331.5	438.7	439.7	291.3
Eggplants	61.1	49.4	33.6	37.9	73.4	43.1
Cucumbers	56.2	34.2	46.0	35.1	66.4	74.2
Cauliflower and cabbage	40.9	30.7	27.6	51.8	55.4	42.0
Melons	94.3	90.3	64.3	145.2	117.8	106.4
Fruits						
Olives	40.6	81.8	31.8	94.1	63.2	88.6
Grapes	39.1	50.2	35.2	26.4	24.3	21.9
Citrus	151.9	160.3	106.8	150.7	105.5	133.1
Bananas	26.3	11.5	30.3	24.7	29.3	29.1
Animal production						
Red meat	16.8	16.8	18.9	16.1	14.5	16.0
Poultry meat	60.0	70.0	83.4	94.0	107.0	100.0
Milk	156.7	156.7	166.6	151.4	147.0	165.1
Eggs (million eggs)	710.0	775.0	862.2	871.0	715.0	726.0

Source: Department of Statistics.

Table 6. Jordan: Cost of Living Indicators, 1992-97

(1992=100)

	1992	1993	1994	1995	1996	1997
January	99.4	101.9	104.1	108.6	116.2	116.9
February	100.3	103.0	105.2	107.4	118.0	117.6
March	101.3	103.2	106.7	107.9	118.1	118.1
April	102.4	104.6	107.5	108.6	117.2	120.0
May	101.2	102.3	107.0	108.0	115.3	120.7
June	98.9	102.1	105.6	107.8	113.3	119.4
July	97.6	102.2	105.4	107.6	112.9	118.5
August	98.3	102.4	106.0	108.9	117.8	118.8
September	99.1	103.8	107.1	109.4	117.7	120.9
October	99.4	104.5	108.8	111.8	117.7	122.9
November	99.6	105.2	110.3	113.3	117.6	123.1
December	102.7	104.6	109.7	114.3	117.2	124.6
Annual average	100.0	103.3	107.0	109.5	116.6	120.1
Percent change	4.0	3.3	3.5	2.4	6.5	3.0
End of period	3.6	1.9	4.9	4.2	2.5	6.3
12-month change (in percent):						
January	6.0	2.6	2.2	4.3	7.0	0.6
February	6.0	2.7	2.1	2.1	9.9	-0.3
March	4.1	1.9	3.4	1.1	9.5	0.0
April	5.4	2.2	2.8	1.0	7.9	2.4
May	6.1	1.1	4.6	0.9	6.8	4.7
June	3.8	3.3	3.4	2.1	5.1	5.4
July	3.2	4.7	3.1	2.1	4.9	5.0
August	2.8	4.2	3.5	2.7	8.2	0.8
September	2.7	4.8	3.2	2.1	7.6	2.7
October	2.9	5.2	4.1	2.8	5.3	4.4
November	1.5	5.6	4.8	2.7	3.8	4.7
December	3.6	1.9	4.9	4.2	2.5	6.3
Monthly change (in percent):						
January	0.3	-0.8	-0.5	-1.0	1.7	-0.3
February	0.9	1.1	1.1	-1.1	1.5	0.6
March	1.0	0.2	1.4	0.5	0.1	0.4
April	1.1	1.4	0.7	0.6	-0.8	1.6
May	-1.2	-2.2	-0.5	-0.6	-1.6	0.6
June	-2.3	-0.2	-1.3	-0.2	-1.7	-1.1
July	-1.2	0.1	-0.2	-0.2	-0.4	-0.8
August	0.6	0.2	0.6	1.2	4.3	0.3
September	0.8	1.4	1.0	0.5	-0.1	1.8
October	0.3	0.7	1.6	2.2	0.0	1.7
November	0.2	0.7	1.4	1.3	-0.1	0.2
December	3.1	-0.6	-0.5	0.9	-0.3	1.2

Source: Central Bank of Jordan.

Table 7. Jordan: Output by Major Industries, 1992-97

	Units	1992	1993	1994	1995	1996	1997
Phosphate	1,000 ton	5,270.8	4,282.6	4,216.5	4,983.9	5,421.5	5,884.2
Potash	1,000 ton	1,346.0	1,370.1	1,550.3	1,780.0	1,766.0	1,416.0
Fertilizers	1,000 ton	553.6	469.9	749.7	729.3	639.8	585.6
Cement 1/	1,000 ton	2,746.0	3,078.9	3,076.0	3,151.9	2,983.3	3,055.2
Petroleum products	1,000 ton	2,839.6	2,814.5	2,917.9	3,100.7	3,154.4	3,301.1
Sole leather and wool	Ton	49.0	59.3	49.5	51.3	54.5	46.4
Upper leather	1,000 sq ft	2,639.7	2,587.1	2,196.4	2,519.6	2,139.4	2,269.9
Detergents	1,000 ton	34.3	32.4	23.5	21.7	15.4	22.1
Liquid batteries	1,000 batteries	86.7	77.4	72.4	70.4	62.9	55.7
Cigarettes	Million cigarettes	3,091.0	3,465.0	4,114.5	3,666.6	2,768.9	1,853.1
Spirits and alcoholic beverages	1,000 liter	6,285.1	6,572.1	6,453.6	6,846.5	7,972.3	7,824.9
Paper and cardboard	1,000 ton	17.0	16.0	17.6	13.7	17.8	12.2
Electricity	Million kwh	4,062.8	4,435.2	4,728.1	5,252.3	5,686.4	5,941.3
Iron	1,000 ton	234.7	181.4	156.7	151.2	172.0	115.0
Textiles	1,000 yard	1,100.8	1,142.0	1,051.9	1,744.9	1,764.1	1,458.7
Fodder	1,000 ton	53.5	43.7	50.2	54.3	54.4	72.7

Source: Central Bank of Jordan.

1/ Including clinker in 1990-94.

Table 8. Jordan: Construction Activity, 1992-97

(Area in thousands of square meters)

Year	Residential		Other		Total	
	Permits issued	Area	Permits issued	Area	Permits issued	Area
1992	21,180	6,459.0	11	37.5	21,191	6,496.5
1993	14,285	3,071.5	2,184	1,134.0	16,469	4,205.5
1994	16,000	3,683.8	2,351	1,191.3	18,351	4,875.1
1995	16,430	4,020.7	2,128	1,124.2	18,558	5,144.9
1996	14,966	4,315.1	1,837	1,156.0	16,803	5,471.1
1997	13,195	3,576.1	1,643	920.8	14,838	4,496.9

Source: Jordan Engineers Association.

Table 9. Jordan: New Registrations and Capital Investment, 1993-97

Sectors	1993		1994		1995		1996		1997 (Prel.)	
	Numbers of companies	Capital JD million	Numbers of companies	Capital JD million	Numbers of companies	Capital JD million	Numbers of companies	Capital JD million	Numbers of companies	Capital JD million
Agriculture	21	2.5	10	0.5	8	4.1	1	4.0	0	0
Industry	668	146.8	648	182.3	533	155.2	301	28.5	305	49.1
Construction	140	8.1	145	11.1	155	12.5	68	5.2	61	3.3
Trade	2,243	33.1	2,302	73.0	2,385	119.8	2,768	128.7	2,687	86.1
Other Services	1,337	52.0	1,357	141.5	1,375	168.4	1,079	601.6 1/	1,239	68.1
Total	4,409	242.5	4,462	408.4	4,456	460.1	4,217	768.1 1/	4,292	206.6

Source: Ministry of Industry and Trade.

1/ Including capital of the National Electric Power Company amounted to JD 230 million.

