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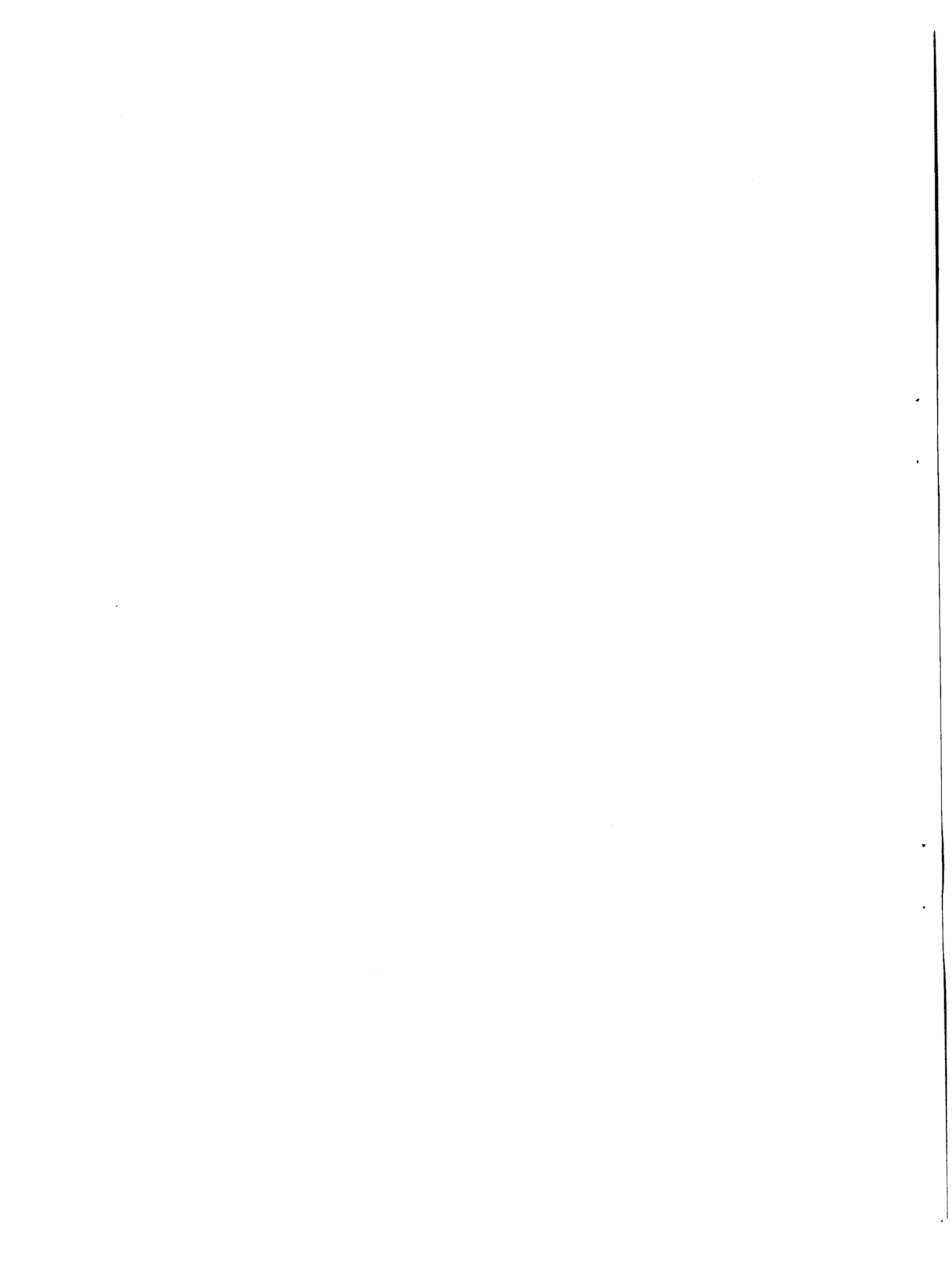
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**ECONOMIC DIVERSIFICATION IN THE ARAB WORLD:
THE CASE OF JORDAN**

by

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Economic Diversification in the Arab World: The Case of Jordan¹

Introduction

Jordan's vulnerability to external shocks, particularly fluctuations in oil prices, is evident from the performance of the economy in the last three decades, which led many to call it an oil economy without oil.² Whether policy has been able to reduce regional exposure and achieve a greater degree of economic diversification is the subject of the present analysis.

The Jordanian economy enjoyed an unprecedented real growth in income (7.2% during 1976-1985 and an average of 11.1% between 1973 and 1979 alone) from the mid seventies to mid eighties that was boosted by foreign assistance and loans, workers remittances—primarily from the oil exporting economies of the Gulf states, and export to regional markets. The growth was severely diminished in the mid eighties, with the rapid decline in oil prices and the subsequent meltdown in the regional economies. During 1980-1985, consumption decreased to a yearly average of 113.0% from an average 122.8% of GDP in 1973-1979.³ Commercial short-term borrowing from abroad increased during 1987-1988 as foreign aid declined and debt service obligations proliferated and long-term credit became scarce. By 1988, Jordan had exhausted its traditional sources for borrowing. In order to maintain consumption levels during the second half of the 1980s, the Jordanian government ran increasingly larger budget deficits and took on additional foreign commercial loans and new sources were not on the immediate horizon. In 1989 the price level jumped drastically (the cost of living index increased by 25.8%) due to record fiscal deficits and balance of payment difficulties; real GDP decreased by 16.4% and income per capita dropped to US\$1317, a fall of more than 19% from its 1985 level; and the exchange rate fell by 50% in real terms as foreign currency reserves at the Central Bank of Jordan were depleted. Financial instability created an increase in capital flight and bank failures, and a contraction of inward investment.⁴

Confronted in 1989 with a severe macroeconomic crisis, the government introduced a set of corrective measures as part of a medium-run adjustment programme, which was supported by an IMF Stand-by Arrangement and a Trade and Industry Adjustment Loan from the World Bank. Also, the IMF approved an Extended Fund Facility in May 1994 (SDR 127 million) and the World Bank provided an Energy Sector Adjustment Loan and an Agricultural Sector Adjustment Loan. Additionally,

¹ The author is indebted to the valuable assistance and intellectual input of of Dr. Bashir Zu'bi, Dr. Eid Zioud and Mr. Adel Al-Ali. This section borrows from Mansur, Y. et al, "Competition Policies and Laws in Selected ESCWA Countries: The Case of Jordan" Expert Group Meeting, Abu Dhabi, September 17-19 2001.

² The term "Petrolism", has also been used to describe several countries in the region whose economies have come to depend on oil without possessing oil reserves. "Petrolism" was first used in Korany, B. "Political Petrolism and Contemporary Arab Politics 1967-1983" *Journal of Asian and African Studies*, Vol. 21, No. 1-2, 1986.

