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Foreign Direct Investment (FDI) and Governance: The Case of MENA

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Abstract

Is there a relationship between Foreign Direct Investment (FDI) and governance practiced in a given country? To answer this question we used the econometrics of panel data for the MENA region (11 countries) during the period 1996-2014. The results of the econometric estimation show seven variables that are statistically significant, namely the Gross Domestic Product (economic risk variable), the current account balance as% of GDP (economic risk variable), the domestic investment rate (economic risk variable), external debt (financial risk variable), the debt service as percentage of exports (financial risk variable), the functioning of the state (variable governance) and corruption (governance variable). While different parts of the world are competing to further attract FDI, countries in the MENA region need to conduct adequate policies oriented towards improving the business climate and good governance to benefit from these funding streams deemed less expensive.

Keywords: FDI; Governance; MENA Region; Panel Data.

1. Introduction

Foreign Direct Investment (FDI) plays an important role in promoting long-term economic growth in the developed and less developed countries due to the increase in capital formation. Indeed, FDI can contribute to economic development in terms of technology transfer, creation of large-scale industries and the increase in total factor productivity (TFP).

In recent years, the debate on economic development and political discourse are interested in the concept of good governance, which has become an important factor in the proper functioning of market countries and, therefore, the attractiveness of IDE. On the other hand, governments seeking to attract FDI should create a more favorable climate for multinational companies (MNCs) through the improvement of political and economic institutions that stimulate the entry of FDI. However, there are several factors such as corruption, political instability and macroeconomic instability that negatively affect the investment climate.

Within this framework, the World Bank was one of the first international institutions called for the contribution of non-governmental actors in the process of political, economic and social decisions, and in particular states to improve governance at the national and regional level. In fact, the World Bank define governance as a way of exercising power in the management of economic and social structures of a country's resources. In addition, UNCTAD has defined governance as "the manner in which the main actors in society, governments, businesses and civil society working together to improve society." Generally, institutions of high-quality governance have a positive impact on development by promoting investment. Therefore, the quality of institutions can attract FDI through good governance is an important factor for that end. Similarly, the concept of good governance has played a more important role in economic development. Thus, this transparency is essential for a good relationship between governance and FDI. Therefore, the concept of lack of transparency is linked to the corruption which indicates the relative lack of good governance.

In this sense, MNCs are always seeking to make investment where the institutional environment is favorable. In addition, foreign investors prefer to make their investments in countries where there is a transparent institutional framework characterized by a coherent politics.

Thus, the objective of this study is to investigate the influence of governance indicators on FDI flows to the MENA region. Thus, the research question addressed in this study is as follows: what is the impact of governance indicators and macroeconomic variables on FDI attractiveness in the case of the MENA region?

The first section, therefore, will be devoted to the theoretical interpretation of FDI and governance. Then the variables, the model and data sources will be dealt with in the second section. Finally, the third section presents the results and their interpretations.

2. Literature Review

Several studies have focused on the determinants of FDI in developing countries. In this context, the empirical study of Singh and Jun on the influence of political risk and macroeconomic variables for the entry of FDI in developing countries showed the importance of these variables for the attraction of FDI [1]. In fact, in their work they used FDI as a percentage of GDP as explained variable and political risk and macroeconomic variables as explanatory variables.

Wang and Swain showed that political instability negatively affects FDI of multinational corporations (MNCs) and their subsidiaries. Indeed, political instability, corruption and lack of transparency contribute to unfavorable business climate and thus reduce the possibilities of the entry of FDI [2]. Also, a study by Morisset showed that corruption and bad governance increase administrative costs and subsequently reduces the possibility of FDI's entry of FDI [3]. Similarly, other works have shown that political and institutional factors are determinants necessary for the entry of FDI in developing countries (Stein and Daude) [4] and Latin America (Stevens) [5].

