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The Role of Capital Flows for Economic Development in the MENA Region

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Abstract

We argue that foreign direct investment (FDI) in the Arab world is no source of economic growth as, for example is the case for the East Asian Tigers. This is particularly noteworthy for the diversified economies, which had the highest FDI shares among developing areas at the end of the 1970s, before the region lost ground to other emerging regions. The result is less surprising for the Arab oil countries, which not only have the least diversified economies and thus the least absorptive capacity, but also the lowest FDI shares. What are the causes of these observations? We argue that the outward-orientation and democratization deficit relative to other developing areas have prevented the attraction of enough FDI that could have been translated into growth impulses in the Arab world.

Introduction

The Arab world, both the diversified and oil economies, lag substantially behind in attracting foreign direct investment (FDI). Between 2010 and 2014, and as a percentage of Gross Domestic Product, the diversified economies (as a population weighted group) never attracted more than 5 percent of GDP in FDI while the oil economies (also as a population weighted group) never attracted more than 2 percent of GDP in FDI. Latin America and the Caribbean, which make up probably the best reference group for the Arab world, attracted more than 3 percent during the same period. Similarly, the group of the East Asian Tigers consisting of South Korea, Hong Kong, Macao, Malaysia, and Singapore also attracted 25 percent of GDP in FDI. The world average was 6.7 percent.

Particularly tragic is the case of the diversified Arab region, which during the oil boom between 1976 and 1980 had the highest FDI share relative to its GDP. Still in the following five years, between 1981 and 1985, the diversified economies' FDI share was considerable. Towards the end of the 1980s, however, the diversified economies constantly lost ground to, especially, Latin America and the Caribbean, East Asia and the Pacific, and there in particular to the East Asian Tigers, and the transformation economies of Eastern and Central Europe.

A comparison of the Arab world to East Asia and the Pacific, Latin America and the Caribbean, and the European Union (EU) is insightful for the formulation of relevant growth hypotheses. Beginning with the comparison between East Asia and the Pacific and the Arab world, an obvious important difference is that East Asia and the Pacific pursued an outward-oriented development strategy and the Arab world an inward-oriented one. On the other hand, differences in political liberalization stand out when comparing Latin America and the Caribbean and the EU to the Arab world, which have, like a rock, resisted the democratization waves that swept most developing areas since the 1980s.

As opposed to the study of the levels of FDI, research on the impact of FDI on economic development and growth in the Arab world is rather scarce, which can be attributed, at least partially, to country level data constraints. By introducing a balanced panel dataset with population weighted regional averages as observations, we try to reduce this problem somewhat. Moreover, working with developing areas as units of observations rather than countries will allow us to draw some important differences from a global perspective, which seems to us underrepresented in the literature.

The remainder of this paper is organized as follows. Section two briefly reviews the literature on FDI with respect to the Arab world. Section three discusses the data and methodology subject to our study. Section four presents the empirical results. We conclude with a summary of our main findings in section five.

Literature Review

The Arab world, it is generally acknowledged, attracts only a disproportionately small amount of foreign direct investment. Henry and Springborg (2001, p. 46 f.) attribute this fact to the region's inward-oriented trade regime and lack of political freedom. Various reasons must be named to explain the region's trade-related and political stand.

Historically, the region's long tradition of anti-trade sentiments is part of its colonial legacy, which happened to bring to power political regimes opposed to the interests of private commercial elites (Henry and Springborg, 2001, pp. 8–21). This opposition is particularly true for North Africa and the Levant. The only exception is Lebanon, which is the only country where an entrepreneurial middle class was not confronted by the new regime at independence. In the oil rich economies on the other hand, the productive sector was traditionally much weaker, while the discovery of oil did not put economic diversification on the top of the political leaders' agenda. Additionally, even early development theory was in support of inward-orientation (Nafziger, pp. 144–48).

With respect to political liberalization, it is important that not only most developing areas started out with authoritarian regimes, but also not a single political-economic theory existed that would have suggested that democracies are favorable to economic development. Accordingly, early development economists called for strong states rather than strong democracies. Of course, these scholars did not explicitly call for authoritarianism, but the benevolent dictator was implicit in all their theories, be they balanced (big push) or unbalanced growth strategies (Nurkse, 1953; Hirschman, 1958) or Keynesian growth theory in the spirit of Harrod (1939) and Domar (1946).

In addition to the evolution of trade and political regime characteristics potentially undermining the Arab world's FDI attractiveness, geo-economic and geo-political factors are not much less grave. Geo-economically, the non-compatible production profile of the region with natural-resource rent extractors in the Gulf and diversified economies in the rest of the Arab world prevented spillover effects from capital-agglomeration, which are a cornerstone of endogenous growth theory (see, for example, Romer, 1990). Another adverse factor is the region's country risk, especially the Arab-Israeli conflict and the recent social, political, and military turmoil known as the Arab Uprisings (Elbadawi, 2005 and Safadi and Neaime, 2015).

