

Governance and FDI: toward an OLI approach

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Abstract

There is a general lack of consensus on a theoretical framework guiding empirical studies examining the role of political and institutional factors of governance as determinants of FDI. This incongruity is argued to be a contributing factor behind the conflicting results found in the empirical literature. Dunning's OLI (ownership-location-internalisation) approach has been hailed as the beginnings of a general theory of FDI and this paper offers an attempt at moving towards understanding the relationship between FDI and governance in terms of the OLI approach. The OLI approach emphasises incorporating microeconomic factors into the analysis of FDI determinants. By acknowledging that different firm level motivations drive different FDI types and using the World Bank Governance Indicators and a panel data set of 155 countries over a 13 year period, evidence is found that the effect of "good governance" is likely to vary across different types of FDI. It is also found that there may be a threshold level of governance, above which, improvements to governance no longer act as a significant determinant of FDI. The results provide insight into understanding the inconsistent findings of previous studies.

Introduction

The results of cross-sectional macro-level empirical studies investigating the influence of governance factors on foreign direct investment (FDI) appear inconsistent and problematic. This is argued to be, in part, due to varying regression techniques, estimators, and governance indicators used across the various studies (Rankin & Spearman part1; (Chakrabarti, 2001). Adding to this, Dunning's OLI (ownership-location-internalisation) approach identifies four different FDI types driven by different firm level motivations. If largely heterogeneous countries are disparately matched to these firm level drivers then treating aggregate FDI as a homogeneous product across studies may be erroneous and another factor contributing to the inconsistent results.

A central hypothesis of this study is that different types of countries attract different types of FDI, yet the FDI measures used in cross-sectional analyses do not distinguish between different FDI types and this contributes to the inconsistent effects of governance variables. To explore this issue a data set of 155 countries is categorised according to four country specific characteristics¹ which serve to group FDI types. Comparing FDI determinants across different FDI types is intended to be a first step towards considering how the determinants of FDI decisions may vary according to different firm level objectives.

The results of the regressions performed provide evidence that the effect of improved governance is likely to differ across the different FDI types. Another observation is that the groups of countries with the highest mean governance scores receive the highest mean levels of FDI but they do not yield positive significant governance regression coefficients. This indicates that the countries with the highest governance scores receive the highest levels of FDI but changes to governance scores within these countries played no significant role in determining FDI inflow. This could be interpreted as indicating that there is a threshold level of governance, above which, the importance of improvements to governance is no longer a significant determinant of the FDI decision.

¹ The data is organised according to State of development, Income group, Natural resource endowment, and Geographic region.

(Brief) Literature Review

Dunning (1993; 2001) views the notion of internally generated firm-advantages (“internalisation”) as one of the key developments in attempts at understanding FDI flow. Hymer (1960) argues that FDI is part of a firm’s expansionist strategy aimed at penetrating foreign markets, with plans to control production and other facilities in these countries. Buckley & Casson (1976, pp. 45-56) suggest that this process is driven largely by the internalisation of knowledge, which, due to its nature as a public good, can be easily transmitted across national boundaries. Hence, FDI is seen as a channel for economic growth and development through knowledge transfers and productivity spill-over (UNCTAD, 2010).

Dunning (1993) describes the firm’s decision and capability of engaging in FDI as an interrelated function of three types of competitive advantage gained by the firm through expansion to foreign locations. These advantages are referred to collectively as OLI advantages: ownership advantages (O); location advantages (L); and internalisation advantages (I). The Ownership and Internalisation advantages are micro-level advantages whereas the Location advantages are macro-level. Ownership advantages are firm specific and are present when a foreign firm possesses inherent advantages over the domestic competition such as economies of scale or other barriers to entry. Location advantages arise when the factor endowments available in a foreign location provide a foreign firm with an advantage over its competitors by locating its assets in that specific location. Internalisation advantages arise when maintaining internal control of an asset is more efficient for the firm than arms length trading. The OLI advantages drive FDI activity and characterise four major types of FDI identified by Dunning. These are resource-seeking FDI, market-seeking FDI, efficiency-seeking FDI and strategic-asset seeking FDI.

Resourcing-seeking FDI is undertaken to acquire resources at a lower real cost than can be obtained in the home country and the output of these ventures is generally exported away from the host country. It includes: firms that desire physical resources and are driven by cost minimisation and security of input supply and which usually involves significant location bound capital expenditure; firms that desire cheap and unskilled labour which is usually undertaken by manufacturing and services firms operating in high labour cost markets; and firms wishing to acquire technology resources (Dunning, 1993, p. 57).

Market-seeking FDI is undertaken to sustain or protect existing markets or to exploit or promote new markets when the presence of trade barriers makes exporting undesirable. These markets may begin by being serviced through exports, but increasing market size or the imposition of cost raising trade barriers leads the firm to locate production to the foreign market. There are four scenarios which prompt a firm to engage in market seeking investment: the first is when it is cheaper to supply directly rather than trade from a distance; the second is to be closer to the foreign market to adapt to the needs of the market more effectively; the third is to follow suppliers who have set up in foreign countries in order to retain business; the fourth reason is as part of a global production strategy of having a physical presence in all the leading markets served by the firm's competitors (Dunning, 1993, p. 58).

Efficiency-seeking FDI attempts to gain from the common governance of geographically dispersed activities, usually through economies of scale or scope or through risk diversification. In order for efficiency-seeking foreign production to take place, cross-border markets must be both well developed and open and so it tends to flourish in regionally integrated markets (Dunning, 1993, p. 59).

Strategic asset-seeking FDI involves the purchase of foreign assets in order to increase the competitiveness of the acquiring firm by adding to its existing asset base (Dunning, 1993, p. 60).

The OLI approach therefore advocates both the “distribution of factor endowments” (macro L- advantages) and the “modality of economic organisation” (micro O- and I- advantages) as relevant to explaining the structure of trade and production. It is intended to provide “an analytical framework within which particular explanations of the determinants of [FDI] activity can be evaluated” (Dunning, 1993, pp. 58-90). This aim of this study is to be an initial step towards evaluating governance as a determinant of FDI according to the considerations of the OLI approach.

Theoretical framework and Methodology

This paper uses a dynamic panel² model and GMM regression analysis to explore the effects of good governance practises on FDI inflow. Detailed descriptions of the data set and variables used for this study as well as the details of the theoretical model underlying the analysis are given in Rankin & Spearman (part1). A summary of the variables used is presented in table 1 below. Briefly, the value of FDI inflow can be written as a function (θ) of the host country characteristics that are expected to influence the profitability of a firm's investment decision such that

(i)

X_1 is a vector of variables expected to be positively related to FDI inflow, and the X_2 variables are those expected to be negatively correlated with FDI inflow. Taking into account broader motivations for MNCs to engage in FDI expands the scope of potential determinants of FDI inflow. Given that Dunning identifies four types of FDI equation (i) can be re-specified to take into account the different FDI types as

(ii)

It is recognised that firms have different motivations for engaging in FDI activity and that these motivations drive different FDI types. Comparing FDI determinants across the different FDI types is intended to provide insight into how the macro-determinants of FDI decisions vary according to different firm level objectives, and is meant as a step towards understanding the determinants of FDI in the spirit advocated by the OLI approach. Individual countries are likely to attract different types of FDI depending on their country specific characteristics and to address this issue this paper takes a novel approach³: the data is grouped according to four country specific characteristics, and each country is a member of a number of different groups. The grouping is an attempt at isolating specific⁴ characteristics of the FDI data. The data is grouped according to: state of development, income group, natural resource endowment, and geographic region in order to separate different FDI types. A brief

² Panel analysis is used to address potential estimation bias caused by heterogeneity and multicollinearity issues, given the nature of the data.

³The authors did not find another example of this approach in any of the literature reviewed.

⁴ It is acknowledged that grouping the data according to these characteristics may, in fact, unintentionally proxy for other unidentified factors. This is a caveat that needs to be kept in mind when analysing the results.

explanation of these characteristics is provided in table 1 below. Dunning identifies four types of FDI: resource-seeking FDI; market-seeking FDI; efficiency-seeking FDI); and strategic-asset seeking FDI.

