

THE ROLE OF FOREIGN DIRECT INVESTMENT FOR ECONOMIC DEVELOPMENT IN THE MENA REGION^{*}

BY

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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, it is 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 developing areas. The result is less surprising for the 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 to other developing areas have prevented the attraction of enough FDI that could have been translated into growth impulses in the Arab world.

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1. Introduction

The Arab world, both the diversified and oil economies, lack substantially behind in attracting foreign direct investment (FDI). As a percentage of GDP, the diversified economies (as a population weighted group) never attracted more than two percent of GDP in FDI while the oil economies (also as a population weighted group), regularly stayed even far below one percent of GDP. FDI between 2001 and 2005 in the diversified and oil economies, for example, averaged only 1.95 and 0.57 percent, respectively. Latin America and the Caribbean, which is probably the best reference group to the Arab world, attracted more than three 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 more than three percent. The world average was 2.28 percent.

Particularly tragic is the case of the diversified 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 lost constantly 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 Eastern and Central Europe is insightful for the formulation of relevant 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 Eastern and Central Europe to the Arab world, which, 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 data constraints on the country level. 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 drawing some important differences from a global perspective, which seem 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.

2. Literature Review

It is generally acknowledged that the Arab world only attracts a disproportionately small amount of foreign direct investment. Henry and Springborg (2001, p. 46 f.) attribute this 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 their colonial legacy, which happened to bring political regimes to power that were opposed to the interests of private commercial elites (Henry and Springborg, 2001, pp. 8-21). This 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 political leaders' agenda. To this adds that even early development theory was in support of inward-orientation (Nafziger, pp. 144-148).

With respect to political liberalization, it is important to remember that not only most developing areas started out with authoritarian regimes, but also that there was not a single political-economic theory 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 to all their theories, be it 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 that were 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 (Elbadawi, 2005).

Trade and political development related aspects 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 MENA region, Moosa (2004) and Nabli et al (2008) list country risk as an important FDI attractor, and Kamaly (2002) provides empirical evidence for that democracy stimulates FDI inflows.

Comparatively little research, however, has been conducted with respect to the dynamic aspects 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 regards to that our sample makes use of regions as units of observations and a longer time frame.

3. Methodology and Data

Our methodological innovation is that we do not examine individual countries but population weighted regional observations. The regions are: Diversified Arab Economies (DivMENA), Arab oil economies (OilMENA), Latin America and the Caribbean (LAC), Sub Saharan Africa (SSA), South Asia (SA), East Asia and the Pacific (EAP), East Asian Tigers (EAT), Oceania (OCE), North America (NAM), Western Europe (WE), AND Eastern and Central Europe (ECE). Appendix Table 1 lists the countries in each sample.

Appendix Item 1 Here [Countries in Regions]

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 seven five-year population weighted average time observations. The first observation is the average of the 1971-1975 period and the seventh the average of the 2001-2005 period. We opted for averages in order to smooth out erratic observations.

The first question of interest is whether a one percentage change of GDP in terms of FDI has a different impact on economic development in the Arab world than in reference regions. We use the following variables: Per capita income in 2000 USD (lnycap) and foreign direct investment in percent of GDP (FDI). We additionally construct separate interaction term between DivMENA, OilMENA, and EAT with their respective FDI shares. Moreover, we test for the significance of gross capital formation (GCF), a democratization score (Polity), and manufacturing export capacity as a percentage of GDP (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 this we construct two more variables. One is the difference of the manufacturing export share as a percentage of GDP of any region to the region of the East Asian Tigers and the other the difference between the democratization levels of the regions to the world average. These variables are labeled ManuDiff and DemoDiff. The description of the variables and the dataset itself are attached in Appendix Tables two and three.

Appendix Item 2 Here [Data Description]

Appendix Item 3 Here [Dataset]

4. Empirical Results

We begin our empirical analysis with a comparative visualization of the four key variables subject to this study, which are per capita income, foreign direct investment, manufacturing

export shares, and democratization. In the following time series plot, we always display the values of the diversified Arab economies (DivMENA), the Arab oil economies (OilMENA), Latin America and the Caribbean (LAC), Sub Saharan Africa (SSA), East Asian Tigers (EAT), Eastern and Central Europe (ECE) and the world as a whole (World).

Appendix item four illustrates the development of income for these regions. It shows that among the six developing areas under consideration all had real per capita income levels that were below the world average at the beginning of the 1960s. In the first half of the 1960s, Latin America and the Caribbean was the richest developing area, followed by Eastern and Central Europe, the East Asian Tigers, the Arab oil economies, the diversified Arab economies, and Sub Saharan Africa. By the end of the 1970s, the oil boom pushed the oil economies on top of all developing areas. Not less impressive is the income development of the East Asian Tigers while the other developing areas grew at the same or even smaller rate than the world average. In the post oil boom era, the East Asian Tigers left behind all other regions while the Arab oil economies experienced a hard landing. Real income in the diversified Arab economies began to stagnate. Only beginning with the end of the 1990s does the growth trajectory point slightly upwards again.

Appendix Item 4 here [Time Series Plot Income]

Looking at FDI as a percentage of GDP in Appendix Item 5 shows that during the period between 1971 and 1975 the East Asian Tigers enjoyed the highest shares. During the same time, FDI in the East Asian Tigers region dropped by more than two percentage points while FDI

shares in the diversified economies were suddenly the highest. This indicates that the diversified economies benefitted from rising oil prices in terms of FDI whereas the drop of FDI shares in the oil economies plummeted as a result of rising incomes. Beginning with the second half of the 1980s, global FDI increased rapidly, with the exception of the Arab world, which was increasingly falling behind between the mid 1980s and mid 1990s. During the second half of the 1990s, FDI in the diversified economies even dropped substantially, which, most probably, was the result of the relocation of international funds to Eastern and Central Europe after the fall of the Berlin wall. During the period between 2001 and 2005, the diversified and oil economies were the only developing areas with FDI shares below the world average.

Appendix Item 5 here [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 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 time scatter plot further shows that traditional import-substitution regions such as the diversified Arab economies, Latin America and the Caribbean, and Sub Saharan Africa still suffer from the legacy of import substitution policies that dominated the period between independence and the 1980s. In addition to the East Asian Tigers, also Eastern and Central Europe have built manufacturing export capacities greater than the world average since the 1990s. This was substantially favored by its closeness to the European Union, which is an advantage other developing areas lack.