Related trade and political developments are recurring parameters in empirical studies of the determinants of foreign direct investment in the Arab world. For example, Onyeiwu (2003) concludes that lack of openness is a significant deterrent to FDI attraction in the Middle East and North Africa (MENA) region. Moosa (2004) and Nabli et al (2008) list country risk as an important FDI attractor, and Kamaly (2002) provides empirical evidence that democracy stimulates FDI inflows.

Comparatively little research, however, has been conducted with respect to the dynamic effects of FDI on growth. A recent paper by Laureti and Postiglione (2005) is an exception. This paper uses a sample of

Mediterranean countries, including Arab economies. Yet, our approach is different in that our sample makes use of regions as units of observations and a longer time frame.

Methodology and Data

Our methodological innovation is that we do not examine individual countries but population weighted regional observations. The regions are (1) the Diversified Arab Economies (DivMENA), (2) the Arab oil economies (OilMENA), (3) Latin America and the Caribbean (LAC), (4) Sub Saharan Africa (SSA), (5) South Asia (SA), (6) East Asia and the Pacific (EAP), (7) East Asian Tigers (EAT), (8) Pacific Island Small States (OCE), North America (NAM), and the European Union (EU). Appendix Table 1 lists the countries in each sample.

Appendix Item 1: Countries in Region

SSA (N=48)	LAC (N=38)	EU (N-25)	EAP (N=12)
Angola	Antigua and Barbuda	Austria	Brunei
Benin	Argentina	Belgium	Cambodia
Botswana	Aruba	Croatia	China
Burkina Faso	Bahamas	Cyprus	Indonesia
Burundi	Barbados	Denmark	Japan
Cameroon	Belize	Estonia	North Korea
Cape Verde	Bolivia	Finland	Lao PDR
Central Afr. Rep.	Brazil	France	Mongolia
Chad	Cayman Islands	Germany	Myanmar
Comoros	Chile	Greece	Philippines
Congo, Dem. Rep.	Colombia	Greenland	Thailand
Congo, Rep.	Costa Rica	Ireland	Vietnam
Cote d'Ivoire	Cuba	Italy	
Equatorial Guinea	Dominica	Latvia	EAT (N=5)
Eritrea	Dominican Rep.	Lithuania	Hong Kong
Ethiopia	Ecuador	Luxembourg	Korea, Rep.
Gabon	El Salvador	Malta	Macao
Gambia, The	Grenada	Monaco	Malaysia
Ghana	Guatemala	Netherlands	Singapore
Guinea	Guyana	Norway	

Appendix Item 1: Countries in Region

SSA (N=48)	LAC (N=38)	EU (N-25)	EAP (N=12)
Guinea-Bissau	Haiti	Portugal	OilMENA (N=10)
Kenya	Honduras	Romania	Algeria
Lesotho	Jamaica	Spain	Bahrain
Liberia	Mexico	Sweden	Iran
Madagascar	Netherlands Antilles	Switzerland	Iraq
Malawi	Nicaragua		Kuwait
Mali	Panama		Libya
Mauritania	Paraguay		Oman
Mauritius	Peru		Qatar
Mayotte	Puerto Rico	OCE (N=12)	KSA
Mozambique	St. Kitts & Nevis	American Samoa	UAE
Namibia	St. Lucia	Kiribati	
Niger	St. Vincent & Gren.	New Caledonia	DivMENA (N=9)
Nigeria	Suriname	New Zealand	Djibouti
Rwanda	Trinidad & Tobago	N. Mariana Islands	Egypt
Senegal	Uruguay	Palau	Jordan
Seychelles	Venezuela, RB	Papua New Guinea	Lebanon
Sierra Leone	Virgin Islands (U.S.)	Samoa	Morocco
Somalia		Solomon Islands	Syria
South Africa	LAC (N=38)	Timor-Leste	Tunisia
Sudan	Afghanistan	Tonga	Palestine
Swaziland	Bangladesh	Vanuatu	Yemen
São Tomé & Principe	Bhutan		
Tanzania	India		
Togo	Maldives		NAM (N=2)
Uganda	Nepal		Canada
Zambia	Pakistan		United States
Zimbabwe	Sri Lanka		

The reason for using population weighted regions as units of observations rather than countries is the firm belief that foreign direct investment decisions depend on regional factors foremost, especially since local markets are often small. The fact that a region is more than the sum of the countries seems to be worth the effort of aggregating countries and comparing them to other regions.

