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Foreign Direct Investment in the MENA Region and Jordan: Regional Experience and Causality Analysis

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Contents

Abstract

It is common knowledge that economic growth in the Middle East and North Africa (MENA) region should remain a worrying factor to policy-makers because of the problems posed by the already existing high unemployment rates and the region's relatively strong growth in its labor force. Moreover, the fact that the region's economic performance failed to generate the employment opportunities sought by the rapidly expanding labor force, brought about some real pressures for economic reforms including trade liberalization and active promotion of Foreign Direct Investment (FDI).

This paper examines the issue of FDI flows in the MENA region and Jordan in terms of size, composition, source, and challenges. At the micro level, this paper examines the impact of FDI on Jordanian exports.

Based on the time period 1980-2005, the reported results indicate that while FDI flows in Jordan have been encouraging relative to the regional experience, the bivariate VAR framework for the analysis confirm the absence of short-run unidirectional Granger causality from FDI to exports. The implications of the results are clear. If FDI does not promote exports, the export-led economic growth, which is in the best interest of the Jordanian economy (and perhaps other MENA economies), is put into some serious doubt.

Keywords: Jordan; MENA Countries; FDI; Exports; Granger Causality.

1. Introduction

It is common knowledge that the period between 1980 and 2000 witnessed a stagnant real per capita Gross Domestic Product (GDP) in the MENA region[1]. This economic performance was in sharp contrast "with the 1970s, when annual per capita GDP growth averaged 2.3 percent, exceeding that of other developing countries (excluding east Asia) by nearly two-thirds of a percentage point" (Hakura, 2004).

The hitherto existing empirical growth literature attributes the poor performance in the MENA region to myriad of structural factors. For example, it is argued that the integration level of the MENA region in the world economy is low (Makdissi et al., 2000 and Dasgupta et al. 2002). Similarly, Dasgupta et al. (2002) suggest that the region lags behind the rest of the world in macroeconomic and trade reforms. Sala-i-Martin and Artadi (2002) show that while the level of investment has remained high by historical and international standards, much of this investment has been unproductive public investment. Abed (2003) relates the region's growth performance to weak institutions, large public sectors, underdeveloped financial markets, restrictive trade regimes, and inappropriate exchange rate regimes. In a more recent paper, it is stated that the empirical analysis "demonstrates that instability associated with investment risk is critical in explaining the level of foreign direct investment for the Middle east and North Africa (MENA) countries, which generally have higher investment risk than developed countries" (Chan and Gemayel (2004).

The poor performance of the MENA region during the 1980s and 1990s led to the publication of a number of political economy studies which attempt to explain economic performance in terms of pressure groups that manage to influence and make national economic policies complementary to their vested interests (Sadowski, 1991; Waterbury, 1993; and Henry and Springborg, 2001). In addition, while it is argued that the "natural resource curse" was the driving force of bad economic policies in the MENA region (Leite and Weidmann, 1999), this argument is supported by the empirical findings of Makdisi et al. (2005) and Ersel and Kandil (2005). Similarly,

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[1] GCC countries are Bahrain, Kuwait, Oman, Saudi Arabia, and the United Arab Emirates. Other MENA oil-exporting countries are Algeria, Islamic Republic of Iran, and Libya. Non-oil MENA countries are Egypt, Jordan, Lebanon, Morocco, Syrian Arab Republic, Tunisia, and Yemen.

Yousef (2004) combines the pressure group and natural resource curse arguments to explain the failure of adopting policies conducive to greater efficiency and economic growth. Finally, in a more recent paper, Esfahani (2006) provides a framework for a deeper understanding of the nature of social contracts and the sources of their variation across the MENA countries[2].

In contrast to the 1980s and 1990s, the MENA region has experienced some exceptional growth rates over the last few years. For example, during the years 2003 and 2004, "economic growth averaged 5.6 percent a year, the strongest growth in a decade. On a per capita basis, the MENA region's 3.5 percent average growth over the last two years was the region's highest recorded performance since the mid 1970s" (Global Development Finance, 2005). While this growth performance is encouraging, and has been driven largely by the recent dramatic rise in oil prices, it can be argued that economic growth should remain a worrying factor to policy-makers because of the problems posed by the already existing high unemployment rates and the relatively strong growth in the labor force of the region. Indeed, while current figures indicate that unemployment in the region stands at around 18 percent, the highest in the world, and this rate doubles for youth, the labor force grew at 3.3 percent during the past 10 years and is expected to grow at 2.6 percent a year from 2003 – 2015. "To meet the region's pressing development challenge of creating sufficient employment opportunities for a burgeoning, youthful labor force, the region will require still higher growth, which depends on implementing broad-based structural reforms to generate sustainable growth opportunities outside of oil" (Global Development Finance, 2005)[3].