Appendix Item 6 here [Time Series Plot Manufacturing Export Shares]

The general increase in FDI that began in the mid 1980s and mostly bypassed the Arab world can be attributed to the end of the Cold War and the democratization wave that swept through most developing areas, except for the Arab world. The fact that FDI responds positively to political thaw is typically explained by greater security for property rights and economic liberalization that accompanies democratization (Przeworski, 1993). As Appendix Item 7 visualizes, the Arab world had already been the most authoritarian region in the 1960s and has made only moderate political liberalization progress since then. Interestingly, however, the oil economies seem to have made even more political progress than the diversified economies.

Appendix Item 7 here [Time Series Plot Democratization]

With the above descriptive illustrations of key indicators in mind, we approach next the question of whether there is also a statistically significant impact of FDI on growth in the Arab world. Our model is based on the Arellano-Bond two-step estimator, which uses the finite-sample correction mechanism proposed by Windmeijer (2005). The model is run using the open-source software “Gnu Regression, Econometrics, and Time-Series Library” (Gretl), developed by Cottrell and Lucchetti (online). The regression results are summarized in Appendix Item 8.

Appendix Item 8 here [Growth and FDI Dynamic Panel Results]

Individually, manufacturing export shares (Manu) is the most dominant and robust factor in explaining growth among other factors such as gross capital formation (GCF), FDI, and Polity (Models I to IV). FDI is still significant at the 15% significance level (Model II). When running Manu and FDI together, however, Manu drives out FDI (Model V). In order to test whether eventually the Arab region's FDI shares are significant, we add in Model VI the interaction terms of the diversified and oil Arab regions with their FDI shares. Yet, these interaction terms are far from statistically meaningful while the variable 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 see that FDI can make a difference, one has to take the case of the East Asian Tigers, whose FDI shares are statistically highly significant and even drives out manufacturing export shares (Model VII).

From a visual inspection of the FDI time-series plot, it stands out that FDI levels in the Arab world are relatively constant when compared to other developing areas, which experienced a sharp increase of FDI inflows since the mid 1980s. Obviously, in order for a regression on differenced variables to generate significant coefficients, more variation of FDI in the Arab world, reflected by an upward trend like other regions, would have been necessary at least. The Arab world, however, did not share this development 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, which coincided with two major developments. One was economic and the other political. The economic development was the rise of the East Asian Tigers and the political the transition to

democratization in most parts of the developing world. We therefore test lastly the hypothesis whether the difference of manufacturing exports to the levels of those by the East Asian Tigers as well as the difference in democratization to the world average can explain the levels of FDI for different developing areas. To test for this we use a robust fixed effects panel model with heteroscedasticity and autocorrelation consistent residuals as proposed by Arellano (2003). The regression is again run using “Gretl.” Appendix Item 9 summarizes the result.

Appendix Item 9 [Levels of FDI and the Role of Manufacturing Exports and Democracy]

The results suggest that manufacturing export shares and democracy are indeed statistically significant variables to explain FDI shares, while gross capital formation and per capita income are not (Model I). Yet, not only do manufacturing export shares and democracy levels matter for the attraction of FDI, but also their relative difference to benchmark cases. Model II shows that the differences to the manufacturing export shares of the East Asian Tigers and the average world democracy level are statistically significant, too. The greater is the difference in manufacturing export shares to the EAT, the lower is FDI. Similarly, the greater is the democracy surplus, the greater is FDI. Model III finally adds to Model II the Arab region specific manufacturing export and democracy differences. The results indicate that the manufacturing export share differences to the EAT are statistically not meaningful while the differences in democratization are. In the case of the diversified region, the democracy deficit is actually associated with an above trend level of FDI and in case of the oil region with a below trend level. This can be interpreted as that the diversified region owes political reforms to foreign

direct investors. In the case of the oil economies, foreign direct investors seems to have already written off political reforms.

5. Conclusions

In this paper we have analyzed the role of FDI for economic development in the Arab world. Our innovation is to introduce a panel dataset with regions rather than countries as units of observations. This allows 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 on growth, however, could be identified for the East Asian Tigers. The problem is that relative to other regions, the Arab world has essentially maintained constant FDI shares when competitor regions have increased them considerably beginning with the mid 1980s. This observation led us to our second model, which asks why the Arab world has lost touch to 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 their significance on FDI. For this we use a fixed-effects panel model with heteroscedasticity and autocorrelation consistent estimators. We find that both democratization and manufacturing export capacity are important

factors in explaining FDI shares. A similar result is obtained when testing regions' differences to East Asian Tigers' manufacturing export capacity and the world democracy level. Manufacturing deficits explain lower FDI shares and democracy surpluses higher ones. Relative to its democracy deficit, the diversified Arab world has an FDI surplus, the oil Arab world an FDI deficit.

The policy implications of our paper are obvious on the general level, but tricky in detail. Trivially, the region must find ways to make their 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.