Table 10. Jordan: Government Finances, 1992-97

	1992	1993	1994	1995	1996	Prel. 1997
(In millions of Jordan dinars)						
Total revenue and foreign grants	1313.0	1,351.7	1,421.9	1,620.6	1,722.6	1,791.2
Revenue	1175.6	1,191.5	1,246.4	1,450.9	1,502.7	1,574.0
Tax revenue	646.0	643.4	694.4	757.9	869.1	914.0
Nontax revenue	529.6	548.1	552.0	693.0	633.6	660.0
Foreign grants	137.4	160.2	175.5	169.7	219.9	217.2
Total expenditure	1287.3	1,414.0	1,504.2	1,697.5	1,741.4	1,776.9
Current expenditure	1099.4	1,182.3	1,251.5	1,369.1	1,435.7	1,459.9
Of which: external interest 1/	285.5	220.6	195.4	212.6	216.0	218.7
Food subsidies	57.4	53.6	43.1	63.8	100.0	51.0
Capital expenditure	203.1	253.8	272.7	333.8	318.7	327.0
Net lending	-15.2	-22.1	-20.0	-5.4	-13.0	-10.0
Extrabudgetary expenditure	0.0	0.0	0.0	0.0	0.0	0.0
Primary balance 1/	206.2	28.4	-23.3	1.0	-3.1	36.8
Current balance 1/	76.2	9.2	-5.0	81.8	67.0	114.1
Overall balance, excluding grants 1/	-111.7	-222.5	-257.7	-246.6	-238.7	-202.9
Rescheduled interest	75.0	74.5	94.1	50.0	51.1	61.3
Receipts from sales of assets	0.0	0.0	0.0	0.0	0.0	2.9
Overall cash balance, including grants 2/	100.7	12.2	11.9	-26.9	32.3	78.5
Financing	-87.2	-73.4	-38.6	151.5	82.6	-96.1
Foreign (net)	44.0	140.4	41.1	186.1	170.4	-20.3
Net loans 1/	-183.8	-192.9	-142.9	-14.1	-13.8	-168.6
Loans	215.6	111.0	139.5	305.3	305.7	148.3
Repayments 1/	399.4	303.9	282.4	319.4	319.5	316.9
Debt relief	227.8	333.3	184.0	200.2	184.2	148.3
Domestic (net)	101.6	-49.6	-55.2	-34.6	-86.0	-75.8
Banking system	85.8	-28.3	-57.3	-37.6	-113.5	-60.6
Non-banks	15.8	-21.3	2.1	3.0	27.5	-15.2
Change in overdue obligations	-123.9	-20.2	0.0	0.0	0.0	0.0
Cost of external debt buyback/restructuring	-109.0	-144.0	-24.5	-1.5	-1.8	0.0
Discrepancy 3/	13.4	-61.2	-26.7	124.6	114.8	-17.0
(In percent of GDP)						
Revenue, excluding grants	33.7	31.3	29.7	31.2	29.2	28.1
Foreign grants	3.9	4.2	4.2	3.6	4.3	3.9
Expenditure	36.9	37.2	35.8	36.5	33.8	31.7
Of which: military expenditure	8.3	8.4	8.3	8.4	8.1	7.9
Expenditure, excluding interest	27.8	30.6	30.2	31.1	29.3	27.4
Current balance 1/	2.2	0.2	-0.1	1.8	1.3	2.0
Overall balance excluding grants 1/	-3.2	-5.9	-6.1	-5.3	-4.6	-3.6
Primary balance 1/	5.9	0.7	-0.6	0.0	-0.1	0.7
(In millions of Jordan dinars)						
GDP at market prices	3493.0	3,801.7	4,201.3	4,654.6	5,146.7	5,606.3

Sources: Ministry of Finance and Customs; and Fund staff estimates.

1/ Commitment basis.

2/ Cash basis.

3/ A positive number implies that the reported financing of the budget deficit was greater than the cash deficit reported by the Ministry of Finance.

Table 11. Jordan: Government Revenue, 1992-97

(In millions of Jordan dinars)

	1992	1993	1994	1995	1996	Prel. 1997
Total revenue, excluding grants	1,175.6	1,191.5	1,246.4	1,450.9	1,502.7	1,574.0
Tax revenue	646.0	643.4	694.4	757.9	869.1	914.0
Taxes on income and profits	109.5	118.8	136.6	152.4	174.0	170.3
Corporations	72.7	72.0	81.4	90.6	125.0	117.7
Individuals	24.5	30.7	35.1	38.0	37.3	28.0
Distributed profits 1/	...	...	...	...	...	12.2
Salaried employees	12.3	16.1	20.2	23.8	11.7	12.4
Taxes on domestic transactions	181.8	224.2	274.3	325.5	390.9	450.4
Excise duties/consumption tax/GST	138.4	174.3	222.4	268.7	325.0	372.3
Other taxes	43.3	49.9	51.8	61.6	65.9	78.1
Taxes on foreign trade	286.4	237.7	222.4	210.3	230.7	218.2
Customs duties	212.9	229.7	216.8	203.9	224.0	211.4
Duties on returnees' cars	65.0	0.0	0.0	0.0	0.0	0.0
Fines and forfeits	8.5	8.0	5.6	6.4	6.7	6.8
Additional tax	61.7	62.7	61.1	69.7	73.5	75.1
Imports	46.9	47.3	46.3	53.7	57.0	52.2
Other	14.8	15.4	14.8	16.0	16.5	22.9
Tax on Jordanians working abroad	6.7	0.0	0.0	0.0	0.0	0.0
Nontax revenue	529.6	548.1	552.0	693.0	633.6	660.0
Licenses	70.5	62.0	63.4	65.7	74.4	67.1
Imports	46.6	42.7	43.2	42.8	44.2	41.7
Other	23.9	19.3	20.2	22.9	30.2	25.4
Fees	104.9	113.3	125.5	151.3	161.0	181.0
Revenue from post and telephone 2/	120.3	135.9	161.3	158.3	6.5	7.6
Interest and profits	67.2	64.5	43.0	38.7	32.8	18.3
Interest	17.8	21.1	16.0	13.5	20.0	16.0
Profits	49.4	43.4	27.0	25.2	12.8	2.3
Miscellaneous	166.8	172.4	158.9	279.0	358.9	386.0
Of which: JTC transfer 2/	...	...	...	...	120.0	132.0

Sources: Ministry of Finance and Customs; and Fund staff estimates.

1/ Starting in 1997, the tax on distributed profits is identified as a separate revenue item. Previously it was included in corporate and individual taxes.

2/ Starting in 1996, revenues from Jordan Telecommunications Corporation (JTC) were classified as a miscellaneous nontax revenue.

Table 12. Jordan: Government Expenditure, 1992-97

(In millions of Jordan dinars)

	1992	1993	1994	1995	1996	Prel. 1997
Total expenditure	1287.3	1414.0	1504.2	1697.5	1741.4	1776.9
Current expenditure	1099.4	1182.3	1251.5	1369.1	1435.7	1459.9
Wages and salaries	210.0	247.0	276.3	312.5	338.3	355.5
Purchases of goods and services	69.7	101.1	93.0	101.9	85.6	88.9
Interest payments	317.9	251.0	234.5	247.6	235.6	239.7
Internal	32.4	30.3	39.1	35.0	19.6	21.0
External	285.5	220.6	195.4	212.6	216.0	218.7
Subsidies	57.4	53.6	43.1	63.8	100.0	51.0
Food	57.4	53.6	43.1	63.8	100.0	51.0
Other Transfers	139.7	190.7	235.7	235.3	238.9	256.6
Pensions	107.5	140.4	147.7	170.6	186.1	204.0
Social security	4.4	4.3	5.0	5.7	5.6	7.3
Decentralized agencies	24.3	36.2	45.0	49.8	41.5	38.8
Relief operations	3.4	9.7	38.0	9.2	5.7	6.5
Other	15.6	17.9	20.7	18.1	19.6	23.7
Military expenditure	289.5	321.0	348.2	389.9	417.7	444.5
Capital expenditure	203.1	253.8	272.7	333.8	318.7	327.0
Net lending	-15.2	-22.1	-20.0	-5.4	-13.0	-10.0
Gross lending	37.2	29.5	35.4	42.7	39.2	45.0
Repayments	-52.4	-51.5	-55.4	-48.1	-52.2	-55.0

Sources: Ministry of Finance and Customs; and Fund staff estimates.

Table 13. Jordan: Outstanding Public Sector Domestic Debt, 1992-97 1/

(In millions of Jordan dinars)

	1992	1993	1994	1995	1996	Prel. 1997
Central Government	1,004.2	1,106.5	1,144.0	928.8	961.4	852.8
Treasury bills	256.0	251.0	251.0	30.0	35.4	35.4
Banking system	236.0	251.0	251.0	28.0	0.0	0.0
Central Bank of Jordan	0.0	42.3	126.5	0.0	0.0	0.0
Commercial banks	236.0	208.7	124.5	28.0	0.0	0.0
Other holders	20.0	0.0	0.0	2.0	35.4	35.4
Government bonds and notes	540.5	540.5	540.5	540.5	540.5	519.6
Banking system	449.3	450.2	448.9	446.8	448.9	442.3
Central Bank of Jordan	390.2	390.7	396.5	404.0	405.8	403.1
Commercial banks	59.1	59.5	52.4	42.8	43.3	39.2
Other holders	91.2	90.3	91.6	93.7	91.4	77.3
Treasury bonds	32.0	32.0	32.0	8.0	8.0	29.0
Banking system	31.0	31.1	31.1	8.0	8.0	29.0
Central Bank of Jordan	0.0	0.0	0.0	0.0	0.0	0.0
Commercial banks	31.0	31.1	31.1	8.0	8.0	29.0
Other holders	1.0	0.9	0.9	0.0	0.0	0.0
Central Bank advances	175.7	235.6	235.6	235.6	235.6	235.6
Commercial banks advances	0.0	47.4	85.0	114.7	142.0	33.2
Public corporation bonds	37.3	37.3	37.3	37.3	33.2	31.0
Banking system	18.6	18.7	17.9	18.2	17.6	16.6
Central Bank of Jordan	0.0	0.1	0.1	0.1	0.7	0.3
Commercial banks	18.6	18.6	17.8	18.1	16.9	16.3
Other holders	18.7	18.6	19.4	19.1	15.6	14.4
Total domestic debt	1,041.5	1,143.8	1,181.3	966.1	994.6	883.8

Source: Central Bank of Jordan.

1/ Central government and public corporations.