In order to conduct our empirical analysis, we built a panel dataset. Each unit of observation has nine five-year population weighted average time observations. The first observation is the average of the 1970–74 period and the ninth is the average of the 2010–14 period. We opted for averages in order to smooth out erratic observations.

The first question of interest is whether FDI in levels has the same impact on economic development in the Arab world as it has on the other reference regions. To test the hypothesis, we use the following variables: Per capita

income in 2000 US dollar value and foreign direct investment in percent of GDP (FDI). We additionally construct a separate interaction term (also referred to as dummy variable in statistics) between DivMENA, OilMENA, and EAT with their respective FDI shares. Moreover, we test for the significance of gross capital formation (GCF) and manufacturing export capacity as a percentage of merchandise exports (Manu).

The second question of interest is whether stagnating levels of FDI in the Arab world can be explained by the lack of productive outward-orientation and its democracy deficit. To test for the hypothesis of stagnating levels of FDI explained by lack of productive outward orientation and democracy deficit, we construct two more variables. One is the difference between the manufacturing export share as a percentage of GDP of any region and the region of the East Asian Tigers, and the other the difference between the democratization levels of the regions and the world average. These variables are labeled ManuDiff and DemoDiff. The description of the variables and the dataset itself are attached in Appendix Tables 2 and 3.

Appendix Item 2: Data Description

Variable Name	Description and Source
Lnycap	Natural log of GDP per capita in constant 2005 USD, Source: 2014 World Bank Development Indicator Database (2014 WDI)
FDI	Net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows in the reporting economy and is divided by GDP. Source: 2014 WDI
GCF	Gross capital formation (percentage of GDP), Source: 2014 WDI
Manu	Manufactures exports (percentage of merchandise exports). Source: Calculated from 2014 WDI.
Polity	Polity 2 score from Polity IV dataset, which can take values between minus and plus ten. The authors of Polity IV suggest interpreting countries with a polity score in the range between minus ten and minus six as autocracies. Polity scores between minus five and plus five capture anocracies or partial democracies. In essence, anocracies are states behind a democratic façade or otherwise malfunctioning democracies. Polity scores between plus six and ten can be read as full democracies. Source: Marshall M. G. and Jaggers K. (online), Polity IV Project: Political Regime Characteristics and Transitions, 1800-2014, http://www.systemicpeace.org/polity/polity4.htm.
DivFDI	Interaction term between FDI and DivMENA
OilFDI	Interaction term between FDI and OilMENA
EATFDI	Interaction term between FDI and East Asian Tigers region
ManuDiff	Region's manufacturing export share minus EAT's manufacturing export share
DemoDiff	Average world polity score minus average region's polity score