Also Méon and Sekkat examined the impact of institutional quality on exports of manufactured goods and incoming FDI in the MENA countries [6]. Their findings show a high level of corruption and poor bureaucracy and their significantly negative effect on the decision of multinational enterprises to invest abroad. Again, Samimi and Ariani studied the impact of a better quality of governance on FDI inflows [7]. They used annual data for 16 countries in the Middle East and North Africa during the period 2002-2007. They showed that the three governance indicators namely; political stability, control of corruption and rule of law have a positive impact on the entry of FDI to the MENA region.

Finally, Mengistu and Adhikari analyze the impact of the six governance indicators: freedom of speech and accountability, political stability and absence of violence, functioning of the state, regulatory quality, rule of law and the fight against corruption on FDI flows for 15 Asian countries over the period 1996 -2007 [8]. They use a panel data model with fixed effects. The obtained results in their study show that these six governance indicators are the main factors of FDI location. In fact, they conclude that improving the governance environment is a predisposing factor for attracting of FDI (Sen, A) [9].

Here we have a problem of value, the model of society and form of government to be specified. Governance is therefore not a phenomenon restricted to what the government should dictate, but it takes into account the participation of all citizens to be effective.

There are six governance indicators of the World Bank that measure dimensions of this concept (Kaufmann et al) [10];

- Freedom of Speech and Responsibility: set of indicators that measure various aspects of the political process, including civil liberties, human rights and the extent to which a country's citizens are allowed freedom to choose their government.
- Political Stability and Absence of Violence: several indicators measuring the estimation by the public of the possibility of destabilization or unconstitutional overthrow of the government, including domestic violence and terrorism.
- Operation state: it analyzes the responses on the quality of public service, the independence of the public vis-à-vis public pressures and the credibility of the authorities' commitment to implement various policies.
- Regulatory Quality: This refers to policies that hinder the proper functioning of the market as price controls or deficient Banking Supervision and the sensation of excessive heaviness in areas such as foreign trade and business development.
- Rule of law: a set of indicators that measure the confidence of citizens in the social rules and compliance with these rules. This is the public perception of the level of crime, effectiveness and predictability of the judiciary and the ability to enforce contracts.
- Fight against corruption, conventionally defined as the exercise of public power for private purposes. It is based on dozens of variables from surveys of experts and surveys.

In this context, our study adds to the existing literature by providing a new contribution to the study of the relationship between governance indicators and macroeconomic variables and FDI for the MENA region. Specifically, we try to examine the role of the six governance indicators for the attractiveness of FDI.

3. Variables Model and Data

3.1. Choice of Variables

Variable to be explained: the inflow of FDI referred to as a percentage of GDP.

Explanatory variables: there are many of them in light of the review of the theoretical and empirical literature. We will retain in our model estimates recorded in Table 1 variables.

Table1: List of Variables

Economic Risk	Financial Risk	Governance
GDP per capita (GDP/cap)	External Debt as percentage of GDP (EDGDP)	Freedom of Speech and Responsibility (RSR)
Growth rate of real GDP (GDPG)	Service of External Debt as a percentage of Exports (SEDE)	Political Stability and Absence of Violence (STAB)
Inflation Rate (INF)	Real Effective Exchange Rate (REER)	Operation state (FUNC)
Current account Balance as a percentage of GDP (CBGDP)		Regulatory Quality (RQUAL)
Rate of Domestic Investment (INV)		Rule of law (STATE)
Enrollment Rates (ENR)		Fight against corruption (CORR)
Degree of Openness of the Economy (OPEN)		

The expected signs of the variables are as follows:

- GDP per capita (GDP/cap) intended to measure the size and wealth of the market (per capita GDP). Its expected sign is positive.
- Growth rate of real GDP (GDPG) variable very close to the previous one which is an indicator of good health of the economy. Its expected sign is positive.
- Inflation rate (RINF): a high inflation rate discourages FDI. The expected sign is a negative sign.
- Current account balance as a percentage of GDP (BGDP): an impact on FDI inflows. Its sign is ambiguous.
- Rate of domestic investment rate (INVR): it indicates the level of general business climate with expected positive sign.
- Enrollment (ENR): the quality of labor or human capital motivator for MNCs to relocate abroad. The expected sign is positive.
- Degree of openness of the economy (OPEN): it positively influences FDI inflows as investors often involve in the tradable sector.
- External debt as percentage of GDP (EDGDP) negatively affects the level of FDI inflows since its increase can be interpreted as a future increase in compulsory levies to finance the debt service.
- Service of external debt as a percentage of exports (SERDET) plays the same role as the just above mentioned variable.
- Real effective exchange rate (REER) measures the external competitiveness of the MENA region. Its effect is ambiguous. The appreciation of the domestic currency makes FDI inflows less interesting, its depreciation is rather attractive.

- The governance indicators: identified on a scale of [-2.5; 2.5] where 2.5 means very poor governance and 2.5 a very good governance. Its expected sign is ambiguous. Good governance positively affects FDI inflows. In contrast, poor governance negatively affects FDI inflows.

3.2. The Model Specification

In this study, the models used by Hassen and Anis [11] Adhikary [12] Djaowe [13] and Samimi and Ariani [14] inform the framework in our empirical study. By combining macroeconomic and institutional variables, these authors have produced satisfactory results.

Our goal is therefore to study the impact of governance on FDI for the MENA region.

The equation of our model, taking into account the availability of data and characteristics of the economies of the MENA region, is as follows:

$$FDI_{it} = \alpha_0 + \alpha_1 GDP/cap_{it} + \alpha_2 GDPG_{it} + \alpha_3 RINF_{it} + \alpha_4 \mathrm{CBGDP}_{it} + \alpha_5 INVR_{it} + \alpha_6 \mathrm{REER}_{it} + \alpha_7 \mathrm{ENR}_{it} + \alpha_8 \mathrm{OPEN}_{it} + \alpha_9 \mathrm{EDGDP}_{it} + \alpha_{10} \mathrm{SEDE}_{it} + \alpha_{11} FSR_{it} + \alpha_{12} STAB_{it} + \alpha_{13} FUNC_{it} + \alpha_{14} RQUAL_{it} + \alpha_{15} STATE_{it} + \alpha_{16} CORR_{it} + \varepsilon_{it}$$

We conduct our study on a sample of eleven countries in the MENA region (Tunisia, Algeria, Egypt, Morocco, Jordan, Lebanon, Syrian Arab Republic, Yemen, Iran, Djibouti and Qatar). The econometric estimation is carried out on panel data over the period 1996-2014 using STATA11 software.

3.3. Data Sources

The data come primarily from:

- World Bank: World Development Indicators ;
- International Monetary Fund (IMF) International Financial Statistics;
- CNUCED : World Investment Report (WIR) ;
- The Worldwide Governance Indicators, 2013 Update: www.govindicators.org.

4. Interpretation of Results

4.1. Descriptive Statistics and Correlation Matrix

Table 2 (see Appendix) presents a descriptive analysis of the explanatory variables and the endogenous variable. We find that these variables do not follow the normal distribution since Jarque & Bera statistics are greater than the critical value of chi-square with two degrees of freedom (except for the variable CORR). Also, these variables are asymmetric because statistics kurtosis is greater than three (except for the variable CORR) and does not have parabolic branches of asymptotic directions to the x-axis.

The correlation matrix is used to check whether there is a problem of multicollinearity. The results are presented in Table 3 (see Appendix), which shows that the correlation coefficients are low for most variables used. We can conclude therefore that there is no problem of multicollinearity.

4.2. Stationary Series

The study of stationary variables helps to have an idea about the characteristics of the series studied. Based on the results in Table 4 (see Appendix), we can see that all variables are stationary in level, since the calculated values of the test statistics of Levin, Lin and Chu (LLC) are less than the value criticism of the standard normal distribution at the threshold of 5% risk (-1.64) [15].

Thus, our primary interest is to determine the specification tests or tests of homogeneity of data. We will show if the model in question is exactly the same in all countries in the sample, or that there are specificities of each country.