6. Literature

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7. Appendix

Appendix Item 1: Countries in Regions

| SSA (N=48) | LAC (N=38) | WE (N=28) | EAP (N=12) | ECE (N=28) |
|---------------------|-----------------------|--------------------|-----------------------|-------------------|
| Angola | Antigua & Barbuda | Andorra | Brunei | Albania |
| Benin | Argentina | Austria | Cambodia | Armenia |
| Botswana | Aruba | Belgium | China | Azerbaijan |
| Burkina Faso | Bahamas | Channel Islands | Indonesia | Belarus |
| Burundi | Barbados | Cyprus | Japan | Bosnia H. |
| Cameroon | Belize | Denmark | N. Korea | Bulgaria |
| Cape Verde | Bolivia | Faeroe Islands | Lao PDR | Croatia |
| Central Afr. Rep. | Brazil | Finland | Mongolia | Czech Rep. |
| Chad | Cayman Islands | France | Myanmar | Estonia |
| Comoros | Chile | Germany | Philippines | Georgia |
| Congo, Dem. Rep. | Colombia | Greece | Thailand | Hungary |
| Congo, Rep. | Costa Rica | Greenland | Vietnam | Kazakhstan |
| Cote d'Ivoire | Cuba | Iceland | | Kyrgyz Rep. |
| Equatorial Guinea | Dominica | Ireland | EAT (N=5) | Latvia |
| Eritrea | Dominican Rep. | Isle of Man | Hong Kong | Lithuania |
| Ethiopia | Ecuador | Italy | Korea, Rep. | Macedonia |
| Gabon | El Salvador | Liechtenstein | Macao | Moldova |
| Gambia, The | Grenada | Luxembourg | Malaysia | Poland |
| Ghana | Guatemala | Malta | Singapore | Romania |
| Guinea | Guyana | Monaco | | Russia |
| Guinea-Bissau | Haiti | Netherlands | OIMENA (N=10) | Serbia |
| Kenya | Honduras | Norway | Algeria | Slovak Rep. |
| Lesotho | Jamaica | Portugal | Bahrain | Slovenia |
| Liberia | Mexico | San Marino | Iran | Tajikistan |
| Madagascar | Netherlands Antilles | Spain | Iraq | Turkey |
| Malawi | Nicaragua | Sweden | Kuwait | Turkmenistan |
| Mali | Panama | Switzerland | Libya | Ukraine |
| Mauritania | Paraguay | United Kingdom | Oman | Uzbekistan |
| Mauritius | Peru | | Qatar | |
| Mayotte | Puerto Rico | OCE (N=18) | KSA | |
| Mozambique | St. Kitts & Nevis | American Samoa | UAE | |
| Namibia | St. Lucia | Australia | | |
| Niger | St. Vincent & Gren. | Fiji | DivMENA (N=10) | |
| Nigeria | Suriname | French Polynesia | Djibouti | |
| Rwanda | Trinidad & Tobago | Guam | Egypt | |
| Senegal | Uruguay | Kiribati | Israel | |
| Seychelles | Venezuela, RB | Marshall Islands | Jordan | |
| Sierra Leone | Virgin Islands (U.S.) | Micronesia | Lebanon | |
| Somalia | | New Caledonia | Morocco | |
| South Africa | SA (N=8) | New Zealand | Syria | |
| Sudan | Afghanistan | N. Mariana Islands | Tunisia | |
| Swaziland | Bangladesh | Palau | Palestine | |
| São Tomé & Príncipe | Bhutan | Papua New Guinea | Yemen | |
| Tanzania | India | Samoa | | |
| Togo | Maldives | Solomon Islands | NAM (N=3) | |
| Uganda | Nepal | Timor-Leste | Bermuda | |
| Zambia | Pakistan | Tonga | Canada | |
| Zimbabwe | Sri Lanka | Vanuatu | United States | |

Appendix Item 2: Data Description

| Variable Name | Description and Source |
|---------------|---|
| Lnycap | Natural log of GDP per capita in constant 2000 USD, Source: 2007 World Bank Development Indicator Database (2007 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: 2007 WDI |
| GCF | Gross capital formation (% GDP), Source: 2007 WDI |
| Manu | Manufacturing export share as a percentage of GDP. Source: Calculated from 2007 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, 1800-2007, 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