Table 14. Jordan: Consolidated Balance Sheet of Commercial Banks and the Housing Bank, 1992-97

(In millions of Jordan dinars; end of period)

	1992	1993	1994	1995	1996	1997
Net foreign assets	-119.2	35.0	-83.6	-192.3	-181.3	-5.2
Foreign assets 1/	1,477.3	1,560.3	1,681.9	1,882.6	2,017.1	2,181.9
Foreign liabilities	1,596.5	1,525.3	1,765.5	2,074.9	2,198.4	2,187.1
Reserves	737.4	695.9	542.6	604.9	500.2	768.6
Deposits at CBJ	708.9	666.0	502.4	565.3	456.2	718.0
Currency	28.5	29.9	40.2	39.6	44.0	50.6
Deposits in foreign currency with the CBJ	847.5	660.9	754.2	874.7	737.2	339.6
Net credit to the CBJ	-428.4	-223.7	-82.3	-84.4	227.0	685.3
Credit from the CBJ	-428.4	-344.0	-362.4	-404.4	-390.5	-370.3
CDs holdings	0.0	120.3	280.1	320.0	617.5	1,055.6
Total credit (excluding to CBJ)	2,642.5	2,866.4	3,317.4	3,713.8	3,894.8	3,933.1
Claims on Government (total; net)	318.4	177.9	118.0	58.7	32.4	-116.0
Credit to Government (general budget)	409.9	345.4	285.4	215.5	216.2	141.0
Of which: Brady bonds	0.0	0.0	0.0	0.0	26.0	52.2
Credit to Government (own budget)	0.0	13.3	21.6	24.5	21.9	22.0
Deposits of government (general budget)	91.5	69.6	71.1	71.4	96.5	160.4
Deposits of government (own budget)	...	111.2	117.9	109.9	109.2	118.6
Claims on municipalities and local government	0.0	0.0	0.0	0.0	0.0	0.0
Claims on Social Security Corporation	0.0	0.0	0.0	0.0	0.0	0.0
Claims on financial institutions	48.8	81.2	94.2	100.5	99.3	97.5
Claims on nonfinancial public enterprises	253.3	296.8	341.8	362.1	408.2	425.0
Credit to private sector	2,022.0	2,310.5	2,763.4	3,192.5	3,354.9	3,526.6
Of which: foreign currency denominated	0.0	0.0	0.0	86.5	183.8	273.7
Other items, net (asset: +)	-545.2	-610.8	-687.0	-841.9	-961.3	-1,158.5
Of which: Capital account	348.5	492.6	582.8	701.7	771.0	1,047.7
Total deposits	3,134.6	3,423.7	3,761.3	4,074.8	4,216.6	4,562.9
Demand deposits	685.8	768.2	770.8	777.9	685.9	750.1
Of which: in foreign currency	83.5	89.0	100.4	106.8	101.9	108.0
Nonfinancial public enterprises	31.8	44.7	33.2	38.2	26.8	36.8
Municipalities and local governments	...	7.7	6.2	8.6	5.1	3.9
Financial institutions	...	5.7	6.4	4.9	4.9	4.7
Social Security Corporation	...	9.6	4.4	6.2	6.0	6.0
Private sector	654.0	700.5	720.6	720.0	643.1	698.7
Time and savings deposits	2,448.8	2,655.5	2,990.5	3,296.9	3,530.7	3,812.8
Of which: in foreign currency	8.1	417.7	481.7	665.3	730.2	717.9
Nonfinancial public enterprises	331.1	33.1	58.2	65.6	65.9	57.8
Municipalities and local governments	...	25.7	11.6	12.7	19.5	20.0
Financial institutions	...	35.2	32.6	37.3	46.4	51.8
Social Security Corporation	...	234.4	308.5	363.3	422.8	451.4
Private sector	2,117.7	2,327.1	2,579.6	2,818.0	2,976.1	3,231.8

Source: Central Bank of Jordan.

1/ Commercial banks' foreign assets have been redefined to exclude their foreign currency holdings with the CBJ, previously included.

Table 15. Jordan: Balance Sheet of the Central Bank, 1992-97

(In millions of Jordan dinars; end of period)

	1992	1993	1994	1995	1996	1997
Net foreign assets 1/	1,846.0	1,608.0	1,789.3	2,018.3	2,023.7	2,268.7
Foreign assets 2/	1,823.5	1,613.1	1,754.4	1,906.5	1,840.1	2,219.0
Foreign liabilities	22.5	-5.1	34.9	111.7	183.5	49.7
Net domestic assets 1/	-101.1	-21.7	-181.1	-367.5	-567.8	-500.5
Claims on Government (net)	535.8	656.2	663.3	686.3	590.4	662.6
Credit to Government (general budget)	596.3	698.8	786.8	671.0	673.0	670.4
Credit to Government (own budget)	0.0	0.1	0.0	0.0	0.0	0.0
Deposits of government (general budget)	137.6	95.5	213.2	156.7	317.8	307.1
Deposits of government (own budget)	...	4.4	11.5	6.3	5.5	3.6
Counterpart net Fund position	77.1	57.2	101.2	178.3	240.7	302.9
Claims on nonfinancial public enterprises(net) 3/	-32.1	-8.3	-7.9	-11.9	-4.2	-13.9
Credit	0.0	0.0	0.1	0.1	0.7	0.3
Deposits	32.1	8.3	8.0	12.0	4.9	14.2
Claims on municipalities/local governments (net) 3/	0.0	-0.1	-0.1	-0.1	0.0	0.0
Credit	0.0	0.0	0.0	0.0	0.0	0.0
Deposits	0.0	0.1	0.1	0.1	0.0	0.0
Claims on social security corporation (net)	0.0	-0.9	-0.4	-0.5	-0.4	-10.3
Credit	0.0	0.0	0.0	0.0	0.0	0.0
Deposits	0.0	0.9	0.4	0.5	0.4	10.3
Claims on financial institutions (net)	22.5	24.8	28.6	12.0	31.1	29.7
Credit	22.5	25.7	29.7	33.5	32.3	31.3
Deposits	0.0	0.9	1.1	21.5	1.2	1.6
Claims on private sector	4.4	5.7	6.5	7.6	8.0	8.7
Claims on commercial banks	...	348.1	367.6	369.0	399.0	361.1
Rediscount facilities	...	55.2	85.1	87.7	124.5	87.0
Bail-out operations	...	292.9	282.5	281.3	274.5	274.1
CDs	0.0	-120.3	-280.1	-320.0	-617.5	-1,055.6
Other items, net (asset: +)	-631.7	-927.0	-958.6	-1,109.9	-974.2	-482.7
Reserve money	1,744.9	1,586.3	1,608.2	1,650.8	1,455.9	1,768.2
Currency	1,032.4	1,077.8	1,112.8	1,090.5	996.2	1,038.2
Commercial banks' reserves	712.5	508.5	495.4	560.3	459.7	730.0
Legal reserves	...	387.9	420.4	454.3	446.9	496.4
Excess reserves	...	120.6	75.0	106.0	12.8	233.6

Source: Central Bank of Jordan.

1/ Adjusted by replacing Fund position with cumulative net purchases since 1992, valued at transaction exchange rates.

2/ Reclassified to exclude foreign currency deposits held by commercial banks with the CBJ, previously included.

3/ Includes financial and nonfinancial public enterprises

Table 16. Jordan: Monetary Survey, 1992-97

(In millions of Jordan dinars; end of period)

	1992	1993	1994	1995	1996	1997
Broad money	4192.9	4,481.8	4,843.5	5,159.8	5,175.3	5,576.6
Currency	1003.9	1,047.9	1,072.6	1,050.9	952.2	987.6
Deposits	3,189.0	3,433.9	3,770.9	4,108.9	4,223.1	4,589.0
Demand deposits	712.1	774.4	778.3	808.8	692.4	773.1
in JD	712.1	682.2	673.5	694.7	587.0	654.8
in foreign currency	...	92.2	104.8	114.1	105.4	118.3
Time and savings deposits	...	2,659.5	2,992.6	3,300.1	3,530.7	3,815.9
Net foreign assets	1,707.0	1,643.0	1,705.7	1,826.0	1,842.4	2,263.5
CBJ 1/	1,826.2	1,608.0	1,789.3	2,018.3	2,023.7	2,268.7
Deposit money banks 2/	-119.2	35.0	-83.6	-192.3	-181.3	-5.2
Net domestic assets (adjusted) 1/	2,486.0	2,838.8	3,137.8	3,333.8	3,332.9	3,313.1
Net domestic assets	3,390.7	2,845.6	3,206.3	3,403.6	3,394.0	3,358.6
Claims on Government (total; net)	777.1	776.9	781.3	745.0	622.8	546.6
Claims on government (net; general budget)	777.1	879.1	787.9	658.4	474.9	343.9
Claims on government (net; own budget)	...	-102.2	-107.8	-91.7	-92.8	-100.2
Counterpart net Fund position	77.1	0.0	101.2	178.3	240.7	302.9
Claims on municipalities and local governments	0.0	0.0	0.0	0.0	0.0	0.0
Claims on Social Security Corporation	0.0	0.0	0.0	0.0	0.0	0.0
Claims on nonfinancial public enterprises	253.3	296.8	341.9	362.2	408.9	425.3
Claims on financial institutions	71.3	106.9	123.9	134.0	131.6	128.8
Claims on private sector	2,026.4	2,316.2	2,769.9	3,200.1	3,362.9	3,535.3
Other items(net)	262.6	-651.2	-810.7	-1,037.7	-1,132.2	-1,277.4

Source: Central Bank of Jordan.