Appendix Item 3: Dataset

Time	FDI	GCF	Manu	Polity	lny	DivFDI	Regions	OilFDI	ManuD	DemD	EATFDI
1970	1.1	1.1	12.2	-5.9	6.8	0	SSA	0	-54.5	5.6	0
1975	0.6	0.6	14.1	-5.7	6.8	0	SSA	0	-55.9	6.1	0
1980	0.4	0.4	9.2	-4.9	6.8	0	SSA	0	-63.0	5.5	0
1985	0.6	0.6	13.3	-5.8	6.7	0	SSA	0	-66.2	6.8	0
1990	0.8	0.8	19.1	-2.4	6.6	0	SSA	0	-66.0	4.4	0
1995	2.0	2.0	24.9	-0.7	6.6	0	SSA	0	-64.5	3.3	0
2000	3.0	3.0	28.9	1.1	6.7	0	SSA	0	-60.6	2.2	0
2005	3.2	3.2	26.9	2.1	6.8	0	SSA	0	-15.1	1.3	0
2010	2.9	2.9	25.8	3.1	6.9	0	SSA	0	-45.1	0.5	0
1970			51.1	-0.3	5.6	0	SA	0	-15.6	0.0	0
1975	0.0	0.0	52.2	-2.9	5.7	0	SA	0	-17.8	3.3	0
1980	0.1	0.1	53.8	-1.8	5.8	0	SA	0	-18.5	2.3	0
1985	0.1	0.1	65.4	0.3	5.9	0	SA	0	-14.1	0.6	0
1990	0.8	0.8	19.1	2.7	6.6	0	SA	0	-66.0	-0.6	0
1995	0.7	0.7	77.0	1.3	6.2	0	SA	0	-12.4	1.3	0
2000	0.8	0.8	77.8	0.2	6.4	0	SA	0	-11.6	3.0	0
2005	2.2	2.2	68.7	3.1	6.7	0	SA	0	26.6	0.2	0
2010	1.6	1.6	65.7	4.3	6.9	0	SA	0	-5.3	-0.7	0
1970	0.3	0.3	61.0	10.0	10.0	0	NAM	0	-5.7	-10.3	0
1975	0.3	0.3	61.9	10.0	10.1	0	NAM	0	-8.1	-9.6	0
1980	0.1	0.1	53.8	10.0	5.8	0	NAM	0	-18.5	-9.5	0
1985	1.0	1.0	67.4	10.0	10.3	0	NAM	0	-12.1	-9.0	0
1990	0.6	0.6	71.9	10.0	10.4	0	NAM	0	-13.2	-8.0	0
1995	1.7	1.7	75.7	10.0	10.5	0	NAM	0	-13.6	-7.4	0
2000	1.6	1.6	75.9	10.0	10.6	0	NAM	0	-13.6	-6.8	0
2005	2.0	2.0	69.0	10.0	10.7	0	NAM	0	27.0	-6.6	0
2010	1.6	1.6	59.5	10.0	10.7	0	NAM	0	-11.5	-6.4	0
1970	0.7	0.7	21.8	-0.9	8.1	0	LAC	0	-45.0	0.7	0
1975	0.7	0.7	20.6	-0.9	8.3	0	LAC	0	-49.4	1.3	0
1980	0.8	0.8	19.2	2.5	8.3	0	LAC	0	-53.0	-2.0	0
1985	0.7	0.7	32.4	4.9	8.3	0	LAC	0	-47.1	-4.0	0
1990	1.1	1.1	44.3	6.3	8.4	0	LAC	0	-40.9	-4.3	0
1995	2.9	2.9	51.5	6.5	8.4	0	LAC	0	-37.9	-3.9	0
2000	3.1	3.1	52.0	7.0	8.5	0	LAC	0	-37.4	-3.8	0
2005	2.0	2.0	69.0	6.9	10.7	0	LAC	0	27.0	-3.5	0
2010	3.1	3.1	45.5	6.5	8.7	0	LAC	0	-25.4	-2.9	0
1970	0.2	0.2	63.2	-4.2	7.5	0	EAP	0	-3.5	3.9	0
1975	0.3	0.3	64.4	-4.2	7.7	0	EAP	0	-5.6	4.6	0
1980	0.4	0.4	64.2	-3.2	7.8	0	EAP	0	-8.1	3.7	0
1985	0.4	0.4	67.7	-1.7	8.0	0	EAP	0	-11.8	2.7	0
1990	0.7	0.7	80.6	1.0	8.1	0	EAP	0	-4.5	1.1	0
1995	1.3	1.3	84.6	2.0	8.3	0	EAP	0	-4.8	0.7	0
2000	2.6	2.6	47.9	3.6	7.8	0	EAP	0	-41.5	-0.3	0
2005	2.7	2.7	82.8	2.9	8.5	0	EAP	0	40.7	0.5	0
2010	3.1	3.1	78.8	3.4	8.7	0	EAP	0	7.8	0.2	0
1970	1.3	1.3	3.3	7.4		0	OCE	0	-63.4	-7.7	0
1975	1.4	1.4	2.7	7.4		0	OCE	0	-67.3	-7.0	0
1980	2.6	2.6	3.5	7.6	7.7	0	OCE	0	-68.7	-7.1	0