³ See *Jordan: Consolidating Economic Adjustment and Establishing the Base for Sustainable Growth, Volume I*, World Bank, August 1994.

⁴ All data in this section is obtained from *The Central Bank: Monthly Statistical Bulletin* (several issues including June 2001)

adjustment efforts were sponsored in part by successive debt rescheduling (March 1992 and July 1994) through the Paris Club, a Debt and Debt Service Reduction operation with the London Club, and a Debt Buy-Back arrangement with the former Soviet Union, and official bilateral debt reductions by (US, UK, Germany and France) in the order of US\$800 million⁵. The most recent reform programme will conclude in 2001; as of now the results of the reforms remain in question.

In light of these reforms, it warrants question whether Jordan has reduced its dependence on oil and thus reduced its market volatility. However, at the outset, Jordan's relatively small economy remains heavily exposed and vulnerable to regional effects, including oil. Several factors are behind this exposure. A significant number of Jordanians work as expatriate workers in oil producing countries and their remittances amount to approximately a quarter of Jordan's GDP. Moreover, in terms of goods, close to 40 percent of Jordan's domestic exports and a fifth of imports, are with the Arab world. Budgetary and other capital flows from Arab countries have in the past also been quite considerable. Tourism receipts, which are extremely volatile, account for more than half of Jordan's domestic exports, comprising 6 percent of GDP. Thus, Jordan faces very high volatility in GDP growth, linked partially to oil prices.

The study is in four sections: a brief review of Jordan's reform efforts; an analysis of the trends in the components of the GDP throughout the last three decades, both from the supply and the demand perspectives; an empirical assessment of the impact of openness, government spending, foreign direct investments, remittances and economic reform; and the conclusion and policy recommendations.

I. THE REFORM PROGRAMS

International financial institutions made it clear to Jordan in 1989 that their provision of loans and facilities also required tackling the weaknesses of the economy. The reform programs are comprised of several components, primarily; trade reforms, legislative and regulatory reforms, and privatization.

Trade Reforms

Since the initiation of the reform programs, Jordan has been liberalizing its economy, and scaling back protection, most notably since 1997, by lowering the weighted average tariff rate from 17.5 percent in 1994 to 13.5 percent in mid 2000. Trade policy reforms covered economic integration efforts, including tariff reductions, rationalizations, strengthening of custom administration and commitment to several important trade agreements, which include:

- Signing an association agreement in November 1997 with the European Community, which covers cooperation in economic, social, and political issues and stipulates the progressive establishment, during a period of 12 years, of a free trade area (FTA) between Jordan and the EU.⁶ The

⁵ See *Jordan: Private Sector Assessment*, World Bank Report No. 14405-JO, 25 August 1995.

⁶ For greater detail see Mansur et al, *The EU-Jordan Association Agreement, A User's Guide*. Friedrich Naumann Foundation, March 2000 CD-Rom, and "The EU-Jordan Association Agreement: Analysis of Process and Outcomes", *Arab Economic Journal*, 1999.

liberalization impact of the Association Agreement on Jordan should be significant, imports from the EU reached US\$1499 million or 33% of total imports in 2000 while exports to the EU from Jordan were US\$50 million or 3.3 % of total exports.⁷

- Acceding the World Trade Organization (WTO) in December 1999 to officially become the 136th member in the WTO on 11 April 2000.
- Joining the Greater Arab Free Trade Agreement in February 1997.
- Since 1997, Jordan has benefited from the Qualifying Industrial Zones arrangement with the US, which allows Jordanian goods quota- and duty-free access to US markets, upon compliance with certain production conditions. As a result of this special arrangement, exports to the US have increased, mainly in labor-intensive goods such as textile and clothing, since 1997 from US\$7.45 million to US\$64 million in 2000.
- Signing a Jordan-US Free Trade Agreement in October 2000, which was recently ratified by the US Congress.
- Signing several regional and bilateral trade agreements with neighboring countries.
- Creating the Aqaba Special Economic Zone (ASEZ) in Aqaba.

Regulatory and Legislative Reforms

In order to create a more efficient and transparent business environment, several legislative and regulatory adjustments were introduced during the last decade in the areas of income tax, sales tax, investment promotion, securities, insurance, secured financing and leasing, customs, trust, safeguard measures, companies, and intellectual property rights. The majority of legislative adjustments that took place during 1999-2000 focused on the legal changes necessary to accede and comply with the WTO and enhance the institutional capacity of the economy for globalization.

Privatization

An important area of the reforms is the privatization programme, which effectively started in 1997 with total privatization proceeds reaching more than US\$850 million to date. In 1998, the government sold 33% of its shares in Jordan Cement Factories Co. (JCFC) to a French cement company, Lafarge. An additional divestment of another 8% in 2001 is expected. In January 2000, the government relinquished 40% of its stake in Jordan Telecom Co. (JTC) to a consortium comprised of France Telecom and the Arab Bank for US\$508 million. Another 8% of the government equity in JTC was later sold to the Social Security Corporation for US\$101 million.

⁷ For a critical assessment of the impact of the Euro-Med on the participating Arab countries see Schlumberger, O. "Arab Political Economy and the EU's Mediterranean Policy: What prospects for Development?" *New Political Economy*, 2000.

Further sales and an initial public offering of Jordan Telecom shares are expected in the coming two years.

The Kingdom's national airline, Royal Jordanian (RJ), became a public shareholding company in February 2001 as a first step toward privatizing it through the sale of a 49 per cent share to a strategic partner. Five RJ departments became autonomous companies last year. Three of them have been sold so far: the Duty Free Shops Co. to Spain's Aldessa for \$60 million in September 2000; the Pilot Training Center to Flight Safety Boeing Training International of the US in January 2000; and the catering services to British Alpha in a US\$20 million deal expected to be signed in 2001. The government also received US\$2.225 million as a portion of the proceeds from the sale of the Queen Alia Airport Hotel.

In 2001, the government is pursuing privatization schemes in a number of other sectors such as the power sector, which involves selecting an independent power producer, completing the process of separation of electricity generation, distribution and delivery networks, and putting in place a regulatory commission.⁸ Also, the government corporatized the operation of Ministry of Industry and Trade storage facilities. The Water Authority of Jordan (WAJ) is preparing to offer a private management contract for some of its operations in the Wadi Musa region, and a build-operate-transfer arrangement for the development of a wastewater treatment facility in the region of Amman. Further, 28 of the government's smaller holdings in the portfolio of the Jordan Investment Corporation have already been divested. Also, preparatory work is underway for awarding a private management contract for the operation of the postal service as a first step toward privatizing it. Moreover, the government is taking into consideration the possibility of privatizing the Arab Potash Company, of which the government is a majority shareholder.

