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Institutions and Outward Foreign Direct Investment

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Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

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Institutions and Outward Foreign Direct Investment²

Abstract

This paper explores the influence of the quality of a host country's institutional environment on outflows from that country of foreign direct investment. The main finding of this paper is that such quality does play an important role, particularly with respect to governance quality and political stability. This implies that better institutional conditions may reduce undesirable outflows of capital, and the quality of those institutions may impact FDI effectiveness in host countries.

Keywords: foreign direct investment, institutions, multinational corporation, emerging economies, business environment

JEL: F21, F23

Introduction

Numerous countries have introduced elaborate measures to attract foreign direct investment (FDI). This form of capital inflow adds new jobs and modern technology. FDI inflows are, however, only one side of capital movement. Less highlighted are outflows of FDI and, more generally, changes in foreign investment patterns associated with the increase of investors from less advanced economies.

Interestingly, a commonly accepted characteristic of developing countries is that the pace of GDP growth exceeds average values for the world economy. Fast rising economies should be perfect locations for investing, and developing businesses. Recently, however, vast streams of capital have flowed out of these economies. A possible reason of this

phenomenon is that emerging countries produce many new enterprises that start operations abroad in the form of FDI, consistent with the current trend of more multinational corporations from emerging countries expanding abroad.

Keeping in mind government efforts to promote foreign investment, the following question emerges: should the authorities formulate policies regarding outward FDI? Indeed, some countries, such as China, support the expansion of home country multinational corporations (MNC) and, therefore, outward FDI. Even in the presence of “going global” policies, however, many countries put curbs on free transfers of capital, for example, if it is not in accordance with nationally approved industry patterns. The prevalent approach, especially for developing economies, is restrictions on capital flows. Opening capital accounts may lead to a deformation of the investment positions of many less advanced economies, as these countries are commonly as recipients of short-term capital, while local capital outflows may take the form of long-term investments abroad.

Outward FDI institutions may play a significant role here because they are understood as “the rules of the game” in developing societies [North, 1990]. These rules can take the form of political, economic, or societal constraints that improve or frustrate cooperation between elements in an economy.

More specifically, a country’s institutional environment may impact Outward FDI in two primary ways. First, and most intuitive, is that high quality of governance boosts domestic enterprises by offering favourable conditions for business, allowing business entities to become both strong and competitive, which are prerequisite for foreign expansion.

Second, high quality institutions in a home economy should facilitate closing deals with a host country’s administration. Currently, many large scale international mergers and acquisitions are scrutinized by foreign governments. For instance, the Chinese telecommunication corporations Huawei and ZTE were unable to acquire American companies because the issue of national security was raised by the host country’s lawmakers. Huawei faced similar problems in bidding on a Canadian computer network. These obstacles could be mitigated if the acquirers were operating in a more transparent (and reliable) institutional environment. In this way the quality of a home country institutions may significantly influence development opportunities of its multinationals abroad.

On the other hand, institutions may propel or even force the outflow of capital from particular locations. Poor institutions may induce home country capital to look for better and safer conditions in a host country. In this case, the low quality of institutions in the home country will be positively correlated with high level of outflows.

An important element here is the diversification of risk. Corporations headquartered in a risky location will consider opportunities to transfer some of its assets abroad. The indispensable condition for such outflows is at a moderate level of liberalisation with respect to international capital flows. In many cases, countries with poor institutions block flows to diminish the risk of capital flight.

The risk of expropriation (or expectation of unlawful acts by the authorities) may also encourage firms to relocate some of their assets abroad, as may tax competition between countries. Outflows of capital from Poland present a good illustration. In 2011, the major recipients of Polish FDI were Luxemburg and Cyprus [National Bank of Poland, 2012], which accounted for a bulk of the outflows. These countries were also important direct investors in Poland. The observation of the flows of FDI, however, may not be sufficient to explain possible round tripping. Ju and Wei [2007], in their theoretical model, propose enhancing FDI analysis by introducing financial capital, as these two flows are highly interrelated.

The main goal of this paper is to investigate the relationship between the outflow of capital in the form of foreign direct investment and the quality of institutions in the home countries. The study was conducted using 125 economies across seven regions. This large sample permits conclusions to be drawn pertaining to the world economy.

The paper aims at contributing to the literature in two ways. First, by developing empirical evidence on the influence of institutions on FDI flows. Two layers of institutional environment are identified in this paper. Besides the political layer, the institutions directly associated with doing business were scrutinized based on data measured by two separate organizations.

Second, by developing empirical evidence on the factors attracting foreign investors to a particular country. This issue has been frequently analysed, and this paper contributes to that ongoing analysis in the context of institutions and OFDI.

The remainder of the paper is organized as follows. The next section reviews previous scholarly contributions on the relationship between institutions and FDI; next general trends in FDI outflow in the world economy are outlined; later the relevant econometric strategies are presented; they are followed by the results of the analysis and concluding remarks.

Previous Empirical Contributions

The literature regarding various determinants of FDI is very rich, but strongly skewed towards analyzing inflowing FDI, whilst OFDI is relatively neglected. Although inward FDI is important to host economies, looking at only one side of FDI flows may give a biased picture. Moreover, without knowing the determinants of outflows, it is difficult to assess the real determinants of inflows.