Appendix Item 3: Dataset

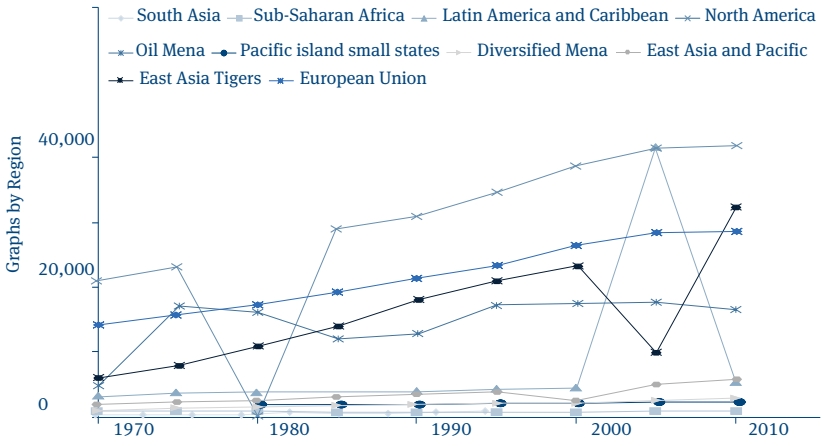
Time	FDI	GCF	Manu	Polity	lny	DivFDI	Regions	OilFDI	ManuD	DemD	EATFDI
1985	1.7	1.7	13.3	6.4	7.6	0	OCE	0	-66.2	-5.4	0
1990	4.5	4.5	34.4	5.1	7.7	0	OCE	0	-50.7	-3.0	0
1995	2.2	2.2	41.2	6.4	7.8	0	OCE	0	-48.1	-3.8	0
2000	2.6	2.6	47.9	7.0	7.8	0	OCE	0	-41.5	-3.8	0
2005	7.0	7.0	30.4	6.9	7.8	0	OCE	0	-11.7	-3.5	0
2010	7.2	7.2	28.2	6.8	7.9	0	OCE	0	-42.8	-3.2	0
1970	0.1	0.1	6.7	-8.8	8.6	0	OilMena	1	-60.0	8.5	0
1975	0.6	0.6	6.2	-8.9	9.8	0	OilMena	1	-63.8	9.3	0
1980	0.4	0.4	12.6	-8.6	9.7	0	OilMena	1	-59.6	9.1	0
1985	0.3	0.3	21.2	-8.7	9.5	0	OilMena	1	-58.4	9.7	0
1990	0.8	0.8	13.5	-8.0	9.5	0	OilMena	1	-71.6	10.0	0
1995	1.5	1.5	11.6	-7.3	9.8	0	OilMena	1	-77.8	9.9	0
2000	1.2	1.2	6.8	-6.4	9.8	0	OilMena	1	-82.7	9.6	0
2005	3.7	3.7	5.1	-6.1	9.8	0	OilMena	1	-37.0	9.4	0
2010	1.5	1.5	7.7	-5.6	9.8	0	OilMena	1	-63.2	9.3	0
1970	0.2	0.2	33.9	-6.2	6.7	1	DivMena	0	-32.8	5.9	0
1975	1.3	1.3	29.6	-0.9	7.1	1	DivMena	0	-40.4	1.3	0
1980	1.7	1.7	33.8	-6.9	7.3	1	DivMena	0	-38.4	7.4	0
1985	1.2	1.2	46.7	-6.2	7.4	1	DivMena	0	-32.8	7.2	0
1990	2.1	2.1	59.1	-4.3	7.5	1	DivMena	0	-26.0	6.3	0
1995	0.6	0.6	49.1	-3.3	7.6	1	DivMena	0	-40.2	5.9	0
2000	3.0	3.0	54.3	-3.1	7.6	1	DivMena	0	-35.2	6.3	0
2005	9.4	9.4	57.8	-2.4	7.8	1	DivMena	0	15.7	5.7	0
2010	4.9	4.9	61.8	-1.9	7.9	1	DivMena	0	-9.2	5.6	0
1970	0.7	0.7	74.2	6.5	9.6	0	EU	0	7.5	-6.8	0
1975	0.5	0.5	75.2	9.2	9.7	0	EU	0	5.2	-8.8	0
1980	0.5	0.5	72.6	9.7	9.8	0	EU	0	0.4	-9.2	0
1985	0.8	0.8	77.0	9.9	9.9	0	EU	0	-2.5	-8.9	0
1990	1.0	1.0	78.4	9.9	10.0	0	EU	0	-6.7	-7.9	0
1995	2.3	2.3	80.9	9.9	10.1	0	EU	0	-8.5	-7.3	0
2000	3.7	3.7	79.6	9.9	10.2	0	EU	0	-9.9	-6.7	0
2005	4.6	4.6	77.5	9.9	10.3	0	EU	0	35.4	-6.6	0
2010	1.9	1.9	75.5	9.9	10.3	0	EU	0	4.5	-6.3	0
1970	6.0	6.0	66.7	-0.8	8.7	0	EAT	0	0.0	0.5	1
1975	5.1	5.1	70.0	-2.0	9.0	0	EAT	0	0.0	2.4	1
1980	9.0	9.0	72.2	-1.2	9.3	0	EAT	0	0.0	1.7	1
1985	10.2	10.2	79.5	0.9	9.6	0	EAT	0	0.0	0.1	1
1990	9.7	9.7	85.1	2.7	9.8	0	EAT	0	0.0	-0.6	1
1995	12.5	12.5	89.4	2.6	10.0	0	EAT	0	0.0	0.0	1
2000	15.6	15.6	89.5	3.0	10.1	0	EAT	0	0.0	0.2	1
2005	18.3	18.3	42.1	3.4	9.2	0	EAT	0	0.0	0.0	1
2010	27.0	27.0	71.0	4.0	10.4	0	EAT	0	0.0	-0.4	1
1970	1.7	1.7	41.8	-0.3	8.4	0	World	0	-24.9	0.0	0
1975	1.2	1.2	42.7	0.4	8.6	0	World	0	-27.3	0.0	0
1980	2.0	2.0	42.1	0.5	8.6	0	World	0	-30.1	0.0	0
1985	2.1	2.1	49.8	1.0	8.8	0	World	0	-29.7	0.0	0
1990	2.7	2.7	51.6	2.0	8.9	0	World	0	-33.5	0.0	0
1995	3.4	3.4	64.2	2.6	9.0	0	World	0	-25.2	0.0	0
2000	4.5	4.5	60.5	3.2	9.1	0	World	0	-28.9	0.0	0
2005	5.4	5.4	56.8	3.4	9.5	0	World	0	14.7	0.0	0
2010	6.7	6.7	55.8	3.6	9.3	0	World	0	-15.2	0.0	0