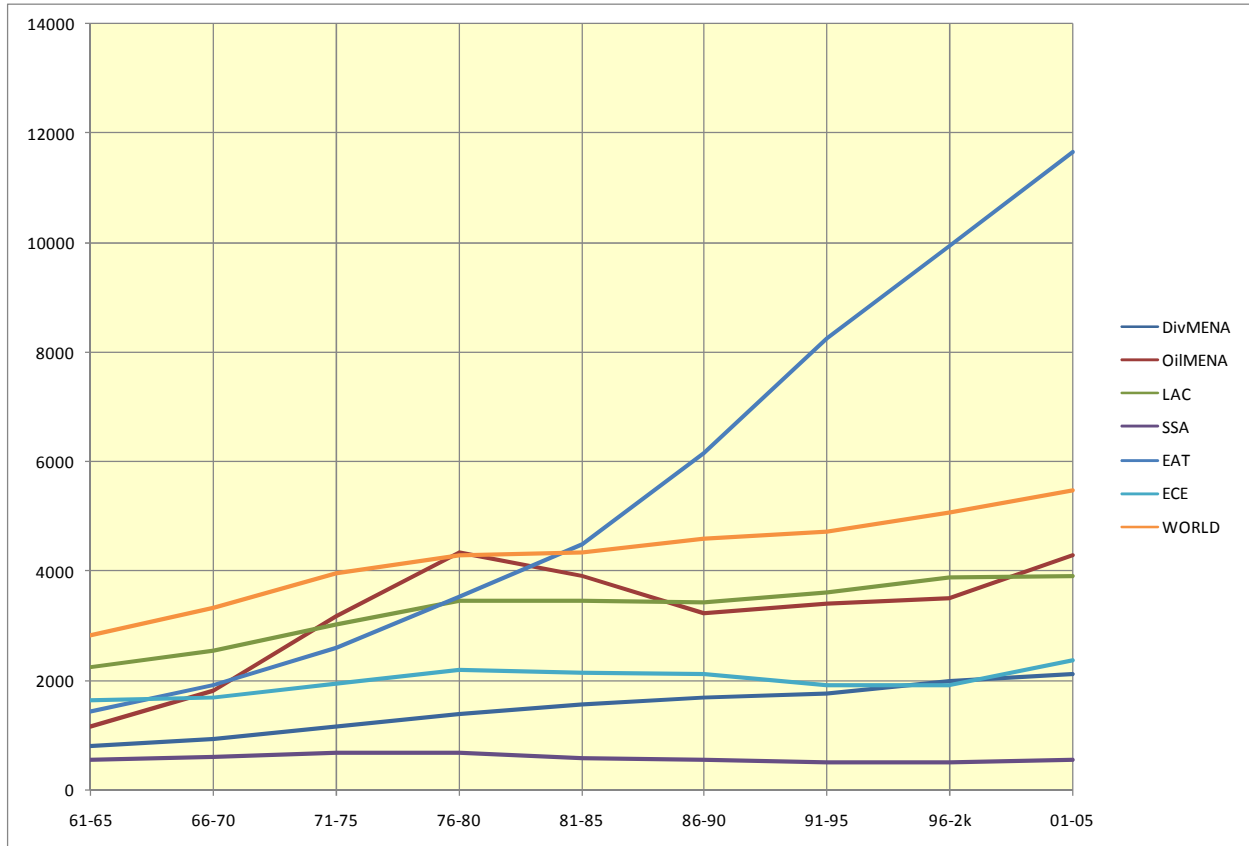
| Obs | Year | Inycap | GCF | FDI | MANU | Polity | ManuDiff | WorldPolDiff | DivFDI | OilFDI | EATFDI |
|---------|------|--------|-------|-------|-------|--------|----------|--------------|--------|--------|--------|
| DivMENA | 1970 | 6.84 | 15.19 | 0.49 | 2.56 | -6.31 | -7.15 | -5.44 | 0.49 | 0.00 | 0.00 |
| DivMENA | 1975 | 7.06 | 20.14 | 0.21 | 3.26 | -6.46 | -14.37 | -5.46 | 0.21 | 0.00 | 0.00 |
| DivMENA | 1980 | 7.23 | 29.45 | 1.53 | 3.59 | -6.19 | -20.28 | -5.31 | 1.53 | 0.00 | 0.00 |
| DivMENA | 1985 | 7.36 | 27.66 | 1.55 | 3.77 | -6.16 | -24.97 | -5.54 | 1.55 | 0.00 | 0.00 |
| DivMENA | 1990 | 7.43 | 25.27 | 1.59 | 6.99 | -5.93 | -28.74 | -6.22 | 1.59 | 0.00 | 0.00 |
| DivMENA | 1995 | 7.48 | 22.30 | 1.76 | 6.11 | -5.33 | -34.09 | -7.14 | 1.76 | 0.00 | 0.00 |
| DivMENA | 2000 | 7.59 | 21.89 | 0.91 | 6.24 | -4.94 | -45.45 | -7.36 | 0.91 | 0.00 | 0.00 |
| DivMENA | 2005 | 7.66 | 20.67 | 1.95 | 7.28 | -4.17 | -51.78 | -7.12 | 1.95 | 0.00 | 0.00 |
| OiIMENA | 1970 | 7.51 | 28.00 | 0.14 | 0.90 | -9.04 | -8.81 | -8.17 | 0.00 | 0.14 | 0.00 |
| OiIMENA | 1975 | 8.07 | 27.00 | 0.97 | 1.73 | -9.16 | -15.90 | -8.17 | 0.00 | 0.97 | 0.00 |
| OiIMENA | 1980 | 8.38 | 30.57 | 0.48 | 2.13 | -7.70 | -21.75 | -6.82 | 0.00 | 0.48 | 0.00 |
| OiIMENA | 1985 | 8.28 | 27.66 | 0.02 | 3.20 | -7.53 | -25.55 | -6.91 | 0.00 | 0.02 | 0.00 |
| OiIMENA | 1990 | 8.08 | 23.59 | -0.05 | 3.18 | -7.19 | -32.55 | -7.48 | 0.00 | -0.05 | 0.00 |
| OiIMENA | 1995 | 8.13 | 30.56 | 0.10 | 2.63 | -6.96 | -37.56 | -8.77 | 0.00 | 0.10 | 0.00 |
| OiIMENA | 2000 | 8.16 | 27.78 | 0.27 | 2.19 | -3.52 | -49.50 | -5.94 | 0.00 | 0.27 | 0.00 |
| OiIMENA | 2005 | 8.37 | 29.66 | 0.57 | 2.88 | -2.98 | -56.18 | -5.93 | 0.00 | 0.57 | 0.00 |
| LAC | 1970 | 7.84 | 20.20 | 0.22 | 0.86 | -4.35 | -8.84 | -3.49 | 0.00 | 0.00 | 0.00 |
| LAC | 1975 | 8.02 | 22.13 | 0.95 | 1.65 | -3.68 | -15.98 | -2.68 | 0.00 | 0.00 | 0.00 |
| LAC | 1980 | 8.15 | 23.29 | 0.76 | 2.26 | -2.61 | -21.61 | -1.73 | 0.00 | 0.00 | 0.00 |
| LAC | 1985 | 8.15 | 19.96 | 0.85 | 3.09 | 0.36 | -25.66 | 0.97 | 0.00 | 0.00 | 0.00 |
| LAC | 1990 | 8.15 | 20.35 | 0.78 | 4.42 | 4.94 | -31.31 | 4.65 | 0.00 | 0.00 | 0.00 |
| LAC | 1995 | 8.19 | 20.47 | 1.38 | 5.70 | 5.81 | -34.49 | 4.00 | 0.00 | 0.00 | 0.00 |