1/ For program purposes, Fund position was replaced by cumulative net Fund purchases valued at transaction exchange rates since 1992.

2/ Commercial banks' foreign assets have been redefined to exclude their foreign currency holdings with the CBJ, previously included.

Table 17. Jordan: Factors Affecting Changes in Money Supply, 1992-97

	1992	1993	1994	1995	1996	1997
(In millions of Jordan dinars)						
Broad money	308.6	288.9	361.7	316.3	15.5	401.3
Foreign assets (net)	12.0	-64.0	62.7	120.3	16.4	421.1
Central Bank 1/	30.3	-218.2	181.3	229.0	5.4	245.0
Commercial banks and Housing Bank 2/	-18.3	154.2	-118.6	-108.7	11.0	176.1
Net domestic assets (adjusted) 1/	296.6	352.8	299.0	196.0	-0.9	-19.8
Net domestic assets		-545.1	360.7	197.3	-9.6	-35.5
Claims on Government, Total	85.8	-0.2	4.4	-36.3	-122.2	-76.3
Claims on Government (net; general budget)	85.8	102.0	-91.2	-129.5	-183.5	-131.0
Claims on Government (net; own budget)	...	-102.2	-5.6	16.1	-1.1	-7.4
Claims on municipalities and local governments	...	0.0	0.0	0.0	0.0	0.0
Claims on Social Security Corporation	...	0.0	0.0	0.0	0.0	0.0
Claims on nonfinancial public enterprises	...	43.5	45.1	20.3	46.7	16.4
Claims on financial institutions	10.1	35.6	17.0	10.1	-2.4	-2.8
Claims on private sector	236.3	289.8	453.7	430.2	162.8	172.4
Other items (net)	-27.1	-913.8	-159.5	-227.0	-94.5	-145.2
(Changes in percent of beginning of period broad money stock)						
Broad money	7.9	6.9	8.1	6.5	0.3	7.8
Foreign assets (net)	0.3	-1.2	0.0	2.5	0.5	8.4
Domestic assets (net)	7.6	8.1	8.0	4.1	-0.2	-0.7
Claims on Government (net)	2.2	-0.7	0.4	-0.7	-11.6	-8.0
Claims on private sector	6.1	6.9	13.2	8.9	4.0	4.1

Source: Central Bank of Jordan.

1/ For program purposes, Fund position was replaced by cumulative net Fund purchases valued at transaction exchange rates since 1992.

2/ Commercial banks' foreign assets have been redefined to exclude their foreign currency holding with the CBJ, previously included.

Table 18. Jordan: Commerical Banks' Liquidity and Reserves, 1994-97 1/

(In millions of Jordan dinars; end of period)

	1994	1995	1996	1997
Liquid assets 2/	3,158.1	3,288.0	3,462.2	3,948.6
Reserve assets:				
Current deposits with Central Bank 3/	496.4	560.3	472.2	694.7
Liquidity ratio-related liabilities 4/	5,689.6	6,197.8	6,503.2	6,960.2
Reserve ratio-related liabilities 5/	3,456.7	3,476.1	3,605.6	4,064.6
Liquidity ratio				
Legal	30.0	30.0	30.0	30.0
Actual	55.5	53.1	53.1	56.7
Reserve ratio (JD deposits)				
Legal				
Demand deposits	15.0	14.0	14.0	14.0
Investment banks	9.0	9.0	9.0	14.0
Weighted average	13.3	12.7	12.7	14.0
Actual	14.3	16.1	13.1	17.1

Source: Central Bank of Jordan.

1/ Due to reclassification of statistics, data for the years prior to 1994 are not available.

2/ Includes cash in vaults, balances with the Central Bank of Jordan (CBJ), bond and bills, convertible foreign currency balances with banks abroad (net), interbank deposits (net) and JD balances with banks abroad.

3/ Defined as JD deposits with the CBJ less CDs in JD.

4/ Defined to include demand, time and savings deposits, JD deposits with banks abroad, bills payable and borrowings.

5/ Defined to include previous month's JD deposits, banks' deposits and borrowing less amounts extended to exports sector. Since 1995, limited to previous month's JD deposits.

Table 19. Jordan: Consolidated Accounts of the
Specialized Credit Institutions, 1992-97 1/

(In millions of Jordan dinars)

	(Old Classification)		(New Classification) 2/				
	1992	1993	1993	1994	1995	1996	1997 Sep.
Cash	0.4	0.2	0.1	0.1	0.0	0.0	0.0
Balances with commercial banks	49.6	27.1	70.0	59.1	62.9	54.1	38.2
Balances with Central Bank of Jordan	0.2	1.1	0.4	0.6	0.4	0.2	0.2
Government bonds and bills	2.4	1.8	0.0	0.0	0.0	0.0	0.0
Other liquid assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Negotiable assets	32.4	36.8	0.0	0.0	0.0	0.0	0.0
Loans to private sector	204.3	237.1	231.7	225.4	251.3	262.6	254.3
Loans to public sector	44.2	46.1	0.0	0.0	0.0	0.0	0.0
Balances with other banking institutions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Claims on nonbanking financial institutions	0.0	0.0	0.0	0.2	0.4	0.4	0.5
Claims on other banking institutions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Claims on central government	0.0	0.0	0.7	3.2	2.8	4.8	4.5
Claims on municipalities and public debt	0.0	0.0	63.2	59.4	54.9	52.4	54.0
Fixed assets	9.3	9.8	9.1	9.9	10.5	6.5	6.2
Other assets	46.1	74.6	37.0	57.5	43.2	33.3	60.0
Assets = Liabilities	388.9	434.6	412.3	415.4	426.3	414.3	417.9
Deposits	48.0	31.2	69.8	53.1	36.7	27.1	22.2
Capital	66.3	68.6	52.9	54.0	63.3	69.6	70.0
Reserves	35.5	40.0	37.9	37.7	48.2	62.4	64.9
Credit from Government	1.9	1.1	17.1	16.2	16.2	15.0	14.5
Credit from Central Bank of Jordan	20.1	16.5	26.2	31.0	27.5	27.2	25.8
Credit from foreign institutions	67.0	77.2	79.0	84.6	92.4	83.0	82.6
Credit from banks	69.6	67.7	60.2	58.2	56.2	54.2	53.2
Other borrowing	...	...	13.5	13.9	14.0	14.3	14.0
Other liabilities	80.5	132.3	55.5	66.9	71.8	61.5	70.7

Source: Central Bank of Jordan.

1/ Includes the Agricultural Credit Corporation; the Cities and Villages Development Bank; the Housing and Urban Development Corporation; and the Industrial Development Bank.

2/ Effective December 1993, data for specialized credit institution were reclassified to new definitions.

Table 20. Jordan: Outstanding Loans of Specialized
Credit Institutions, 1992-97 1/ 2/

(In millions of Jordan dinars)

	1992	1993	1994	1995	1996	1997 Sep.
Agricultural Credit Corporation	56.6	71.0	74.0	77.1	84.9	87.0
Cities and Villages Development Bank	44.3	46.1	44.1	40.6	38.9	40.9
Housing Corporation	79.5	81.5	77.0	77.3	73.7	68.3
Industrial Development Bank	65.3	79.5	77.2	101.4	110.9	105.1
Jordan Cooperative Organization	10.5	9.9	5.6	3.1	...	...
Total	256.2	288.0	299.5	299.5	308.4	301.3

Source: Central Bank of Jordan.

1/ Includes the Agricultural Credit Corporation; the Cities and Villages Development Bank; the Housing and Urban Development Corporation; and the Industrial Development Bank.

2/ Effective December 1993, data for specialized credit institution were reclassified to new definitions.

Table 21. Jordan: Sectoral Distribution of Outstanding Credit to the Private Sector from Commercial Banks and the Housing Bank, 1992-97 1/

(In millions of Jordan dinars; end of period)

	(Old Classification)		(New Classification)				
	1992	1993	1993	1994	1995	1996	1997
Agriculture	54.4	64.7	65.4	75.5	75.7	79.5	93.3
Mining	20.0	53.4	56.2	51.7	53.5	104.7	86.6
Industry	265.8	326.8	329.6	419.9	494.8	505.9	503.9
Commerce and trade	525.1	607.0	631.8	798.6	970.4	1,035.7	1,064.5
Construction	463.2	513.7	458.1	687.0	757.4	777.8	775.2
Transportation	54.0	60.9	65.0	198.3	195.6	200.3	217.7
Tourism, hotels, and restaurants	37.3	58.8	32.8	38.1	46.4	53.6	70.0
Financial services	...	...	174.8	175.3	159.5	156.4	154.1
Services and infrastructure	...	...	43.6	150.5	199.8	214.4	220.2
Other credits	626.9	755.6	884.0	653.5	752.6	792.0	794.2
Total	2,046.7	2,440.9	2,741.3	3,248.4	3,705.7	3,920.3	3,979.7
Of which : Private sector (Resident)	...	...	2,232.2	2,649.8	3,053.2	3,196.5	3,377.0
(As a percent of total credit)							
Agriculture	2.7	2.7	2.4	2.3	2.0	2.0	2.3
Mining	1.0	2.2	2.1	1.6	1.4	2.7	2.2
Industry	13.0	13.4	12.0	12.9	13.4	12.9	12.7
Commerce and trade	25.7	24.9	23.0	24.6	26.2	26.4	26.7
Construction	22.6	21.0	16.7	21.1	20.4	19.8	19.5
Transportation	2.6	2.5	2.4	6.1	5.3	5.1	5.5
Tourism, hotels, and restaurants	1.8	2.4	1.2	1.2	1.3	1.4	1.8
Financial services	...	...	6.4	5.4	4.3	4.0	3.9
Services and infrastructure	...	...	1.6	4.6	5.4	5.5	5.5
Other credits	30.6	31.0	32.2	20.1	20.3	20.2	20.0
Of which : Private sector (Resident)	...	...	81.4	81.6	82.4	81.5	84.9

Source: Central Bank of Jordan.