Grouping the data according to the resource endowment measure⁵ is intended to separate physical resource-seeking FDI from other FDI. The endowment measure groups the data according to levels of natural resource driven economic activity. The intuition is that those countries with high levels of natural resource driven economic activity will be weighted towards physical resource-seeking FDI, whereas those countries with lower levels of natural resource driven economic activity will not. Differences in the governance coefficient of the regression results would suggest differences in the effects of governance on natural resource driven FDI activity as opposed to other FDI.

Grouping the data by development level is intended to isolate resource-seeking FDI other than physical resource-seeking FDI. FDI seeking cheap resources, especially labour, is expected to be channelled to developing⁶ nations characterised by generally low per capita income levels and low levels of industrialisation. FDI seeking technology resources is expected to be channelled to developed nations characterised by high levels of industrialisation and high levels of per capita income.

Grouping the data by income is intended to isolate market seeking FDI. Income levels are often considered to be indicative of market size (Globerman & Shapiro, 2002) and upper income markets are expected to support many competing brands. Large market size and the presence of competitors are two preconditions for market seeking FDI. It is, however, acknowledged that ideally a co-requisite requirement for market seeking FDI would be to identify countries with high trade barriers. Unfortunately this was not possible given the data set. This measure may therefore be problematic.

Grouping the data according to geographic region is intended to isolate efficiency seeking FDI. Efficiency seeking FDI flourishes in well developed and well integrated markets, a scenario which is expected to be captured by an area like Western Europe. Africa, on the

⁵ An explanation of the various country characteristic groupings is given in table 3 above.

⁶ The descriptive statistics show that the Least Developed Countries (LDCs) and transition countries attract very little FDI on average.

other hand, is not expected to attract efficiency seeking FDI as the region is generally neither well developed nor well integrated. Differences in the governance coefficient of the regression results would suggest differences in the effects of governance on efficiency seeking FDI activity as opposed to other FDI.

Adapting equation (ii) to an econometric form yields the estimating equation

(iii)

where y_{it} is the FDI_{adj} dependant variable for country i in period t ; x_{it} is a vector of explanatory variables⁷; and ε_{it} is a standard error term. Adapting (iii) to a dynamic model and making provision for unobserved heterogeneity yields the equation

(iv)

where y_{it-1} is the first lag of the FDI_{adj} dependant variable for country i in period t ; v_i are the unobserved country-specific and time-invariant (fixed) effects; and μ_{it} is a standard error term. Writing (iv) in first differences form yields

(v)

Equation (v) eliminates unobserved heterogeneity but introduces potential correlation bias. For this reason (v) is estimated using the Arellano-Bond GMM estimator which uses instrumental variables that are both correlated with $\Delta y_{i,t-1}$ and uncorrelated with $\Delta \mu_{it}$. The lag of the dependant variable (Lag FDI_{adj}) is used as an instrument for the $\Delta y_{i,t-1}$ term.

⁷ A list of the explanatory variables used is found in table 1 below.

Table 1: Explanation of the variables used in the analysis and the sources of the data

Variable	Label	Details	Data Source
Dependent variable			UNCTAD*
Ln(Inward FDI flow / GDP)	FDI _{adj}	The net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise adjusted for the level of GDP	
Test variables (WBGIs)			World Bank[#]
<i>Type 1:</i>			
Voice & Accountability	V & Acc	<i>Accounting for the process by which governments are selected, monitored and replaced</i> Perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media	
Political Stability & Absence of Violence	Pol stab	Perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism	
<i>Type 2:</i>			
Government Effectiveness	Gov eff	<i>Accounting for the capacity of the government to effectively formulate and implement sound policies</i> Perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies	
Regulatory Quality	Reg qual	Perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development	
<i>Type 3:</i>			
Rule of Law	Law	<i>Accounting for the respect of citizens and the state for the institutions that govern economic and social interactions among them</i> Perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence	
Control of Corruption	Corrup	Perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests	
PCA composite variables	PC1; PC2; PC3	Variables constructed using principal component analysis (PCA), a statistical technique that transforms correlated variables into a smaller number of uncorrelated variables called principal components (PCs). The three principle components constructed account for 95% of the variance of the WBGIs	
Control variables			UNCTAD*
Lagged FDI	Lag FDI _{adj}	The value of FDI _{adj} corresponding to the previous time period	
Ln((Exports + Imports) / GDP)	Openness	The value of all goods and other market services received from the rest of the world (imports of G&S) and provided to the rest of the world (exports of G&S) as a percentage of GDP; also referred to as trade openness	
Ln(Gov. expenditure / GDP)	Gov exp _{adj}	All government current expenditures for purchases of goods and services (including compensation of employees and excluding government military expenditures that are part of government capital formation) adjusted for GDP	
Ln(Annual inflation)	Inflation	The rate of price change in an economy as a whole	
Characteristics			
State of development		Considered to be an indication of a nations level of industrialisation, quality of life and overall well-being; an exact definition for classification purposes, however, remains undefined	World Bank [#]
Income group		Countries classified according to per capita gross national income (GNI)	World Bank [#]
Resource endowment		World Trade Organisation (WTO) natural resource endowment proxy: fuel & mineral exports as a % of GDP	WTO ⁺
Geographic region		Countries classified according to general geographic location	Constructed

* Source: unctadstat.unctad.org

[#] Source: data.worldbank.org

⁺ Source: stat.wto.org

Descriptive Statistics

The data set contains information on 155 countries over a 13 year period resulting in five panel periods for a total of 775 observations. The full list of countries included is found in appendix 1: table 5. The data is categorised according to four different country specific characteristics: state of development, income level, natural resource endowment, and geographic location⁸.

Table 2: Summary statistics for the FDI/GDP and FDI variables

Country specific characteristics ⁹	No. of countries	No. of Obs.	FDI inflow/GDP		FDI inflow	
			Mean (%)	Std dev	Mean (\$' m)	Std dev
All countries	155	1085	4.88	(6.34)	6 097.77	(21911.01)
<i>State of development</i>						
Developed	34	238	4.66	(4.62)	18 642.44	(41715.17)
Developing	73	511	5.05	(5.78)	3 677.60	(10069.33)
Transition	15	105	5.59	(5.56)	2 098.07	(7681.01)
LDC	33	231	4.39	(8.88)	344.71	(1295.02)
<i>Income group</i>						
High income	44	308	6.04	(8.66)	15 695.68	(37596.14)
Upper middle income	37	259	5.47	(5.31)	3 502.50	(7488.28)
Lower middle income	42	294	4.66	(5.43)	2 797.03	(10269.81)
Low income	32	224	2.88	(3.78)	233.63	(641.64)
<i>Resource endowment¹⁰</i>						
Low ($\leq 1\%$)	47	329	4.79	(7.84)	6 585.97	(31985.95)
Lower middle ($>1\%;\leq 3\%$)	39	273	4.52	(5.16)	10 408.32	(22849.13)
Upper middle ($>3\%;\leq 10\%$)	34	238	4.59	(4.65)	3 986.34	(9802.80)
High ($> 10\%$)	35	245	5.67	(6.67)	2 690.11	(6715.78)
<i>Region</i>						
Africa	44	308	4.44	(8.25)	641.72	(2021.94)
Americas	30	210	6.05	(5.68)	9 861.33	(38866.98)
Central Asia, the Middle East & Eastern Europe	30	210	3.96	(5.37)	2 551.96	(7238.18)
East Asia & the Pacific region	20	140	5.13	(5.74)	8 542.27	(16799.24)
Western Europe	31	217	5.07	(4.71)	12 054.01	(24527.44)

⁸ Lists showing the countries grouped according to country specific characteristics are found in appendix 1: tables 5-9.

⁹ Explanations of these characteristics are provided in table 1 above.