Of the US\$775 million already received from privatization, the government has spent US\$322 million mainly on debt redemption (swaps and buy-backs).⁹ The government stated strategy is to avoid unsustainable increases in public expenditure as a result of privatization: the bulk of the proceeds will be invested in financial assets or used to retire public debt. Furthermore, in support of the government growth and poverty reduction objectives, it has stated that it intends to use up to 15 percent of the privatization proceeds for high quality spending on infrastructure and social sectors. Thus, while the investments in some sectors such as telecom have been considerable as investors borrowed in excess of US\$100 million to finance expansion and modernization of networks and the establishment of the second mobile telephony operator, the impact of the privatization proceeds has not been felt internally. In addition, because the bulk of privatization was with a strategic partner, the impact of privatization on financial markets remains subdued. This, however, may change in the coming years as stocks of privatized companies become listed and traded in the Amman Financial Market. To date, the privatization effect on the economy has been somewhat limited.

⁸ *Memorandum on Economic and Financial Policies, 2001*, as cited in Al-Dustour, August 31, 2001.

⁹ See *Ministry of Finance: Government Finance Bulletin, Vol. 3 No.5*, June 2001.

II. GDP DECOMPOSITION

The following qualitative analysis examines the structure of the economy and sectoral trends in order to explain aggregate GDP performance and the resulting economic diversification in the last three decades. First, the GDP is viewed from the supply side tackling each component separately; and then the demand side of the GDP.

The Supply View

Decomposing the GDP in terms of its suppliers leads to the analysis of services, manufacturing, construction, and agriculture sectors. In Table 1 below, the GDP (1976-2000) is decomposed into five major periods, each averaging the performance over five years, demonstrating the shares of GDP components and their growth rates.

Table 1: Sectoral Composition of GDP

	1976-80	1981-85	1986-90	1991-95	1996-2000
GDP Shares at Constant Prices					
GDP at factor cost	100.0	100.0	100.0	100.0	100.0
Agriculture	3.3	4.3	3.5	6.2	4.3
Industry	12.8	21.0	25.3	25.2	25.8
Construction			7.2	4.2	5.3
Gas, electricity, water			1.5	2.2	2.6
Mining and quarrying			4.0	4.2	3.0
Manufacturing	15.6	14.9	12.5	14.6	14.8
Services, etc.	93.9	74.7	71.3	68.6	69.9
GDP Growth Rates					
GDP at factor cost	14.7	5.3	-1.4	6.1	3.1
Agriculture	21.2	1.0	10.6	1.2	-1.0
Industry	26.6	9.3	-1.4	8.1	1.4
Construction			-11.5	19.0	-6.3
Gas, electricity, water			5.9	8.5	4.2
Mining and quarrying			-0.6	-1.2	3.0
Manufacturing	13.8	1.6	1.7	6.4	4.6
Services, etc.	12.1	4.3	-2.1	5.8	4.6

Source: Department of Statistics and Monthly Bulletin of the Central Bank of Jordan.

The services sector plays a primary role in the Jordanian economy, accounting for more than two-thirds of GDP at factor cost. The size of services in the economy is explained by two primary factors: the early development of financial services, which currently account for 20.6 per cent of GDP, in order to manage the large inflows of workers' remittances since the early seventies; the share of government services also plays a large role, accounting for 17.6 percent of GDP in 2000 in current prices (including defense); and the essential role that the hotels and restaurant sub-sector, which accounts for 13 percent of GDP in current prices, contributes toward supporting the tourist industry.

Although the share of services in total GDP declined during the 1990s, its strong contribution to growth during 1996-2000 was central to aggregate economic

outcomes, contributing 3.2 percentage points to a total GDP growth of 3.1 percent as the contributions of other components decreased. Whereas real estate, hotels, trade and transport services have experienced cyclical fluctuations over time, the government and financial sectors have proven to be consistent sources of growth, with the share of public administration remaining fairly stable, and financial services expanding during the 1991-95 period as a result of financial sector development.

Services, as a share of GDP, decreased from almost 94% during 1976-80, to 70% of GDP for the period 1996-2000. The decline in the services sector share in GDP began in the eighties because of the oil glut and continued its downward trend until 1989 where the share has remained at a relatively constant level throughout the reform period. The services growth rate declined from 12.1% in the mid 1970s to 4.3% in the mid 1980s and decelerated in the second half with the money crunch experienced from the start of 1986. The services growth rate accelerated to 5.8% in the first half of the 1990s as the savings of repatriated Jordanians were spent and then declined to 4.6% in the second half as remittances leveled off.

Government services comprise a major component in services and GDP. Furthermore, for several decades, government services have been viewed by Jordanian policy makers and laypeople alike as the primer for economic growth; this view continues to hold today. In 2000, according to the annual Report of the Central Bank of Jordan the economy grew by 3.9% with the per capita gross domestic product at constant prices increasing by 1%. The change in the cost of living index was an upward increase of only 0.7% and the change in the GDP deflator (a measure that includes all items) was a decrease of 0.6%.

The sources of growth in the GDP in 2000 are as follows. The agricultural sector grew by 7.1% due to better rain in 2000 than in 1999; manufacturing grew by only 5.6%, down from 6% in 1999; transport and communications grew by 4%, which is a significant drop from the 9.7% growth it witnessed in 1999; trade, restaurants and hotels grew by 8.5% in 2000, due to the increase in imports, compared to a modest 0.9% in 1999; the ever growing government sector, i.e., producers of government services, grew by a sizable 6.9%; the finance, real estate, and business services sector grew by 5.2% in 2000 against 1.7% in the previous year; and the construction sector only grew by 1.3% while domestic services of households grew by 19.7%. Other components, the mining and non-profit institutions sectors, declined by 1.3% and 6.8%, respectively.

The greatest contribution to the real economic growth in 2000 came from producers of government services which made up 1.2% of the growth figure, followed by the finance, real estate, and business services at 1.1%, and manufacturing which contributed 1% of the real economic growth rate. Among the low contributors in 2000 was construction, which contributed 0.6%, and agriculture, 0.3%. Therefore, the main growth came from government services through the expansion of hiring in 2000. Had the government services component maintained the same growth rate as in 1999, its contribution to the real growth rate would be the product of 3.3% (its growth in 1999) multiplied by 17.2% (its share of GDP in 1999), which is 0.6%, not 1.2% as in 2000. The growth rate would have been 3.3% instead of the announced 3.9% rate, which means that the per capita would not have grown by 0.5% in 2000 but possibly declined by 0.1%. In other words, the main increase in economic activity in the GDP

over the previous year was the increase in government spending, which is not always a good sign, particularly if spending goes into current expenditures such as hiring more government employees instead of capital spending on infrastructure and industry.