1/ Effective December 1993, monetary data were reclassified according to new definitions.

Table 22. Jordan: Net Foreign Assets of the Banking System, 1992-97 1/

(In millions of U.S. dollars)

	(Old Classification)		(New Classification)				
	1992	1993	1993	1994	1995	1996	1997
Total foreign assets (net)	2,505.3	2,469.4	2,342.3	2,502.9	2,798.6	2,896.1	3,682.9
Central Bank of Jordan (net)	1,446.8	1,353.8	1,353.8	1,546.1	1,836.1	2,112.0	3,092.5
Assets	1,448.5	1,356.2	1,356.2	1,549.3	1,840.6	2,117.5	3,099.8
Gold 2/	101.4	99.8	99.8	198.5	195.9	197.7	200.7
SDRs	18.9	6.8	6.8	0.7	1.2	0.8	0.2
IMF reserve position	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign exchange	750.1	588.4	588.4	431.2	427.0	697.1	1,693.2
Bilateral accounts 3/	578.1	661.2	661.2	918.9	1,216.5	1,221.9	1,205.7
Liabilities	1.7	2.4	2.4	3.2	4.5	5.5	7.3
Commercial banks (net)	1,053.9	1,115.6	988.5	956.8	962.5	784.1	590.4
Assets	3,364.0	3,154.1	3,155.1	3,475.3	3,889.0	3,884.8	3,675.2
Liabilities	2,310.1	2,038.5	2,166.6	2,518.5	2,926.5	3,100.7	3,084.8
Other financial institutions	4.6	0.0	0.0	0.0	0.0	0.0	0.0
Assets	6.3	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Exchange rate (end of period) (US\$/JD)	1.45	1.42	1.43	1.41	1.41	1.41	1.41

Source: Central Bank of Jordan.

1/ Effective December 1993, monetary data were reclassified according to new definitions. Data are classified according to CBJ definition, which are different from those applied to the monetary survey data.

2/ National valuation. Figure for 1994 includes revaluation of US\$97.9 million.

3/ Includes claims on Central Bank of Iraq.

Table 23. Jordan: Interest Rate Structure and Recent Government Bond Issues, 1992-97

(In percent)

	1992	1993	1994	1995	1996	1997
Central Bank of Jordan						
Rediscount rate	8.50	8.50	8.50	8.50	8.50	7.75
Advances to commercial banks	8.50	8.50	8.50	8.50	8.50	7.75
Export facility	5.00	3.50	6.00	7.50	7.50	6.75
Commercial banks						
Overdrafts and discounts	10.00-14.00	10.00-13.00	9.00-14.00	9.00-14.00	9.50-15.50	10.75-15.50
Loans	10.00-14.00	10.00-14.00	9.00-15.00	9.25-15.00	9.75-16.50	10.75-15.75
Demand deposits	0.00-6.00	0.00-5.00	0.00-5.00	0.00-5.00	0.00-6.00	0.00-5.00
Savings deposits	3.00-7.00	3.00-8.00	3.00-7.50	4.00-7.50	4.00-7.00	4.00-8.00
One-year time deposits	5.50-8.75	5.00-8.25	5.00-8.75	5.00-9.25	6.00-10.10	6.75-10.00
One-year certificates of deposit 1/	...	7.50	7.66	8.20	...	...
Commissions 2/	1.00	1.00	0.25-1.00	0.25-1.00	1.00	1.00
Housing Bank						
Commercial loans	...	11.25-12.50	11.50-12.50	11.50-12.50	14.00	...
Housing loans 2/	...	10.00	10.00	...	...	...
Demand deposits	...	0.00	0.00	0.00	0.00	...
Savings deposits	...	5.00	5.00	5.00	5.00	...
One-year time deposits	...	6.00-7.00	6.50-7.50	6.50-8.30	6.75-8.75	...
Specialized credit institutions'						
maximum loan rates						
Agricultural credit corporation	10.00	8.50	8.50	9.00	9.00	9.00
Industrial development bank	...	11.00	11.00	10.50	10.50	10.50
Jordan cooperative organization	...	8.50	0.00	0.00	0.00	0.00
Three-month treasury bills	3.00	3.26	8.01	7.07	8.90	8.90
Three-month CBJ CDs	...	3.25	7.75	8.75	9.25	6.25
Government bonds 3/	9.00	9.00	8.25	9.25	9.25	8.55
	(March)	(March)	(June)	(July)	(May)	(July)
			8.50	8.75	9.25	8.63
			(Nov.)	(Sep.)	(Aug.)	(Oct.)
				9.25		7.50
				(Oct.)		(Dec.)
				9.25		
				(Dec.)		

Source: Central Bank of Jordan.

1/ Interest rates on certificates of deposits for 1993 onward are confined only to investment banks.

2/ Commissions apply to overdraft facilities.

3/ Date of issuance is in parenthesis.

Table 24. Jordan: Balance of Payments, 1992-97

(In millions of U.S. dollars)

	1992	1993	1994	1995	1996	Prel. 1997
Current account						
Including grants	-774	-644	-399	-257	-223	72
Excluding grants	-1,122	-984	-723	-582	-630	-331
Trade of goods and services	-1,268	-1,019	-725	-564	-609	-313
Trade balance	-2,151	-2,287	-1,950	-1,922	-2,473	-2,168
Exports, f.o.b.	1,220	1,248	1,424	1,771	1,817	1,859
Imports, c.i.f.	3,370	3,535	3,374	3,693	4,290	4,027
Foodstuffs	612	628	586	598	967	712
Oil and oil products	446	454	430	480	525	560
Other	2,312	2,453	2,357	2,615	2,797	2,756
Services (net)	883	1,268	1,225	1,358	1,864	1,855
Remittances (net)	739	962	1,000	1,137	1,444	1,422
Receipts 1/	825	1,040	1,093	1,244	1,544	1,622
Payments	86	78	93	107	100	200
Travel (net)	112	218	188	235	362	376
Receipts	462	563	582	660	744	774
Payments	350	345	394	425	381	398
Investment income (net)	-349	-310	-315	-279	-301	-209
Receipts	112	99	73	116	112	248
Payments (scheduled)	461	409	388	395	413	457
Transportation (net)	33	67	46	26	44	60
Receipts	329	366	350	417	376	385
Payments	296	299	304	392	332	325
Other (net)	348	331	306	239	314	205
Receipts	656	645	629	631	726	578
Payments	308	314	323	392	412	372
Unrequited transfers	494	375	326	307	388	385
Private 2/	146	35	2	-19	-20	-18
Public (grants)	348	340	324	326	408	403
Capital account	170	-147	-55	216	132	262
Public sector (net)	-337	-415	-272	-21	-82	-214
Receipts	335	155	242	510	462	237
Payments (scheduled)	672	570	514	531	544	452
Cost of debt restructuring 3/	158	232	35	1	3	-11
Private sector (net)	45	20	26	40	59	328
Transfer of workers' savings 4/	619	480	226	197	158	160
Errors and omissions, etc. 5/	116	220	17	-269	-260	-64
Overall balance	-488	-571	-437	-311	-351	270

Table 24. Jordan: Balance of Payments, 1992-97 (concluded)

(In millions of U.S. dollars)

	1992	1993	1994	1995	1996	Prel. 1997
Financing	488	571	437	311	351	-270
Increases in NFA (-) 6/	-51	95	-57	-248	-123	-704
Of which : increase in gross reserves (-)	56	174	164	4	-270	-967
IMF (net)	31	-41	57	106	97	111
Purchases	31	5	94	115	119	133
Repurchases	0	46	37	8	22	22
Arab Monetary Fund (net)	-9	-7	13	15	5	27
Debt rescheduling	1,149	602	424	387	307	296
Other exceptional sources	-632	-78	0	51	65	0
GCFCG grants and loans 8/	28	35	0	0	0	0
Change in deferred payments	-0.6	-113	0	51	65	0
Memorandum items:						
Gross official foreign exchange reserves						
In millions of US\$	769	595	431	427	698	1,694
In months of imports 9/	3.0	2.2	1.7	1.5	2.1	5.5
Current account balance (in percent of GDP)						
Including grants	-15.1	-11.7	-6.6	-3.9	-3.1	0.9
Excluding grants	-21.8	-17.9	-12.0	-8.8	-8.7	-4.2
Total debt service (including IMF)	1,133	1,014.4	914.1	917.1	942.1	824.1
In percent of exports of						
goods and nonfactor services	42.5	35.9	30.6	26.4	25.7	22.9
Interest payments (in percent of GDP)	8.4	7.1	5.9	5.7	5.2	4.4
Total external debt (in percent of GDP) 10/	128.9	121.0	112.0	104.3	100.2	88.9
GDP (in million of US\$)	5,139	5,503	6,013	6,640	7,257	7,905

Sources: The Jordanian authorities.