In fact, the results from the Fisher statistics (Table 5 in the Appendix) show the rejection of the assumption of global homogeneity knowing that there are common coefficients for all countries. Also, each country has its own individual specificities (P-Value <10%). Therefore, our model is specified by a panel with individual effects. The question to be addressed now is about the type of individual effect to be used. To answer this question, we use the Hausman test (1978) [16]. Similarly, to make a distinction between the two estimation techniques, within and GLS, we adopt the Hausman specification test.

From Table 5, we can argue that our model is specified by a panel with individual random effects such as the Hausman statistic is less than the critical value of chi-two to fifteen degrees of freedom ($\chi^2(15) = 22{,}31$ For $\alpha = 10\%$). Hence, the estimation with GLS (unbiased estimator) is the most appropriate.

4.3. Interpretation of Results

Based on the results shown in Table 5 (see Appendix), we find that our model has a fairly significant explanatory power (as the adjusted coefficient of determination is equal to 0.78).

4.3.1. The Signs of the Explanatory Variables

The signs of the different explanatory variables of FDI are:

- GDP per capita (GDP/cap) has a negative sign, unlike the expected sign since the size and wealth of the market are expected to attract FDI.
- The real GDP growth rate (GDPG) has a positive sign in accordance with the literature since it is expected that the indicator of a healthy economy attracts more FDI.
- The negative sign of the coefficient of the inflation rate (RINF) is consistent with that expected.
- The current account balance as percentage of GDP (CBGDP) has an ambiguous effect. The positive sign indicates a surplus and the negative sign (which is the case here) indicates a deficit in the current account.
- The positive sign of domestic investment rate (INVR) complies as it indicates the level of the business environment and subsequently promotes the entry of FDI.
- The real effective exchange rate (REER) has an ambiguous effect; the negative sign indicates a depreciation that can be attractive for foreign investors.
- The enrollment rate (ENR) has a positive sign, which is normal because a skilled workforce is an attractive factor for FMN.
- The degree of openness (OPEN) has a positive sign consistent with that expected.
- External debt (EDGDP) has a negative sign consistent with that expected since it is expected to increase the tax burden to finance the debt service.
- The debt service as percentage of exports (SEDE) has a coefficient whose sign is negative which is consistent with that of external debt.
- Freedom of Speech and Responsibility (FSR), the operation of the state (FUNC), the regulatory quality (RQUAL) and the rule of law (STATE) have positive signs: efforts have been made to ensure the four governance indicators to attract FDI.
- Political stability (STAB) and the fight against corruption (CORR) negatively affect FDI (negative sign).

4.3.2. Statistically Significant Variables

There are seven statistically significant variables (1%):

- GDP / cap are an indicator of market size. In fact, most studies show that there is a positive correlation between FDI inflows and economic growth rates (Demurger [17] Andreff M. & W. [18]). The search for a market has proven in most econometric tests to be the most significant variable and the most important determinant of the entry of FDI in the countries of Central and Eastern Europe (CEE). However, our result is not consistent with those of previous studies as the correlation is negative.
- The current account balance as a percentage of GDP (CBGDP): it is statistically significant because after restoring external competitiveness of economies in the MENA region, this indicator still negatively affects FDI as countries in the Middle East and North Africa still recorded negative balances.
- The rate of domestic investment (INVR) is statistically significant with a positive correlation with FDI. Implying the importance of the business climate for FDI attractiveness.
- External debt (EDGDP): variable of the financial risk of a country. It negatively affects FDI flows since the countries of the MENA region are heavily indebted.
- The debt service as percentage of exports (SEDE) is statistically significant where there is a negative correlation between the latter and the IDE.

- The operation of the state (FUNC) and the fight against corruption (CORR) are the two governance variables statistically significant.

5. Conclusion

The objective of this study is to examine the impact of governance indicators for the attractiveness of FDI in eleven countries in the MENA region during

the period 1996-2014, using a random effects model. Therefore, it is clearly noticeable that the quality of institutions plays a crucial role in the entry of FDI in the region. Within this framework, there are four governance variables: freedom of speech and responsibility, the functioning of the state, the quality of regulation and the rule of law. These four governance variables are positively correlated with the entry of FDI.