The manufacturing sector represents the next largest contributor after services to total economic output, accounting for 15 percent of GDP. The annual growth rate has fluctuated around 5 percent since 1989, moving in synch with aggregate GDP growth. In Table 2 the manufacturing sector is disaggregated by industry. There is no discernible pattern that is immediately clear from the figures. The only increase in growth rates among the main industries was in tobacco where the growth increases from 2.6% during 1976-89 to 8.1% during 1989-1999. The increase was due to becoming a major tobacco supplier to the Iraqi market and the opening of the Jordanian market to investment and competition with the removal of the Jordan Tobacco and Cigarette Co. monopoly.

Comparing the third column in Table 2, which shows average growth during 1989-99, to the second column, 1976-89, it becomes evident that only four sectors — tobacco, paints, plastics, and detergents and soap — have recorded better performance after the debt crisis. The clothing and textile sector maintained fairly steady state during both periods. Cement, a major staple for construction, grew in the seventies while declining in the 1980s, moving in synch with the peaks and troughs of the construction cycle. Hence, the growth rate rose with the increase in construction activity in the first half of the 1990s by 9.9% and dropped to -5.2% in the second half due to two main factors: oil prices, which rose in the latter part of the decade making cement production in Jordan more expensive than in the oil producing countries; and protectionist regimes in traditional regional markets, which blocked the import of Jordanian cement in order to encourage domestic substitutes.

Table 2: Growth in Industrial Production
(in percent per year)

Industry	Weights	1976-89	1989-99
Paints	0.9	3.8	8.0
Tobacco	10.2	2.6	8.1
Pharmaceuticals	4.6	15.4	-1.8
Wood Products	2.8	--	-5.4
Electricity	8.3	16.0	8.3
Phosphates	6.8	--	1.1
Fertilizers	3.0	--	3.9
Petroleum Products	3.6	5.3	3.3
Potash	7.3	--	2.2
Plastics	3.1	2.1	3.3
Clothing and Textiles	4.3	7.7	7.7
Food	13..6	4.4	3.7
Iron and Steel	2.0	6.5	-4.0
Paper Products	2.8	10.3	-3.1
Cement	9.0	12.3	5.4
Footwear and Leather	1.1	0.6	-3.2
Detergents and Soap	1.4	8.5	16.2
General Index	100.0	8.5	4.1

Estimates based on Monthly Statistical Bulletin of Central bank of Jordan.
Weights are with base 1994=100%.

Construction, which decreased significantly by the end of the 1980s (at a rate of -11.5%), picked up again in 1991-94 as it grew by an average 19% only to fall to 6.3% per year as the supply of housing units exceeded demand and the savings of the returnees were exhausted. Construction activity is highly correlated with remittances of Jordanians working in the Gulf. At times of economic boom, its share in GDP rises to 10 percent, compared to long-term trends around 5 percent. Strong construction growth is largely fed by surges in worker remittance inflows. It is important to note however that most construction jobs, 90% of which are low skill jobs, go to guest workers. Furthermore, the Rent Law, which currently makes rental fees sticky upward, has created certain distortions in the real estate market.¹⁰ Workers fear losing a housing unit in which they had lived for years and thus pay a low-rent; hence regional mobility is hindered because workers will not move to an area where they will have to pay new high rent for comparable housing.

Agriculture has historically accounted for only about 4 percent of total GDP. Its share increased throughout the seventies until the mid eighties when it declined as the overall income declined, affected by the negative growth rate of GDP. From 1991-95, agricultural activities increased as Iraqi markets relied more and more on Jordanian exports. In addition, investment by repatriated Jordanians found its way into the agricultural sector primarily through olive groves, which is basically a rain-water type of farming. In the second half of 90's agricultural activity decreased to an average of 4-5% of GDP due to draught and a general decrease in per capita income. Jordanian agricultural crops have suffered more from the severe water shortage in Jordan, where demand exceeds supply by 30% annually, than from policy.¹¹ The Jordan Valley Authority, the governmental body tasked with regulating water and in developing the Jordan Valley, has changed the water supply schedules to decrease the quantity of waters offered to farmers and the type of water supplied has decreased in quality, particularly in the southern areas of the Jordan Valley. Removing producer subsidies for wheat and barley has helped enhance the adverse impacts of these factors

The Demand Side of Growth

Absorption

The analysis of the demand side of GDP demonstrates a complementary story. Absorption, or consumption and investment by the domestic economy, has been the central demand-source of growth in Jordan since 1977, as denoted by the decomposition of growth in Table 3. This pattern in absorption growth means that Jordanian expenditure exceeds the income generated by domestic activity, facilitated by foreign transfers in the form of workers' remittances from abroad and foreign grants. Comparing the public and private sector roles in aggregate absorption shows that the share of public sector absorption (i.e., government consumption and public investment) in total absorption has declined gradually over time, from about 33

¹⁰ An attempt by the government in 2000 to change the current law was met with fierce opposition; however, the law was changed allowing for rental increases but only after 2010.

¹¹ The agriculture sector is an inefficient sector in terms of its water consumption relative to other sectors. For example, in 1988 the agricultural sector consumed 74.3% of the total water volume and contributed 6.7% of the GDP. On other hand, mining and manufacturing which consumed only 4.8% of the water contributed 14% of the GDP. Services consumed 20.9% of the water and contributed 71% of the GDP. For a detailed study, see *Water Resources and Their Economics in Jordan*, EnviroConsult Office, May 24, 2000.

percent in 1976 to 25 percent in 1999, implying an increasing role of the private sector during the 1990s. Private consumption has grown faster than government consumption since 1990, but private investment has trended downward since 1994 (discussed further below).

Table 3: Demand Decomposition of GDP
(in percent per year)

Growth Rates (%):	1977-80	1981-85	1986-90	1991-95	1996-99
Absorption	23.4	4.2	-14.0	4.8	2.8
Private Consumption	13.1	5.5	-3.0	1.0	3.7
Government Consumption	4.0	0.6	0.0	1.0	1.0
Private Investment	3.0	-2.0	2.0	1.0	-2.3
Government Investment	3.2	-1.0	-0.0	0.0	-0.3
Net Exports	-9.5	1.4	0.1	3.8	0.9
Exports	5.7	2.1	2.4	2.0	0.1
Services	2.5	-1.0	0.8	-1.4	-0.6
Import	15.3	0.9	2.4	-1.0	0.1
GDP at market prices	13.7	5.2	-1.1	7.2	2.8

Estimates are based on World Bank data

Net Exports

Net exports, the other major element in the demand side of the economy, recorded a modest growth in the 1980s, but made a positive contribution to growth in the first half of the 1990s. More recently, however, both imports and exports stagnated, each averaging 0.1 percent growth during 1996-1999. Table 4 below shows Jordan's main trade partners over the last four years. Jordan has its greatest trade deficit with the EU and the gap is widening.