| LAC | 2000 | 8.27 | 21.47 | 3.71 | 7.76 | 6.80 | -43.93 | 4.37 | 0.00 | 0.00 | 0.00 |
| LAC | 2005 | 8.27 | 20.16 | 3.05 | 9.31 | 7.40 | -49.75 | 4.45 | 0.00 | 0.00 | 0.00 |
| SSA | 1970 | 6.42 | 15.08 | 0.25 | 0.69 | -4.88 | -9.01 | -4.01 | 0.00 | 0.00 | 0.00 |
| SSA | 1975 | 6.53 | 19.23 | 1.01 | 1.61 | -5.99 | -16.02 | -4.99 | 0.00 | 0.00 | 0.00 |
| SSA | 1980 | 6.53 | 20.42 | 0.59 | 1.72 | -4.47 | -22.15 | -3.60 | 0.00 | 0.00 | 0.00 |
| SSA | 1985 | 6.36 | 15.83 | 0.51 | 1.41 | -4.26 | -27.33 | -3.64 | 0.00 | 0.00 | 0.00 |
| SSA | 1990 | 6.29 | 16.37 | 0.93 | 1.30 | -5.69 | -34.43 | -5.99 | 0.00 | 0.00 | 0.00 |
| SSA | 1995 | 6.21 | 16.88 | 1.50 | 2.15 | -2.03 | -38.05 | -3.83 | 0.00 | 0.00 | 0.00 |
| SSA | 2000 | 6.23 | 17.67 | 2.84 | 3.07 | 0.05 | -48.62 | -2.37 | 0.00 | 0.00 | 0.00 |
| SSA | 2005 | 6.29 | 19.57 | 3.65 | 3.65 | 2.29 | -55.41 | -0.66 | 0.00 | 0.00 | 0.00 |
| SA | 1970 | 5.35 | 14.84 | 0.02 | 1.84 | 7.55 | -7.86 | 8.41 | 0.00 | 0.00 | 0.00 |
| SA | 1975 | 5.38 | 15.86 | 0.04 | 2.31 | 7.12 | -15.32 | 8.12 | 0.00 | 0.00 | 0.00 |
| SA | 1980 | 5.45 | 18.75 | 0.04 | 3.11 | 5.02 | -20.77 | 5.89 | 0.00 | 0.00 | 0.00 |
| SA | 1985 | 5.56 | 21.09 | 0.06 | 2.81 | 5.06 | -25.94 | 5.68 | 0.00 | 0.00 | 0.00 |
| SA | 1990 | 5.72 | 22.19 | 0.10 | 3.93 | 5.92 | -31.80 | 5.63 | 0.00 | 0.00 | 0.00 |
| SA | 1995 | 5.87 | 22.49 | 0.29 | 6.58 | 7.86 | -33.62 | 6.06 | 0.00 | 0.00 | 0.00 |
| SA | 2000 | 6.06 | 22.60 | 0.68 | 7.59 | 7.87 | -44.10 | 5.44 | 0.00 | 0.00 | 0.00 |
| SA | 2005 | 6.24 | 26.57 | 0.90 | 8.64 | 6.91 | -50.42 | 3.96 | 0.00 | 0.00 | 0.00 |
| EAP | 1970 | 7.32 | 22.65 | 0.20 | 3.16 | -6.13 | -6.55 | -5.27 | 0.00 | 0.00 | 0.00 |
| EAP | 1975 | 7.57 | 28.22 | 1.85 | 3.84 | -6.09 | -13.78 | -5.09 | 0.00 | 0.00 | 0.00 |
| EAP | 1980 | 7.69 | 31.55 | 0.47 | 4.66 | -5.49 | -19.22 | -4.62 | 0.00 | 0.00 | 0.00 |
| EAP | 1985 | 7.79 | 32.81 | 0.30 | 4.22 | -5.41 | -24.52 | -4.79 | 0.00 | 0.00 | 0.00 |
| EAP | 1990 | 7.92 | 33.85 | 0.83 | 8.68 | -4.92 | -27.05 | -5.22 | 0.00 | 0.00 | 0.00 |
| EAP | 1995 | 8.04 | 36.49 | 3.51 | 15.11 | -4.75 | -25.09 | -6.56 | 0.00 | 0.00 | 0.00 |
| EAP | 2000 | 8.11 | 33.00 | 3.39 | 17.43 | -4.10 | -34.26 | -6.52 | 0.00 | 0.00 | 0.00 |
| EAP | 2005 | 8.20 | 35.40 | 2.52 | 23.70 | -3.18 | -35.37 | -6.13 | 0.00 | 0.00 | 0.00 |