¹⁰ Resource endowment = Fuel and mineral exports / GDP

Summary statistics for the FDI variable are given in table 2 above. Both FDI and FDI/GDP increase as the income increases from low to high. The FDI mean also increases as state of development improves but this is not reflected in the FDI/GDP mean. Those groups that attract the highest mean levels of FDI in each category are: developed nations; high income nations; nations with a lower-middle resource endowment; and Western Europe. LDCs, low income nations and Africa are particularly poor at attracting FDI accounting for only 1.85%, 1.49% and 5.32% of the highest value of their respectively categories.

Table 3: Means and standard deviations of the WBGIs

Group specific characteristics	Obs.	V & Acc	Pol Stab	Gov Eff	Reg Qual	Law	Corrup	PC 1
<i>State of development</i>								
Developed	238	1.18 (0.33)	0.85 (0.54)	1.32 (0.69)	1.20 (0.43)	1.22 (0.63)	1.27 (0.81)	2.99 (1.37)
Developing	511	-0.11 (0.76)	-0.10 (0.85)	-0.01 (0.66)	0.07 (0.67)	-0.04 (0.70)	-0.04 (0.72)	-0.17 (1.59)
Transition	105	-0.66 (0.62)	-0.51 (0.57)	-0.62 (0.42)	-0.62 (0.68)	-0.77 (0.36)	-0.77 (0.37)	-1.79 (1.05)
LDC	231	-0.67 (0.60)	-0.58 (0.88)	-0.79 (0.47)	-0.66 (0.51)	-0.78 (0.52)	-0.69 (0.51)	-1.89 (1.21)
<i>Income group</i>								
High income	308	0.75 (0.89)	0.77 (0.58)	1.19 (0.78)	1.07 (0.64)	1.12 (0.68)	1.17 (0.85)	2.58 (1.71)
Upper middle income	259	0.23 (0.68)	0.05 (0.75)	0.02 (0.55)	0.14 (0.62)	-0.05 (0.59)	0.00 (0.58)	0.09 (1.38)
Lower middle income	294	-0.48 (0.72)	-0.49 (0.83)	-0.46 (0.46)	-0.42 (0.58)	-0.50 (0.59)	-0.56 (0.48)	-1.34 (1.29)
Low income	224	-0.66 (0.54)	-0.63 (0.77)	-0.78 (0.41)	-0.61 (0.46)	-0.79 (0.44)	-0.69 (0.46)	-1.89 (1.02)
<i>Resource endowment</i>								
Low ($\leq 1\%$)	329	0.03 (0.85)	-0.06 (0.95)	-0.12 (0.86)	-0.02 (0.80)	-0.07 (0.80)	-0.10 (0.85)	-0.23 (2.02)
Lower middle ($>1\%; \leq 3\%$)	273	0.51 (0.84)	0.27 (0.85)	0.55 (0.9)	0.53 (0.83)	0.6 (0.99)	0.51 (1.06)	1.17 (2.30)
Upper middle ($>3\%; \leq 10\%$)	238	0.03 (0.88)	-0.12 (0.90)	0.06 (0.90)	0.14 (0.78)	-0.07 (0.88)	0.00 (0.92)	-0.05 (2.11)
High ($> 10\%$)	245	-0.64 (0.78)	-0.24 (0.91)	-0.25 (0.90)	-0.29 (0.96)	-0.32 (0.90)	-0.27 (0.93)	-0.94 (2.08)
<i>Region</i>								
Africa	308	-0.56 (0.70)	-0.47 (0.89)	-0.60 (0.60)	-0.52 (0.57)	-0.59 (0.64)	-0.50 (0.61)	-1.49 (1.49)
Americas	210	0.42 (0.60)	0.05 (0.76)	0.08 (0.75)	0.26 (0.65)	-0.02 (0.83)	0.07 (0.85)	0.29 (1.77)
East Asia & the Pacific region	140	0.04 (0.84)	0.38 (0.83)	0.45 (0.95)	0.40 (0.89)	0.35 (0.90)	0.29 (1.04)	0.76 (2.09)
Central Asia, the Middle East & Eastern Europe	210	-0.71 (0.59)	-0.59 (0.74)	-0.34 (0.58)	-0.35 (0.76)	-0.34 (0.68)	-0.39 (0.67)	-1.24 (1.40)
Western Europe	217	1.05 (0.49)	0.77 (0.54)	1.11 (0.83)	1.05 (0.56)	1.01 (0.77)	1.03 (0.94)	2.54 (1.71)

The mean score of each WBGI is given in table 3. Mean governance scores increase as income levels increase and as the state of development improves. There is no obvious pattern linking governance score and resource endowment except that the group with the highest resource endowment measure has the lowest mean score for each of the governance measures. The country groups within each category with the highest mean governance scores corresponds to those groups with the highest mean levels of FDI. They are: developing nations; high income countries; lower-middle resource endowment countries; and Western Europe.

Empirical Results and Analysis

Appendix 2 (tables 10-26) contains the results of the GMM regressions performed on the various country groupings. Each of the WBGIs as well as the composite governance variables are regressed separately for each country grouping and summaries of these results are provided by table 4 below. The table presents a summary of the sign and level of significance of all the explanatory variables used across the GMM regressions performed. What is immediately apparent from table 4 is that the WBGIs found to be significant vary considerably across the various groups. This supports the central hypothesis of this study that the different types of FDI are influenced by different aspects of governance in different ways. With reference to table 4, the following findings are presented.

Splitting the data according to the resource endowment measure is intended to group physical resource-seeking FDI. Physical resource-seeking FDI is expected to be the primary FDI type of the “high” resource endowment group. Because the resources are extracted and exported away, the openness variable is expected to be significant and positive as is found to be the case for the high resource endowment group. No WBGIs are found to be highly significant for this group¹¹. Because it is extraction based FDI, investors may not need sophisticated markets or a population with high income levels to be successful. For these reasons “good governance” may be less important than maintaining “good political connections” in order for

¹¹ Only regulatory quality is significant and only at the 10% level.

firms to extract and export. These results differ to the results of the other resource endowment categories.

Splitting the data by development level is intended to group labour resource-seeking FDI. FDI seeking cheap resources (especially labour) is expected to be channelled primarily to developing countries. Because the products of this FDI type are generally exported away, the openness variable is expected to be significant and positive for developing countries as is found to be the case. Government expenditure is negatively significant suggesting that government spending may crowd out FDI of this type. Governance is expected to be a significantly positive determinant of FDI in developing countries since good governance will provide a differentiating factor for those countries offering cheap labour and competing for the investment. A number of governance indicators are found to be significantly positive at the 1% level suggesting that governance is an important determinant of cheap resource seeking FDI. These results differ to the results of the other development categories.

Market seeking FDI is expected to be channelled to the high and upper-middle income groupings. Because market seeking FDI is a substitute for exports to the host country, the openness variable is expected to be significantly negative for these groupings. The products of the FDI are also not generally exported away and are therefore reliant on local market conditions. In as much as the WBIs measure the general environment in which the economy operates, the WBIs are expected to have a significantly positive relationship to market seeking FDI. In the upper-middle income grouping various WBIs are found to be significantly positive and the openness variable is found to have no significant effect. This result, however, is not noticeably different to the results of the lower income groupings. Contrary to expectations, the high income grouping has a significantly positive openness coefficient and none of the governance measures are found to be significant. A possible explanation for this is given below.

