The impact of institutional quality on foreign direct investment inflows: evidence for developed and developing countries

Mihaela Peres, Waqar Ameer & Helian Xu

Published online: 07 Mar 2018.

Submit your article to this journal

Article views: 665

View related articles

View Crossmark data

Routledge
Taylor & Francis Group

ⓐ OPEN ACCESS ⓡ Check for updates

The impact of institutional quality on foreign direct investment inflows: evidence for developed and developing countries

Mihaela Peres[§], Waqar Ameer[§] and Helian Xu

School of Economics and Trade, Hunan University, Changsha, China

ABSTRACT

This study examines the impact of institutional quality on foreign direct investment (F.D.I.) by categorising the countries as developed or developing. We measured institutional quality by the sum of control of corruption and rule of law indicators. We provide evidence that institutional quality positively and significantly impacts F.D.I. in developed countries; specifically, we find that a one standard deviation change in governance significantly affects F.D.I. by a factor of 0.2225 (using common law and the lagged values of the independent variables as instruments). Ceteris paribus, the results for the developing countries demonstrate that the institutional quality impact is insignificant because of the weak structure of institutions. Result findings strongly support the significance of governance indicators in attracting F.D.I. inflows. From our results, we infer that the relevance of governance indicators tends to be a key point in attracting F.D.I. inflows.

1. Introduction

Foreign direct investment (F.D.I.), a key factor of globalisation, is an important stimulator of productivity enhancement, technological advancement, and job creation. As a result, F.D.I. accelerates economic growth, playing a vital role in tax revenue, foreign exchange, and development gaps in developing and transition economies (Quazi, 2007; Smith, 1997). In addition, the average rate of growth of real gross domestic product (G.D.P.) in the period 2005–2012 was 1.2% for developed countries, 4.3% for transition economies, and 6.1% for developing countries; in 2013, the partially estimated results were 1.0% for developed countries, 2.0% for transition economies, and 4.6% for developing countries (UN, 2014). In addition, the total trade of goods and services in the period 2002–2012 fluctuated unevenly.

The financial crisis of 2008–2009 broke the upward G.D.P. trend in both developed and developing countries. These trends highlighted the vulnerability of developing countries, which were directly influenced by the economic activities in developed countries (UN,

2013). Financial crises expose weaknesses in institutional quality that may have been hidden during a boom period. For instance, in the after effects of the Asian financial crises in 1997, many countries identified governance weaknesses and tried to reform institutional policies in order to attract more F.D.I. Moreover, the Global Vulnerability Monitor provided a decomposition analysis to measure the size of trade shocks relative to world G.D.P.: the impact of trade shocks was 1.9% during the boom period of 2004–2007, the financial crisis provided a negative shock (–2.7%) in 2009, and trade shock impact was 2.5% in 2010–2011 (UN, 2014). Also, the ascending trend of real F.D.I. inflows was interrupted as a consequence of the financial crisis, with a higher impact on developed countries (Figure 1).

Existing literature on the impact of institutional quality has described different ways in which institutions affect F.D.I. Three important factors have increased the importance of the relationship between F.D.I. and institutions. First, North (1990) highlights the importance of institutions in boosting investment and economic development. Second, with the strong growth in F.D.I. inflows during the last two decades, transitioning and developed nations are interested in institutional reforms in order to attract more F.D.I. Third, foreign investors are showing more interest
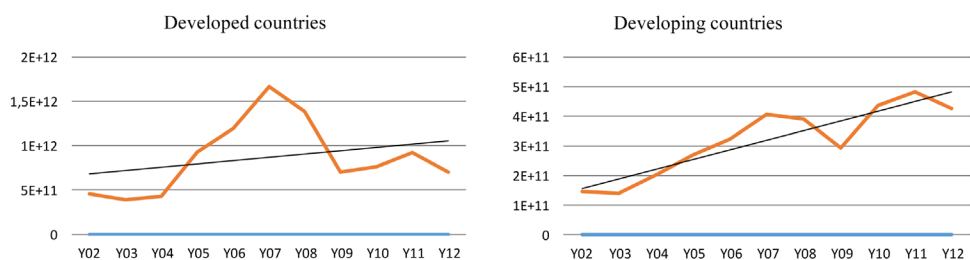
(a) Trends in real FDI net inflows (2002–2012).
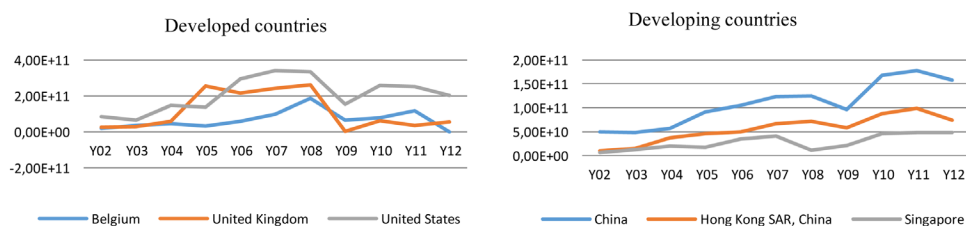
(b) Top three recipient countries of real FDI net inflows (2002–2012).
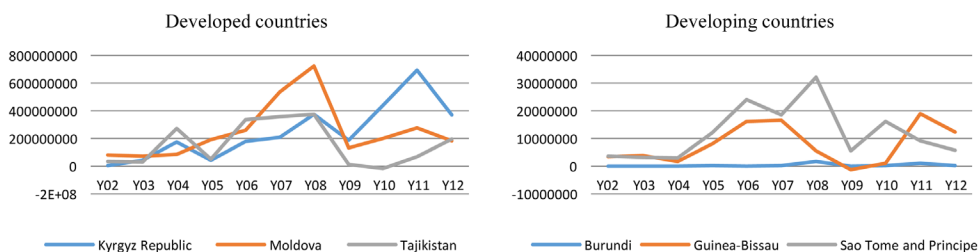
(c) Bottom three recipient countries of real FDI net inflows (2002–2012).

Figure 1. Trends in real F.D.I. inflows (2002–2012). Source: World Development Indicators (W.D.I.) 2013 database.
Notes: Real F.D.I. net inflows, using 2002 as the base year.

in institutional quality when determining in which country to invest (Bevan, Estrin, & Meyer, 2004). Buchanan et al. (2012) explained that poor institutions act like tax, which is, together with increased uncertainty, associated with F.D.I. Generally speaking, strong institutions attract F.D.I. and poor institutions deter F.D.I. (Ali, Fiess, & MacDonald, 2010).

Furthermore, many previous papers and findings have researched the impact of institutional quality on F.D.I. in developing and transition economies. To our knowledge, no previous research studies have measured the impact of institutional quality on F.D.I. inflows by categorising the countries as developed or developing countries. Consequently, we bridge this shortcoming in the literature by categorising the countries as developed or developing to more accurately measure the importance of institutions in attracting F.D.I. inflows. Accordingly, this paper adds to the existing literature by addressing the following questions:

(1) Are institutions, as a determinant of F.D.I., equally important for both developed and developing countries?
(2) What is the importance of institutions, relative to other determinants of F.D.I.?

Moreover, previous findings on F.D.I. were obtained using cross-country studies. Consequently, we selected a large number of countries, employing a panel data-set that includes 110 countries in the 11-year timespan of 2002 to 2012.