Empirical Results

We begin our empirical analysis with a comparative visualization of the four key variables in this study, which are per capita income, foreign direct investment, manufacturing export shares, and democratization. In the following time series plots (graphs), we always display the values of the diversified Arab economies (DivMENA), East Asia and the Pacific (EAP), East Asian Tigers (EAT), European Union (EU), Latin America and the Caribbean (LAC), Sub South Asia (SA), Pacific Island Small States (OCE), North America (NAM), Arab oil economies (OilMENA), and Saharan Africa (SSA).

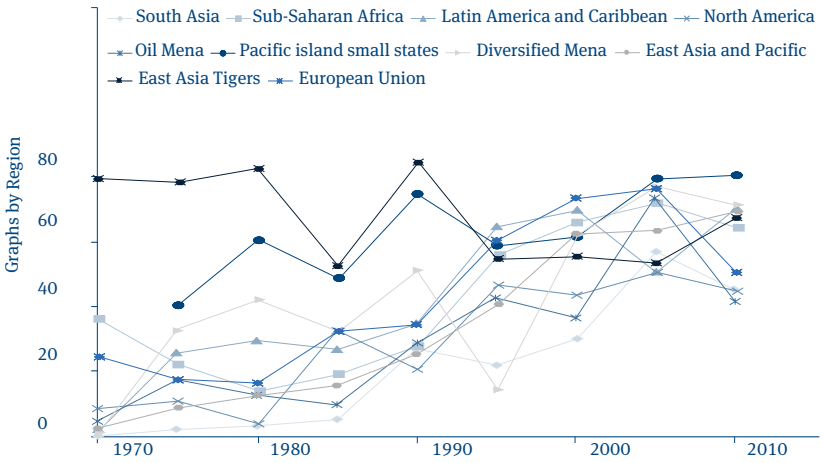
Appendix Item 4 illustrates the development of income for these regions. It shows that among the areas under consideration only the EU, North America, and East Asian Tigers have per capita income levels above the world per capita income of 11,000 United States dollars. The DivMENA economies fall way below the world average but exhibit a weak positive trend over the years. OilMENA economies experienced a sharp increase in income between 1970 and 1985, and Arab income has hovered around the world average since 1990. Although the oil boom pushed the oil economies on top of all developing areas in terms of income, it has become sluggish in more recent years relative to the EU, North America, and East Asian Tigers.

Appendix Item 4: Time Series Plot Income



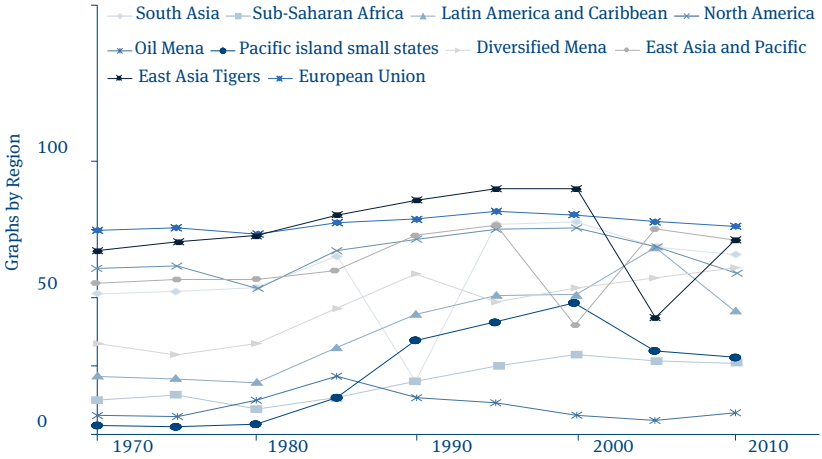
Considering FDI as a percentage of GDP in Appendix Item 5 reveals that all countries in the sample exhibit a positive trend over the period under consideration. However, since 2008 the EU, North America, and the Diversified non-Diversified MENA economies appear to have lost ground to the East Asian Tigers, Latin America, and the East Asia region which, in turn, experienced the highest FDI per GDP, possibly attributable to the implications of the recent financial and debt crises.