Appendix Item 3: Dataset (Contd.)

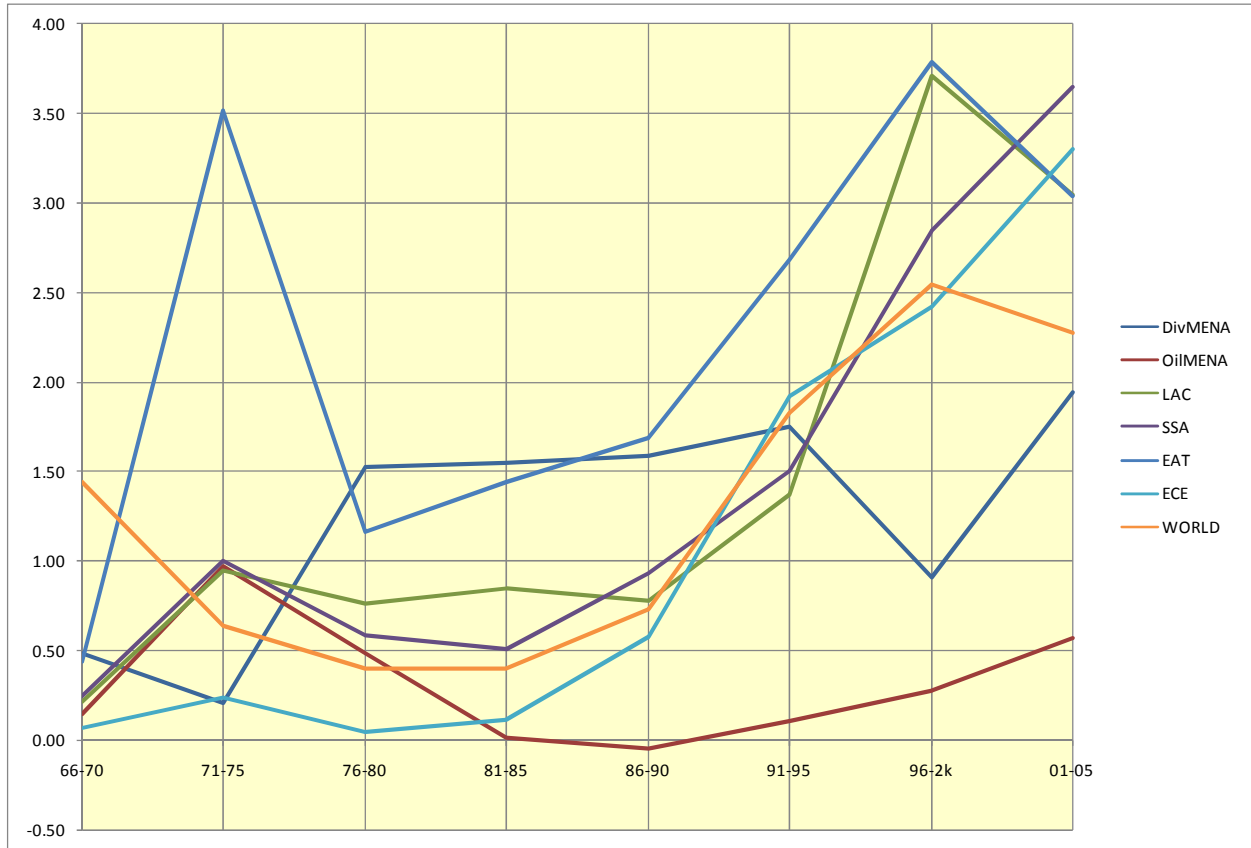
| Obs | Year | Inycap | GCF | FDI | MANU | Polity | ManuDiff | WorldPolDiff | DivFDI | OilFDI | EATFDI |
|-------|------|--------|-------|------|-------|--------|----------|--------------|--------|--------|--------|
| EAT | 1970 | 7.55 | 23.54 | 0.44 | 9.70 | 3.58 | 0.00 | 4.45 | 0.00 | 0.00 | 7.55 |
| EAT | 1975 | 7.86 | 26.21 | 3.52 | 17.63 | -3.37 | 0.00 | -2.37 | 0.00 | 0.00 | 7.86 |
| EAT | 1980 | 8.17 | 29.96 | 1.17 | 23.88 | -4.73 | 0.00 | -3.85 | 0.00 | 0.00 | 8.17 |
| EAT | 1985 | 8.41 | 30.39 | 1.45 | 28.74 | -2.53 | 0.00 | -1.91 | 0.00 | 0.00 | 8.41 |
| EAT | 1990 | 8.73 | 30.40 | 1.69 | 35.73 | 2.91 | 0.00 | 2.61 | 0.00 | 0.00 | 8.73 |
| EAT | 1995 | 9.02 | 37.27 | 2.68 | 40.19 | 4.96 | 0.00 | 3.16 | 0.00 | 0.00 | 9.02 |
| EAT | 2000 | 9.21 | 31.91 | 3.79 | 51.69 | 5.43 | 0.00 | 3.01 | 0.00 | 0.00 | 9.21 |
| EAT | 2005 | 9.36 | 26.55 | 3.04 | 59.06 | 5.85 | 0.00 | 2.90 | 0.00 | 0.00 | 9.36 |
| OCE | 1970 | 9.18 | 25.92 | 2.34 | 1.75 | 10.00 | -7.96 | 10.86 | 0.00 | 0.00 | 0.00 |
| OCE | 1975 | 9.28 | 27.44 | 1.98 | 2.31 | 10.00 | -15.31 | 11.00 | 0.00 | 0.00 | 0.00 |
| OCE | 1980 | 9.33 | 25.51 | 1.23 | 2.71 | 10.00 | -21.16 | 10.88 | 0.00 | 0.00 | 0.00 |
| OCE | 1985 | 9.38 | 26.77 | 1.80 | 2.49 | 10.00 | -26.26 | 10.62 | 0.00 | 0.00 | 0.00 |
| OCE | 1990 | 9.47 | 25.40 | 2.99 | 2.89 | 10.00 | -32.84 | 9.71 | 0.00 | 0.00 | 0.00 |
| OCE | 1995 | 9.52 | 22.30 | 2.53 | 4.54 | 10.00 | -35.66 | 8.19 | 0.00 | 0.00 | 0.00 |
| OCE | 2000 | 9.65 | 22.80 | 2.38 | 4.40 | 10.00 | -47.29 | 7.58 | 0.00 | 0.00 | 0.00 |
| OCE | 2005 | 9.75 | 19.69 | 1.82 | 4.25 | 10.00 | -54.81 | 7.05 | 0.00 | 0.00 | 0.00 |
| NAM | 1970 | 9.76 | 19.73 | 1.82 | 3.18 | 10.00 | -6.53 | 10.86 | 0.00 | 0.00 | 0.00 |
| NAM | 1975 | 9.86 | 19.88 | 0.34 | 4.08 | 10.00 | -13.55 | 11.00 | 0.00 | 0.00 | 0.00 |
| NAM | 1980 | 9.97 | 21.15 | 0.45 | 5.27 | 10.00 | -18.61 | 10.88 | 0.00 | 0.00 | 0.00 |
| NAM | 1985 | 10.04 | 20.19 | 0.52 | 5.17 | 10.00 | -23.57 | 10.62 | 0.00 | 0.00 | 0.00 |
| NAM | 1990 | 10.18 | 19.18 | 1.08 | 5.33 | 10.00 | -30.40 | 9.71 | 0.00 | 0.00 | 0.00 |
| NAM | 1995 | 10.24 | 17.34 | 0.63 | 6.76 | 10.00 | -33.43 | 8.19 | 0.00 | 0.00 | 0.00 |
| NAM | 2000 | 10.36 | 19.81 | 2.36 | 8.16 | 10.00 | -43.53 | 7.58 | 0.00 | 0.00 | 0.00 |
| NAM | 2005 | 10.45 | 14.98 | 1.13 | 7.19 | 10.00 | -51.88 | 7.05 | 0.00 | 0.00 | 0.00 |
| WE | 1970 | 9.24 | 23.71 | 0.76 | 9.92 | 6.95 | 0.21 | 7.82 | 0.00 | 0.00 | 0.00 |
| WE | 1975 | 9.43 | 26.00 | 0.75 | 13.55 | 7.43 | -4.08 | 8.43 | 0.00 | 0.00 | 0.00 |
| WE | 1980 | 9.54 | 24.17 | 0.58 | 15.31 | 9.28 | -8.57 | 10.16 | 0.00 | 0.00 | 0.00 |
| WE | 1985 | 9.61 | 21.43 | 0.52 | 16.67 | 9.62 | -12.07 | 10.24 | 0.00 | 0.00 | 0.00 |
| WE | 1990 | 9.74 | 22.20 | 1.17 | 16.69 | 9.85 | -19.03 | 9.55 | 0.00 | 0.00 | 0.00 |
| WE | 1995 | 9.83 | 20.41 | 1.16 | 16.56 | 9.85 | -23.63 | 8.04 | 0.00 | 0.00 | 0.00 |
| WE | 2000 | 9.93 | 20.48 | 4.16 | 20.50 | 9.85 | -31.19 | 7.43 | 0.00 | 0.00 | 0.00 |
| WE | 2005 | 10.02 | 20.12 | 2.79 | 22.07 | 9.85 | -37.00 | 6.90 | 0.00 | 0.00 | 0.00 |
| ECE | 1970 | 7.42 | 21.58 | 0.06 | 1.17 | -5.63 | -8.54 | -4.76 | 0.00 | 0.00 | 0.00 |
| ECE | 1975 | 7.56 | 19.78 | 0.23 | 1.63 | -5.90 | -16.00 | -4.90 | 0.00 | 0.00 | 0.00 |
| ECE | 1980 | 7.70 | 21.58 | 0.04 | 6.00 | -5.67 | -17.87 | -4.80 | 0.00 | 0.00 | 0.00 |
| ECE | 1985 | 7.67 | 23.77 | 0.11 | 8.63 | -5.99 | -20.11 | -5.38 | 0.00 | 0.00 | 0.00 |
| ECE | 1990 | 7.66 | 28.56 | 0.58 | 11.05 | -2.93 | -24.68 | -3.23 | 0.00 | 0.00 | 0.00 |
| ECE | 1995 | 7.56 | 26.07 | 1.92 | 13.36 | 4.02 | -26.83 | 2.21 | 0.00 | 0.00 | 0.00 |
| ECE | 2000 | 7.56 | 21.53 | 2.42 | 14.12 | 4.20 | -37.57 | 1.78 | 0.00 | 0.00 | 0.00 |
| ECE | 2005 | 7.77 | 22.13 | 3.30 | 17.38 | 5.21 | -41.68 | 2.26 | 0.00 | 0.00 | 0.00 |
| WORLD | 1970 | 8.11 | 19.74 | 1.44 | 3.23 | -0.86 | -6.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 1975 | 8.29 | 23.08 | 0.64 | 4.59 | -1.00 | -13.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 1980 | 8.37 | 25.32 | 0.40 | 5.40 | -0.88 | -18.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 1985 | 8.38 | 25.09 | 0.40 | 5.27 | -0.62 | -23.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 1990 | 8.43 | 25.90 | 0.73 | 7.60 | 0.29 | -28.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 1995 | 8.46 | 26.59 | 1.83 | 10.46 | 1.81 | -29.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 2000 | 8.53 | 25.14 | 2.55 | 12.20 | 2.42 | -39.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| WORLD | 2005 | 8.61 | 26.75 | 2.28 | 14.90 | 2.95 | -44.16 | 0.00 | 0.00 | 0.00 | 0.00 |