The paper is organised as follows. In section 2, we define the literature review and highlight the importance of institutional quality. In section 3, we briefly explain the data and the research methodology used in carrying out this study, and in section 4 we focus on the analysis of the results. Section 5 concludes the paper.

2. Literature review

Recent studies have focused keenly on the impact of institutional quality on F.D.I. (Ali et al., 2010; Buchanan et al., 2012; Wei, 1997). The dominant view is that countries with good governance can attract more F.D.I. (Gani, 2007; Globerman & Shapiro, 2002; Globerman, Shapiro, & Tang, 2004; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998; The World Bank Group, 2002), whereas an environment of weak governance cannot protect the investments (Globerman & Shapiro, 2003). Institutional variables, specifically corruption, political restrictions, and protection of property rights, are some important determinants of multinational investments and F.D.I. inflows (Henisz, 1998; Jensen, 2003; Richards & Nwankwo, 2005; Wei, 2000). Staats and Biglaiser (2012) argue that panel data analysis indicates that rule of law and judicial strength are important determinants of F.D.I. inflows in 17 Latin American countries.

Further, some scholars argue that in countries where property rights are poorly protected, multinationals' investments face expropriation risks (Henisz, 2000; Henisz & Williamson, 1999). For instance, a host country government may appropriate some of the returns of multinationals or even nationalise them. Jiménez (2010) argues that Spanish multinationals, particularly younger ones, implement their internationalisation policies by investing in countries where political risk levels are very different, aiming to achieve maximum benefit by acquiring the knowledge and access to managerial talent, as well as diversifying their F.D.I. portfolios, to minimise risk against local fluctuations in supply and demand; thus positional advantages can be achieved by investing in countries where political capabilities can be used to gain economic benefits and healthy effects. Greater assurances to comply with

contracts, respect for property rights, and economic freedom are important determinants to attract more foreign investment (Kapuria-Foreman, 2007).

Furthermore, Dunning (2002) argued that institutional factors, such as good governance and economic freedom, are becoming highly popular determinants of F.D.I. as the priorities of multinational companies (M.N.C.s) are shifting from market and resource seeking to efficiency seeking. Traditional F.D.I. determinants, such as natural resources and low labour costs, are relatively becoming less important, while less traditional factors, such as governance and economic freedom, are becoming more popular (Addison & Heshmati, 2003; Becchetti & Hasan, 2004; Loree & Guisinger, 1995; Noorbakhsh, Paloni, & Youssef, 2001). Ali et al. (2010) concluded that property rights were more important determinants of F.D.I.; specifically that other institutional factors affect F.D.I. indirectly through property rights.

Law and order become a serious issue for M.N.C.s when courts fail to enforce contracts and when the government influences court decisions for political motives (Drabek & Payne, 2002). Law and order instability leads to corruption (Johnson & Dahlström, 2004). Many investor surveys also suggest that one of the most important institutional factors that deters F.D.I. inflows is corruption (Asiedu & Villamil, 2000; Campos, Lien, & Pradhan, 1999; Gastanaga, Nugent, & Pashamova, 1998; Wei, 2000). In general, countries that are more corrupt receive fewer F.D.I. inflows. Lower corruption index scores in the host country have positive associations with investment inflows, as perceived corruption levels would be lower (Cuervo-Cazurra, 2006, 2008; Wei, 2000).

On the other hand, institutional quality is associated with economic growth (North, 1981, 1990). Previous research studies on the important determinants of F.D.I. in developing countries have argued that institutional quality is the most important factor in stimulating economic growth. North (1990) explains that institutions are formulated to reduce the uncertainty associated with human exchange and provide societies with a predictable framework for interaction. Globerman and Shapiro (2002) found that the returns for good governance are strong for developing economies, relative to other countries in their sample. The view that economic problems in developing countries arise due to the poor quality of institutions is very common among researchers and policymakers; lower institutional quality is associated with lower investment, low productivity growth, low per capita income, and overall slower output growth (Jude & Levieuge, 2013).

Good institutions reduce production and transaction costs (North, 1990), and as a result, increase profitability and economic activity, whereas poor and weak institutions increase uncertainty and costs of production (Cuervo-Cazurra, 2006, 2008). North (1990) illustrates that parties at the opposite ends of an economic activity have incomplete information about their counterparts' true intentions; who might cheat or deceive others. Due to the lack of information and uncertainty associated with economic transactions, transaction costs contain a risk premium. North (1990) argues that the risk premium is a function of institutional quality, as it depends upon property right protection, contract enforceability, and the likelihood of default by the other party.

3. Data and methodology

3.1. Data

In our research study, we estimated the impact of institutional quality on F.D.I. using a panel data-set of 110 countries with annual data over the period 2002–2012. The choice of the time

span and number of countries in this article were contingent upon the availability of data on all the variables and countries included in the model. Further, we separated the countries into 41 developed (we include here developed countries and transitioning economies) and 69 developing (we include here developing countries, least-developed countries, and small island developing states) according to the criteria given in the World Economic Situation and Prospects 2014, published by the United Nations (Appendix 1(a) and 1(b)). Data for all our macroeconomic variables and governance are taken from the World Development Indicators (The World Bank Group, 2013) and from World Governance Indicators (Kaufmann, Kraay, & Mastruzzi, 2007), respectively.

In our analysis, we use two indicators to represent governance: control of corruption (C.C.) and rule of law (R.L.). C.C. reflects 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. This governance variable ranges from −2.5 (weak) to 2.5 (strong). The R.L. index measures the extent to which agents have confidence in and follow the R.L., specifically the quality of contract and enforcement, property rights, the courts, and the police and the likelihood of crime and violence. R.L. can range from −2.5 (weak) to 2.5 (strong). Mauro (1995) argues that there may be good reasons to have positive correlations between the variables; however, from an econometric point of view, high correlation between the variables can cause multicollinearity and might reduce the extent to which the relevance of each individual governance indicator can be measured. Daude and Stein (2007) note that the standard solution is to group the variables into one aggregate component that captures similar dimensions. Therefore, we summed up the weighted average index of the individual governance indicators (C.C.+R.L.) as an aggregate governance component (Gov).

Moosa and Cardak (2006) argue that researchers searching for F.D.I. determinants often report the most interesting results to suit their specific research aims. Analysing F.D.I. inflows from southern European countries to north African countries and new European Union member states, Jiménez (2011) concludes that a good and sound macroeconomic environment, human capital, and quality infrastructure attract F.D.I. inflows. Similarly, using data for 1970–2005, Oladipo (2010) found that market size, human capital, infrastructure, and macroeconomic stability are the most important determinants of F.D.I. inflows, whereas Singh and Jun (1995), from a panel of developing countries, found that market size, political risk, and economic growth significantly determine variations in F.D.I. inflows as a share of G.D.P. Market size is generally measured using G.D.P., G.D.P. per capita, and the size of the population; it is expected to be a positive and significant determinant of F.D.I. flows (Durán, 1999; Garibaldi, Mora, Sahay, & Zettelmeyer, 2002; Lankes & Venables, 1996; Nunes Amaral & Guimera, 2006; Resmini, 2000).

Further, other scholars argue that infrastructure significantly and positively impacts F.D.I. inflows in developing economies (Asiedu, 2006; Khadaroo & Seetanah, 2010). In relation to developed countries, Bae (2008) notes that infrastructure is not only a stimulator, but also a good indicator of boosted F.D.I. inflows.