1/ Remittance from Jordanians working abroad.

2/ Includes transfers from foreign private aid organizations and transfers from/to abroad by Jordanians.

3/ Cost of cash buy-back operations.

4/ Estimated transfer of savings held abroad by Jordanians.

5/ Includes estimated re-transfer of money to the WBSG, which was once remitted by Palestinian workers abroad and deposited at banks in Jordan.

6/ Excludes changes in the liabilities of the CBJ to the IMF.

7/ In 1997, US\$181 reflect the Paris Club rescheduling of May 1997, which covers June 1997-February 1999, assuming comparable treatments from non-Paris Club creditors.

8/ Unrecurrent aid of grants and loans from Gulf Crisis Financial Cooperation Group.

9/ Imports adjusted for re-exports.

10/ Public and publicly guaranteed.

Table 25. Jordan: Developments in Exports, 1992-97

	1992	1993	1994	1995	1996	Prel. 1997
(In millions of U.S. dollars)						
Domestic Exports	932.3	997.8	1,136.0	1,433.3	1,466.7	1,524.3
Phosphates	180.1	141.3	143.7	150.5	179.0	192.2
Volume (1000 metric tons)	4,263.9	3,532.5	3,830.0	3,878.5	4,307.7	4,367.0
Unit price (US\$/metric ton)	42.2	40.0	37.5	38.8	41.6	44.0
Fertilizers	106.6	80.3	127.5	161.4	182.2	153.8
Volume (1000 metric tons)	597.5	505.0	687.0	686.6	763.9	680.0
Unit price (US\$/metric ton)	178.4	159.0	185.6	235.0	285.5	226.2
Potash	126.8	124.2	132.5	173.5	177.3	136.1
Volume (1000 metric tons)	1,233.2	1,400.0	1,516.0	1,774.3	1,750.0	1,420.2
Unit price (US\$/metric ton)	102.8	88.7	87.4	97.8	101.3	95.8
Other	518.8	652.0	732.3	947.9	928.2	1,042.2
Fruit and vegetables	73.5	99.8	93.4	97.3	115.7	124.5
Miscellaneous manufactures	176.3	227.4	237.3	272.4	274.3	288.3
Chemicals	183.1	201.8	247.8	269.7	284.8	342.4
Miscellaneous	85.9	123.0	153.8	308.5	253.4	287.0
Re-exports	287.6	250.2	288.0	337.6	350.4	335.0
Total exports	1,219.9	1,248.0	1,424.0	1,770.9	1,817.1	1,859.3
(Percentage change over previous year)						
Domestic exports	6.0	7.0	13.8	26.2	2.3	3.9
Phosphates	-0.4	-21.5	1.7	4.7	19.0	7.4
Volume	0.4	-17.2	8.4	1.3	11.1	1.4
Unit price	-0.8	-5.3	-6.2	3.4	7.1	5.9
Fertilizers	-16.1	-24.7	58.8	26.5	12.9	-15.6
Volume	-9.9	-24.7	36.0	-0.1	11.3	-11.0
Unit price	-6.9	-10.9	16.7	26.6	1.5	-5.2
Potash	-10.8	-2.0	6.7	31.0	2.2	-23.2
Volume	-2.5	13.5	8.3	17.0	-1.4	-18.8
Unit Price	-8.5	-18.3	4.0	11.9	3.6	-5.4
Other	20.8	25.7	12.3	29.4	-2.1	12.3
Fruits and vegetables	-8.2	35.8	-6.4	4.2	18.9	7.6
Miscellaneous manufactures	23.1	29.0	4.4	14.8	0.7	5.1
Chemicals	37.6	10.2	22.8	8.8	5.6	20.2
Miscellaneous	17.8	43.2	25.0	100.6	-17.9	13.3
Re-exports	13.8	-13.0	15.1	17.2	3.8	-4.4
Total exports	7.7	2.3	14.1	24.4	2.6	2.3

Source: The Jordanian authorities.

Table 26. Jordan: Developments in Imports, 1992-97

	1992	1993	1994	1995	1996	Prel. 1997
(In millions of U.S. dollars)						
Food and live animals	612.0	627.8	586.1	598.2	967.4	711.5
Beverages and tobacco	13.7	13.9	20.0	14.1	16.9	22.9
Raw materials	67.0	80.1	102.7	130.0	130.7	119.1
Petroleum and petroleum products	446.3	454.3	430.2	480.0	525.4	559.9
Oil products	109.7	112.6	97.7	124.3	159.3	119.8
Volume (1000 tons)	942.0	1,080.9	1,030.2	921.6	...	...
Unit price (US\$/ton)	116.5	104.5	94.8	...	...	...
Crude oil	336.6	341.7	332.5	355.7	366.1	440.1
Volume (1000 barrels)	21,870.8	24,062.2	23,674.0	23,336.0	24,033.0	...
Unit price (for Iraqi oil)(US\$)	15.4	14.2	14.0	15.2	15.2	17.3
International spot price (US\$)	18.2	16.2	15.5	17.2	20.4	19.2
Oils and fat	55.4	61.6	118.1	135.1	103.9	146.4
Chemicals	361.2	358.8	400.5	453.3	464.2	469.3
Manufactured goods	654.4	731.4	618.4	719.2	722.8	608.6
Machinery and transport	922.2	953.8	859.0	905.7	1,114.1	1,121.3
Other manufactures	222.3	217.6	216.9	210.0	220.2	205.1
Aircrafts	0.0	0.0	0.0	0.0	0.0	...
Other imports	24.7	41.8	28.9	50.5	27.1	63.0
Total imports (customs), c.i.f.	3,379.2	3,540.6	3,380.8	3,696.1	4,292.7	4,027.1
Of which: non-oil imports	2,932.9	3,087.0	2,950.6	3,216.1	3,767.3	3,467.2
Total imports (BOP), c.i.f. 1/	3,370.4	3,535.3	3,373.6	3,693.1	4,290.0	4,027.1
(Percentage change over previous year)						
Food and live animals	-0.2	2.6	-6.6	2.1	61.7	-26.5
Beverages and tobacco	-1.8	1.5	43.9	-29.5	19.9	35.5
Raw materials	-22.6	19.6	28.2	26.6	0.5	-8.9
Petroleum and petroleum products	22.8	1.8	-5.3	11.6	9.5	6.6
Oil products	-4.6	2.6	-13.2	27.2	28.1	-24.8
Crude oil	35.5	1.4	-2.6	7.0	2.9	20.2
Volume	...	10.0	-1.6	-1.4	3.0	...
Unit price (for Iraqi oil)(US\$)	...	-7.8	-1.0	8.5	0.0	13.8
Oils and fat	59.2	11.2	91.7	14.4	-23.1	40.9
Chemicals	12.4	-0.7	11.6	13.2	2.4	1.1
Manufactured goods	35.9	11.8	-15.4	16.3	0.5	-15.8
Machinery and transport	75.1	3.4	-9.9	5.4	23.0	0.6
Other manufactures	61.2	-2.1	-0.3	-3.2	4.9	-6.9
Other imports	22.9	69.2	-30.9	74.7	-46.3	132.5
Total imports (customs), c.i.f.	30.0	4.8	-4.5	9.3	16.1	-6.1
Of which: non-oil imports	31.1	5.3	-4.4	9.0	17.1	-8.0
Total imports (BOP), c.i.f. 1/	30.0	4.9	-4.6	9.5	16.2	-6.1

Source: The Jordanian authorities.

1/ Adjusted for imports by the non-residents (mostly by embassies and multilateral agencies).