Table 4: Summary of the sign and significance of the regression coefficients across each of the country grouping categories

Variables	State of development				Income group				Resource endowment				Region				
	Dev'd	Dev'ing	Trans	LDC	Hi inc	Up-mid inc	Lo-mid inc	Lo inc	Low	Lower-mid	Upper-mid	High	Afr	Amer	EA & P	CA, ME & EE	W.Eur
Lag FDI _{adj}	+	+++	+++	+	++	++	+++	+	+	+	++	+++	+	V	+	+++	+
Openness	++	++	++	+	+++	+	+	+	+	+	+	+++	+	+	+	+++	++
Inflation	+	-	-**	-	-	-	-	-	+	+	n/c	-	-	-	-	+	+
Gov Exp _{adj}	n/c	-**	-	+	-	-**	-	+	+	-	-	-**	n/c	-**	n/c	-	-
V & Acc	-*	+++	+	-	-	++	++	-	-	-	+++	+	-	+	++	+	-
Pol Stab	+	-	-	+	-	-	+	+	-	+	+	-	-	+	+	-	+
Gov Eff	+	+++	+	+	+	++	+	+	+	-	++	+	+	++	++	+	+
Reg Qual	+	+++	-	++	+	+++	+	++	+	+	++	-	++	+	++	+	+
Law	+	+	+	+	+	+	+	+	+	+	+++	+	-	+	+	++	+
Corrup	-	-	+	++	-*	+	+	++	+	+	+	-	+	+	-	+	-
PC1	-	+++	+	++	-	++	+	++	+	+	+++	-	+	+	++	+	+
PC2	+	-*	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+
PC3	-	++	+	-	+	+	+	-	-	-	+	+	-	-	++	-	-
Observations	170	365	75	165	220	185	210	160	235	195	170	175	220	150	100	150	155

n/c = the coefficient is not consistent across the regressions performed for that group of countries

+++ p<0.01, ** p<0.05, * p<0.1

Splitting the data according to geographic region is intended to group efficiency seeking FDI. Efficiency seeking FDI is expected to be common to the Western Europe grouping as it is a well developed and regionally integrated area. The openness variable is significant (positive) at the 5% level as would be expected. It is, however, also the only grouping within this category with no significant WBGIs. This is an unexpected result, however, a trend that is noticeable across all the grouping categories is that, those groupings of countries that have the highest mean score for governance in their respective category (developed nations, high income countries, lower-middle resource endowment countries, and Western Europe) show no positive significant relationship between governance and FDI. Contrary to these results the descriptive statistics show that these groupings of countries have the highest governance scores and also receive the highest mean levels of FDI for each of their respective categories although they do not all have the highest FDI/GDP means. What this indicates is that those countries that have the highest governance scores receive the most FDI and generally have bigger economies; however, amongst these countries improvements in governance do not play a role in determining FDI flow. This suggests that there may be a threshold level of governance above which improvements to governance no longer act as an important determinant of FDI. It may be that above this threshold level of “good governance”, the quality of governance is of diminished importance to investors in relation to other factors which influence their investment decisions, and therefore governance does not play a significant role as a determinant of FDI. This is (to the best of the author’s knowledge) a unique finding within the FDI and governance literature and may contribute to the inconsistencies found in the previous literature.

Conclusions

The new institutional literature recognises the importance of political and institutional factors of governance as determinants of FDI, however, differences in both the approach and governance measure used in empirical studies has resulted in inconsistent findings. These studies focus on macroeconomic analysis and generally omit microeconomic factors from the analysis. Firm level motivations, however, are argued to drive different types of FDI – a consideration that is not taken into account by macro level studies. An OLI perspective

suggests that treating FDI as a homogeneous product may therefore be misleading as FDI activities depend on differing firm level motivations as well as differing market characteristics.

The aggregate measures of FDI available do not distinguish between different FDI types and potentially heterogeneous FDI types are therefore lumped into a single regressand. This may be another factor behind the inconsistent results found across empirical studies. An important hypothesis of this paper is that different types of FDI are influenced by aspects of governance in different ways, and individual countries are likely to attract different types of FDI. Different firm level motivations and competitive advantages underlie the different types of FDI activity undertaken by MNCs and individual countries are unlikely to have identical capacities for meeting these needs. Individual countries are therefore likely to attract different types of FDI depending on their country specific characteristics. And the aspects of governance which are important as determinants of these different types of FDI are therefore likely to differ across countries. Comparing FDI determinants across the various country groupings serves to illustrate how the determinants of the different FDI types differ.

The WBGI is not found to be consistently significant across all of the country groupings suggesting that the determinants of FDI and the aspects of governance that influence FDI decisions differ according to specific country level characteristics and therefore potentially across the different FDI types. These findings support the notion advocated by the OLI approach that firm level motivations should be considered when examining the determinants of FDI. Both micro- and macro-economic factors should be given consideration when investigating the determinants of FDI in order to provide a more complete picture when identifying those country specific advantages that are likely to drive FDI flow to any particular country. Despite these differing results, the data shows that those groups of countries with the highest governance scores receive the most FDI suggesting that, *ceteris paribus*, the relationship between governance score and FDI is positive. Amongst the groupings of countries with the highest governance scores, however, improvements in governance do not play a significant role in determining FDI inflow. This could indicate that there is a threshold level of “good governance” above which improvements to governance no longer play a significant role as a determinant of FDI. This finding identifies a hitherto unexplored aspect of governance that could be further researched in future studies.

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Appendix

Appendix 1: Lists of countries and country groupings

Table 5: Alphabetically ordered list of all countries included in the analysis

Albania	Dominica	Kuwait	Rwanda
Algeria	Dominican Rep.	Kyrgyz Rep.	Samoa
Angola	Ecuador	Latvia	Saudi Arabia
Antigua & Barbuda	Egypt, Arab Rep.	Lebanon	Senegal
Argentina	El Salvador	Lesotho	Seychelles
Armenia	Equatorial Guinea	Lithuania	Sierra Leone
Australia	Estonia	Macao (China)	Singapore
Austria	Ethiopia	Macedonia, FYR	Slovak Rep.
Azerbaijan	Fiji	Madagascar	Slovenia
Bahamas, The	Finland	Malawi	South Africa
Bahrain	France	Malaysia	Spain
Bangladesh	Gabon	Maldives	Sri Lanka
Belarus	Gambia, The	Mali	St. Lucia
Belize	Georgia	Malta	St. Vincent & Grenadines
Benin	Germany	Mauritania	Sudan
Bolivia	Ghana	Mauritius	Suriname
Bosnia & Herzegovina	Greece	Mexico	Swaziland
Botswana	Grenada	Moldova	Sweden
Brazil	Guatemala	Mongolia	Switzerland
Brunei Darussalam	Guinea	Morocco	Syrian Arab Rep.
Bulgaria	Guinea Bissau	Mozambique	Tajikistan
Burkina Faso	Guyana	Namibia	Tanzania
Burundi	Haiti	Nepal	Thailand
Cambodia	Honduras	Netherlands	Togo
Cameroon	Hong Kong (China)	New Zealand	Trinidad & Tobago
Canada	Hungary	Niger	Tunisia
Cape Verde	Iceland	Nigeria	Turkey
Central African Rep.	India	Norway	Turkmenistan
Chile	Indonesia	Oman	Uganda
China	Iran, Islamic Rep.	Pakistan	Ukraine
Colombia	Ireland	Panama	United Arab Emirates
Comoros	Israel	Papua New Guinea	United Kingdom
Congo, Rep.	Italy	Paraguay	United States
Costa Rica	Jamaica	Peru	Uruguay
Cote d'Ivoire	Japan	Philippines	Vanuatu
Croatia	Jordan	Poland	Vietnam
Cyprus	Kazakhstan	Portugal	Yemen, Rep.
Czech Rep.	Kenya	Romania	Zambia
Denmark	Korea, Rep.	Russian Federation	