The fact that the region's economic performance failed to generate the employment opportunities sought by the rapidly expanding labor force has brought about some real pressures for economic reforms. It is argued (World Bank MENA Economic Developments and Prospects Report, 2005) that trade liberalization has seen the

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[2] Similar works are provided by Castanheira and Esfahani (2003), and Rodrik (2003 and 2005).
[3] In addition, the World Bank (2005) stated that three pre-conditions must be the focus of economic policy and these are: (i) increasing economic openness and industrial competitiveness; (ii) reduction in the hegemony of the public sector and creation of a private sector enabling environment; and (iii) accelerating the pace of diversification away from oil dependence.

greatest progress in the region. Most countries have actually committed to opening their economies to free trade and attracting FDI. However, despite these efforts, the record of economic integration in terms of regional trade and FDI in the region remains poor.

The Arab countries share common religion, culture and language. Moreover, they are diverse in geographical size, per capita income, and natural endowments. Despite these shared issues and differences and numerous past attempts to promote intra-Arab trade, it is well-known that these efforts have not been successful. On average, intra-Arab trade represents some 14 percent of the region's total external trade. In addition, a large proportion of this trade is within sub-regions. For example, some 75 percent of GCC trade is with GCC countries and this is also true for the North Africa Arab countries and the Levant countries (Al-Atrash and Yousef, 2000)[4]. Naturally, the low levels of intra-Arab trade have some implications to Arab economic integration in terms of FDI in the region. Unless the existing free trade agreements enhance, facilitate and promote intra-regional trade, the Europeans, for example, would not find it attractive to invest in the region (the hub and spoke argument).

It is generally argued that the record of FDI in the MENA region leaves a lot to be desired. For example, it is argued that regional FDI flows follow a different pattern from that observed in the World (Krogstrup and Matar, 2005). First, FDI flows to the Arab region are low relative to the region's economic size. Second, FDI inflows to Arab countries have declined relative to other developing countries since the early 1990s. Finally, there exist wide disparities in FDI inflows among Arab countries. This poor performance of the MENA region in attracting FDI raises a number of questions including what factors are responsible for these patterns and what can governments do to improve the flow of FDI? In other words, what determines FDI in the MENA region?

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[4] The relevant literature points out that factors like trade policy, government involvement in the economy, lack of product complementarities in the region, high trading costs, differences in per capita income are the principle reasons behind the low levels of intra-Arab trade.

Against the above background, the primary objectives of this paper are three-fold. First, to explore the experience of the MENA region in promoting FDI flows. Second, to outline the main characteristics of the Jordanian economy and report on the FDI flows in terms of size, composition and source. Finally, this paper examines the impact of FDI on the Jordanian exports and imports.

2. The Experience of the MENA Region in Attracting FDI

As an institutional part of economic globalization, the European countries have always had close economic relations with most of the Arab countries. In 1995, the European Union Mediterranean strategy was adopted during the Barcelona Meeting. This strategy has a number of objectives including the promotion of sustainable growth and reduction in social disparities between the European Union (EU) and Mediterranean countries. In addition, the Euro-Mediterranean Agreement calls for the creation of a free-trade area between the European Union and the Mediterranean countries over a period of 12 years and increasing investment flows into the Mediterranean countries. The EU's initiative is expected to generate long-term economic benefits in the region. For example, one of the early papers (Rutherford et al., 1995) estimates that Morocco and Tunisia would experience welfare gains equivalent to 1.5% and 4.7% of GDP per year respectively.

Relative to the process of global economic integration and the EU initiative, it is well-known that the Arab countries in general have fared poorly in terms of many issues including world capital flows. Table 1 below reports the relatively low net inward FDI in the MENA region. Indeed the reported figures indicate that the MENA region has attracted the least net FDI flows among the developing countries.

Table 1
Net Inward FDI ($ billions)

	1998	2000	2002	2003	2004	2005
Developing Countries	172.4	168.8	160.3	161.6	211.5	237.5
East Asia & Pacific	57.8	44.3	57.2	59.8	64.6	65.3
Europe & Central Asia	27.4	30.2	34.9	35.9	62.4	75.6
Latin America & Caribbean	74.1	79.3	48.2	41.1	60.8	61.4
MENA	2.7	4.1	3.7	5.6	5.3	9.1
South Asia	3.5	4.4	6.7	5.6	7.2	8.4
Sub-Sahara Africa	6.9	6.5	9.5	13.6	11.3	17.6
MENA / Total	1.566%	2.429%	2.308%	3.465%	2.506%	3.832%

The above observation is also supported by the figures reported in Table 2. For example, during the period 1998-2005, the Arab countries managed to attract, on average, 0.94 percent of the world FDI flows only.