On the basis of previous research findings, we conclude that G.D.P. per capita growth (G.D.P.P.C.G.), population (Pop) as a proxy for market size (Billington, 1999), and the number of telephone lines per 100 inhabitants as a proxy for infrastructure (Tele) in the host country (Moosa & Cardak, 2006) are some of the most significant variables for F.D.I. We have included World Trade Organization membership (W.T.O.) to measure the impact

of geographical forces on F.D.I. As the time span 2002–2012 includes financial crises which hit hardest in the years 2008 and 2009, in order to capture the unobservable temporal effect of this crises, we define Financial Crisis as being the year dummy variable where the years of crises are getting the value 1 while for the non-financial crises years are assigned the value 0. In our model, we have also included one-year lag (Lagged F.D.I.) with respect to the dependent variable in order to take in to account the time needed for F.D.I. inflows to react to Lagged F.D.I. (Bevan et al., 2004).

Table 1(a) shows the descriptive statistics of the independent and control variables in developed countries while Table 1(b) presents the same for developing countries. Table 2(a) and 2(b) report the results for the correlation matrixes and the variance inflation factors (V.I.F.s) for developed and developing countries, respectively. A general rule is that the V.I.F. should not exceed 10 (Belsley, Kuh, & Welsch, 2005); V.I.F. values that exceed 10 are generally viewed as evidence of multicollinearity (Asteriou & Hall, 2011). Given that all values are under the strictest limit of 10, it is confirmed that no serious correlation and multicollinearity problem exists in our data.

The G.D.P. deflator is a price index used to measure inflation in an economy and is calculated as the ratio of nominal G.D.P. to real G.D.P. in a given year (multiplied by 100) (Dornbusch, Fischer, & Kearney, 1995; McTaggart, Findlay, & Parkin, 1996). In this paper, we considered the G.D.P. deflator, using 2002 as the base year for all our countries.[1] The main criterion for the selection of the base year is that it should be normal or average and not subject to any major economic change.[2] F.D.I. is measured as net inflows (B.o.P. current U.S.$). The real F.D.I. inflows are calculated by dividing the net F.D.I. inflows (B.o.P. current U.S.$) by the G.D.P. deflator 2002 to remove inflation from the nominal value terms.

3.2 Methodology

According to previous research studies and the existing academic literature that measured the impact of institutional quality on F.D.I. inflows, the evidence regarding F.D.I. remains mixed. The inconclusive evidence has been attributed to methodological and measurement problems (Ali et al., 2010).

Table 1(a). Descriptive statistics – developed countries.

	F.D.I.	Gov	G.D.P.P.C.G.	Tele	Pop	Lagged F.D.I.	W.T.O.	Financial crises
Mean	9.6016	1.4717	2.7022	1.5257	7.0388	9.612	0.6341	0.1822
Maximum	11.4729	4.5333	38.0572	1.8707	8.4969	11.4729	1	1
Minimum	6.6397	−2.5684	−14.4209	0.5774	5.4586	6.6397	0	0
Std. dev.	0.9114	2.3151	4.9007	0.2605	0.6263	0.9175	0.4822	0.3864
No. of obs.	451	451	451	451	451	410	451	451
No. of countries	41	41	41	41	41	41	41	41

Notes: The table summarises the descriptive statistics for the major variables in this study for developed countries. F.D.I. is measured as net inflows (B.o.P. current U.S.$) divided by the G.D.P. deflator, with 2002 as the base year. G.D.P.P.C.G. – G.D.P. per capita (annual %) – indicates economic growth and the standard of living. Tele– number of telephone lines per 100 inhabitants – is used as a proxy for the quality of the infrastructure in the host country. Pop – is the proxy to measure market size. Lagged F.D.I. is used as an explanatory variable to measure the effect of the previous year's investment on the current F.D.I. inflows, whereas W.T.O. and Financial Crisis are dummy variables.
Source: World Bank, World Development Indicators (W.D.I.) 2013 database.

Table 1(b). Descriptive statistics – developing countries.

	F.D.I.	Gov	G.D.P.P.C.G.	Tele	Pop	Lagged F.D.I.	W.T.O.	Financial crises
Mean	8.6384	−0.3766	3.0612	0.8046	6.9186	8.6245	0.7826	0.1818
Maximum	11.2514	4.1485	30.344	1.792	9.1303	11.2514	1	1
Minimum	1.0311	−3.7009	−13.2641	−0.7756	4.8438	1.0311	0	0
Std. dev.	1.0471	1.5134	3.8349	0.6371	0.9885	1.0525	0.4127	0.3859
No. of obs.	759	759	759	759	759	690	759	759
No. of countries	69	69	69	69	69	69	69	69

Notes: The table summarises the descriptive statistics for the major variables in this study for developing countries. F.D.I. is measured as net inflows (B.o.P. current U.S.$) divided by the G.D.P. deflator, with 2002 as the base year. G.D.P.P.C.G. – G.D.P. per capita (annual %) – indicates economic growth and the standard of living. Tele– number of telephone lines per 100 inhabitants – is used as a proxy for the quality of the infrastructure in the host country. Pop – is the proxy to measure market size. Lagged F.D.I. is used as an explanatory variable to measure the effect of the previous year's investment on the current F.D.I. inflows, whereas W.T.O. and Financial Crisis are dummy variables.
Source: World Bank, World Development Indicators 2013 (W.D.I.) database.

Table 2(a). Correlation matrix and Variance Inflation Factors (V.I.F.s) – developed countries.

	F.D.I.	Gov	G.D.P.P.C.G.	Tele	Pop	Lagged F.D.I.	W.T.O.	Financial crises	V.I.F.s
F.D.I.	1								
Gov	0.6011	1							6.55
G.D.P.P.C.G.	−0.2507	−0.4169	1						1.47
Tele	0.6145	0.7556	−0.3656	1					2.64
Pop	0.5229	−0.0064	−0.0864	0.1732	1				2.09
Lagged F.D.I.	0.8903	0.5968	−0.3339	0.6086	0.5294	1			3.09
W.T.O.	0.6532	0.8461	−0.4319	0.6578	0.2366	0.6477	1		4.6
Financial Crises	0.0328	0.0006	−0.3443	−0.0067	0.0018	0.1521	−0.0016	1	1.26

Source: Author calculation.

Table 2(b). Correlation matrix and Variance Inflation Factors (V.I.F.s) – developing countries.

	F.D.I.	Gov	G.D.P.P.C.G.	Tele	Pop	Lagged F.D.I.	W.T.O.	Financial crises	V.I.F.s
F.D.I	1								
Gov	0.2195	1							2.55
G.D.P.P.C.G.	0.2761	0.0262	1						1.18
Tele	0.4268	0.6747	0.0296	1					2.5
Pop	0.5478	−0.4739	0.1954	−0.2733	1				3.23
Lagged F.D.I.	0.947	0.2188	0.2258	0.4281	0.5262	1			3.14
W.T.O.	−0.0146	0.055	−0.1362	−0.0721	0.0234	−0.0216	1		1.06
Financial Crises	0.0372	0.0019	−0.2413	0.0192	0.0036	0.0972	0	1	1.1

Source: Author calculation.