Table 27. Jordan: Composition of Imports (SITC Classification), 1992-97 1/

(In millions of Jordan dinars)

	1992	1993	1994	1995	1996	Prel. 1997
Total imports, c. i. f. 1/	2,276.0	2,453.6	2,362.6	2,590.3	3,043.6	2,593.0
Food and live animals	416.0	435.1	409.7	419.2	685.9	446.6
Live animals	26.1	27.9	30.9	29.8	26.8	24.4
Dairy products and eggs	34.6	41.4	30.8	39.1	59.6	37.3
Wheat and wheat flour	54.2	76.1	52.3	41.0	112.0	57.4
Rice	20.9	20.5	16.0	21.7	31.1	16.5
Sugar	28.8	33.1	56.3	29.7	59.9	37.4
Fruits, vegetables and nuts	41.5	26.1	28.3	43.2	80.2	60.3
Coffee, tea, cocoa, and spices	13.5	10.6	14.8	18.7	17.7	20.0
Others	196.4	199.4	180.3	196.0	298.6	193.3
Beverages and tobacco	9.3	9.6	13.9	9.9	12.0	14.6
Raw materials (excluding fuels)	45.5	55.5	71.6	91.1	92.7	77.4
Petroleum, fuels, and lubricants	303.4	314.8	300.7	336.4	372.5	363.4
<i>Of which:</i> crude oil	228.8	236.8	232.3	249.3	259.6	283.8
Oils and fats	37.6	42.7	82.5	94.7	73.6	91.4
Chemicals, <i>of which:</i>	245.6	248.6	279.9	317.7	329.1	306.7
Medical and pharmaceutical products	56.7	67.4	67.2	87.9	84.0	82.4
Essential oils and cleaning preparations	16.6	20.5	14.5	17.0	16.1	20.6
Manufactured goods	444.9	506.7	432.2	504.0	512.5	395.4
Rubber products	31.2	30.9	26.5	31.3	35.5	30.5
Paper and cardboard	49.3	55.5	46.5	73.1	66.6	53.4
Textile yarn and fabrics	94.4	95.0	87.7	89.3	92.2	71.8
Others	270.0	325.3	271.5	310.3	318.2	239.7
Machinery and transport equipment	605.8	660.9	600.3	634.7	789.9	723.7
Machinery	273.7	375.5	361.4	362.6	456.5	407.7
Transport equipment and parts	332.1	285.4	239.0	272.1	333.3	316.0
Other manufactured goods	151.1	150.7	151.6	147.2	156.1	133.7
Clothing and footwear	42.1	42.1	35.6	44.3	41.7	36.9
Scientific instruments	39.8	38.3	41.4	36.3	44.6	34.2
Others	69.2	70.3	74.6	66.6	69.8	62.6
Commodities and transactions, n.e.s.	16.8	29.0	20.2	35.4	19.2	40.0

Source: Central Bank of Jordan.

1/ For 1997, based on first eleven months.

2/ Customs basis.

Table 28. Jordan: Direction of Foreign Trade, 1992-97 1/

	1992	1993	1994	1995	1996	1997
(In millions of Jordan dinars)						
Domestic exports, f. o. b.	633.8	691.3	793.9	1,004.5	1,039.8	977.7
Arab countries	222.4	285.3	337.0	451.6	485.3	503.1
Saudi Arabia	70.1	80.1	72.3	70.3	129.6	127.5
Iraq	48.8	77.5	105.3	190.8	96.2	127.4
United Arab Emirates	25.9	30.4	39.0	43.6	59.4	49.6
Other	77.6	97.3	120.4	146.9	200.1	198.6
European Union	19.1	27.9	40.4	63.0	86.2	70.8
India	96.4	65.9	88.1	114.1	81.7	94.0
Japan	12.1	9.8	12.6	13.1	12.3	11.7
Eastern European countries	15.7	32.9	13.7	19.1	18.8	11.2
People's Republic of China	14.0	16.5	8.2	13.3	9.6	10.9
Other countries	254.1	253.0	293.9	330.3	345.9	276.0
Imports, c. i. f.	2,214.1	2,453.6	2,362.6	2,590.3	3,043.6	2,593.0
Arab countries	462.0	498.8	530.5	608.5	761.8	648.7
Saudi Arabia	39.3	48.6	71.5	91.4	91.5	93.7
Iraq	295.4	307.0	298.4	316.3	358.5	356.0
United Arab Emirates	6.0	6.0	8.3	11.2	14.7	16.1
Other	121.3	137.2	152.3	189.6	297.1	182.9
European Union	698.7	814.4	838.2	859.3	963.6	841.1
France	78.1	98.5	111.8	119.1	149.2	88.8
Germany	186.7	202.8	184.4	218.4	242.2	265.7
Greece	9.4	15.2	9.4	8.2	11.1	4.8
Italy	110.8	134.9	138.6	138.7	178.5	153.6
United Kingdom	108.4	127.9	120.8	124.5	133.1	127.5
Others	205.3	235.1	273.2	250.4	249.5	200.7
Japan	132.2	123.6	93.6	91.4	126.9	134.1
United States	246.2	311.5	232.5	240.5	294.9	217.5
Eastern European countries	129.7	151.9	136.6	124.9	138.4	98.7
People's Republic of China	52.1	50.6	62.5	59.0	63.6	60.9
Other countries	493.2	502.8	468.7	606.7	694.4	652.9
(In percent of total)						
Domestic exports, f. o. b.	100.0	100.0	100.0	100.0	100.0	100.0
Arab countries	35.1	41.3	42.4	45.0	46.7	51.5
Saudi Arabia	11.1	11.6	9.1	7.0	12.5	13.0
Iraq	7.7	11.2	13.3	19.0	9.3	13.0
United Arab Emirates	4.1	4.4	4.9	4.3	5.7	5.1
Other	12.2	14.1	15.2	14.6	19.2	20.3
European Union	3.0	4.0	5.1	6.3	8.3	7.2
India	15.2	9.5	11.1	11.4	7.9	9.6
Japan	1.9	1.4	1.6	1.3	1.2	1.2
Eastern European countries	2.5	4.8	1.7	1.9	1.8	1.1
People's Republic of China	2.2	2.4	1.0	1.3	0.9	1.1
Other countries	40.1	36.6	37.0	32.9	33.3	28.2
Imports, c. i. f.	100.0	100.0	100.0	100.0	100.0	100.0
Arab countries	20.9	20.3	22.5	23.5	25.0	25.0
Saudi Arabia	1.8	2.0	3.0	3.5	3.0	3.6
Iraq	13.3	12.5	12.6	12.2	11.8	13.7
United Arab Emirates	0.3	0.2	0.4	0.4	0.5	0.6
Other	5.5	5.6	6.4	7.3	9.8	7.1
European Union	31.6	33.2	35.5	33.2	31.7	32.4
France	3.5	4.0	4.7	4.6	4.9	3.4
Germany	8.4	8.3	7.8	8.4	8.0	10.2
Greece	0.4	0.6	0.4	0.3	0.4	0.2
Italy	5.0	5.5	5.9	5.4	5.9	5.9
United Kingdom	4.9	5.2	5.1	4.8	4.4	4.9
Others	9.3	9.6	11.6	9.7	8.2	7.7
Japan	6.0	5.0	4.0	3.5	4.2	5.2
United States	11.1	12.7	9.8	9.3	9.7	8.4
Eastern European countries	5.9	6.2	5.8	4.8	4.5	3.8
People's Republic of China	2.4	2.1	2.6	2.3	2.1	2.3
Other countries	22.3	20.5	19.8	23.4	22.8	25.2

Source: Central Bank of Jordan.

1/ For 1997, based on first eleven months.

Table 29. Jordan: Terms of Trade, 1994-97 1/

(1994 = 100)

	Exports	Imports	Terms of Trade
(Unit Price Indices)			
1994	100.0	100.0	100.0
1995	116.4	113.2	102.8
1996	123.8	123.5	100.2
1997 Prel.	117.0	119.1	98.3
(Unit Volume Indices)			
1994	100.0	100.0	
1995	108.7	96.9	
1996	105.8	104.4	
1997 Prel.	114.7	103.4	

Source: Central Bank of Jordan.

1/ Data are based on new definitions adopted by the CBJ in 1997; reclassified data before 1994 are not available.

Table 30. Jordan: Services Account, 1992-97

	1992	1993	1994	1995	1996	Prel. 1997
(In millions of U.S. dollars)						
Factor services, net	390.0	652.0	685.0	857.7	1,143.3	1,213.3
Investment income	-349.0	-310.0	-315.0	-279.0	-301.0	-208.7
Receipts	112.0	99.0	73.0	115.7	111.7	248.3
Payments	461.0	409.0	388.0	394.7	412.7	457.0
Profits and dividends	27.4	18.3	30.6	17.1	36.7	107.0
Interest payments	433.6	390.7	357.4	377.6	376.0	350.0
Of which: IMF charges	9.2	5.5	5.3	11.1	13.2	17.5
Workers' remittances	739.0	962.0	1,000.0	1,136.7	1,444.3	1,422.0
Receipts	825.0	1,040.0	1,093.0	1,243.7	1,544.2	1,622.0
Payments	86.0	78.0	93.0	107.0	99.9	200.0
Nonfactor services, net	493.0	616.0	540.0	500.1	720.2	641.3
Travel	112.0	218.0	188.0	235.1	362.2	376.0
Receipts	462.0	563.0	582.0	660.3	743.6	774.0
Payments	350.0	345.0	394.0	425.2	381.4	398.0
Transportation	33.0	67.0	46.0	25.9	44.0	60.0
Receipts	329.0	366.0	350.0	417.4	376.3	385.0
Payments	296.0	299.0	304.0	391.5	332.3	325.0
Government, N.I.E.	-143.0	-184.0	-177.0	-210.5	-233.5	-236.1
Receipts	14.0	14.0	19.0	19.8	16.1	20.3
Payments	157.0	198.0	196.0	230.3	249.6	256.4
Other	491.0	515.0	483.0	449.6	547.5	441.4
Receipts	642.0	631.0	610.0	611.4	710.2	557.4
Payments	151.0	116.0	127.0	161.8	162.7	116.0
Total services, net	883.0	1,268.0	1,225.0	1,358.4	1,863.5	1,854.6
(Percentage change over previous year)						
Investment income						
Receipts	-2.1	-11.6	-26.3	58.5	-3.5	122.3
Payments	-3.4	-11.3	-5.1	1.7	4.6	10.7
Workers' remittances						
Receipts	83.3	26.1	5.1	13.8	24.2	5.0
Payments	40.8	-9.3	19.2	15.1	-6.6	100.2
Travel						
Receipts	45.6	21.9	3.4	13.5	12.6	4.1
Payments	24.2	-1.4	14.2	7.9	-10.3	4.4
Transportation						
Receipts	31.7	11.2	-4.4	19.3	-9.8	2.3
Payments	75.3	1.0	1.7	28.8	-15.1	-2.2
Government, N.I.E.						
Receipts	-25.1	0.0	35.7	4.2	-18.7	26.1
Payments	-1.2	26.1	-1.0	17.5	8.4	2.7
Other						
Receipts	-16.3	-1.7	-3.3	0.2	16.2	-21.5
Payments	-33.6	-23.2	9.5	27.4	0.6	-28.7

Source: The Jordanian authorities.