Table 2
FDI in the Arab MENA Region
(Billion Dollars)

	1998	1999	2000	2001	2002	2003	2004	Mean
Algeria	0.50	0.51	0.44	1.20	1.06	0.63	0.88	0.75
Libya	-0.13	-0.13	0.14	-0.13	0.15	0.14	0.13	0.02
Morocco	0.33	0.85	0.43	2.83	0.48	2.31	0.85	1.15
Tunisia	0.67	0.37	0.78	0.49	0.82	0.58	0.64	0.62
Mean	**0.34**	**0.40**	**0.45**	**1.10**	**0.63**	**0.92**	**0.63**	**0.64**
Bahrain	0.18	0.45	0.36	0.08	0.22	0.52	0.87	0.38
Kuwait	0.05	0.07	0.02	-0.15	0.01	-0.07	-0.02	-0.01
Oman	0.10	0.04	0.08	0.39	0.03	0.53	-0.02	0.16
S. Arabia	0.09	0.12	0.18	0.50	0.45	0.78	1.87	0.57
UAE	0.26	-0.99	-0.52	1.18	1.31	0.03	0.84	0.30
Yemen	-0.22	-0.31	0.01	0.14	0.10	0.01	-0.02	-0.04
Mean	**0.08**	**-0.10**	**0.02**	**0.36**	**0.35**	**0.30**	**0.59**	**0.23**
Egypt	1.08	1.07	1.23	0.51	0.65	0.24	1.25	0.86
Jordan	0.31	0.16	0.80	0.12	0.06	0.42	0.62	0.36
Lebanon	0.20	0.25	0.30	0.25	0.26	0.36	0.29	0.27
Sudan	0.37	0.37	0.39	0.57	0.71	1.35	1.51	0.75
Syria	0.74	0.97	1.20	0.95	1.03	1.08	1.21	1.03
Mean	**0.54**	**0.56**	**0.78**	**0.48**	**0.54**	**0.69**	**0.98**	**0.65**
Total FDI	**4.54**	**3.81**	**5.85**	**8.92**	**7.34**	**8.92**	**10.89**	**7.18**
FDI / World	**0.65**	**0.35**	**0.42**	**1.08**	**1.02**	**1.41**	**1.68**	**0.94**

Moreover, this Table shows that FDI flows to these countries reflect some variations. For example, while Morocco managed to attract the largest FDI flows (annual average of $1.15 billion), Kuwait had a mean annual average of $-0.01 billion. In addition, it is interesting to note that the Gulf countries attracted less DFI flows than both the Maghreb and Mashreq countries. Naturally, these statistics can be summarized in a different manner. For example, Table 3 reports the FDI stock as a percentage of GDP for the individual Arab countries. Again, it is countries like Morocco and Tunisia that managed to attract a relatively large stock of FDI.

Table 3

FDI Inward Stock as a Percentage of GDP

	2000	2001	2002	2003	2004	Mean
Algeria	6.70	8.82	10.51	10.03	9.19	9.05
Libya	1.39	1.19	2.53	3.26	3.87	2.45
Morocco	26.47	34.36	33.60	39.12	36.05	33.92
Tunisia	60.01	57.69	65.95	65.03	62.65	62.27
Bahrain	74.09	75.50	73.43	69.05	69.11	72.24
Kuwait	1.64	1.35	1.33	0.96	0.74	1.20
Oman	12.61	14.52	14.40	15.90	14.03	14.29
S. Arabia	8.93	9.47	9.43	8.73	8.37	8.99
UAE	1.50	3.23	4.97	4.47	5.25	3.88
Yemen	14.03	13.22	13.00	8.91	7.57	11.35
Egypt	17.67	19.67	22.36	25.82	23.54	21.81
Jordan	26.90	26.75	25.99	28.93	32.37	28.19
Lebanon	6.78	8.13	9.29	10.74	11.38	9.26
Sudan	12.10	15.14	18.24	23.65	27.80	19.39
Syria	41.85	44.21	47.19	55.19	53.28	48.34

To put the above figures into their international perspective, we report in Table 4 the inward FDI stock in some Central and Eastern European countries (CEE). These figures indicate that FDI stocks in the Arab countries are really comparable to those in the CEE countries. As far as the CEE countries are concerned, by the mid-1990s attitudes to FDI were changing and in part "this was because of the limited success of domestic methods of privatization in producing expected efficiency gains, and partly because many privatized firms now needed investment capital to restructure and modernize" (Lonnborg et al., 2006).