We estimate the following model, which describes the determinants of F.D.I.:

$$FDI = \alpha + a_1 Gov + a_2 GDPPCG + a_3 Infrastructure + a_4 Marketsize + a_5 LaggedFDI + a_6 WTO + a_7 FinancialCrises + e \tag{1}$$

The differences in the legal protection of investors provided by destination countries might help in understanding why firms are financed and owned so differently. Buchanan and English (2007) argue that investors seeking to gain benefits from market returns must choose their investments on the basis of the legal foundations of the countries in which they invest. La Porta et al. developed a relationship between financial markets and the legal environment known as L.L.S.V., in which the origin of the legal code is an important determinant of governance and financial markets, attracting F.D.I. through secure property rights (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997, 2000; La Porta et al., 1998).

David and Brierley (1985) state that legal foundations can be categorised into different families, i.e., English, French, Scandinavian, or German, and two primary legal systems, i.e., civil or common. The same classification is also applied by Shleifer, Vishny, La Porta, and Lopez-de-Silanes (2000). Legal codes are classified according to their origin as follows: English (ENGLAW), French (FRELAW), Scandinavian (SCANLAW), German (GERLAW), and Socialist (SOCLAW). Socialist law has the disadvantage that all formerly communist countries are included in this category, and so the role of the legal system may be vitiated by other factors (Globerman & Shapiro, 2003).

Using instrumental variable (I.V.) methodology, in our first model, I.V.[a], we therefore measure governance using the data-set 'The Quality of Government' (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1999), but exclude the SOCLAW category. For I.V.[b], we considered common law using data from the Faculty of Law at the University of Ottawa[3] and lagged values of the independent variables. Pure common law has its origins in English law. Civil law derives from Roman law and applies to all those countries with their legal origins in French, German, and Scandinavian law. French, German, and common law (English) have spread around the world through all kinds of combinations of conquest, imperialism, and other means. Civil law gives investors weaker legal rights and a lower quality of law enforcement, with French civil law providing the least protection. German and Scandinavian civil law provide the highest quality of law enforcement, but an average degree of protection. Common law (English origin) provides the next highest quality of law enforcement and also the highest protection (La Porta et al., 1998).

In the I.V.[a] model, we consider all four legal origin instruments (legor_uk, legor_fr, legor_ge, and legor_sc). The results for developed countries were highly significant for all four instruments; for the developing countries, only three instruments were highly significant, with the Scandinavian origin being omitted due to collinearity. For this reason, we took into account only three legal origin instruments (legor_uk, legor_fr, and legor_ge) for both developed and developing countries.

4. Results

4.1. Developed countries

In Table 3(a), we report the ordinary least squares (O.L.S.) regression results, with F.D.I. as the dependent variable in column (1). Governance has a positive and significant impact on F.D.I. because of the stability of the R.L., political stability, and effective C.C. in developed economies. Therefore, there is a significant and positive association between F.D.I. and governance. The coefficient of G.D.P.P.C.G. is significant and positive. The statistical results imply that higher growth enhances F.D.I. due to capital intensity and the advancedw

Table 3(a). F.D.I. and governance: panel regressions for developed countries.

Independent variables	O.L.S.			I.V.[a]			I.V.[b]		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	1.2017***	1.1713***	1.2409***	1.1217	1.133***	1.1071***	1.3099***	1.1713***	1.4842***
	4.39	3.63	4.52	4.03	4.12	3.88	3.98	3.63	4.31
Gov	0.0424**			-0.0236			0.2225***		
	2.06			-0.54			3.3		
C.C.		0.0586*			-0.0419			0.3773***	
		1.68			-0.55			3.1	
R.L.			0.1135***			-0.0542			0.5148***
			2.42			-0.54			3.46
G.D.P.P.C.G.	0.0134**	0.0131***	0.0137***	0.0124***	0.0125***	0.0123***	0.016***	0.0149***	0.0174***
	3	2.93	3.08	2.76	2.8	2.71	3.21	3	3.43
Tele	0.2251**	0.2522**	0.2019*	0.4009***	0.3992***	0.4029***	-0.2724	-0.2314	-0.2984
	1.9	2.15	1.69	2.56	2.6	2.5	-1.27	-1.08	-1.39
Pop	0.1809***	0.1694***	0.191***	0.108*	0.1088*	0.1069*	0.3777***	0.36**	0.389***
	4.24	4.05	4.44	1.8	1.86	1.72	4.37	4.19	4.51
Lagged F.D.I.	0.6939***	0.7006***	0.6864***	0.7262***	0.7247***	0.7281***	0.6233***	0.6439***	0.601***
	19.39	19.79	18.96	17.94	18.59	17.05	11.61	12.59	10.56
W.T.O.	0.108	0.1427*	0.0714	0.2927**	0.2864**	0.3006**	-0.406**	-0.3265*	-0.4828**
	1.31	1.85	0.82	2.16	2.31	2	-2.03	-1.74	-2.27
Financial Crises	-0.1086**	-0.1111**	-0.1061**	-0.1222**	-0.1218**	-0.1227**	-0.0865	-0.0939	-0.0787
	-2.09	-2.14	-2.05	-2.32	-2.32	-2.32	-1.48	-1.61	-1.34
No. of countries	41	41	41	41	41	41	41	41	41
No. of observations (strongly balanced)	409	409	409	409	409	409	368	368	368
R^2	0.8246	0.824	0.8253	0.8201	0.8204	0.8197	0.7879	0.7852	0.7886
F-statistic	269.35	268.21	270.67						
Wald χ^2				1871.1	1873.64	1867.1	1434.65	1415.43	1440.47
				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Notes: The dependent variable is F.D.I. net inflows (B.o.P. current U.S.$) divided by the G.D.P. deflator with 2002 as the base year. t-statistics are in parentheses. ***, **, and * denote statistical significance at the 1, 5, and 10% levels, respectively. White's heteroscedasticity correction is applied to the O.L.S. regression.
[a]The I.V. is legal origin.
[b]The I.V.s are common law and the lagged values of the independent variables. Logs (logarithms) are applied to real F.D.I. inflows, Tele, Pop, and Lagged F.D.I. Goodness-of-fit is not a factor; p-values are in parentheses.
Source: Author calculation.

technologies in developed countries. Due to good infrastructure, the coefficient of the variable Tele is also positive and significant. The coefficient for Pop is highly significant and positively associated with F.D.I. inflows. Lagged F.D.I. has a highly significant and positive impact on F.D.I. inflows. Our result findings imply that previous years' F.D.I. inflows have a highly positive and significant impact in attracting F.D.I. inflows. As expected, the financial crises have significant and negative impacts on F.D.I. inflows. W.T.O. membership has a positive but insignificant impact in our specified O.L.S. model.

In accordance with the literature of endogeneity, we have a potential bias within our O.L.S. results (Bénassy-Quéré, Coupet, & Mayer, 2007; Buchanan et al., 2012; Daude & Stein, 2007; Hall & Jones, 1999; Mauro, 1995). Countries are not exogenously gifted with institutions that promote good governance; in fact, the governance is determined endogenously, depending on the type of law that governs the country, the legal origins, and the level of economic development (Buchanan et al., 2012).

According to Wooldridge (2000), I.V. methods are used to provide better modelling results. Buchanan et al. (2012), Mauro (1995), Hall and Jones (1999) and Daude and Stein (2007) all used I.V. methodology in their research analyses. Staiger and Stock (1994) formalised the definition of 'weak instruments', and most researchers seem to have concluded from that work that if the F-statistic for the excluded instruments in the first stage is greater than 10, there is no further need to worry about weak instruments. Stock and Yogo (2005), using a rule of thumb, go into more detail and provide a more rigorous statistical method, developing the critical value for the F-statistic in the first-stage regression.