Furthermore, this paper examines the impact of macroeconomic variables on the flow of FDI inflows. Indeed, the variables the real GDP growth rate, domestic investment rates and degree of openness have a positive impact and are of important significance for the entry of FDI.

6. References

[1] Singh, H and Jun, K.W (1995). Some New Evidence on Determinants of foreign direct investment in developing countries. *Policy Research Working Paper*, N° 1531, the World Bank.

[2] Wang, Z.Q and Swain, N.J (1995). The determinants of foreign direct investment in transforming economies: Empirical evidence from Hungary and China. *Review of World Economics*, vol. 131, pp. 359-382.

[3] Morisset, J (2000). Foreign direct investment in Africa: policies also matter," Policy Research Working Paper, N° 2481, the World Bank.

[4] Stein, E and Daude, C (2001) Institutions, Integration and the Location of Foreign Direct Investment. In New Horizons of Foreign Direct Investment. *OECD Global Forum on International Investment* (Paris).

[5] Stevens, G.V.G (2000). Politics, economics and investment: explaining plant and equipment spending by US direct investors in Argentina, Brazil and Mexico. *Journal of International Money and Finance*, vol. 19, pp. 115–135.

[6] Méon, P and Sekkat, K (2004). Does the Quality of Institutions Limit the MENA's Integration in the World Economy? *The World Economy*, Vol. 27, pp. 1475–1498.

[7] Samimi, A.J and Ariani, F (2010). Governance and FDI in MENA Region. *Australian Journal of Basic and Applied Sciences*, vol. 4, pp. 4880-4882.

[8] Mengistu, A.A and Adhikary, B.K (2011). Does good governance matter for FDI inflows? Evidence from Asian economies. *Asia Pacific business review*, vol.17, pp. 281-299.

[9] Sen, A (1999). Development as Freedom, *Alfred A. Kopf*, New York.

[10] Kaufman, D, Kraay, A and Zoidon, P.L (1999). Aggregating Government Indicators. *Policy Research Working Paper*, N0. 2195, the World Bank.

[11] Hassen, S and Anis, O (2012). Foreign Direct Investment (FDI) and Economic Growth: an approach in terms of cointegration for the case of Tunisia. *Journal of Applied Finance & Banking*, 2 (5), pp. 193-207.

[12] Adhikary, B.K (2011). Foreign Direct Investment, Governance, and Economic Growth: A Panel Analysis of Asian Economies. *Asia Pacific World*, 2, pp. 72-94.

[13] Djowe, J (2009). Investissements Directs Etrangers (IDE) et Gouvernance: les pays de la CEMAC sont-ils attractifs? *Revue africaine de l'intégration,* 3, N0. 1, Janvier.

[14] Samimi, A.J and Ariani, F (2010). Governance and FDI in MENA Region. *Australian Journal of Basic and Applied Sciences*, 4, pp. 4880-4882.

[15] Levin, A, Lin, C.F and Chu, C.S.J (2002). Unit Root Test in Panel Data: Asymptotic and Finite Sample Properties. *Journal of Econometrics*, 108, pp. 1-24.

[16] Hausman, J (1978). Specifications tests in econometrics. *Econometrica*, 46 (6), pp. 1251- 1271.

[17] Demurger, S (1998). Interdépendance de l'investissement étranger et de la croissance en Chine. *Revue économique,* vol. 49, n0.1, Janvier.

[18] Andreff, M and Andreff, W (2004). La concurrence pour l'investissement direct étranger au sein de l'Union européenne élargie : comparaison des déterminants de l'investissement direct étranger entrant et sortant des PECO. *Laboratoire de recherche du CNRS*, P. 37.