Table 4

FDI Inward Stock as a Percentage of GDP in Some CEE Countries

Country	1994	1998	2000	2002	2004
Estonia	19.7	31.4	48.0	54.0	78.6
Hungary	16.5	42.4	48.6	50.2	55.1
Czech Rep.	10.7	24.1	41.8	47.1	48.0
Bulgaria	2.5	12.0	17.7	21.3	30.9
Poland	4.0	12.8	20.4	22.8	25.7
Romania	1.3	10.2	17.3	15.4	22.4
Russia	0.7	5.0	12.4	19.1	17.1
Ukraine	1.4	6.1	12.3	12.7	14.4

Source: Adapted from Lonnborg et al. (2006).

Foreign direct investments in the MENA region have a strong sectoral specificity. One would not be surprised of the fact that the bulk of FDI flows to the Gulf countries to be concentrated in the oil business. However, the same conclusion is applicable to

the more diversified Arab economies. For example, in a recent report by Invest in France Agency (2006), it is reported that in the MEDA countries, 3 sectors only attracted 60 percent of the projects and 75 percent of the foreign investment flows in 2005. These sectors are telecom, services (banking and tourism), and energy and repetitively, they have been accounting for the bulk of FDI flows. Similarly, whereas electronic related FDI in the CEEC countries was equal to 4.2 percent of all FDI flows, the MEDA countries' equivalent proportion was equal to 0.2 percent only. In other words, all published data point out to the fact that Arab countries have not managed to attract FDI flows in heavy industrial projects (automobile, metallurgy, machinery, etc.) or in advanced technologies.

The Barcelona Declaration does not differentiate between the promotion of FDI emanating from the EU and other sources. However, the available data clearly indicate the EU-FDI in the MENA region remains small. For example, it is reported (Backer, 2005) that while EU-FDI in the Mediterranean countries increased from about 0.73 billion ECU in 1995 to 3.6 billion EUR in 2003, as a proportion of all FDI outflows from the EU, these sums are equivalent to less than 1 percent of outward EU-FDI flows. Having said that, it must be noted that the EU remains to be the largest foreign investor in the MENA region accounting for about 50 percent of all foreign investments in the region.

Relative to the FDI inflow patterns to the MENA countries, and to the huge empirical papers which examine the performance of FDI inflows in terms of their determinants[5], it is surprising that only a limited number of empirical papers examine the various issues concerning FDI flows to the MENA region. As far as the determinants of international FDI is concerned, it is argued (Demekas, 2005) that regardless of the region, "gravity" factors consistently explains about 60 percent of aggregate FDI flows. However, this argument is not well supported given the fact that FDI flows to the region are, to a large extent, resource specific (Allessandrini and Resmini, 2000). In addition, it can be argued that the fact that a high proportion of FDI flows were invested in the telecom sector and privatized companies, gravity factors are not

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[5]An excellent review of the empirical literature on FDI determinants is provided by Blonigen (2005).

important in attracting FDI flows. Other papers (Bouklia-Hassane and Zalta, 2000; Sekkat and Veganzones-Varoudakis, 2004) identified openness to trade (and lack of reform in terms of foreign exchange liberalization in some countries) as an important determining factors of FDI flows. In addition, these papers share the conclusion that the stock of physical infrastructure is a key determinant factor of FDI in the MENA region.

In addition to the above-mentioned "economic" factors, the evidence points out to the fact that in the MENA countries, although progress is gradually being made, there is still a gap (compared to south European countries and the new EU member states) in the business climate (World Economic Forum Growth Competitiveness Index, 2005). This is probably why the EU is assisting a number of middle eastern countries in improving their respective business climate. Moreover, it is argued (Backer, 2005) that countries that signed the Association Agreement with the EU appear to have attracted relatively more FDI as a percentage of GDO than their peers.

The literature provides us with some interesting research papers about the role of financial development in enhancing the developmental role of FDI. For example, while examining the impact of FDI on economic growth in a broad panel of countries, Durham (2004) used a measure of financial development and interacted it with the FDI term. This analysis shows that countries with well-developed financial markets gain significantly from FDI. This type of research is also published by Alfaro et al. (2004). Indeed, it is stated that "our empirical evidence suggests that FDI plays an important role in contributing to economic growth. However, the level of development of local financial markets is crucial for these positive effects to be realized..."(Alfaro et al., 2004, p.108). Finally, the issue of FDI has been examined in terms of its impact on exports. From a policy perspective, it is indeed important to examine the relationship between FDI and exports. This is based on the argument that exports have the potential to stimulate growth in the exporting country (export-led growth). Similarly, exports can have a positive impact on FDI-recipient countries through enhancing productivity (technology spillovers). Based on the theoretical