Table 6: Countries grouped according to geographic location

East Asia & the Pacific	Eastern Europe, Middle East & Central Asia	Western Europe	Africa	The Americas
Australia	Albania	Austria	Algeria	Antigua & Barbuda
Brunei Darussalam	Armenia	Bulgaria	Angola	Argentina
Cambodia	Azerbaijan	Croatia	Benin	Bahamas, The
China	Bahrain	Cyprus	Botswana	Belize
Fiji	Bangladesh	Czech Rep.	Burkina Faso	Bolivia
Hong Kong, (China)	Belarus	Denmark	Burundi	Brazil
Indonesia	Bosnia & Herzegovina	Estonia	Cameroon	Canada
Japan	Georgia	Finland	Cape Verde	Chile
Korea, Rep.	India	France	Central African Rep.	Colombia
Macao, (China)	Iran, Islamic Rep.	Germany	Comoros	Costa Rica
Malaysia	Israel	Greece	Congo, Rep.	Dominica
Mongolia	Jordan	Hungary	Cote d'Ivoire	Dominican Rep.
New Zealand	Kazakhstan	Iceland	Egypt, Arab Rep.	Ecuador
Papua New Guinea	Kuwait	Ireland	Equatorial Guinea	El Salvador
Philippines	Kyrgyz Rep.	Italy	Ethiopia	Grenada
Samoa	Lebanon	Latvia	Gabon	Guatemala
Singapore	Maldives	Lithuania	Gambia, The	Guyana
Thailand	Nepal	Macedonia, FYR	Ghana	Haiti
Vanuatu	Oman	Malta	Guinea	Honduras
Vietnam	Pakistan	Moldova	Guinea Bissau	Jamaica
	Russian Federation	Netherlands	Kenya	Mexico
	Saudi Arabia	Norway	Lesotho	Panama
	Sri Lanka	Poland	Madagascar	Paraguay
	Syrian Arab Rep.	Portugal	Malawi	Peru
	Tajikistan	Romania	Mali	St. Lucia
	Turkey	Slovak Rep.	Mauritania	St. Vincent & Grenadines
	Turkmenistan	Slovenia	Mauritius	Suriname
	Ukraine	Spain	Morocco	Trinidad & Tobago
	United Arab Emirates	Sweden	Mozambique	United States
	Yemen, Rep.	Switzerland	Namibia	Uruguay
		United Kingdom	Niger	
			Nigeria	
			Rwanda	
			Senegal	
			Seychelles	
			Sierra Leone	
			South Africa	
			Sudan	
			Swaziland	
			Tanzania	
			Togo	
			Tunisia	
			Uganda	
			Zambia	

Table 7: Countries grouped according to income group

Low income	Lower-middle income	Upper-middle income	High income
Bangladesh	Albania	Algeria	Antigua & Barbuda
Benin	Angola	Argentina	Australia
Burkina Faso	Armenia	Belarus	Austria
Burundi	Azerbaijan	Bosnia & Herzegovina	Bahamas, The
Cambodia	Belize	Botswana	Bahrain
Central African Rep.	Bolivia	Brazil	Brunei Darussalam
Comoros	Cameroon	Bulgaria	Canada
Ethiopia	Cape Verde	Chile	Croatia
Gambia, The	China	Colombia	Cyprus
Ghana	Congo, Rep.	Costa Rica	Czech Rep.
Guinea	Cote d'Ivoire	Dominica	Denmark
Guinea Bissau	Ecuador	Dominican Rep.	Equatorial Guinea
Haiti	Egypt, Arab Rep.	Fiji	Estonia
Kenya	El Salvador	Gabon	Finland
Kyrgyz Rep.	Georgia	Grenada	France
Madagascar	Guatemala	Jamaica	Germany
Malawi	Guyana	Kazakhstan	Greece
Mali	Honduras	Latvia	Hong Kong (China)
Mauritania	India	Lebanon	Hungary
Mozambique	Indonesia	Lithuania	Iceland
Nepal	Iran, Islamic Rep.	Macedonia, FYR	Ireland
Niger	Jordan	Malaysia	Israel
Rwanda	Lesotho	Mauritius	Italy
Senegal	Maldives	Mexico	Japan
Sierra Leone	Moldova	Namibia	Korea, Rep.
Tajikistan	Mongolia	Panama	Kuwait
Tanzania	Morocco	Peru	Macao (China)
Togo	Nigeria	Poland	Malta
Uganda	Pakistan	Romania	Netherlands
Vietnam	Papua New Guinea	Russian Federation	New Zealand
Yemen, Rep.	Paraguay	Seychelles	Norway
Zambia	Philippines	South Africa	Oman
	Samoa	St. Lucia	Portugal
	Sri Lanka	St. Vincent & Grenadines	Saudi Arabia
	Sudan	Suriname	Singapore
	Swaziland	Turkey	Slovak Rep.
	Syrian Arab Rep.	Uruguay	Slovenia
	Thailand		Spain
	Tunisia		Sweden
	Turkmenistan		Switzerland
	Ukraine		Trinidad & Tobago
	Vanuatu		United Arab Emirates
			United Kingdom
			United States

Table 8: Countries grouped according to resource endowment

Low ($\leq 1\%$)	Lower-mid ($>1\% ; \leq 3\%$)	Upper-mid ($>3\% ; \leq 10\%$)	High ($> 10\%$)
Albania	Antigua & Barbuda	Armenia	Algeria
Bangladesh	Argentina	Australia	Angola
Benin	Austria	Bosnia & Herzegovina	Azerbaijan
Burkina Faso	Bahamas, The	Botswana	Bahrain
Burundi	Belize	Bulgaria	Belarus
Cambodia	Brazil	Cameroon	Bolivia
Cape Verde	Central African Rep.	Canada	Brunei Darussalam
Comoros	China	Colombia	Chile
Costa Rica	Croatia	Cote d'Ivoire	Congo, Rep.
Cyprus	Czech Rep.	Egypt, Arab Rep.	Ecuador
Dominica	Denmark	Estonia	Gabon
Dominican Rep.	Finland	Fiji	Guinea
El Salvador	Georgia	Guyana	Iran, Islamic Rep.
Equatorial Guinea	Germany	Iceland	Kazakhstan
Ethiopia	Ghana	Indonesia	Kuwait
France	Greece	Jamaica	Malaysia
Gambia, The	Guatemala	Jordan	Mauritania
Grenada	Honduras	Kyrgyz Rep.	Mongolia
GuineaBissau	Hong Kong SAR, China	Lithuania	Mozambique
Haiti	Hungary	Macedonia, FYR	Nigeria
Ireland	India	Mexico	Norway
Israel	Kenya	Namibia	Oman
Italy	Korea, Rep.	Netherlands	Papua New Guinea
Japan	Latvia	Niger	Russian Federation
Lebanon	Madagascar	Peru	Saudi Arabia
Lesotho	Moldova	Romania	Singapore
Macao SAR, China	Morocco	Senegal	Suriname
Malawi	New Zealand	Seychelles	Syrian Arab Rep.
Maldives	Philippines	Slovak Rep.	Tajikistan
Mali	Poland	South Africa	Trinidad & Tobago
Malta	Portugal	Sudan	Turkmenistan
Mauritius	Rwanda	Togo	United Arab Emirates
Nepal	Slovenia	Tunisia	Vietnam
Pakistan	Spain	Ukraine	Yemen, Rep.
Panama	St. Lucia		Zambia
Paraguay	Sweden		
Samoa	Switzerland		
Sierra Leone	Thailand		
Sri Lanka	United Kingdom		
St. Vincent & Grenadines			
Swaziland			
Tanzania			
Turkey			
Uganda			
United States			
Uruguay			
Vanuatu			

Table 9: Countries grouped according to state of development

Developed	Developing	Transition	LDCs	
Australia	Algeria	Korea, Rep.	Albania	Angola
Austria	Antigua & Barbuda	Kuwait	Armenia	Bangladesh
Bulgaria	Argentina	Lebanon	Azerbaijan	Benin
Canada	Bahamas, The	Macao (China)	Belarus	Burkina Faso
Cyprus	Bahrain	Malaysia	Bosnia & Herzegovina	Burundi
Czech Rep.	Belize	Mauritius	Croatia	Cambodia
Denmark	Bolivia	Mexico	Georgia	Central African Rep.
Estonia	Botswana	Mongolia	Kazakhstan	Comoros
Finland	Brazil	Morocco	Kyrgyz Rep.	Equatorial Guinea
France	Brunei Darussalam	Namibia	Macedonia, FYR	Ethiopia
Germany	Cameroon	Nigeria	Moldova	Gambia, The
Greece	Cape Verde	Oman	Russian Federation	Guinea
Hungary	Chile	Pakistan	Tajikistan	Guinea Bissau
Iceland	China	Panama	Turkmenistan	Haiti
Ireland	Colombia	Papua New Guinea	Ukraine	Lesotho
Israel	Congo, Rep.	Paraguay		Madagascar
Italy	Costa Rica	Peru		Malawi
Japan	Cote d'Ivoire	Philippines		Maldives
Latvia	Dominica	Samoa		Mali
Lithuania	Dominican Rep.	Saudi Arabia		Mauritania
Malta	Ecuador	Seychelles		Mozambique
Netherlands	Egypt, Arab Rep.	Singapore		Nepal
New Zealand	El Salvador	South Africa		Niger
Norway	Fiji	Sri Lanka		Rwanda
Poland	Gabon	St. Lucia		Senegal
Portugal	Ghana	St. Vincent & Grenadines		Sierra Leone
Romania	Grenada	Suriname		Sudan
Slovak Rep.	Guatemala	Swaziland		Tanzania
Slovenia	Guyana	Syrian Arab Rep.		Togo
Spain	Honduras	Thailand		Uganda
Sweden	Hong Kong (China)	Trinidad & Tobago		Vanuatu
Switzerland	India	Tunisia		Yemen, Rep.
United Kingdom	Indonesia	Turkey		Zambia
United States	Iran, Islamic Rep.	United Arab Emirates		
	Jamaica	Uruguay		
	Jordan	Vietnam		
	Kenya			