7. Appendix

Table 2: Descriptive Statistics																	
	FDI	GDP/cap	GDPG	RINF	CBGDP	INVR	REER	ENR	OPEN	EDGDP	SEDE	FSR	STAB	FUNC	RQUAL	STATE	CORR
Mean	3.271483	2742.005	4.039743	8.681146	-0.269810	23.23596	729.3112	67.36924	732.8072	5.185875	12.89304	0.571872	0.712273	7.389947	0.613768	4.399305	0.406702
Median	1.573146	2212.611	4.099998	4.507776	0.292249	22.94685	10.92313	74.89853	0.701108	3.412182	9.431271	0.610000	0.714015	0.500000	0.636364	0.666667	0.370000
Maximum	31.37660	8492.614	12.21689	85.73324	24.71488	41.64462	10047.59	98.54678	9018.765	21.26005	48.51980	0.833333	0.931818	100.0000	0.818182	100.0000	0.833333
Minimum	-4.025598	711.9649	-10.47967	-3.846154	-34.68800	7.869903	0.568493	11.34114	0.379526	0.001085	0.512341	0.166667	0.382576	0.250000	0.300000	0.330000	0.166667
Std. Dev.	4.785161	1936.381	2.935479	13.37717	9.144758	6.179508	1896.220	21.85286	2340.914	4.267280	10.64853	0.171671	0.128635	25.38187	0.147003	18.90398	0.134509
Skewness	2.569271	1.229333	-1.092372	3.823226	-0.447811	0.358882	3.340845	-0.812987	2.925614	1.251935	1.077269	-0.730103	-0.515373	3.385053	-0.343703	4.873174	0.307942
Kurtosis	11.60892	3.555404	6.546193	19.68213	5.050386	3.937283	13.97546	3.659471	9.707960	4.589098	3.384691	4.536151	5.556013	12.45887	3.072272	24.74976	2.883861
Jarque-Bera	783.2036	49.50442	135.1744	2623.936	39.00682	10.85913	1286.448	21.50306	617.3618	68.52456	37.32228	18.28983	9.814075	1054.248	10.38791	4426.004	3.060579
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.004385	0.000000	0.000021	0.000000	0.000000	0.000000	0.000107	0.007394	0.000000	0.005550	0.000000	0.216473
Sum	611.7673	512754.9	755.4319	1623.374	-50.45445	4345.125	136381.2	12598.05	137034.9	969.7586	2410.999	106.9400	133.1951	1381.920	114.7745	822.6700	76.05333
Sum Sq. Dev.	4258.984	6.97E+08	1602.769	33284.45	15554.55	7102.654	6.69E+08	88823.85	1.02E+09	3387.000	21090.78	5.481589	3.077740	119828.5	4.019434	66469.03	3.365222
Observations	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
Cross Sections	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

Table 3: Matrix of Correlations																	
	FDI	GDP/cap	GDPG	RINF	CBGDP	INVR	REER	ENR	OPEN	EDGDP	SEDE	FSR	STAB	FUNC	RQUAL	STATE	CORR
FDI	1.0000																
GDP/cap	0.1034	1.0000															
GDPG	0.2139	0.0462	1.0000														
RINF	-0.1487	0.2906	-0.0286	1.0000													
CBGDP	-0.3164	-0.4613	-0.0837	0.0461	1.0000												
INVR	0.3912	0.1464	0.2314	-0.0192	-0.1351	1.0000											
REER	-0.0737	0.0929	0.0468	0.1511	0.0033	0.2190	1.0000										
ENR	0.0940	0.5327	0.1458	0.0724	-0.3037	0.1873	0.1719	1.0000									
OPEN	-0.1184	0.6795	0.0214	0.5146	-0.1044	-0.1547	-0.1207	0.2074	1.0000								
EDGDP	0.2821	0.5478	0.0862	-0.0286	-0.2592	0.0376	-0.1510	0.2909	0.2326	1.0000							
SEDE	0.0556	0.5448	0.0862	0.2680	-0.1838	-0.0382	-0.1864	0.2000	0.6391	0.7081	1.0000						
FSR	0.1730	0.0702	-0.0421	0.0567	-0.1315	0.1647	0.2879	-0.1018	0.0623	0.0301	0.1328	1.0000					
STAB	-0.0855	-0.1456	0.1750	-0.0791	-0.1153	0.0419	-0.1792	0.3282	-0.1841	0.0810	0.1486	-0.2011	1.0000				
FUNC	0.2927	-0.0563	-0.0844	-0.0201	0.0262	0.1224	0.0170	-0.3268	0.0059	-0.0012	0.0544	0.3920	-0.5016	1.0000			
RQUAL	0.3947	-0.0422	0.1456	-0.3247	-0.1714	0.1495	-0.3626	-0.0686	-0.0872	0.2634	0.1678	0.3556	0.0266	0.2619	1.0000		
STATE	0.0932	0.0162	0.0128	-0.0582	-0.2202	0.1468	-0.0088	-0.1436	0.0375	0.0499	0.3069	0.1021	0.2220	0.3659	-0.0055	1.0000	
CORR	-0.0529	-0.3231	-0.0205	-0.0050	0.1816	0.0522	-0.1341	-0.3795	0.0102	-0.1124	0.1616	0.3055	0.0863	0.3433	0.1635	0.3998	1.0000