relationship between FDI and trade as depicted by trade theory[6], a large number of empirical papers examined the link between FDI and trade. Horst (1972) was one of the early researchers who examined the relationship between US exports and FDI to Canada. Based on his results, it is argued that exports and foreign investments are alternative ways for US companies to supply the Canadian market. Using product-level data (automobile parts and consumer goods), on Japanese production in the US and Japanese exports to the US, Blonigen (2001) reports substitution effects between production in the US and exports to the US. In addition, Camerero and Tamarit (2004) find that inward and outward FDI is positively related to trade in a panel of EU countries and the US and Japan. Finally, Blonigen et al. (2004) provide some evidence which shows that FDI inflows in Europe promote European exports. As far as emerging economies are concerned, papers by Srivastava and Sen (2004) and Johnson (2006) confirm the presence of short-run unidirectional Granger causality from FDI to services exports in the Indian economy and a significant impact of FDI on host country exports in eight East Asian economies respectively.

3. The Jordanian Economy: Performance and Some Basic Characteristics

The economic performance of the MENA region has not been broad based. For example, based on the performance of the Jordanian economy, one can notice four periods. First, during the years 1973-1982, the economy grew at an annual average of 11.6 percent in real terms. This period was characterized by high and rising exports to regional markets, increasing worker's remittances and generous Arab and foreign assistance and loans. Second, the slowdown in regional economies and the resultant fall in remittances reduced real economic growth during the period 1983 - 1988 to a mere annual average of about 2.2 percent. By the end of 1988, the budget deficit was equal to about 25 percent of GDP, total external debt stood at more than 190 percent of GDP, and foreign exchange reserves were literally non-existent. As a result, Jordan could not service its external debts and the Government had no option but to devalue the Jordanian Dinar (JD), liberalize the foreign exchange market and embark on a decade-long austerity and restructuring program supervised by both the International Monetary Fund (IMF) and the World Bank (WB). Third, the early 1990's witnessed a

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[6] Some of the main theoretical works include Helpman (1984), Markusen (1984), Carr et al. (2001), Markusen and Maskus (2002), and Ekholm et al. (2004).

real annual GDP growth rate of about 7 percent and this was largely due to the large numbers of Jordanians who returned from the Gulf region (with capital) during and after the Gulf crisis (1990-1991). Finally, since 1996 the pace of economic growth has slowed down and during the periods 1997 – 1999 and 2000 – 2005, the economy registered about 2.4 percent and 4 percent annual real growth rates respectively.

Relative to the current economic situation, the Jordanian economy faces a number of challenging economic issues. First, it is believed that the unemployment rate is currently around 14 percent of the labor force. In common with the MENA countries, the labor force in Jordan is expected to increase from 1.62 million (2000) to 3.13 million by the end of 2020 (World Bank, 2004). This increase in the labor force (93 percent) indicates that the Jordanian economy must create huge numbers of new jobs to absorb the new labor market entrants. Second, the Jordanian economy has been suffering from a chronic trade deficit problem. During the period 2001 –2005, the mean annual trade deficit was equivalent to more than 28 percent of GDP. Notwithstanding these problems and other economic challenges, successive governments have persevered with some consistent policies and these include private sector development, export promotion, privatization, local, Arab and Foreign investment promotion and utilization of information technology for development. In addition, Jordan has made the decision to liberalize its trade regime, and integrate with the world economy. Indeed, Jordan signed the Association Agreement with the European Union (November 1997), became the 136th member of the World Trade Organization (WTO) in April 2000, and on September 28, 2001 President Bush signing into law the United States – Jordan Free Trade Area Implementation Act.

Jordan's population in 2005 is estimated at 5.5 million and during the past five years, the population growth rate averaged 2.7 per annum. Naturally, this rapid growth rate has many economic implications including its impact on per capita income growth, age dependency ratio, demand for public services and the sustainability of the environment. Notwithstanding this demographic fact, the country's natural resource base is extremely limited. This is why, traditionally, the economy has relied on remittances, external debt, and foreign aid in managing its economic affairs. For example, by the end of 2005, it is estimated that total official remittances as a

proportion of GDP was equal to 20.1 percent. Similarly, while the stock of international debt stood at about 55 percent of GDP, the country received the equivalent of 5.1 percent of its GDP in the form of international aid (Table 5). Indeed, published official statistics report that Overseas Development Assistance (ODA) flows to Jordan have been higher than countries such as Egypt, Lebanon, Morocco, Sudan, Syria, Tunisia and Yemen. Similarly, Jordan ranks amongst the top ten recipient countries of remittances. Indeed, it is only Tonga, Moldova, Lesotho, Haiti, and Bosnia & Herzegovena that receive higher remittances as a proportion of GDP than Jordan (Global Economic Prospects 2006).