Appendix 2: Regression results

Grouping characteristic category 1: State of development

Table 10: GMM regression results for the “Developed” countries grouping

VARIABLES	GMM Developed						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.082 (0.101)	0.093 (0.102)	0.093 (0.103)	0.090 (0.102)	0.086 (0.111)	0.087 (0.104)	0.106 (0.103)
Openess	2.014** (0.972)	2.039** (0.982)	1.946* (1.009)	1.821* (0.985)	1.954* (1.011)	1.963** (0.986)	2.123** (0.991)
Inflation	0.049 (0.096)	0.061 (0.097)	0.040 (0.097)	0.035 (0.097)	0.042 (0.098)	0.038 (0.097)	0.063 (0.098)
Gov Exp _{adj}	-0.210 (1.606)	0.477 (1.698)	-0.172 (1.649)	-0.127 (1.618)	-0.232 (1.633)	-0.250 (1.633)	0.485 (1.703)
V & Acc	-1.531* (0.921)						
Pol Stab		0.616 (0.484)					
Gov Eff			0.043 (0.601)				
Reg Qual				0.603 (0.604)			
Law					0.030 (0.990)		
Corrup						-0.150 (0.626)	
PC1							-0.067 (0.412)
PC2							0.348 (0.530)
PC3							-1.309 (0.836)
Observations	170	170	170	170	170	170	170
Countries	34	34	34	34	34	34	34

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 11: GMM regression results for the “Developing” countries grouping

VARIABLES	GMM Developing						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.306*** (0.078)	0.280*** (0.078)	0.282*** (0.077)	0.242*** (0.075)	0.270*** (0.076)	0.275*** (0.077)	0.300*** (0.078)
Openess	1.038** (0.513)	0.960* (0.517)	0.958* (0.510)	0.980** (0.499)	1.063** (0.511)	1.005** (0.512)	0.895* (0.512)
Inflation	-0.046 (0.063)	-0.044 (0.064)	-0.041 (0.063)	-0.030 (0.062)	-0.034 (0.063)	-0.046 (0.063)	-0.038 (0.063)
Gov Exp _{adj}	-0.973** (0.434)	-0.912** (0.435)	-0.890** (0.432)	-0.901** (0.421)	-0.910** (0.431)	-0.913** (0.432)	-1.039** (0.430)
V & Acc	1.046*** (0.342)						
Pol Stab		-0.121 (0.226)					
Gov Eff			0.932*** (0.356)				
Reg Qual				0.925*** (0.294)			
Law					0.678* (0.364)		
Corrup						-0.204 (0.323)	
PC1							0.574*** (0.189)
PC2							-0.451* (0.255)
PC3							0.844** (0.344)
Observations	365	365	365	365	365	365	365
Countries	73	73	73	73	73	73	73

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 12: GMM regression results for the “Transition” countries grouping

VARIABLES	GMM Transition						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.364*** (0.114)	0.391*** (0.114)	0.391*** (0.114)	0.385*** (0.114)	0.455*** (0.120)	0.438*** (0.117)	0.364*** (0.122)
Openess	1.978** (0.831)	2.128** (0.831)	2.168*** (0.836)	2.057** (0.839)	2.375*** (0.838)	2.302*** (0.828)	2.009** (0.875)
Inflation	-0.423** (0.172)	-0.445** (0.174)	-0.468*** (0.176)	-0.461*** (0.174)	-0.413** (0.176)	-0.437** (0.174)	-0.422** (0.176)
Gov Exp _{adj}	-0.965 (0.794)	-0.793 (0.807)	-0.980 (0.854)	-0.561 (0.859)	-1.466 (0.893)	-1.356 (0.853)	-0.987 (0.905)
V & Acc	0.909 (0.625)						
Pol Stab		-0.517 (0.576)					
Gov Eff			0.143 (0.800)				
Reg Qual				-0.726 (0.750)			
Law					1.625* (0.966)		
Corrup						1.538* (0.853)	
PC1							0.244 (0.413)
PC2							-0.432 (0.624)
PC3							0.733 (0.821)
Observations	75	75	75	75	75	75	75
Countries	15	15	15	15	15	15	15

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 13: GMM regression results for the “LDC” countries grouping

VARIABLES	GMM LDC						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.044 (0.110)	0.047 (0.109)	0.051 (0.109)	0.021 (0.107)	0.047 (0.110)	0.027 (0.107)	0.041 (0.109)
Openess	0.155 (0.726)	0.093 (0.735)	0.136 (0.720)	0.257 (0.706)	0.093 (0.733)	0.235 (0.710)	0.209 (0.728)
Inflation	-0.029 (0.097)	-0.029 (0.097)	-0.042 (0.096)	-0.038 (0.094)	-0.031 (0.097)	-0.038 (0.095)	-0.044 (0.096)
Gov Exp _{adj}	0.840* (0.495)	0.853* (0.500)	0.782 (0.492)	0.721 (0.480)	0.860* (0.501)	0.900* (0.486)	0.831* (0.497)
V & Acc	-0.098 (0.468)						
Pol Stab		0.165 (0.286)					
Gov Eff			0.799 (0.556)				
Reg Qual				1.071** (0.524)			
Law					0.348 (0.634)		
Corrup						1.100** (0.511)	
PC1							0.626** (0.310)
PC2							-0.465 (0.370)
PC3							-0.464 (0.494)
Observations	165	165	165	165	165	165	165
Countries	33	33	33	33	33	33	33

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Grouping characteristic category 2: Income grouping

Table 14: GMM regression results for the “High income” countries grouping

VARIABLES	GMM High income group						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.246** (0.099)	0.262*** (0.098)	0.255*** (0.097)	0.242** (0.097)	0.264*** (0.098)	0.233** (0.096)	0.263*** (0.099)
Openess	3.787*** (0.984)	3.777*** (0.990)	3.756*** (0.998)	3.701*** (0.982)	3.773*** (0.989)	3.748*** (0.974)	3.784*** (1.003)
Inflation	-0.062 (0.092)	-0.068 (0.093)	-0.065 (0.092)	-0.063 (0.091)	-0.063 (0.092)	-0.059 (0.091)	-0.068 (0.093)
Gov Exp _{adj}	-0.443 (0.747)	-0.505 (0.765)	-0.458 (0.752)	-0.534 (0.742)	-0.525 (0.749)	-0.365 (0.743)	-0.567 (0.765)
V & Acc	-0.345 (0.740)						
Pol Stab		-0.219 (0.455)					
Gov Eff			0.040 (0.525)				
Reg Qual				0.554 (0.557)			
Law					0.681 (0.691)		
Corrup						-0.806* (0.466)	
PC1							-0.043 (0.369)
PC2							-0.266 (0.493)
PC3							0.077 (0.679)
Observations	220	220	220	220	220	220	220
Countries	44	44	44	44	44	44	44

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 15: GMM regression results for the “Upper middle income” countries grouping