Table 4: Jordan's Main Trade Partners

Destination	1997		1998		1999		2000	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
EU	77,752	946,995	69,032	887,829	60,921	834,939	35,505	1,063,387
Other European countries	12,815	195,116	9,688	194,833	7,613	173,233	5,436	170,561
USA	5,284	288,364	5,877	272,842	9,676	271,080	45,354	343,334
South America	4,284	100,390	1,288	92,906	457	69,143	3,332	81,528
Asia	261,184	636,235	259,122	690,449	355,302	638,600	375,355	703,172
Pan Arab	554,284	683,040	466,422	521,589	426,700	569,335	430,516	773,137
Other	151,561	57,942	234,953	53,926	190,684	78,877	184,240	82,964
Total	1,067,164	2,908,085	1,046,382	2,714,374	1,051,353	2,635,207	1,079,738	3,218,083

Source: Central Bank of Jordan: Monthly Statistical Bulletin, Vol.37 No.4 April 2001 (all figures are in JD 1000)

Total exports of raw materials and intermediate goods comprised 53% of total exports in 2000. With raw material exports having little value added, they are highly susceptible to world fluctuations in prices and quotas. On the other hand, exports of capital goods made up only 8.5% of total Jordanian exports in 2000. Total imports in 2000 were exactly three times total exports with imports of machinery and equipment alone almost equaling total exports.

Jordanian export growth, in volume terms, has steadily decelerated since the 1980s, concurrent with increases in world export volumes. Even when the key trading partner, Iraq, is excluded, trade growth remains constant at 4.8 percent during the 1990s, which falls short of world growth rates. Furthermore, Jordanian exports have stagnated in current dollar terms for the last four years, which disguises a small, about 2 percent a year, rise in real export volumes. Nevertheless, this response is inadequate in the context of a robust growth in world trade at 6.6 percent a year and expected beneficial impact of structural reforms.

In terms of imports, Jordan is a net importer of food and mineral fuels, and imports most of its machinery and transport equipment. Imports of manufactured goods have decreased in the late 1990s (see Table 5 below), while primary goods imports increased. The decline in import volumes may seem surprising, particularly in a period characterized by tariff reductions, real exchange rate appreciation and income growth. However, while tariff rates have been cut, over compensatory taxes, particularly on big-ticket items, have rendered the reductions ineffective—a view that is commonly held by investors.

Table 5: Import Volume Growth
(in percent per year)

Product Group	Shares (%)	Growth Rates				
	1996-99	1977-80	1981-85	1986-90	1991-95	1996-99
Food and Live Animals	20.4	6.7	6.6	2.9	-0.3	5.1
Beverages and Tobacco	1.1	24.7	-13.4	-3.0	-2.6	32.1
Crude Materials, Inedible, Except Fuels	4.3	-0.3	16.6	-1.8	17.9	8.5
Mineral Fuels, Lubricants & Related Materials	15.0	12.2	6.2	2.8	3.4	2.7
Animal & Vegetable Oils and Fats	2.5	-1.2	9.8	15.8	15.9	-12.9
Chemicals	11.6	15.9	9.8	7.9	4.7	-2.1
Manufactured Goods	15.7	11.2	2.1	-2.1	6.6	-4.8
Machinery and Transport Equipment	23.6	13.1	-1.0	-10.7	15.9	-2.6
Others	5.9	21.3	24.3	2.2	8.9	-3.9
<i>All Merchandise Imports</i>	100	11.3	4.7	-0.3	6.9	-0.3
<i>GDP at constant market prices</i>		13.2	5.2	-1.1	8.6	2.7

Source: Based on nominal imports in Jordan and volume indices from Central Bank of Jordan and GDP data from DOS.

Tourism

The tourism sector is an important source of revenue for Jordan (tourist receipts

reached US\$850 million in 1998), employing 21,000 workers and accounting for 6 percent of GDP¹². During the 1980s, international tourist arrivals to Jordan averaged around 800,000, providing tourist receipts of US\$350 million annually. Tourist arrivals and receipts surged at 10 percent a year rate since the signing of peace treaty with Israel in 1994. However, because Jordan is not separated in the mind of tourists from the rest of the region, Jordanian tourist industry is very susceptible to upheavals in the region. As the peace effort deteriorates in Palestine, more and more Arab tourists replace Western tourists.

Worker Remittances

Because of Jordan's long history as a labor exporter, income from abroad represents a key force in the economy. Annual worker remittances constitute about 20 percent of GDP, and depend on the number of Jordanians abroad, their earning capacity, which is directly associated with oil prices, household needs, interest rate differentials and expected devaluations. During (1988-1993) remittances improved with the surge in Gulf returnees money; in contrast, during 1993-98, remittances leveled off, and increased again in 1999 and 2000 as oil prices improved. Although precise measures of the number of Jordanians working in the Gulf do not exist, their numbers are generally considered to be close to 500,000. Jordan is also a host to a large number of guest workers; remittance outflows are non-negligible but amount to 1-2 percent of GDP.

III. ANALYTICAL ASSESSMENT

One of the main objectives of economic reform has been to increase economic diversification in order to achieve sustainable growth. Economic growth results from the accumulation of factors of production and the efficiency with which they are combined to generate output.¹³ According to standard neoclassical growth theory physical capital, labor, and human capital constitute the factors that account for GDP growth, with the remaining unexplained part of growth attributed to "total factor productivity".

The following analysis uses a single equation model to estimate the impact of the adjustment program components on economic diversification. Given the data constraints, however, only few of the variables are considered.

In the model, output diversification (OD) is the dependent variable, and the adjustment program (AP) components are the independent or exogenous variables. The overall relationship is canonically written as:

$$OD = f(AP)$$

The OD and AP variables are expressed quantitatively to statistically examine the significance of the relationship between them. Typically, empirical studies often utilize one of two measures for OD. The first can be constructed by the ratio of total raw materials to total output in an economy. The second is constructed by taking the ratio of industrial output, or manufacturing or intermediate goods output as a ratio of

¹² *Central Bank of Jordan Annual Report (1999)*

¹³ See Solow (1956), Romer (1992).

total commodity to GDP. In the model, the ratio of raw materials to GDP is used as the proxy variable for estimating economic non-diversification. Therefore, unity less the inverse of the variable is the measure for output diversification.

In other words, OD explains the non-deepening diversification of products; this can be explained from the construction of the measure. The numerator as specified is the total raw material and the denominator is the total output. Hence, as raw material production increases (diversification deteriorates) the measure also increases, *ceteris paribus*. Therefore, a negative coefficient for OD means a positive impact on economic diversification.