Table 5
Main features of the Jordanian Economy

Year	2001	2002	2003	2004	2005
Remittances as a % of GDP	22.4	22.3	19.5	17.9	16.9
External Debt as a % of GDP	78.1	78.9	74.8	65.5	55.5
Aid as a % of GDP	6.8	7.3	13.0	9.9	5.1

Source: Calculated from Various Central Bank of Jordan Monthly Reports.

Jordan's external accounts have been characterized by high and persistent trade deficits. For example, despite rapidly growing exports[7], the trade deficit during the period 2001 –2005 was, on average, equal to 38.5 percent of GDP (Table 6). This deficit, however, has been partially offset by the substantial remittances from Jordanians working abroad (especially the Gulf countries).

Table 6
The External Sector of the Jordanian Economy

Year	2001	2002	2003	2004	2005
Exports & Imports as a % of GDP	75.5	76.1	79.8	99.3	1.10
Growth Rate in Exports	25.1	15.1	7.6	37.7	11.4
Growth Rate in Imports	6.0	4.2	13.1	42.4	28.3
Trade Deficit as a % of GDP	33.0	30.1	33.3	42.8	53.4

Source: Calculated From Various Central Bank of Jordan Monthly Reports.

Relative to the degree of the Jordanian economy's openness (exports and imports are equal to 110 percent of GDP in 2005), it is interesting to note that the US and European markets provide us with some interesting differences. As Table 7 reveals,

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[7] A significant portion of the rapid growth in exports is associated with the duty-and- quota-free access to the US markets from the Qualifying Industrial Zones (QIZs).

while the Arab countries constitute a large proportion of the Jordanian exports and imports, the US market attracts a large proportion of Jordanian exports and the European market is a large source of Jordanian imports. As far as Jordanian exports to the USA are concerned, it is useful to note that the QIZs have helped to diversify Jordanian exports. Indeed much of the recent increase in exports to the USA is due to textiles, footwear, pharmaceuticals, and light manufactures from companies which are established and approved from a committee jointly chaired by Jordan and Israel with a US observer. Having said that, it is useful to report the fact that while job creation rose dramatically from 2001 to 2005, a large proportion of these jobs employ expatriates. Table 8 below details the QIZ labor force and exports' performance.

Table 7
Jordan's Trading Partners

Year	2001	2002	2003	2004	2005
Exports to Arab Countries	50.3	47.6	41.3	41.0	42.6
Exports to the USA	12.2	19.5	28.0	31.3	30.7
Exports to EU Countries	3.7	2.9	3.4	2.7	3.0
Total as a % of Total Exports	**66.2**	**70.0**	**72.7**	**75.0**	**76.3**
Imports from Arab Countries	23.8	25.2	27.5	30.6	33.8
Imports from the USA	8.1	7.7	6.8	6.8	5.6
Imports from EU Countries	31.5	28.6	25.1	22.3	22.9
Total as a % of Total Imports	**63.4**	**61.5**	**59.4**	**59.7**	**62.3**

Source: Calculated from Various Central Bank of Jordan Monthly Reports.

Table 8
QIZ Employment and Exports

Year	2000	2001	2002	2003	2004
No. of QIZ Companies	12	38	43	49	58
QIZ Exports as a % of Total Exports	1.33	6.55	13.77	19.04	23.30
No. of Workers	---	19,000	23,500	26,553	45,834
Local Workers as a % of All Workers	---	70	59	57	42

Source: Ministry of Industry and Trade, Industrial Development Directorate

As stated above, Jordan has made the decision to liberalize its trade regime, and integrate with the world economy. The implicit objective of these policies is to promote Foreign Direct Investment into the local economy. Relative to many Arab countries, the performance of Jordan in attracting FDI has been encouraging. For example, as Table 9 reveals, the annual FDI flows as a proportion of GDP in Jordan has been much higher than in many Arab countries. However, the mean annual proportion of 4.0 percent compares low with those reported for countries (1995-2004)

such as (Lonnborg et al., 2006) Estonia (7 percent), Czech Republic (6.6 percent), and Latvia (5.2 percent).

Table 9
FDI Inflows as a Percentage of GDP (Some Arab Countries)

Country	FDI Inflow as a % pf GDP (1997-2004)
Algeria	1.196
Egypt	0.936
Morocco	3.106
Saudi Arabia	0.239
Lebanon	1.489
Tunisia	2.754
Jordan	4.042

In addition, Table 9 reveals the fact that not only FDI as a proportion of GDP has been low, but also shows some volatile annual patterns. This volatility can be explained by the fact that the data is dominated by large FDI transactions, often associated with privatization. For example, the JD86.3 million and JD160.8 million industrial FDIs in 1998 and in 2003 were due to the privatization of Jordan Cement Company and Jordan Potash Company respectively. Similarly, the relatively large service sector's FDI in 2000 (JD428 million) was largely due to the privatization of Jordan Telecommunication company. Similarly, such large FDI transactions account for the annual variability in the proportions of FDI flows in the various sectors which are reported in Table 10.