Column (4) reports the I.V. results using the legal origins as instruments (U.K., French, and German origins). Result findings show that Gov has a positive but insignificant impact on F.D.I. inflows. The correlation between governance and I.V.s is explained in Appendix 2(a). Furthermore, the Durbin–Wu–Hausman test of endogeneity shows an insignificant p-value (0.4911), proving the existence of exogeneity.

La Porta et al. (1998) and Djankov and Murrell (2002) found that countries that follow English common law protect foreign investors and stakeholders better, strongly secure property rights, and boost the confidence of foreign investors and market regulations; as a result, they attract more F.D.I. inflows. Previous literature notes that English common law makes capital markets stronger, more developed, and more conducive to investment. On the other hand, civil law is associated with complex and longer proceedings, dishonesty, unfairness, and more incentives for corruption. La Porta et al. (1998) show that English common law countries have more market capitalisation per G.D.P. relative to civil law countries. Column (7) reports the I.V. results using common law and the lagged values of the independent variables as instruments. A one standard deviation change in the Gov variable improves F.D.I. by a factor of 0.2225. Furthermore, the Durbin–Wu–Hausman test for the endogeneity of governance variable shows a significant p-value (0.0018), rejecting the hypothesis of consistent O.L.S. estimates and proving the existence of endogeneity. As a result, we report both O.L.S. and I.V. estimates. G.D.P.P.C.G., Pop, and Lagged F.D.I. have highly significant and positive impacts on F.D.I. inflows. W.T.O. membership has a negative and significant impact on F.D.I. inflows. The financial crises are insignificantly but negatively associated with F.D.I. inflows as well as infrastructure, as a consequence of the inclusion of the transition economies in the developed countries panel.

The coefficients of Gov, G.D.P.P.C.G., and market size have positive and highly significant impacts on F.D.I. inflows. Columns (8) and (9) report the I.V. results using common law

Table 3(b). F.D.I. and governance: panel regressions for developing countries.

Independent variables	O.L.S.			I.V.[a]			I.V.[b]		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	0.7461***	0.7333***	0.7586***	0.7514***	0.7423***	0.7575***	0.5405***	0.2884	.6357***
	7.18	7.06	7.28	7.24	7.1	7.3	2.65	0.91	4.30
Gov	0.0453***			0.0226			0.5131		
	3.79			0.8			1.63		
C.C.		0.0906****			0.0557			1.391	
		4.01			0.89			1.64	
R.L.			0.0751***			0.0359			0.4884
			3.23			0.7			1.39
G.D.P.P.C.G.	0.0135***	0.0139***	0.0134***	0.014***	0.0142***	0.014***	0.0022	0.0027	0.0068
	4.27	4.41	4.2	4.37	4.46	4.3	0.24	0.26	1.03
Tele	0.1442***	0.146***	0.1497***	0.1647***	0.1611***	0.1682***	-0.2587	-0.3796	-0.0501
	5.1	5.24	5.27	4.51	4.31	4.74	-1	-1.13	-0.33
Pop	0.1823***	0.1865***	0.172***	0.1625***	0.1697***	0.1568***	0.6017***	0.846**	0.3226**
	8.83	8.59	8.59	5.34	4.86	5.88	2.02	1.89	2.15
Lagged F.D.I.	0.7567***	0.7547***	0.7623***	0.768***	0.7642***	0.7712***	0.5227***	0.3849	0.6916***
	39.56	39.38	40.17	33.37	30.8	35.77	2.78	1.41	6.98
W.T.O	0.0201	0.0158	0.0268	0.0293	0.0245	0.0329	-0.1569	-0.3007	-0.0239
	0.71	0.56	0.95	0.97	0.77	1.14	-1.14	-1.33	-0.37
Financial Crises	-0.0742***	-0.0746***	-0.0746***	-0.0762***	-0.076***	-0.0765***	-0.0477	-0.0399	-0.0658*
	-2.49	-2.51	-2.5	-2.56	-2.56	-2.56	-0.8	-0.51	-1.67
No. of countries	69	69	69	69	69	69	69	69	69
No. of observations (strongly balanced)	690	690	690	690	690	690	621	621	621
R²	0.9133	0.9135	0.9128	0.9128	0.9132	0.9125	0.7099	0.4808	0.8696
F-statistic	1026.37	1029.18	1020.07						
Wald χ²				7216.96	7247.89	7184.09	1956.67	1094.7	4348.64
				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Notes: The dependent variable is F.D.I. net inflows (B.o.P. current U.S.$) divided by the G.D.P. deflator with 2002 as the base year. t-statistics are in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. White's heteroscedasticity correction is applied to the O.L.S. regression.

[a]The I.V. is legal origin.

[b]The I.V.s are common law and the lagged values of the independent variables. Logs (logarithms) are applied to real F.D.I. inflows, Tele, Pop, and Lagged F.D.I. Goodness-of-fit is not a factor; p-values are in parentheses.

Source: Author calculation.

and lagged values of independent variables as instruments; the results show that individual governance indicators, such as C.C. and R.L., have positive and highly significant impacts on F.D.I. inflows. Our result findings in columns (8) and (9) are highly robust with the result findings of column (7), i.e., that governance has a positive and highly significant impact on F.D.I. inflows.

4.2. Developing countries

In Table 3(b), the simple O.L.S. regression results with F.D.I. as the dependent variable in column (1) show that Gov has a positive and significant effect on F.D.I. inflows. The statistical results imply that governance indicators matter in attracting F.D.I. G.D.P.P.C.G., infrastructure, market size, and Lagged F.D.I. have positive and highly significant impacts on F.D.I. inflows. From our results, we infer that the financial crises have similar effects in both developed and developing countries, i.e., decrease F.D.I. inflows. W.T.O. membership has a positive but insignificant impact on F.D.I. inflows in our specified O.L.S. model.

In accordance with the literature on endogeneity, we have a potential bias within our O.L.S. results (Bénassy-Quéré et al., 2007; Buchanan et al., 2012; Daude & Stein, 2007; Hall & Jones, 1999; Mauro, 1995).

Column (4) reports the I.V. results using legal origins as instruments. Governance has an insignificant impact on F.D.I. inflows. The correlation between governance and the I.V.s is explained in Appendix 2(b). Furthermore, the Durbin–Wu–Hausman test for endogeneity of governance shows an insignificant p-value (0.3813), proving the existence of exogeneity.

Column (7) reports the I.V. results using common law and the lagged values of independent variables as instruments. Our findings show that governance has an insignificant impact on F.D.I. Furthermore, the Durbin–Wu–Hausman test for the endogeneity of governance, with a significant p-value (0.0052), rejects the hypothesis of consistent O.L.S. estimates and proves the existence of endogeneity.

The control variables Pop and Lagged F.D.I. positively and significantly affect F.D.I. inflows, while Tele, Financial Crises, and W.T.O. have negative and insignificant effects on F.D.I. inflows. G.D.P.P.C.G. is positively but insignificantly associated with F.D.I. inflows. Columns (8) and (9) report the I.V. results using common law and lagged values of independent variables as instruments; the findings show that individual governance indicators, such as C.C. and R.L., insignificantly impact F.D.I. inflows. Our findings in columns (8) and (9) are highly robust with the findings of column (7), i.e., that governance has an insignificant impact on F.D.I. inflows in developing economies because of weak control of corruption and the high instability associated with R.L., as our result findings show that individual governance indicators, such as C.C. and R.L., are insignificant in developing economies.