Note: All values are population weighted regional averages.

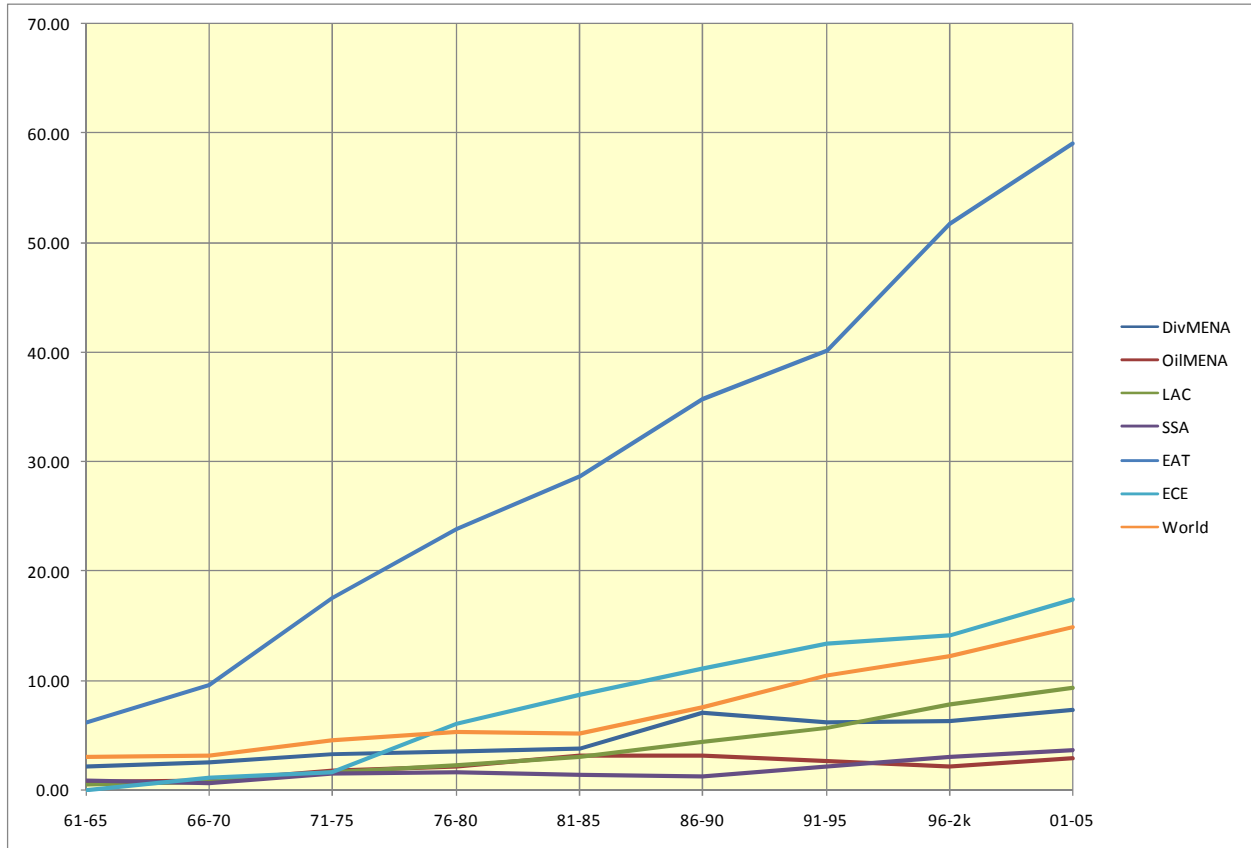
Appendix Item 4: Time Series Plot Income