Table 10
Foreign Direct Investment Flows to Jordan
Inward FDI by Sector (% of Total)

Year	FDI/GDP	Industry	Commerce	Agriculture	Construction	Services
1980-91	0.66	-	-	-	-	-
1992	0.17	57.14	25.39	4.76	3.17	9.52
1993	0.32	43.31	43.31	4.72	0.79	7.87
1994	0.38	56.02	31.93	1.20	4.22	6.63
1995	0.46	42.79	26.97	0	3.72	26.51
1996	0.74	19.29	67.84	0	2.05	10.82
1997	3.57	23.44	43.03	1.78	0.29	31.45
1998	3.03	76.50	14.63	1.77	1.86	5.23
1999	1.89	33.36	59.85	0.55	0.18	6.05
2000	9.62	2.10	2.71	18.68	2.17	74.34
2001	1.47	17.39	35.11	0.43	18.04	29.03
2001	0.78	6.26	30.36	0.95	44.78	17.65
2002	4.29	51.99	26.77	0.09	13.12	8.02
2003	5.65	6.93	22.55	2.32	15.86	52.34
2004	11.71	3.82	6.66	1.38	14.70	73.44
2005	0.17	57.14	25.40	4.76	3.17	9.52
1992-2005	**2.95**	**31.46**	**31.22**	**2.76**	**8.93**	**25.63**

Relative to the size of FDI flows in Jordan, it would be interesting to report the EU investments as a proportion of foreign investments. The available data reveal the fact that while EU's FDI in Jordan was equal to about 54 percent of all FDI (1996), this proportion fell to 16 percent (2000), to 24 percent (2002), and to a mere 6 percent in 2005.

With an estimated per capita GDP of $1,980 in 2004, Jordan ranks in the middle of the World Bank's lower-middle income group. To climb into the upper middle-income group, the Jordanian economy, given the average population growth rate of 2.8 percent per annum, must sustain (and surpass) its recent growth performance. However, as Table 11 reflects, there exists two major constraints that stand in front of this transformation. Indeed, labor productivity grew by an average of 0.4 percent and this is well below the average of the lower middle-income countries in the Middle East and North Africa (MENA). Similarly, the incremental capital-output ratio of 5.5 (during the period 1999-20003) implies that for every $1 of extra output, a total of $5.50 of gross investment is needed and this well above international standards (4.0). In other words, to emulate the transformational growth performance of other countries, Jordan must witness greater stability levels in trade and investment and less intervention in the market by the central government.

Table 11
Growth Performance of the Jordanian Economy

Year	Real GDP Growth	Labor Productivity Growth	Investment Productivity Growth
1999	3.1	-0.9	7.3
2000	4.1	0.3	7.7
2001	4.9	1.0	6.3
2002	4.8	1.8	5.6
2003	3.3	0.0	5.5
2004	7.7	N.A.	N.A.

The fact that the economic challenges are daunting, it can be stated that the challenge is to succeed in creating a dynamic economy which is able to compete regionally and internationally, increase real GDP growth by more than the increase in population, reduce poverty and unemployment, and reduce the external debt overhang. In addition, given the FDI flows which the Jordanian economy receives, one cannot

underestimate the importance of this source of capital. Indeed while promoting the absorptive capacity of the national economy in issues like technology gaps, educational quality, financial sector development and institutional development, the benefits that are envisaged from FDI flows would be maximized. Finally, given the fact that Jordan is relatively a small country, its policies should promote export-oriented FDI flows because this is the only way that the economy can generate enough growth to meet its current and future unemployment challenge.

4. FDI and Exports in the Jordanian Economy: Causality Analysis

The objective of this section is to examine the relationship between FDI and exports in the Jordanian economy using data for the period 1980 to 2005. The basic premise of the analysis is based on the following argument. If export-platform FDI is important for the Jordanian economy, FDI inflows should lead to an increase in Jordanian export flows. To test for this hypothesis, the Granger causality test involves the estimation of the following two regressions:

$$FDI_t = \sum_{i=1}^{n} \alpha_i \, Export_{t-i} + \sum_{j=1}^{n} \beta_j \, FDI_{t-j} + \mu_{1t}$$

$$Export_t = \sum_{i=1}^{n} \lambda_i \, Export_{t-i} + \sum_{j=1}^{n} \delta_j \, FDI_{t-j} + \mu_{2t}$$

The null hypothesis is H0: $\sum \alpha_i = 0$.