We can infer from the statistical findings that institutions in developing countries are not strong enough to work well with other types of law and legal origins to attract F.D.I.

5. Conclusions

This paper has examined the impact of institutional quality on F.D.I. using panel data for 110 countries from 2002 to 2012. For both developed and developing countries, the results indicate that G.D.P.P.C.G., infrastructure, market size, and Lagged F.D.I. significantly affect F.D.I. In contrast, W.T.O. membership has insignificant effects in attracting F.D.I. inflows. As expected, the financial crises have significant and negative impacts on F.D.I. inflows for

both developed and developing countries. In the case of developed countries, we find that governance has a positive effect on F.D.I., i.e., a one standard deviation change in governance significantly affects F.D.I. by a factor of 0.2225 (using common law and the lagged values of the independent variables as instruments). Further, the findings regarding individual governance indicators are highly robust; governance as an aggregate component shows a positive and significant impact on F.D.I. inflows, stressing that strong C.C. and the stability of R.L. are important governance indicators to attract F.D.I. inflows. In the case of developing countries, governance fails to attract F.D.I. due to the exogeneity issue because of poor C.C. and R.L. instability, i.e., institutions should be strong enough to work endogenously well with other types of law and macroeconomic factors to provide economic growth.

The results for developed countries regarding the impact of governance on F.D.I. are robust when using different econometric techniques, which implies that F.D.I. inflows can be increased by improving the institutional framework and providing a good macroeconomic environment. The results for the developed countries are in accordance with the empirical growth literature, which stresses the importance of institutions for economic growth (Acemoglu, Johnson, & Robinson, 2001; Hall & Jones, 1999; Mauro, 1995; Stasavage, 2002). Due to the poor governance and exogeneity issues, we fail to find a relationship between governance and F.D.I. for developing countries in line with the previous literature (Harms & Ursprung, 2002; Ju & Wei, 2007; Noorbakhsh et al., 2001). From our findings, we infer that governance indicators tend to be a key point in attracting F.D.I. inflows and are thus relevant.

Apart from a few exceptions, in our data-set of developed and developing countries, when the C.C. and R.L. had a negative sign, it was followed by governance with the exact same unfavourable behaviour. When financial crises occur, some countries in the developed group tend to lower their C.C. and increase in R.L. instability and thus, in the case of Greece and Croatia, the signs of these variables became negative over the considered period.

Even though many scholars emphasise the importance of geographical, psychic, and cultural distances as important determinants of F.D.I. (Anderson & van Wincoop, 2003, 2004; Eren & Jimenez, 2015; McCallum, 1995), unfortunately, we could not find complete bilateral data for the entire sample of countries, and we consider this as a limitation of our study; however, it would be really interesting to measure the impact of governance on F.D.I. inflows by adding the gravity model to future research.

From our findings, we can formulate policy implications that stress the role of key governance indicators, such as C.C. and R.L., as important determinants in attracting F.D.I. inflows in both developed and developing countries. Developing economies are highly dependent on F.D.I. inflows and foreign capital accumulation. Without improving governance (C.C. and R.L.), it will be very hard to attract F.D.I. inflows in developing countries, which will hinder economic development because international investors and multinational companies always consider important governance indicators while investing in developing economies. In sum, key governance indicators play an extremely important role in attracting F.D.I. inflows and economic development for both developed and developing economies.

Notes

1. According to the World Bank, the base year varies by country.
2. Data and Metadata Reporting and Presentation Handbook (Ward, 2007).
3. http://www.juriglobe.ca/eng/

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

References

Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The colonial origins of comparative development: An empirical investigation. *The American Economic Review, 91*(5), 1369–1401. doi:10.2139/ssrn.244582

Addison, T., & Heshmati, A. (2003). *The new global determinants of FDI flows to developing countries: The importance of ICT and democratization*. WIDER Discussion Papers//World Institute for Development Economics (UNU-WIDER).

Ali, F. A., Fiess, N., & MacDonald, R. (2010). Do institutions matter for foreign direct investment? *Open Economies Review, 21*(2), 201–219. doi:10.1007/s11079-010-9170-4

Anderson, J. E., & van Wincoop, E. (2003). Gravity with gravitas: A solution to the border puzzle. *American Economic Review, 93*(1), 170–192.

Anderson, J. E., & van Wincoop, E. (2004). Trade costs. *Journal of Economic literature, 42*(3), 691–751. doi:10.1257/0022051042177649

Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *The World Economy, 29*(1), 63–77. doi:10.1111/j.1467-9701.2006.00758.x

Asiedu, E., & Villamil, A. P. (2000). Discount factors and thresholds: Foreign investment when enforcement is imperfect. *Macroeconomic Dynamics, 4*(01), 1–21. doi:10.1017/S1365100500014012

Asteriou, D., & Hall, S. G. (2011). *Applied econometrics (2. uppl.)*. Basingstoke: Palgrave Macmillan.

Bae, M. (2008). Foreign direct investment inflows and ICT configurations. *Pacific Focus, 17*(2), 217–226.

Becchetti, L., & Hasan, I. (2004). The effects of (within and with EU) regional integration: Impact on real effective exchange rate volatility, institutional quality and growth for MENA countries. *World Institute for Development Economics Research of the United Nations University, Research Paper* (No. 2005/73).

Belsley, D., Kuh, E., & Welsch, R. (2005). *Regression diagnostics: Identifying influential data and sources of collinearity* (Vol. 571). Hoboken, NJ: John Wiley & Sons.

Bénassy-Quéré, A., Coupet, M., & Mayer, T. (2007). Institutional determinants of foreign direct investment. *The World Economy, 30*(5), 764–782. doi:10.1111/j.1467-9701.2007.01022.x

Bevan, A., Estrin, S., & Meyer, K. (2004). Foreign investment location and institutional development in transition economies. *International Business Review, 13*(1), 43–64. doi:10.1016/j.ibusrev.2003.05.005

Billington, N. (1999). The location of foreign direct investment: An empirical analysis. *Applied Economics, 31*(1), 65–76. doi:10.1080/000368499324561

Buchanan, B., & English, P. C. (2007). Law, finance, and emerging market returns. *Emerging Markets Review, 8*(3), 181–193. doi:10.1016/j.ememar.2007.05.001

Buchanan, B., Le, Q. V., & Rishi, M. (2012). Foreign direct investment and institutional quality: Some empirical evidence. *International Review of Financial Analysis, 21*, 81–89. doi:10.1016/j.irfa.2011.10.001

Campos, J. E., Lien, D., & Pradhan, S. (1999). The impact of corruption on investment: Predictability matters. *World Development, 27*(6), 1059–1067. doi:10.1016/S0305-750X(99)00040-6

Cuervo-Cazurra, A. (2006). Who cares about corruption? *Journal of International Business Studies, 37*(6), 807–822. doi:10.2307/4540385

Cuervo-Cazurra, A. (2008). The effectiveness of laws against bribery abroad. *Journal of International Business Studies, 39*(4), 634–651. doi:10.1057/palgrave.jibs.8400372

Daude, C., & Stein, E. (2007). The quality of institutions and foreign direct investment. *Economics & Politics, 19*(3), 317–344. doi:10.1111/j.1468-0343.2007.00318.x

David, R., & Brierley, J. E. C. (1985). *Major legal systems in the world today: An introduction to the comparative study of law* (3rd ed.). London: Stevens & Sons.