VARIABLES	GMM Upper middle income group						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.180** (0.083)	0.166** (0.083)	0.161** (0.082)	0.125 (0.081)	0.175** (0.084)	0.171** (0.084)	0.162** (0.081)
Openess	0.300 (0.586)	0.167 (0.592)	0.291 (0.584)	0.466 (0.579)	0.438 (0.628)	0.258 (0.597)	0.486 (0.594)
Inflation	-0.028 (0.071)	-0.047 (0.071)	-0.038 (0.070)	-0.007 (0.070)	-0.037 (0.071)	-0.039 (0.071)	-0.014 (0.070)
Gov Exp _{adj}	-1.238** (0.488)	-1.325*** (0.491)	- 1.197** (0.486)	-1.102** (0.479)	- 1.269*** (0.492)	- 1.227** (0.498)	- 1.113** (0.488)
V & Acc	0.868** (0.387)						
Pol Stab		-0.144 (0.253)					
Gov Eff			0.892** (0.355)				
Reg Qual				0.954*** (0.312)			
Law					0.496 (0.435)		
Corrup						0.291 (0.403)	
PC1							0.531** (0.206)
PC2							-0.445 (0.271)
PC3							0.433 (0.405)
Observations	185	185	185	185	185	185	185
Countries	37	37	37	37	37	37	37

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 16: GMM regression results for the “Lower middle income” countries grouping

VARIABLES	GMM Lower middle income group						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.241*** (0.086)	0.225*** (0.086)	0.226*** (0.085)	0.229*** (0.085)	0.237*** (0.086)	0.225*** (0.086)	0.244*** (0.086)
Openess	1.046* (0.585)	1.013* (0.594)	1.017* (0.585)	0.980* (0.584)	0.996* (0.586)	0.976* (0.584)	0.991* (0.596)
Inflation	-0.023 (0.093)	-0.022 (0.093)	-0.028 (0.093)	-0.023 (0.093)	-0.013 (0.094)	-0.017 (0.093)	-0.024 (0.093)
Gov Exp _{adj}	-0.235 (0.483)	-0.126 (0.483)	-0.196 (0.480)	-0.187 (0.479)	-0.185 (0.484)	-0.100 (0.480)	-0.304 (0.489)
V & Acc	0.919** (0.416)						
Pol Stab		0.056 (0.264)					
Gov Eff			0.391 (0.512)				
Reg Qual				0.281 (0.367)			
Law					0.553 (0.488)		
Corrup						0.401 (0.421)	
PC1							0.452* (0.249)
PC2							-0.154 (0.342)
PC3							0.702* (0.416)
Observations	210	210	210	210	210	210	210
Countries	42	42	42	42	42	42	42

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 17: GMM regression results for the “Low income” countries grouping

VARIABLES	GMM Low income group						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.087 (0.122)	0.081 (0.119)	0.100 (0.119)	0.037 (0.115)	0.083 (0.118)	0.064 (0.116)	0.077 (0.120)
Openess	0.367 (0.777)	0.305 (0.792)	0.296 (0.770)	0.310 (0.751)	0.231 (0.776)	0.290 (0.758)	0.221 (0.781)
Inflation	-0.043 (0.108)	-0.041 (0.108)	-0.068 (0.109)	-0.066 (0.105)	-0.046 (0.108)	-0.047 (0.106)	-0.067 (0.108)
Gov Exp _{adj}	0.671 (0.649)	0.672 (0.643)	0.616 (0.643)	0.480 (0.631)	0.682 (0.643)	0.668 (0.631)	0.616 (0.645)
V & Acc	-0.010 (0.517)						
Pol Stab		0.097 (0.323)					
Gov Eff			1.080 (0.657)				
Reg Qual				1.313** (0.656)			
Law					0.577 (0.722)		
Corrup						1.442** (0.652)	
PC1							0.802** (0.349)
PC2							-0.621 (0.419)
PC3							-0.654 (0.588)
Observations	160	160	160	160	160	160	160
Countries	32	32	32	32	32	32	32

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Grouping characteristic category 3: *Natural resource endowment*

Table 18: GMM regression results for the “Low natural resource endowment” countries grouping

VARIABLES	GMM Low resource endowment (Trade ≤ 1%)						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.054 (0.092)	0.051 (0.09)	0.065 (0.092)	0.057 (0.091)	0.056 (0.092)	0.050 (0. 93)	0.060 (0.093)
Openess	0.618 (0.638)	0.613 (0.640)	0.501 (0.641)	0.569 (0.628)	0.609 (0.633)	0.62 (0.632)	0.612 (0.642)
Inflation	0.014 (0.071)	0.016 (0.071)	0.010 (0.071)	0.014 (0.070)	0.017 (0.071)	0.014 (0.071)	0.014 (0.071)
Gov Exp _{adj}	0.771 (0.503)	0.781 (0.497)	0.685 (0.495)	0.726 (0.492)	0.763 (0.499)	0.767 (0.498)	0.743 (0.501)
V & Acc	-0.066 (0.441)						
Pol Stab		-0.056 (0.259)					
Gov Eff			0.546 (0.459)				
Reg Qual				0.783* (0.413)			
Law					0.185 (0.473)		
Corrup						0.155 (0.400)	
PC1							0.311 (0.257)
PC2							-0.409 (0.301)
PC3							-0.089 (0.446)
Observations	235	235	235	235	235	235	235
Countries	47	47	47	47	47	47	47

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 19: GMM regression results for the “Lower middle natural resource endowment” countries grouping

VARIABLES	GMM Lower middle resource endowment (1% Trade ≤ 3%)						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.086 (0.097)	0.069 (0.098)	0.092 (0.098)	0.090 (0.098)	0.093 (0.099)	0.101 (0.099)	0.068 (0.098)
Openess	0.466 (0.629)	0.413 (0.622)	0.440 (0. 28)	0.512 (0.631)	0.452 (0.635)	0.490 (0. 35)	0.435 (0.631)
Inflation	0.069 (0.086)	0.077 (0.085)	0.068 (0.086)	0.071 (0.086)	0.068 (0.086)	0.066 (0.087)	0.077 (0.085)
Gov Exp _{adj}	-0.650 (0.575)	-0.701 (0.573)	-0.615 (0.588)	-0.712 (0.593)	-0.624 (0.596)	-0.629 (0.584)	-0.708 (0.588)
V & Acc	-0.214 (0.421)						
Pol Stab		0.382 (0.283)					
Gov Eff			-0.061 (0.414)				
Reg Qual				0.285 (0.372)			
Law					0.056 (0.464)		
Corrup						0.211 (0.436)	
PC1							0.066 (0.216)
PC2							0.279 (0.330)
PC3							-0.329 (0.433)
Observations	195	195	195	195	195	195	195
Countries	39	39	39	39	39	39	39

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 20: GMM regression results for the “Upper middle natural resource endowment” countries grouping

VARIABLES	GMM Upper middle resource endowment (3% < Trade ≤ 10%)						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.188** (0.078)	0.183** (0.080)	0.200** (0.079)	0.188** (0.078)	0.197** (0.079)	0.209** (0.081)	0.198** (0.078)
Openess	1.066 (0.799)	0.823 (0.808)	0.796 (0.801)	0.870 (0.800)	0.967 (0.804)	0.810 (0.817)	1.090 (0.793)
Inflation	-0.008 (0.111)	0.009 (0.114)	-0.051 (0.114)	-0.045 (0.113)	0.010 (0.112)	0.011 (0.115)	-0.050 (0.112)
Gov Exp _{adj}	-0.497 (0.728)	-0.289 (0.743)	-0.745 (0.742)	-0.673 (0.733)	-0.441 (0.734)	-0.393 (0.750)	-0.882 (0.732)
V & Acc	1.284*** (0.451)						
Pol Stab		0.384 (0.350)					
Gov Eff			1.318** (0.519)				
Reg Qual				1.362** (0.539)			
Law					1.883*** (0.676)		
Corrup						0.832 (0.583)	
PC1							1.089*** (0.298)
PC2							-0.491 (0.414)
PC3							0.771 (0.491)
Observations	170	170	170	170	170	170	170
Countries	34	34	34	34	34	34	34

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 21: GMM regression results for the “High natural resource endowment” countries grouping