Before we apply the Granger causality tests, it is necessary to determine the order of integration of the variables (exports and FDI). For this purpose, the Augmented Dickey-Fuller (ADF) and Phillips-Perron Unit Root (P-P) tests are performed. The results of these tests are reported in Table 12. This Table reports the ADF and P-P (one lag) tests for the log levels of the variables and first differences under the assumption of a constant and the assumption of a constant and deterministic time trend. Clearly, the reported results confirm that both variables are integrated of order

one in levels and integrated of order zero in first differences at the 1 percent level of
significance.

Table 12
Unit Root Tests for Stationarity

Variables	With Constant Only		With Constant and Time Trend	
	Log Level	Differences	Log Level	Differences
FDI (ADF Test)	-1.807	-5.336*	-2.522	-5.455*
Exports (ADF Test)	-0.439	-4.588*	-2.612	-4.466*
FDI (P-P Test)	-1.764	-7.111*	-2.334	-9.842*
Exports (P-P Test)	-0.809	-5.514*	-2.814	-5.394*

ADF and P-P stand for Augmented Dickey-Fuller and Phillips-Perron Unit Root Tests respectively. *
denotes significance at the 1 percent level.

The direction of causality suggested by Granger causality test is sensitive to the
number of lags which are used. As a result, we perform all Granger causality tests for
one, two and three lags. Indeed, as there is a limited number of observations, it is not
reasonable to use more than 3 lags[8]. The results of this test are presented in Table 13.

Based on the reported results, one can see that there is a consistent pattern for the
Granger causal links between FDI inflows and exports. In other words, the results
indicate that exports Granger-causes FDI in the Jordanian economy. This is an
interesting result because, unlike most of the published empirical works in this area,
FDI does not Granger-cause exports in the Jordanian case. However, as mentioned
previously, the fact that most of the FDI flows in Jordan are service oriented, this
result is not really surprising. Having said that, and due to the recently increasing FDI
flows in the Jordanian QIZs, we might expect this relationship to change in the future.

Table 13
Granger Causality Tests Exports and FDI Inflows

Direction of Causality	Number of Lags	F Value	Decision
FDI → Exports	1	0.907	Do Not Reject
Exports→ FDI	1	4.310*	Reject
FDI → Exports	2	1.957	Do Not Reject
Exports→ FDI	2	2.808**	Reject
FDI → Exports	3	1.670	Do Not Reject
Exports→ FDI	3	3.447*	Reject

* and ** denote significance at the 5 and 10 percent level respectively.

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[8] A more formal approach to determine the number of lags is to calculate the value of the Akaike
Information Criterion (AIC).

5. Summary and Conclusions

Relative to the period between 1980 and 2000, the recent growth performance of the MENA region has been encouraging. However, it can be argued that economic growth will remain a major worrying factor to policy-makers because of the problems posed by the already existing high unemployment rates and the relatively strong growth in the labor force of the region. To meet this challenge, the region must create sufficient employment opportunities for a burgeoning and youthful labor force. Moreover, the MENA countries must achieve higher growth rates than hitherto realized and this growth must depend on implementing broad-based structural reforms to generate sustainable growth opportunities outside of oil.

The fact that the region's economic performance failed to generate the employment opportunities sought by the rapidly expanding labor force has brought about some real pressures for economic reforms. For example, most Arab countries have actually committed to opening their economies to free trade and attracting FDI. However, despite these efforts, the record of FDI in the region remains poor and follows a different pattern from that observed in the World. First, FDI flows to the Arab region are low relative to the region's economic size. Second, there exist wide disparities in FDI inflows among Arab countries. Third, relative to the CEE countries, the MENA countries have managed to attract comparable FDI Inward Stock as a percentage of GDP. Finally, the bulk of the FDI flows go to a limited number of economic sectors including oil, telecom, services (banking and tourism), and energy.

Jordan's natural resource base is extremely limited. This is why, traditionally, the economy has relied on remittances, external debt, and foreign aid in managing its economic affairs. For example, by the end of 2005, it is estimated that total official remittances as a proportion of GDP was equal to 20.1 percent. Similarly, while the stock of international debt stood at about 55 percent of GDP, the country received the equivalent of 5.1 percent of its GDP in the form of international aid. In addition to these characteristics, Jordan's external accounts have been characterized by high and persistent trade deficits. For example, despite rapidly growing exports, the trade deficit during the period 2001 –2005 was, on average, equal to 38.5 percent of GDP.

In view of the above, this paper has examined the impact of FDI flows on Jordanian exports. The results indicate the absence of short-run unidirectional causality from FDI to exports. This is an unfortunate result because and its implications are clear. If FDI does dot promote exports, the export-led economic growth, which is necessary given the economy's problems, is put into some serious doubt. Moreover, the country should promote those FDI projects which enhance and promote exports regionally and/or internationally.

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