Djankov, S., & Murrell, P. (2002). Enterprise restructuring in transition: A quantitative survey. *Journal of Economic Literature, 40*, 739–792. doi:10.1257/jel.40.3.739

Dornbusch, R., Fischer, S., & Kearney, C. (1995). *Macroeconomics* (Vol. Australian ed.). Sydney: McGraw-Hill.

Drabek, Z., & Payne, W. (2002). The impact of transparency on foreign direct investment. *Journal of Economic Integration, 17*, 777–810.

Dunning, J. H. (2002). Determinants of foreign direct investment: Globalization-induced changes and the role of policies. *Paper presented at the Annual World Bank Conference on Development Economics, Europe 2002–2003: Toward Pro-Poor Policies-Aid*.

Durán, J. (1999). *Los determinantes de la ied en los países de américa latina y el caribe: Su impacto sobre el comercio y la integración regional*. MIMEO, ECLAC.

Eren, T. M., & Jimenez, A. (2015). Institutional quality similarity, corruption distance and inward FDI in Turkey. *Journal for East European Management Studies, 20*(1), 88.

Gani, A. (2007). Governance and foreign direct investment links: Evidence from panel data estimations. *Applied Economics Letters, 14*(10), 753–756. doi:10.1080/13504850600592598

Garibaldi, P., Mora, N., Sahay, R., & Zettelmeyer, J. (2002). *What moves capital to transition economies?* (Vol. 2). Washington, DC: International Monetary Fund.

Gastanaga, V. M., Nugent, J. B., & Pashamova, B. (1998). Host country reforms and FDI inflows: How much difference do they make? *World Development, 26*(7), 1299–1314. doi:10.1016/S0305-750X(98)00049-7

Globerman, S., & Shapiro, D. (2002). Global foreign direct investment flows: The role of governance infrastructure. *World Development, 30*(11), 1899–1919. doi:10.1016/S0305-750X(02)00110-9

Globerman, S., & Shapiro, D. (2003). Governance infrastructure and US foreign direct investment. *Journal of International Business Studies, 34*(1), 19–39. doi:10.1057/palgrave.jibs.8400001

Globerman, S., Shapiro, D., & Tang, J. J. (2004). Governance and foreign direct investment in emerging and transition European countries. *International Finance Review, 6*(6), 431–459.

Hall, R. E., & Jones, C. I. (1999). Why do some countries produce so much more output per worker than others? *The Quarterly Journal of Economics, 114*(1), 83–116. doi:10.1162/003355399555954

Harms, P., & Ursprung, H. W. (2002). Do civil and political repression really boost foreign direct investments? *Economic Inquiry, 40*(4), 651–663. doi:10.1093/ei/40.4.651

Henisz, W. (1998). *The institutional environment for international investment: Safeguarding against state sector opportunism and opportunistic use of the state*. Berkeley, CA: University of California.

Henisz, W. (2000). The institutional environment for multinational investment. *Journal of Law, Economics, and Organization, 16*(2), 334–364. doi:10.1093/jleo/16.2.334

Henisz, W., & Williamson, O. (1999). Comparative economic organization – within and between countries. *Business and Politics, 1*(3), 261–276. doi:10.1515/bap.1999.1.3.261

Jensen, N. M. (2003). Democratic governance and multinational corporations: Political regimes and inflows of foreign direct investment. *International Organization, 57*(3), 587–616. doi:10.1017/S0020818303573040

Jiménez, A. (2010). Does political risk affect the scope of the expansion abroad? Evidence from Spanish MNEs. *International Business Review, 19*(6), 619–633. doi:10.1016/j.ibusrev.2010.03.004

Jiménez, A. (2011). Political risk as a determinant of Southern European FDI in neighboring developing countries. *Emerging Markets Finance and Trade, 47*(4), 59–74. doi:10.2753/REE1540-496X470404

Johnson, A., & Dahlström, T. (2004). *Bureaucratic corruption, MNEs and FDI*. Sweden: MIMEO, Jönköping International Business School.

Ju, J., & Wei, S.-J. (2007). *Domestic institutions and the bypass effect of financial globalization*. Cambridge: National Bureau of Economic Research.

Jude, C., & Levieuge, G. (2013). *Growth effect of FDI in developing economies: The role of institutional quality* (MPRA Paper, No. 49321).

Kapuria-Foreman, V. (2007). Economic freedom and foreign direct investment in developing countries. *Journal of Developing Areas, 41*(1), 143–154. doi:10.1353/jda.2008.0024

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2007). Governance matters VI: Governance indicators for 1996–2006 (World Bank Policy Research Working Paper No. 4280). doi: 10.1596/1813-9450-4370, 10.1596/1813-9450-4149

Khadaroo, A. J., & Seetanah, B. (2010). Transport infrastructure and foreign direct investment. *Journal of International Development, 22*(1), 103–123. doi:10.1002/jid.1506

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1997). Legal determinants of external finance. *Journal of Finance, 52*(3), 1131–1150, doi:10.1111/j.1540-6261.1997.tb02727.x

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy, 106*(6), 1113–1155. doi:10.1086/250042

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1999). The quality of government. *Journal of Law, Economics, and Organization, 15*(1), 222–279. doi:10.1093/jleo/15.1.222

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1), 3–27. doi:10.1016/S0304-405X(00)00065-9

Lankes, H. P., & Venables, A. J. (1996). Foreign direct investment in economic transition: The changing pattern of investments. *Economics of Transition, 4*(2), 331–347. doi:10.1111/j.1468-0351.1996.tb00176.x

Loree, D. W., & Guisinger, S. E. (1995). Policy and non-policy determinants of US equity foreign direct investment. *Journal of International Business Studies, 26*(2), 281–299. doi:10.1057/palgrave.jibs.8490174

Mauro, P. (1995). Corruption and growth. *The Quarterly Journal of Economics, 110*(3), 681–712. doi:10.2307/2946696

McCallum, J. (1995). National borders matter: Canada-US regional trade patterns. *The American Economic Review, 85*(3), 615–623.

McTaggart, D., Findlay, C., & Parkin, M. (1996). *Economics*. Sydney: Addison - Wesley.

Moosa, I. A., & Cardak, B. A. (2006). The determinants of foreign direct investment: An extreme bounds analysis. *Journal of Multinational Financial Management, 16*(2), 199–211. doi:10.1016/j.mulfin.2005.07.002

Noorbakhsh, F., Paloni, A., & Youssef, A. (2001). Human capital and FDI inflows to developing countries: New empirical evidence. *World Development, 29*(9), 1593–1610. doi:10.1016/S0305-750X(01)00054-7

North, D. C. (1981). *Structure and change in economic history*. New York, NY: Norton.

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.

Nunes Amaral, L. A., & Guimera, R. (2006). Complex networks: Lies, damned lies and statistics. *Nature Physics, 2*(2), 75–76. doi:10.1038/nphys228

Oladipo, O. S. (2010). Foreign direct investment (FDI): Determinants and growth effects in a small open economy. *The International Journal of Business and Finance Research, 4*(4), 75–88.

Quazi, R. M. (2007). Investment climate and foreign direct investment: A study of selected countries in Latin America. *Global Journal of Business Research, 1*(1), 1–13.