Appendix Item 5: Time Series Plot FDI



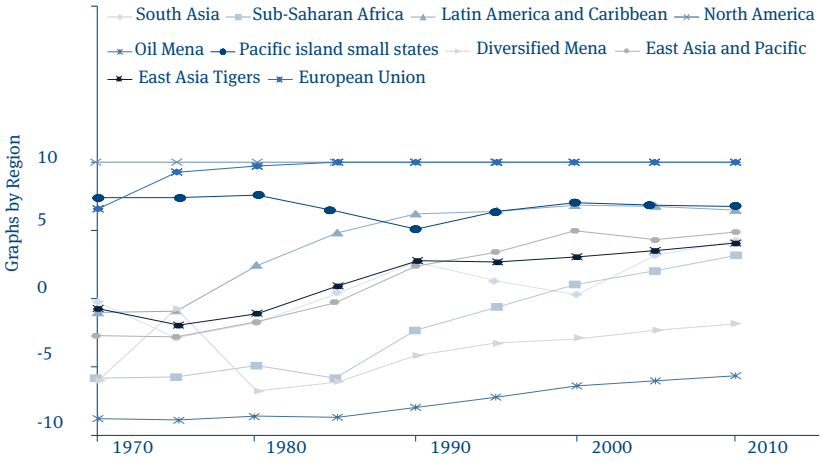
A comparison with the East Asian Tigers is always insightful as it is the only region that has pursued a manufacturing-ignited outward-orientation strategy. Appendix Item 6 visualizes the pace at which the region of the East Asian Tigers has developed its manufacturing export capacities. The very fact that a region produces for global markets makes it most naturally attractive for foreign direct investment as it best exemplifies absorptive capacity. The East Asian Tigers ranks first relative to other regions including North America and the EU, and way above world averages. Interestingly, the OilMENA region data falls way below all other regions, perhaps attributable to over dependence of the regions' economies on oil exports.

Appendix Item 6: Time Series Plot Manufacturing Export Shares



FDI's positive response to political thaw is typically explained by the greater security for property rights and economic liberalization that accompanies democratization (Przeworski, 1993). As Appendix Item 7 indicates, the Arab world was already perceived as the most authoritarian region in the 1970s. However, the diversified MENA economies have made moderate progress in political liberalization since then. North America and the EU are perceived as the most democratic regions. Only East Asia and East Asia regions exhibit a consistent tendency towards more political liberation.

Appendix Item 7: Time Series Plot Democratization



With the above descriptive illustrations of key indicators in mind, we approach the question of whether FDI has also a statistically significant impact on growth in the Arab world. Our model is a dynamic panel model using the Hsiao-Anderson estimation procedure. The regression results are summarized in Appendix Item 8.

Appendix Item 8: Growth and FDI Dynamic Panel Results

D.lny	I	II	III	IV	V	VI
LD.lny	0.086 (2.60)***	0.70 (2.32)***	1.11 (2.42)***	0.78 (2.36)***	0.77 (2.19)***	0.69 (2.34)***
D.GCF	0.079 (1.52)*					
D.FDI		0.052 (1.45)*				
D.Manu			0.024 (2.2)***			
D.Polity				0.023 (0.19)		
D.DIV*OIL					-0.17 (-0.05)	
D.EAT*FDI						0.06 (1.84)**
Constant	0.036 (.13)	-0.081 (-0.34)	0.11 (0.39)	-0.067 (-0.27)	-0.07 (-0.05)	-0.07 (-0.34)
R2	0.13	0.12	0.14	.	0.14	.
N	67	68	68	68	68	68

* p<0.15; ** p<0.1; *** p<0.05

* Arellano-Bond test for AR(1) process of the residuals was not able to reject the Null of no auto-correlation at 5 percent in all regressions above.

Individually, manufacturing export shares (Manu) is the most dominant and robust factor in explaining growth among the remaining components such as gross capital formation (GCF), FDI, and Polity (Models I to IV). FDI is significant at the 15 percent significance level (Model II). Moreover, the Lag dependent variable's sign is positive as theory predicts and is highly significant in models I through VI. In order to test whether stagnating levels of FDI in the Arab world can be explained by the lack of productive outward-orientation and its democracy deficit, we add in Model V the interaction term of the Arab oil region with its FDI shares.[1] However, we

1. We were unable to include an interaction variable for the diversified Arab economies due to collinearity problems.

believe that the interaction term of the Arab oil region can serve the purpose of our hypothesis, testing whether FDI matters in the Arab region. Yet this interaction term is far from being statistically significant, while the variable of manufacturing export shares maintains its significance. We therefore feel safe to conclude that FDI in the Arab world has no direct growth effect whatsoever. Yet, in order to verify that FDI can make a difference, one has to take the case of the East Asian Tigers, whose FDI shares are statistically highly important (Model VI).