On the other hand, the specifications of the AP variables depend totally upon the components and the structure of the adjustment program implemented in an economy. In this case it is important to specify the policy variables that were implemented in Jordan's economy as components of the adjustment program.

The outward orientated strategy implies the neutrality of trade policies—unbiasedness of policy in favor of exports or imports (see Edwards, 1993). In the empirical literature, the openness or outward orientation strategy variable is measured by the ratio of total trade (exports plus imports) to GDP. Thus, using the trade-output ratio as a measure of openness instead of export-output ratio is justified as a proxy for openness. Government expenditures (GOV), which under the adjustment program were to be tightened, are taken as percentage of GDP (see Ram, 1986 and, Garrison and Lee, 1995). Further, one of the most important variables that is associated with the process of integrating an economy into the world economy is the foreign direct investments (FDI), which is presented in the model in absolute numbers (1000 JDs). Remittances, which have figured heavily in the Jordanian economy over the past decades, are also included in the model to evaluate their impact on diversification.

However, there are several constraints pertaining to data: Jordanian data suffers from a structural change in constructing methodology. In the 1993 the Department of Statistics (DoS) in Jordan changed the data construction methodology from the SNA68 to SNA93 of the United Nations, which has caused some discontinuity in the data. Moreover, Jordan does not have accurate estimates of FDI (see, Clegg, O., 2001). Hence, general estimates from various data sources were used in this study. There are few observations in the time series in general, which limits the applicability of the Unit Root Test, Co-integration, and Error Correction Model (ECM), because they require several degrees freedom while the analysis requires lags, which further reduce the degrees of freedom.

Results

The basic single equation model was formulated to examine the relationship between the dependent variable (OD), and the explanatory variables: the openness degree (OPN), the government intervention (GOV) and either foreign direct investment or remittances (REM). Further, a dummy variable is added (1 for an adjustment year and 0 outside it) to demonstrate the impact of other components of the structural adjustment program on economic diversification. The dummy variable is zero for the period 1987-1990 and one for the period 1991-2000. The model was run in eight trials.

The ordinary least squares (OLS) technique was employed to regress the eight equations in separate trial runs. The results indicate that using logarithmic forms yield more statistically significant estimates than in the case of absolute values.

Table :Estimation Results

OD	C	OPN	FDI	GOV	D	REM	R ²	DW	F-test
Equation 1**	-0.0922 (0.12)*	0.0485 (0.01)	-0.149E-5 (0.86)	.003208 (0.09)	-.00683 (0.27)	-	0.74	2.25	(0.01)
Equation 2	-0.1332 (0.01)	0.0556 (0.00)	-0.555E-5 (0.48)	0.00439 (0.01)	-	-	0.70	2.36	(0.01)
Equation 3	-.08990 (0.09)	0.0487 (0.01)	-	0.003106 (0.06)	-.0072662 (0.18)	-	0.74	2.25	(0.00)
Equation 4	-0.1348 (0.00)	0.0587 (0.00)	-	0.00427 (0.01)	-	-	0.68	2.31	(0.00)
Equation 5	-7.832 (0.011)	1.3701 (0.004)	-	1.3996 (0.095)	-0.2174 (0.113)	-0.01819 (0.936)	0.803	2.48	(0.00)
Equation 6	-0.1046 (0.05)	0.0513 (0.01)	-	0.00363 (0.03)	-	-0.8076E-5 (0.29)	0.72	2.4	(0.00)
Equation 7	-0.1019 (0.08)	0.0524 (0.01)	-	0.003658 (0.03)	-	-0.065466 (0.38)	0.71	2.4	(0.01)
Equation 8	-4.815 (0.00)	1.372 (0.00)	-0.1520 (0.869)	6.0844 (0.103)	-0.2118 (0.105)	-	0.802	2.446	(0.00)

* Significance levels are in parentheses.

**Variables in Equations 1-4 are in ratios, except for FDI. In Equation 5, all variables are in natural logs; Equation 6, all variables are in ratios except for REM, which is in absolute values; Equation 7, all variables are in ratios; Equation 8, the variables in ratios taken also in natural log.

Based on the goodness of fit values (R²), two equations (5 and 8) were chosen to analyze the impact of explanatory variable on economic diversification, which are identical except for FDI replacing REM in equation 8:

$$5) OD = a_0 + a_1 OPN + a_2 GOV + a_3 REM + a_4 D + U_1$$

$$8) OD = \beta_0 + \beta_1 OPN + \beta_2 GOV + \beta_3 FDI + \beta_4 D + U_2$$

The results indicate that the coefficients of both variables (OPN and GOV) are statistically significant at 1% and 10% respectively. The empirical results of equation (5) show that both OPN and GOV have a positive impact on OD (the inverse of economic diversification). The coefficients being elasticities measure the responsiveness of OD to the explanatory variables. Since the results show positive elasticities for the two variables, a 1% increase in OPN will lead to a 1.37% increase of OD, or a 1.37% decrease in economic diversification. Also an increase in GOV by 1% will result in an increase in OD by 1.40% or a decrease in economic diversification of 1.4%.

In other words, openness policies and government size are adversely related to economic diversification, which point to a fact that openness policies have not been coupled with preparation of industry for globalization. Jordan is yet to have an industrial promotion program and policy aimed at enhancing the competitiveness of

industry, particularly manufacturing, which at less than 13.5% of GDP in 2000 remains low.¹⁴

The reforms have produced some significant and major shifts in the structure of the economy. The private sector now plays a larger role in the economy, especially with respect to investment, and public sector demand element has decreased from about 30 percent of GDP in the late 1980s to about 25 percent currently. Private investment in non-residential investment has roughly doubled from about 4 to 8 percent of GDP between 1990-98. Jordan has also diversified its external trade, both in markets and products. In export markets, the share of the top 5 destinations has declined from 57 percent of total to 40 percent between 1990-98. Similarly, the share of the top 10 products in total exports has fallen from 74 to 64 percent.

Consequently, several types of productions costs have decreased due to the reforms. Tariff reforms have progressively reduced import duties on industrial raw materials and capital goods, and key imported raw materials and capital goods now enter Jordan duty free. Custom valuation procedures have been streamlined, thus enabling faster clearance of goods and less delays. Individual income taxes have been rationalized and the maximum rate was reduced to 30% from 50% in 1995. Corporate tax ranges were also lowered in 2000 from a 38-55% range to a 15-35% range. Nominal exchange rates depreciated against the US dollar by 3.5 percent a year over 1990-96, but have remained unchanged since then.