Resmini, L. (2000). The determinants of foreign direct investment in the CEECs: New evidence from sectoral patterns. *Economics of Transition, 8*(3), 665–689. doi:10.1111/1468-0351.00060

Richards, D. C., & Nwankwo, S. (2005). Reforming the legal environment of business in Sub-Saharan Africa: Moderating effects on foreign direct investment. *Managerial Law, 47*(5), 154–163. doi:10.1108/03090550510771179

Shleifer, A., Vishny, R. W., La Porta, R., & Lopez-de-Silanes, F. (2000). Investor protection and corporate governance. *Journal of Financial Economics, 58*(1–2), 3–27. doi:10.1016/S0304-405X(00)00065-9

Singh, H., & Jun, K. W. (1995). Some new evidence on determinants of foreign direct investment in developing countries. World Bank Policy Research Working Paper No. 1531.

Smith, S. (1997). Restrictive policy toward multinationals: Argentina and Korea. *Case Studies in Economic Development* (2nd ed.), 178–189.

Staats, J. L., & Biglaiser, G. (2012). Foreign direct investment in Latin America: The importance of judicial strength and rule of law1. *International Studies Quarterly, 56*(1), 193–202. doi:10.1111/j.1468-2478.2011.00690.x

Staiger, D. O., & Stock, J. H. (1994). *Instrumental variables regression with weak instruments.* Cambridge, MA: National Bureau of Economic Research.

Stasavage, D. (2002). Private investment and political institutions. *Economics & Politics, 14*(1), 41–63. doi:10.1111/1468-0343.00099

Stock, J. H., & Yogo, M. (2005). Testing for weak instruments in linear IV regression. *Identification and Inference for Econometric Models: Essays in honor of Thomas Rothenberg.*

The World Bank Group. (2002). *Global development finance 2002.* Washington, DC: © World Bank.

The World Bank Group. (2013). *World Development Indicators 2013.* © World Bank. License: CC BY 3.0 IGO. Retrieved from https://openknowledge.worldbank.org/handle/10986/13191

UN. (2013). *Trade and Development Report, 2013: Adjusting to the changing dynamics of the world economy.* Geneva and New York.

UN. (2014). *World economic situation and prospects, 2014* (Report No. ISBN: 978-92-1-109168-7). New York.

Ward, D. (2007). *Data and metadata reporting and presentation handbook.* OECD Publishing.

Wei, S.-J. (1997). Why is corruption so much more taxing than tax? Arbitrariness kills. No. w6255. *National Bureau of Economic Research.* doi:10.3386/w6255

Wei, S.-J. (2000). How taxing is corruption on international investors? *Review of Economics and Statistics, 82*(1), 1–11. doi:10.1162/003465300558533

Wooldridge, J. (2000). *Introductory economics: A modern approach.* South-Western College Publishing, U.S.

Appendix 1(a). List of developed and transitioning economies.

No.	Country	Code	No.	Country	Code
1	Albania	ALB	22	Japan	JPN
2	Armenia	ARM	23	Kazakhstan	KAZ
3	Australia	AUS	24	Kyrgyz Republic	KGZ
4	Austria	AUT	25	Luxembourg	LUX
5	Azerbaijan	AZE	26	Macedonia, FYR	MKD
6	Belarus	BLR	27	Moldova	MDA
7	Belgium	BEL	28	Netherlands	NLD
8	Bulgaria	BGR	29	New Zealand	NZL
9	Canada	CAN	30	Norway	NOR
10	Croatia	HRV	31	Poland	POL
11	Czech Republic	CZE	32	Portugal	PRT
12	Denmark	DNK	33	Romania	ROM
13	Estonia	EST	34	Russian Federation	RUS
14	Finland	FIN	35	Spain	ESP
15	France	FRA	36	Sweden	SWE
16	Georgia	GEO	37	Switzerland	CHE
17	Germany	DEU	38	Tajikistan	TJK
18	Greece	GRC	39	Ukraine	UKR
19	Iceland	ISL	40	United Kingdom	GBR
20	Ireland	IRL	41	United States	USA
21	Italy	ITA			

Source: UN, World Economic Situation and Prospects, 2014.

Appendix 1(b). List of developing countries, least-developed countries, and small island developing states.

No.	Country	Code	No.	Country	Code
1	Algeria	DZA	36	Lao PDR	LAO
2	Antigua and Barbuda	ATG	37	Lesotho	LSO
3	Bahamas, The	BHS	38	Macao SAR, China	MAC
4	Bangladesh	BGD	39	Malaysia	MYS
5	Barbados	BRB	40	Mauritania	MRT
6	Bolivia	BOL	41	Mauritius	MUS
s7	Botswana	BWA	42	Mexico	MEX
8	Brazil	BRA	43	Mongolia	MNG
9	Brunei Darussalam	BRN	44	Morocco	MAR
10	Burundi	BDI	45	Mozambique	MOZ
11	Cabo Verde	CPV	46	Nicaragua	NIC
12	Cameroon	CMR	47	Niger	NER
13	China	CHN	48	Nigeria	NGA
14	Colombia	COL	49	Pakistan	PAK
15	Costa Rica	CRI	50	Panama	PAN
16	Dominica	DMA	51	Paraguay	PRY
17	Dominican Republic	DOM	52	Peru	PER
18	Ecuador	ECU	53	Philippines	PHL
19	Egypt, Arab Rep.	EGY	54	Rwanda	RWA
20	El Salvador	SLV	55	Sao Tome and Principe	STP
21	Ethiopia	ETH	56	Senegal	SEN
22	Fiji	FJI	57	Singapore	SGP
23	Gabon	GAB	58	South Africa	ZAF
24	Ghana	GHA	59	Sri Lanka	LKA
25	Grenada	GRD	60	St. Lucia	LCA
26	Guatemala	GTM	61	St. Vincent and the Grenadines	VCT
27	Guinea-Bissau	GNB	62	Sudan	SDN
28	Haiti	HTI	63	Tanzania	TZA
29	Honduras	HND	64	Thailand	THA
30	Hong Kong SAR, China	HKG	65	Tunisia	TUN
31	India	IND	66	Turkey	TUR
32	Indonesia	IDN	67	Uruguay	URY
33	Jordan	JOR	68	Vanuatu	VUT
34	Kenya	KEN	69	Vietnam	VNM
35	Korea, Rep.	KOR			

Source: UN, World Economic Situation and Prospects, 2014.

Appendix 2(a). Correlations between governance and instrument variables – developed countries.

	Gov	legor_uk	legor_fr	legor_ge	comlaw
gov	1.0000				
legor_uk	0.3772	1.0000			
legor_fr	0.1994	-0.2039	1.0000		
legor_ge	0.2784	-0.1361	-0.1619	1.0000	
comlaw	0.3772	1.0000	-0.2039	-0.1361	1.0000

Notes: legor_uk: U.K. legal origin; legor_fr: French legal origin; legor_ge: German legal origin; comlaw: common law.
Source: Author calculation.

Appendix 2(b). Correlations between governance and instrument variables –
developing countries.

	Gov	legor_uk	legor_fr	legor_ge	comlaw
Gov	1.0000				
legor_uk	0.3903	1.0000			
legor_fr	-0.3463	-0.8609	1.0000		
legor_ge	0.1403	-0.0943	-0.1343	1.0000	
Comlaw	0.3985	0.4321	-0.3720	-0.0407	1.0000

Notes: legor_uk: U.K. legal origin; legor_fr: French legal origin; legor_ge: German legal origin; comlaw: common law.
Source: Author calculation.