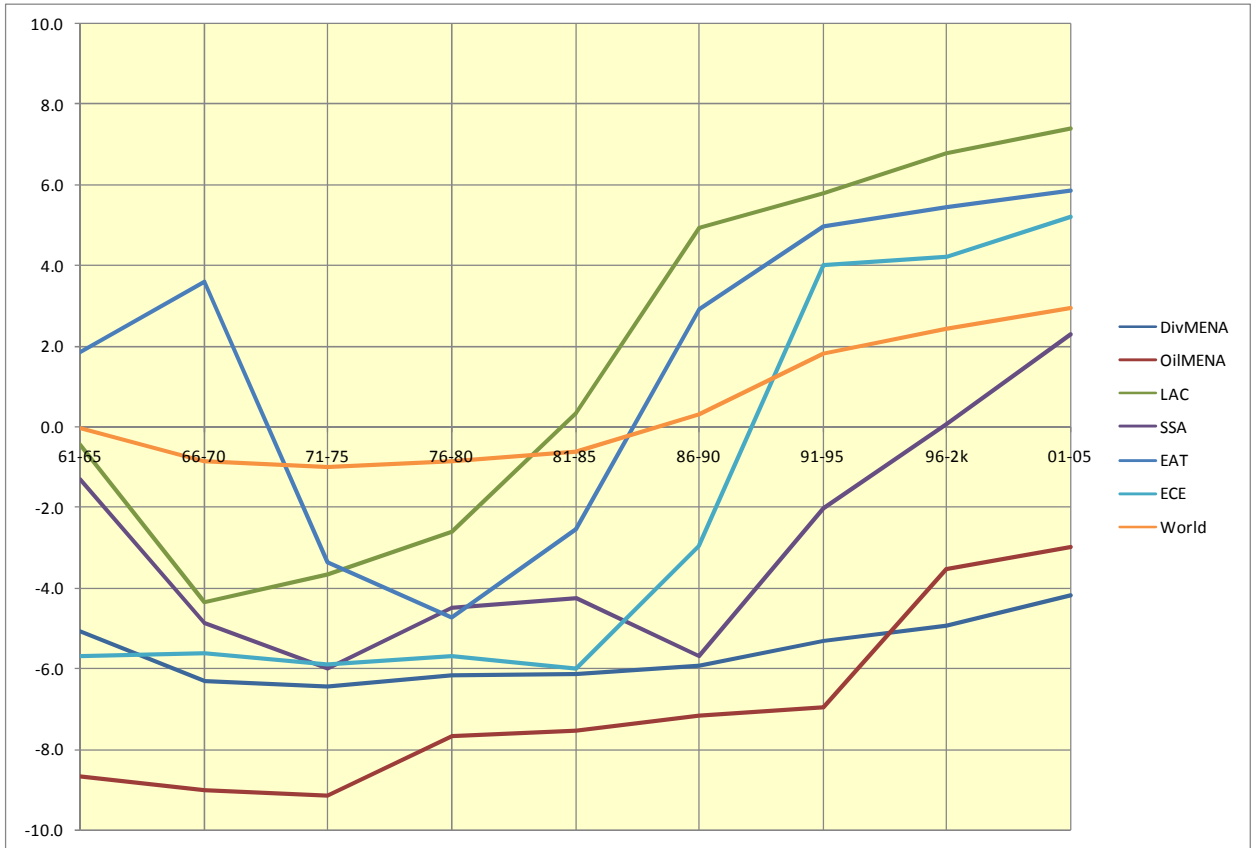
Appendix Item 5: Time Series Plot FDI



Appendix Item 6: Time Series Plot Manufacturing Export Shares as a Percentage of GDP



Appendix Item 7: Time Series Plot Polity 2 Score



Appendix Item 8: Growth and FDI Dynamic Panel Results

2-Sep Arellano-Bond estimates using 72 observations, 12 cross-sectional units

| DV: DLnycap | I | II | III | IV | V | VI | VII |
|---------------------------------|---------|---------|---------|---------|---------|--------|---------|
| DLnycap(-1) | 0.51*** | 0.56*** | 0.39*** | 0.48*** | 0.44*** | 0.39** | 0.33*** |
| Const | 0.03*** | 0.02* | 0.02** | 0.04*** | 0.02 | 0.03* | 0.03*** |
| DGCF | 0.00 | | | | | | |
| DFDI | | 0.02* | | | 0.01 | | |
| DMANU | | | 0.01*** | | 0.01*** | | |
| DPolity | | | | -0.00 | | | |
| D(Oil×FDI) | | | | | | 0.13 | |
| D(DIV×FDI) | | | | | | -0.00 | |
| D(EAT×FDI) | | | | | | | 0.38** |
| Test for AR(1) errors | (0.29) | (0.31) | (0.19) | (0.29) | (0.22) | (0.40) | (0.20) |
| Test for AR(2) errors | (0.51) | (0.53) | (0.74) | (0.41) | (0.74) | (0.71) | (0.77) |
| Sargan over-identification test | (0.94) | (0.95) | (0.96) | (0.95) | (0.95) | (1.0) | (0.98) |
| Wald (joint) test: | (0.04) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |

Note: * = significant at 15%, ** = significant at 10%, *** = significant at 5%; numbers in parentheses p-values for

H₀: No AR(1) error, H₀: No AR(2) error, H₀: Valid Instruments (Sargan test), and H₀: No joint significance (Wald).

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

Fixed-Effects Model, using 96 observations, 12 cross-sectional units,
 Time-series length = 8
 Robust (HAC) standard errors

| | I | II | III |
|----------------------|---------|----------|----------|
| Intercept | 1.18 | -4.22** | -4.20** |
| Lnycap | -0.14 | 0.49 | 0.48* |
| GCF | 0.02 | 0.03 | 0.03 |
| Manu | 0.06*** | | |
| Polity | 0.13*** | | |
| ManuDiff | | -0.03*** | -0.04*** |
| DemoDiff | | 0.10** | 0.11*** |
| (DivMENA × ManuDiff) | | | 0.01 |
| (OilMENA × ManuDiff) | | | 0.11 |
| (DivMENA × DemoDiff) | | | 0.04*** |
| (OilMENA × DemoDiff) | | | -0.08*** |
| Adj. R ² | 50.0 | 45.6 | 47.9 |

Note: * = significant at 15%, ** = significant at 10%, *** = significant at 5%