Moreover, reforms have altered the set of prices faced by firms, raising some costs while lowering others. The price of energy inputs such as electricity have increased (12 % in 1993), and petroleum prices have been also raised by 11% and have been increased in 2001 by an average of 10% because of the upward trend in world oil prices. Local telecommunication charges have seen a three-fold increase to 7 US cents per minute in 1993. Cut in subsidies under agricultural and fiscal reforms have raised the cost of water by 150 % and fodder prices have almost doubled. Central bank interest rate for export finance has risen steadily from 3.5 % (5 percentage point lower than the rediscount rate) in 1993 to 5 % (2 percentage points less than the rediscount rate) in 1999 with the remaining interest subsidy along with the tax exemption of income from export of goods (other than phosphate and potash) and services is to be eliminated by the end of 2002 as a part of Jordan's accession commitments to WTO. Under fiscal reforms the base for taxation has been simplified and broadened and the rate of indirect taxes (General Sales Tax, GST), which was set at 7 % in 1994, has been raised in stages to 13% presently. Furthermore, The government submitted to parliament, during the extraordinary session convened on May 2000, the "second stage" amendment to the GST law to convert this tax into a VAT. According to the proposed amendment, the list of exemptions under the GST was reduced substantially. The amendments to the income tax law have also been finalized, submitted to parliament, passed in June 2001, and started implementation.

Did the above changes improve the profitability of export-oriented private firms? According to a recent World Bank empirical study, following the model of A. Senhadji et al. (1999), value added ratios in industry groups with at least 25% or more of export sales have improved only in agro-processing industries and textiles, with regional factors being behind the growth of the former and the latter benefiting from

¹⁴ Central Bank of Jordan, *Monthly Statistical Bulletin*. Vol. 37 No. 6, June 2001

the QIZ arrangement. Thus, the result of policy seems to have made exports of goods less competitive and shift production in favor of raw material exports.¹⁵

As for GOV, current expenditures (salaries, debt repayment and interest on loans) make a sizable chunk, 82% in 2001, of government spending¹⁶. Current expenditures have been growing at a positive rate since the 1970s, albeit at a slower rate in the 1990s (1% per year), while capital expenditures were declining. With less than 18% to spend on capital projects, government expenditures have little to no impact on industry, particularly since government expenditures were growing at a positive rate in the 1970s and were declining (-1% per year) during 1981-85, and almost sustaining no growth as a percentage of GDP during 1986-95, and falling again by -.3% per year from there on (1996-2000). Moreover, the government competes with the private sector for resources--particularly labor--driving up input costs in the market, which adversely affect diversification.

The other two variables, remittances (REM) and the dummy variable (D) have negative impacts on OD--they are positively related to economic diversification. The two elasticities are negative and they indicate that a 1% increase in REM will yield a decrease of 0.02% in OD or an increase in economic diversification of 0.02%. However, the elasticity is statistically insignificant, which means that the null hypothesis cannot be rejected. In other words, there is a positive effect, albeit small, of the remittances on economic diversification.

The same conclusion applies for the case of the dummy variable, which inputs the effects of the structural adjustment programs on economic diversification. The elasticity is -0.217, which means that a 1% increase in economic reforms leads to a 0.217 % increase in economic diversification. However, the result is statistically insignificant at a 20% significance level, which means that the null hypothesis cannot be rejected.

While it seems at the outset that performance of government institutions should have improved markedly with the reforms, there is a large gap between what has been designed and implementation: "Although changes have affected customs, taxation, companies law and the financial market, foreign and local businesses tended to find that much of the legislation exist on paper only."¹⁷ This gap and lack of meritocracy in the public sector has clearly weakened the impact of reform.

Furthermore, the goodness of fit (R^2) is 80.3%, which means that 80.3% of the variation in OD is explained by the explanatory variables. The F-test, which is used to test the hypotheses for more than one coefficient at a time (or overall significance of the regression equation), shows that the overall fit of the estimated equation is

¹⁵ The Jordan Phosphate Mines Co. and the Arab Potash Company are Jordan's main exporters of raw materials. Both companies benefit from being state controlled and chaired by ex-government senior officials. Therefore, being high profilers they face less red tape and bureaucratic obstacles, which factors contribute to their insusceptibility to adverse policies. The lack of meritocracy in the selection and reward of executives for the top positions in these companies has been widely criticised to no avail. Ex-ministers usually end up heading these companies as a reward for past achievements.

¹⁶ *Government Finance Bulletin*. Vol. 3 No. 5, Ministry of Finance, June 2001.

¹⁷ EIU (2000), *Jordan Country Profile*, 2000/2001, (London: EIU), quoted in Schlumberger, O. "Competition, the Rules of Law, and Non-Market Transition: The Socio-Political Dimension of Economic Reform in the Arab World", ERF Seventh Annual Conference, October 2000.

statistically significant at 5% level. The Durbin-Watson (DW), which is used to determine if a first-order serial correlation between error terms does exist, is 2.486; hence, there is no serial correlation.

The estimated results of Equation (8), where FDI replaced REM, shed a similar insight on economic diversification efforts in Jordan.¹⁸ The results show that the coefficients of the two variables (OPN and GOV) have positive signs. They are also statistically significant at 0.0% and 10 %, respectively. The elasticities of OD with respect to OPN and GOV are 1.37 and 6.08, respectively. Therefore, a 1% increase in either OPN or GOV results in a decrease in economic diversification of 1.37% and 6.08%, respectively; which finding is consistent with the regression results of Equation 5.

Jordan's investment regime underwent considerable reform since 1995. The enactment of the Investment Promotion Law in 1995 and its later amendments in 1997 contributed to laying the foundation for an investment-promoting climate and the creation of the Jordan Investment Board, an organization whose sole purpose is the promotion of investment in the economy. Despite the improvements in the investment climate, however, Jordan continues to face challenges in attracting FDIs due to red tape, regional volatility, limited natural resources, and slow economic growth in recent years.¹⁹

FDI flows into Jordan seem sinusoidal (see Table 1 below) as they fluctuate from year to year. Moreover, most of FDI inflow into Jordan in recent years has been in the nature of acquisition activity under the successful privatization program. What is needed, however, is to attract FDI into the traded goods sectors in order to enhance the capital formation rate.