Table 4: Stationarity Statistics of LLC (2002)		
Variable	**With Constant**	**With Constant and Trend**
FDI	-3.3729 (0.0004)	-2.6164 (0.0044)
GDP/cap	0.0105 (0.5042)	-2.6065 (0.0046)
GDPG	-1.5497 (0.0606)	-1.8573 (0.0241)
RINF	-1.7963 (0.0362)	-2.0149 (0.0220)
CBGDP	-1.7677 (0.0386)	-3.2237 (0.0006)
INVR	-2.3575 (0.0092)	-3.3518 (0.0004)
REER	1.0664 (0.8569)	-2.8363 (0.0023)
ENR	0.4899 (0.6879)	-5.9890 (0.0000)
OPEN	-1.1878 (0.1174)	-2.5367 (0.0056)
EDGDP	-1.8277 (0.0338)	-3.9212 (0.0000)
SEDE	-2.7025 (0.0034)	-7.1539 (0.0000)
FSR	-2.4732 (0.0067)	-2.9354 (0.0017)
STAB	-0.6206 (0.2674)	-2.2894 (0.0110)
FUNC	17.6390 (1.0000)	-4.6217 (0.0000)
RQUAL	-3.0060 (0.0013)	-3.1346 (0.0009)
STATE	1.8093 (0.9648)	-2.3454 (0.0054)
CORR	-3.5008 (0.0002)	-3.0381 (0.0012)

Table 5: Results of Model Estimates		
Variable	**Within**	**GLS**
GDP/cap	0,002 (2,88)*	-0,001 (-3,34)*
GDPG	0,141 (1,62)***	0,183 (1,85)**
RINF	0,090 (2,12)*	-0,014 (-0,54)
CBGDP	-0,075 (-1,63)***	-0,152 (-3,89)*
INVR	0,328 (5,91)*	0,273 (5,09)*
REER	-0.0003 (-0,97)	-0,0002 (-1,28)
ENR	-0,0001 (-0,00)	0,032 (1,65)***
OPEN	0,001 (0,96)	0,0006 (1,86)**
EDGDP	0,607 (3,72)*	-0,640 (4,31)*
SEDE	0,002 (0,04)	-0,171 (-2,49)*
FSR	0,997 (0,29)	1,782 (0,80)
STAB	4,11 (0,86)	-4,651 (-1,19)***
FUNC	0,335 (0,07)	5,637 (2,17)*
RQUAL	3,727 (1,26)***	4,289 (1,55)***
STATE	-4,848 (-0,89)	2,741 (1,06)
CORR	-10,801 (-3,39)*	-5,778 (-2,05)*
Constant	-13,936 (-2,57)*	-6,654 (-2,12)*
Number of observation	209	209
R^2	0,44	0,76
F-stat P-values	8,59 (0,0000)	
t-Haus P-values		1,94 (0,9998)

Dependent Variable: FDI as percentage of GDP

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