Appendix Item 5 shows that the FDI time-series plot in the Arab world trends relatively upward like most other developing regions that are included in our sample. If FDI had an impact on growth, we would then expect it to be at least marginally significant, which is, however, not the case based upon our empirical findings. Moreover, for a regression on differenced variables to generate significant coefficients, more variation within the growth variable is warranted, which is also not the case in the Arab region. The Arab world, however, did not share this developmental experience with other regions. The final question we therefore want to answer is why.

The sharp increase of FDI in many parts of the developing world began in the mid-1980s and coincided with two major developments, one economic and the other political. The economic development was the rise of the East Asian Tigers and the political transition to democratization in most parts of the developing world. We, therefore, test lastly the hypothesis of whether the difference of manufacturing exports from the levels of those by the East Asian Tigers, as well as the difference in democratization from the world average, can explain the levels of FDI for different developing areas. For this we use a robust fixed effects panel model. Appendix Item 9 summarizes the result.

Appendix Item 9: Levels of FDI and Role of Manufacturing Exports Democracy

FDI			
GDP per Capita	13.606 (0.71)	5.722 (0.31)	4.561 (0.24)
GCF	-7.124 (2.19)***	-9.659 (2.94)***	-9.407 (2.75)***
Manu	-2.764 (2.68)***	-4.314 (3.79)***	-4.466 (3.73)***
ManuDiff		2.216 (2.77)***	2.370 (2.64)***
DemoDiff		-2.017 (0.28)	-3.119 (0.39)
DivMena*ManuDiff			-0.179 (0.09)
OilMena*ManuDiff			-1.267 (0.42)
DivMena*DemoDiff OilMena*DemoDiff			6.190 (0.28) 18.231 (0.21)
Constant R2 N	204.488 (1.24) 0.16 86	462.026 (2.52)*** 0.24 86	446.739 (2.25)*** 0.24 86

* p<0.15; ** p<0.1; *** p<0.05

The results suggest that manufacturing export shares and gross capital formation are indeed statistically significant variables in explaining FDI shares, while per capita income is not (Model I). Yet, not only do manufacturing export shares and gross capital formation levels matter for the attraction of FDI, but also manufacturing export differences for benchmark cases. However, this is not true for the polity variable. Model II shows that the East Asian Tigers' difference in manufacturing export shares

is statistically significant, whereas the average world democracy level is not. The greater the difference in manufacturing export shares for the East Asian Tigers, the larger is FDI. Model III finally adds to Model II the Arab region's specific manufacturing export and democracy differences. The results indicate that both manufacturing export shares and democratization differences from the EAT are statistically insignificant.

Conclusions

In this study, we have analyzed the role of FDI in economic development in the Arab world. Our innovation is to introduce a panel dataset with regions rather than countries as units of observation, allowing for a more global perspective, which we believe is inherent to FDI decisions.

We mainly work with two models. The first is a dynamic panel approach to gauge the effects of FDI on growth. Foreign direct investment, according to our study, is clearly no source of economic growth in the Arab world, neither in the diversified nor in the oil economies. A significant role of FDI in growth, however, could be identified for the East Asian Tigers. This observation led us to our second model, which asks why the Arab world has lost touch with other regions.

Given the global political-economic context, which was dominated in the 1980s by the rise of the East Asian Tigers and the spread of democratization, we test the democratization's significance on FDI. For this we use a fixed-effects panel model. We find manufacturing export capacity to be an important factor in explaining FDI shares. A similar result is obtained when testing regional differences from the East Asian Tigers' manufacturing export capacity. Manufacturing deficits explain lower FDI shares. Democratization levels are found to be insignificant in explaining FDI, perhaps attributable to the variations in the democracy index (polity) which has been constant in many regions over the sample period under consideration. For instance, North America has been fully democratized since the 1970s, whereas the Arab region, especially the OilMENA, has qualified as an autocracy

since the 1970s, and has never exhibited any progress in its pursuit of a democratic regime. Another factor that might explain the insignificance of polity in explaining FDI could be the lack of financial stability. If this is the case, then FDI might not respond to changes in the democratic progress.

The policy implications of our paper are obvious. The Arab region must find ways to make its economies and political systems more competitive. There is little doubt that the Arab world has been continuously falling behind in terms of economic and political development. Showing this from a globally comparative perspective was the main objective of the paper. For the development of specific policy recommendations, learning from other regions seems therefore promising.

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