Table 6: FDI Flows to the Region: A Comparison

	Annual Average 1982-1985	Annual Average 1986-1989	1990	1991	1992	1993	1994	1995	1996
Jordan	49.2	21.2	37.6	-11.9	40.7	-33.5	2.9	4.0	5.0
Egypt	672.6	1,151.3	734.0	253.0	459.0	493.0	1,256.0	598.0	800.0
Morocco	48.2	77.9	165.1	317.5	422.5	491.5	551.0	290.0	500.0
Tunisia	186.4	73.6	76.3	125.5	525.8	561.9	432.0	264.3	300.0
Lebanon	0.0	0.0	60.0	2.0	4.0	6.0	7.0	35.0	150.0
Libya	-154.0	-17.9	158.9	160.0	150.0	160.0	80.0	90.0	100.0
Saudi Arabia	5,353.4	-297.7	1,863.8	160.2	-79.0	1,369.0	349.8	-1,877.2	100.0
Syria	9.3	66.8	71.0	62.0	67.0	176.0	143.0	65.0	70.0
Oman	164.0	94.9	142.3	131.6	100.7	146.9	61.9	34.9	35.0
Algeria	-13.0	8.5	0.3	11.6	12.0	15.0	18.0	5.0	4.0
Yemen	0.0	0.0	-130.9	582.6	713.6	897.1	10.5	-217.7	0.0

Source: Estimates from IMF BOP Statistics

The fact that there has been a deceleration in the rate of physical capital accumulation

¹⁸ There are several reasons why Foreign Direct Investment (FDI) is important for promoting growth in developing countries. Apart from being a source of finance for investment, FDI brings technology and export markets; the spill over benefits to local suppliers are also significant.

¹⁹ For an interesting and detailed exercise on the obstacles faced by investors see *Jordan: Improving Administrative Procedures for Investors*. FIAS (Foreign Investment Advisory Service) & USAID (United States Agency for International Development), September 1998.

and that the asset composition of physical assets shifted to housing stock since the mid 1980s due to the decline in private investment rate over 1993-98 is attributed to the decline in worker remittances, worsening of fiscal deficit and increased uncertainty

The elasticity of OD with respect to FDI is negative; therefore, a 1% increase in foreign direct investment will lead to an increase in economic diversification of 0.15%, which is consistent with economic theory. However, the result is statistically insignificant, possibly due to the non-robustness of data on FDI. Jordan has no official site responsible of constructing a measure of FDI and/or accumulating reliable FDI data. Further, available international data is not sufficient and suffers from big variations.

The coefficient of the dummy variable has a negative sign, which indicates that an increase in economic reform of 1% will cause an increase in economic diversification of 0.212%. The result is statistically significant at a 10% significance level, which means that the impact of structural adjustment program was positive on economic diversification. The goodness of fit (R^2) implies that 80.2% of the variation in the dependent variable (OD) could be explained by the explanatory variables. The F-test value is 9.1062, which is statistically significant, and the Durbin-Watson statistic of 2.45 implies the nonexistence of serial correlation.

Conclusion

Economic diversification is clearly not receiving the concerted attention of the Jordanian government that it warrants. The analysis demonstrates that there is no specific policy aimed at diversifying Jordanian exports and departing from exporting raw materials to manufactured goods. Both at the macro and micro level, there is absence of policy in terms a short-, medium- or long-term program to facilitate the growth of industry in a specific sector or an upgrading philosophy aimed at restructuring industry toward higher value added production.

Moreover, contrary to what would be expected, openness and government spending have a significant negative impact on economic diversification. In the absence of a competitiveness-enhancing mechanism or program, openness, except in isolated cases and due to specific occurrences, has favored trade in raw materials. Further, the trade reform policy has been highly distorted by the introduction of over compensatory excise, sales and value added taxes. Thus, almost every decrease in tariffs has been more than compensated by an increase in or introduction of an excise or sales tax. Industry as a result suffers from seemingly greater competition from the products that do enter without effectively increased taxes and from having additional taxes that disturb any price differentials by raising the final price on domestic and imported products. Without a form of technical assistance or subsidy, the lowering of barriers to trade has not made Jordanian products more competitive but less so.

Government spending, as evident from the figures, favored hiring away from industry and, therefore, shrunk the available pool of talent, leading to the crowding out of the private sector and the creation of many distortions in the labor market. On the other hand, government procurement procedures are based on purchasing the cheapest, not the highest quality products, which causes a deterioration of quality over time and reduced product differentiation.

Remittances and FDI have a positive impact on economic diversification, albeit insignificant. As commonly known in Jordan, remittances have focused on family needs and housing or real estate investment with leaving very little available for manufacturing or industry. FDI, while positively impacting the economic diversification, did not have a significant impact on industry because of the difficulties associated with investing in Jordan. In addition, there is no specific investment promotion strategy for attracting FDI.

The results of the analysis show that impact of the economic reform programs on economic diversification is positive, albeit insignificant, which finding is consistent with the observed implemented components of the reforms programs, resulting mainly in tight fiscal and monetary policies with little concern with microeconomic policies that directly affect the productivity of capital and labor and hence their wages. The emphasis on stability at any cost with the absence of a sustainable development paradigm has rendered the reform program insignificant as far as diversification is concerned.

In order to create greater economic diversification a clear industrial policy must be formulated to provide a urgent, sound, comprehensive, and actionable plan that is supported by the leadership, involving and owned by all stakeholders, and supported

by several funds. The approach is to provide horizontal interventions to industry and maintain a cluster focus (attend to all issues that improve the competitiveness of a product) when addressing quality.²⁰ The plan is to be guided by sustainable public-private dialogue, implemented through efficient, performance-motivated support institutions, and backed by a competitiveness development fund.²¹

Formulation of policy and the delivery of interventions must be guided by this horizontal approach offering assistance to institutions regardless of sector. Most importantly, the private and public sectors must always bear in mind that implementation is what makes a policy successful. Inaction following the best-worded policies renders policy fruitless if not damaging. Further, policymaking and implementation should be a shared responsibility. In the race for national competitiveness, glory as well as defeat must belong to all. Therefore, a national steering committee must pilot the dialogue under the guidance of a sustainable government entity such as the Ministry of Industry and Trade and its institutions, which will be accountable for the delivery, with the full partnership and support of the chambers of trade and industry and other support groups and organizations.

Everywhere, there should be study after study backing decisions and making intelligent qualitative improvements, armed with an industrial competitiveness development fund that provides industry with funds on a cost share basis to improve competitiveness, five strategies are devised:

- Investments promotion strategy
- Productivity improvement strategy
- Export promotion strategy
- An industrial upgrading program
- Innovation promotion strategy

The industrial competitiveness development fund must be co-managed by the public and private sectors and, at least in the first few years, funded through privatization proceeds, the research and development tax already stipulated in the Companies Law but not activated, and private sector contributions. Until the private sector starts to witness the benefits of such a fund, it should not be expected to become burdened with the financing of the fund and hence should remain mainly a beneficiary. Later, the fund may become completely private sector funded. It is imperative also that the administration of the fund must be skeletal to avoid the squander of resources on bureaucracy. This is an outline of the policy recommendation necessary for economic diversification in Jordan.

²⁰ On the cluster approach see Porter, M. (1990, 1985, 1982, 1980)

²¹ This approach is modelled after the Tunisian experience (See Tlatli, S. and Mansur, M. 2001)

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