Table 31. Jordan: Official Transfers, 1992-97

(In millions of U.S. dollars)

	1992	1993	1994	1995	1996	Prel. 1997
Bilateral grants	270.0	196.3	182.1	227.3	272.8	287.8
Arab Countries	206.0	183.3	150.0	204.0	205.0	188.0
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0
Kuwait	0.0	0.0	0.0	0.0	0.0	0.0
Iraq 1/	206.0	183.3	150.0	204.0	205.0	188.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Other Countries	64.0	13.0	32.1	23.3	67.8	99.8
United States 2/	32.0	13.0	18.0	6.5	15.7	58.3
Japan	0.0	0.0	6.8	11.3	40.2	40.2
Germany	0.0	0.0	0.0	0.0	0.0	0.0
Italy	2.0	0.0	0.0	0.0	0.0	0.0
Austria	4.0	0.0	3.0	0.0	0.0	0.0
Canada	7.0	0.0	4.3	5.5	10.3	1.3
Other	19.0	0.0	0.0	0.0	0.0	0.0
European Community	32.0	30.9	35.0	25.7	77.3	46.0
Emergency projects	28.0	16.0	0.0	0.0	0.0	0.0
UN agencies 3/	46.0	113.1	106.7	72.5	57.7	69.6
Total grants	376.0	356.3	323.8	325.5	407.8	403.4
Of which: GCFCG grants 4/	28.0	16.0	0.0	0.0	0.0	0.0
Net grants above the line	348.0	340.3	323.8	325.5	407.8	403.4

Source: The Jordanian authorities.

1/ For 1991 onwards, the grants are in the form of petroleum imports from Iraq at prices below world market prices.

2/ Under commodity import program.

3/ United Nations Relief and Work Agency (for Palestinian refugees), etc.

4/ Gulf Crisis Financial Coordination Group.

Table 32. Jordan: Disbursement of Public and Publicly Guaranteed Loans, 1992-97 1/

(In millions of U.S. dollars)

	1992	1993	1994	1995	1996	Prel. 1997
Disbursements	335.2	174.0	241.9	510.0	461.8	237.4
<i>Of which:</i> GCFCG loans	0.0	19.3	0.0	0.0	0.0	0.0
Disbursements above the line	335.2	154.7	241.9	510.0	461.8	237.4
Medium- and long-term	335.2	174.0	241.9	510.0	461.8	237.4
Ministry of Planning (project loans)	74.0	93.2	122.0	98.0	150.0	90.1
Ministry of Supply (commodity loans)	6.2	25.0	15.0	30.0	51.0	54.0
Guaranteed loans 1/	10.0	15.0	16.0	75.0	30.8	27.3
Ministry of Finance (BOP and budget support)	245.0	21.5	88.9	307.0	230.0	66.0
World Bank	83.0	21.5	18.0	130.0	140.0	50.0
ERDLs	76.0	0.0	0.0	80.0	120.0	0.0
SAL loans (ESAL and ASAL, etc.)	0.0	21.5	18.0	50.0	20.0	50.0
Others (emergency loan, etc.)	7.0	0.0	0.0	0.0	0.0	0.0
Bilateral, etc.	162.0	0.0	70.9	177.0	90.0	16.0
Japan	123.0	0.0	40.0	166.0	62.0	16.0
France	21.0	0.0	7.9	0.0	0.0	0.0
Germany	7.0	0.0	4.0	0.0	13.0	0.0
Others	11.0	0.0	19.0	11.0	15.0	0.0
GCFCG loans 2/	0.0	19.3	0.0	0.0	0.0	0.0
Germany	0.0	19.3	0.0	0.0	0.0	0.0

Source: The Jordanian authorities.

1/ Includes loans for Royal Jordanian Airlines.

2/ Gulf Crisis Financial Coordination Group.

Table 33. Jordan: Debt Service Payments, 1992-97

(In millions of U.S. dollars)

	1992	1993	1994	1995	1996	Prel. 1997
Principal due						
Paris Club creditors (industrial and other governments)	271.1	265.0	280.7	291.9	278.2	230.6
London Club creditors	183.7	107.0	27.3	27.3	30.0	32.6
Other creditors (foreign companies)	13.2	9.3	9.6	8.8	8.5	7.6
Subtotal	468.0	381.3	317.6	328.0	316.7	270.7
Arab governments	56.8	51.4	46.1	38.3	38.0	29.9
Multilateral	99.2	134.6	129.5	108.4	148.9	141.9
<i>Of which</i> : IMF amortization	10.1	45.6	37.1	8.5	22.1	22.3
<i>Of which</i> : Arab Monetary Fund	27.7	7.9	6.0	0.0	0.0	0.0
Other (bonds and leases)	75.7	56.4	63.5	64.9	62.5	31.7
Total principal due	699.7	623.6	556.7	539.6	566.1	474.2
Interest due						
Paris Club creditors (industrial and other governments)	197.1	194.0	199.2	198.3	179.0	156.6
London Club creditors	88.4	64.5	37.5	42.1	40.5	38.4
Other creditors (foreign companies)	3.7	2.3	1.8	1.2	0.8	0.4
Subtotal	289.2	260.8	238.5	241.6	220.3	195.4
Arab governments	15.2	13.8	11.9	10.5	9.3	6.2
Multilateral	69.1	68.4	59.0	77.7	84.4	94.9
<i>Of which</i> : IMF charges	9.2	5.5	5.3	11.1	13.2	17.5
<i>Of which</i> : Arab Monetary Fund	0.0	0.0	0.0	0.0	2.2	3.0
Other (bonds and leases)	60.1	47.8	48.0	47.2	62.2	53.4
Total interest due	433.6	390.7	357.4	377.6	376.0	349.8
Total debt service (including IMF and AMF)	1,133.3	1,014.4	914.1	917.4	942.1	824.1
Memorandum Items:						
Total debt service / exports of goods and nonfactor services						
Including IMF and AMF (in percent)	42.5	35.9	30.6	26.4	25.7	22.9
Excluding IMF and AMF (in percent)	41.5	34.0	29.2	26.1	25.1	22.3
Interest payments / GDP (in percent)	8.4	7.1	5.9	5.7	5.2	4.4
Total debt / GDP (in percent)	128.9	121.0	112.0	104.3	100.2	88.9
Exports of goods and nonfactor services	2,666.9	2,822.0	2,985.0	3,479.8	3,663.3	3,596.0
Total debt	6,624.0	6,658.0	6,734.0	6,837.0	7,273.7	7,030.6
GDP	5,138.9	5,502.9	6,012.9	6,640.0	7,256.8	7,904.9

Source: The Jordanian authorities, and Fund staff estimates.

Table 34. Jordan: Outstanding External Debt, 1994-97 1/

(In millions of U.S. dollars)

	1994	1995	1996	Prel. 1997
Arab countries	356.0	357.7	355.3	354.0
Bilateral loans	45.0	45.0	45.0	45.0
Funds	311.0	312.7	310.3	309.0
Industrial countries	4,266.6	4,155.8	4,204.4	3,973.9
Bilateral loans	2,102.5	2,164.4	2,109.8	1,948.9
Export credit guarantees	2,164.1	1,991.4	2,094.6	2,025.0
Other countries	34.8	36.6	36.9	32.6
International banks 2/	734.5	700.3	708.7	675.8
Multilateral institutions	1,047.5	1,341.1	1,706.7	1,818.0
IMF	141.6	256.6	342.8	436.1
World Bank	606.4	708.1	807.9	730.4
Other multilateral	299.5	376.3	556.0	651.5
Leases	294.9	245.4	225.7	182.3
Total	6,734.0	6,927.9	7,273.7	7,030.6
Memorandum item:				
Total debt as percent of GDP	112.0	104.3	100.2	88.9

Source: Ministry of Finance and Customs.

1/ Public and publicly guaranteed medium- and long-term debt, end of period.

2/ Includes par and discount exchange bonds, issued after the debt and debt service reduction operation, which are fully collateralized.