VARIABLES	GMM High resource endowment (Trade > 10%)						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.553*** (0.116)	0.520*** (0.110)	0.556*** (0.113)	0.554*** (0.115)	0.551*** (0.112)	0.544*** (0.112)	0.522*** (0.113)
Openess	2.396*** (0.750)	2.166*** (0.761)	2.377*** (0.749)	2.384*** (0.751)	2.388*** (0.751)	2.383*** (0.747)	2.157*** (0.765)
Inflation	-0.167 (0.121)	-0.161 (0.118)	-0.157 (0.119)	-0.168 (0.122)	-0.165 (0.120)	-0.166 (0.120)	-0.154 (0.121)
Gov Exp _{adj}	-1.563** (0.630)	-1.578** (0.618)	-1.512** (0.633)	-1.564** (0.630)	-1.562** (0.629)	-1.575** (0.624)	-1.525** (0.628)
V & Acc	0.134 (0.641)						
Pol Stab		-0.506 (0.367)					
Gov Eff			0.278 (0.647)				
Reg Qual				-0.177 (0.541)			
Law					0.165 (0.724)		
Corrup						-0.157 (0.589)	
PC1							-0.032 (0.354)
PC2							-0.493 (0.454)
PC3							0.086 (0.615)
Observations	175	175	175	175	175	175	175
Countries	35	35	35	35	35	35	35

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Grouping characteristic category 4: Geographic region

Table 22: GMM regression results for the “Africa” countries grouping

VARIABLES	GMM Africa						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.157 (0.102)	0.155 (0.103)	0.149 (0.101)	0.131 (0.100)	0.158 (0.101)	0.134 (0.101)	0.143 (0.101)
Openess	0.915 (0.605)	0.922 (0.607)	0.911 (0.601)	0.888 (0.591)	0.971 (0.608)	0.954 (0.600)	0.948 (0.603)
Inflation	-0.028 (0.078)	-0.030 (0.078)	-0.038 (0.078)	-0.040 (0.076)	-0.032 (0.078)	-0.028 (0.077)	-0.033 (0.078)
Gov Exp _{adj}	0.027 (0.424)	0.001 (0.423)	-0.062 (0.423)	-0.100 (0.411)	0.021 (0.420)	0.009 (0.416)	-0.090 (0.428)
V & Acc	-0.137 (0.421)						
Pol Stab		-0.070 (0.267)					
Gov Eff			0.520 (0.509)				
Reg Qual				1.084** (0.490)			
Law					-0.466 (0.576)		
Corrup						0.519 (0.483)	
PC1							0.364 (0.280)
PC2							-0.512 (0.342)
PC3							-0.293 (0.445)
Observations	220	220	220	220	220	220	220
Countries	44	44	44	44	44	44	44

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 23: GMM regression results for the “Americas” countries grouping

VARIABLES	GMM Americas						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.008 (0.104)	-0.039 (0.104)	0.027 (0.105)	0.003 (0.106)	0.000 (0.104)	-0.002 (0.104)	-0.033 (0.105)
Openess	0.112 (0.649)	0.293 (0.647)	0.355 (0.658)	0.102 (0.714)	0.266 (0.716)	0.117 (0.649)	0.496 (0.693)
Inflation	-0.042 (0.083)	-0.040 (0.080)	-0.043 (0.082)	-0.039 (0.085)	-0.034 (0.083)	-0.038 (0.082)	-0.027 (0.082)
Gov Exp _{adj}	-1.154** (0.568)	-1.236** (0.542)	-0.974* (0.567)	-1.186** (0.572)	-1.176** (0.558)	-1.091* (0.569)	-1.097* (0.572)
V & Acc	0.416 (0.478)						
Pol Stab		0.484* (0.284)					
Gov Eff			0.878** (0.436)				
Reg Qual				0.128 (0.402)			
Law					0.407 (0.488)		
Corrup						0.238 (0.442)	
PC1							0.386 (0.257)
PC2							0.289 (0.319)
PC3							-0.009 (0.478)
Observations	150	150	150	150	150	150	150
Countries	30	30	30	30	30	30	30

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 24: GMM regression results for the “East Asia & the Pacific region” countries grouping

VARIABLES	GMM East Asia & the Pacific region						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.207 (0.133)	0.174 (0.132)	0.204 (0.133)	0.125 (0.129)	0.164 (0.130)	0.193 (0.133)	0.207 (0.133)
Openess	0.349 (1.132)	0.102 (1.129)	0.150 (1.129)	0.028 (1.092)	-0.069 (1.117)	0.180 (1.133)	0.474 (1.139)
Inflation	-0.106 (0.138)	-0.103 (0.140)	-0.088 (0.140)	-0.088 (0.135)	-0.058 (0.138)	-0.067 (0.140)	-0.113 (0.138)
Gov Exp _{adj}	-0.063 (1.166)	0.683 (1.139)	0.413 (1.148)	0.512 (1.102)	0.605 (1.126)	0.879 (1.161)	-0.178 (1.157)
V & Acc	1.361** (0.673)						
Pol Stab		0.390 (0.517)					
Gov Eff			1.381** (0.677)				
Reg Qual				1.348** (0.589)			
Law					0.840 (0.646)		
Corrup						-0.942 (0.590)	
PC1							0.786** (0.362)
PC2							-0.560 (0.590)
PC3							1.522** (0.710)
Observations	100	100	100	100	100	100	100
Countries	20	20	20	20	20	20	20

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 25: GMM regression results for the “Central Asia, the Middle East & Eastern Europe” countries grouping

VARIABLES	GMM Central Asia, the Middle East & Eastern Europe						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.338*** (0.108)	0.328*** (0.108)	0.326*** (0.107)	0.337*** (0.107)	0.391*** (0.112)	0.352*** (0.109)	0.340*** (0.109)
Openess	2.372*** (0.751)	2.372*** (0.744)	2.384*** (0.740)	2.388*** (0.743)	2.413*** (0.749)	2.336*** (0.745)	2.322*** (0.750)
Inflation	0.016 (0.110)	0.013 (0.110)	0.013 (0.110)	0.016 (0.110)	0.009 (0.111)	0.017 (0.110)	0.008 (0.110)
Gov Exp _{adj}	-0.792 (0.696)	-0.780 (0.688)	-0.778 (0.684)	-0.894 (0.684)	-1.109 (0.705)	-0.798 (0.692)	-1.006 (0.700)
V & Acc	0.258 (0.579)						
Pol Stab		-0.100 (0.343)					
Gov Eff			0.465 (0.637)				
Reg Qual				0.326 (0.481)			
Law					1.808** (0.769)		
Corrup						0.766 (0.606)	
PC1							0.457 (0.317)
PC2							-0.520 (0.415)
PC3							-0.166 (0.580)
Observations	150	150	150	150	150	150	150
Countries	30	30	30	30	30	30	30

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 26: GMM regression results for the “Western Europe” countries grouping

VARIABLES	GMM Western Europe						
	1	2	3	4	5	6	7
Lag FDI _{adj}	0.079 (0.104)	0.092 (0.106)	0.087 (0.106)	0.102 (0.104)	0.083 (0.115)	0.070 (0.109)	0.109 (0.111)
Openess	2.322** (1.071)	2.266** (1.076)	2.241** (1.089)	2.141** (1.071)	2.246** (1.086)	2.301** (1.073)	2.222** (1.084)
Inflation	0.079 (0.126)	0.096 (0.127)	0.085 (0.126)	0.087 (0.125)	0.087 (0.126)	0.081 (0.125)	0.084 (0.128)
Gov Exp _{adj}	-0.340 (1.192)	-0.222 (1.213)	-0.389 (1.195)	-0.355 (1.189)	-0.339 (1.192)	-0.318 (1.193)	-0.349 (1.228)
V & Acc	-0.426 (0.637)						
Pol Stab		0.468 (0.468)					
Gov Eff			0.084 (0.536)				
Reg Qual				0.963 (0.593)			
Law					0.321 (0.851)		
Corrup						-0.189 (0.546)	
PC1							0.208 (0.325)
PC2							0.194 (0.541)
PC3							-0.453 (0.673)
Observations	155	155	155	155	155	155	155
Countries	31	31	31	31	31	31	31

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1