The new approach to OFDI is also suggested by changing conditions in the world economy, which include rising flows of capital from less advanced economies. Even though developed economies are still dominant, the dynamics of changes is irresistible. As the country pattern of OFDI changes, the reasons for this outflow may also alter. In the past, OFDI originated in countries of top quality institutions. Nowadays, countries with very diversified institutional environments have joined the list of major foreign investors.

According to Dunning [1998], the four basic motives of foreign expansion are: seeking markets, seeking resources, seeking efficiency, and seeking strategic assets. We could also describe them as proactive factors. However, recent evidence confirms that corporations are not only motivated by further development, but also by political or security reasons in a country of origin. Indeed, an analysis of home country conditions for business development may be very useful in understanding motivations for foreign expansion.

Difficult conditions in a home economy may actually force local firms to invest abroad, such as in the Russian Federation or Turkey, where inhospitable conditions for new entrants pushed domestic companies to escape abroad [Goldstein, 2009, p. 82]. Moreover, many established Russian banks and corporations transfer some assets abroad to protect them from the possible consequences of financial crises in their home economy [OECD 2011].

Empirical evidence regarding the role of institutions and FDI is also skewed. Most works focus on the institutional environment in a host country. One attempt to analyze the impact of home country institutions on FDI was conducted by Gliberman and Shapiro [2002], who focused on outward and inward FDI, concluding that the improved institutions positively influenced both type of flows. The case of industrialized countries facing increased outward FDI due to unfavourable institutional conditions was conceptualized by Witt and Lewin [2007]. These authors argued that home country restrictions may lead firms to escape abroad.

The scarcity of theoretical and empirical works on how institutions influence OFDI requires us to devise an ad-hoc specification for the econometric model used in this paper on the basis of evidence on inflows of FDI. Although previous contributions dealt with inward FDI, they also provide a partial framework for analyzing outflows. In this context, the positive effect of better host country institutions was confirmed by Mishra and Daly [2007]. Their study investigated the impact of institutions on OFDI from OECD countries. However, institution quality was analyzed with respect to host countries. Several prior works focused only on one aspect of the institutional environment (e.g., Habib and Zurawicki [2002] confirmed negative impact of corruption on inflows of FDI).

The impact of the quality of institutions has been shown to be an important determinant of FDI inflows independently of the level of GDP per capita, which is a universal measure of country development [Bénassy-Quér, Coupet, Mayer, 2007]. In the light of their findings, the improvement of institutions may itself attract more foreign capital in the form of FDI.

The positive influence of government stability, law and order was confirmed in a study of 83 developing countries by Busse and Hefeker [2007]. Their econometric analysis yielded important conclusions, though only few institutional indicators were confirmed as being statistically significant.

More specifically, democratic governance attracted significantly more capital than authoritarian regimes, when controlling for economic conditions [Jensen, 2003]. Furthermore,

protecting individual freedom and defending the rights of citizens may also attract more capital from abroad [Harms, Ursprung, 2002].

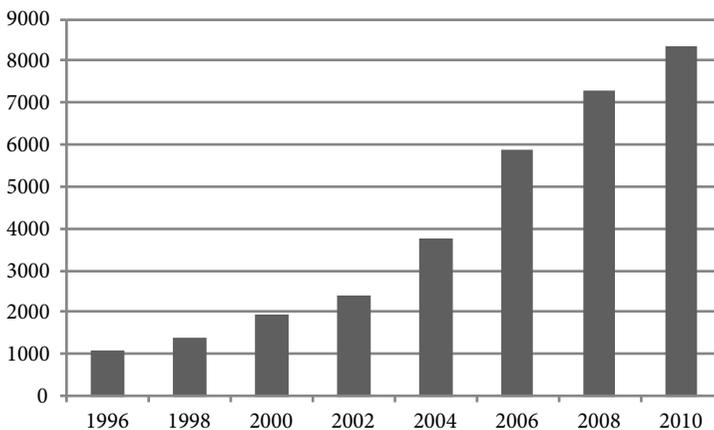
The quality of institutions in a host country is not equally important for each sector of an economy. Manufacturing and services are more dependent on good quality of institutions than are other primary sectors [Ali, Fiess, MacDonald, 2010]. The international business literature also provides evidence that institutional forces influence foreign entry mode choices [Yiu, Makino, 2002].

This literature review confirms the positive impact of better quality institutions on attracting FDI. At the same time, the conclusions for OFDI are more ambiguous. This demonstrates the need for further research on the issue. Using a wide sample over the long time period employing various econometric techniques may lead to meaningful results. The author focuses on universal measures in order to increase the applicability of these findings.

Stylized Facts

This part of the paper is devoted to presenting general trends in OFDI in the world economy, which over the past 15 years experienced severe economic turmoil and reconfiguration. These findings are also useful in designing the econometric strategy of this work.

FIGURE 1. Average value of outward stock of FDI/capita (in USD)



Note: population consists of 125 economies.

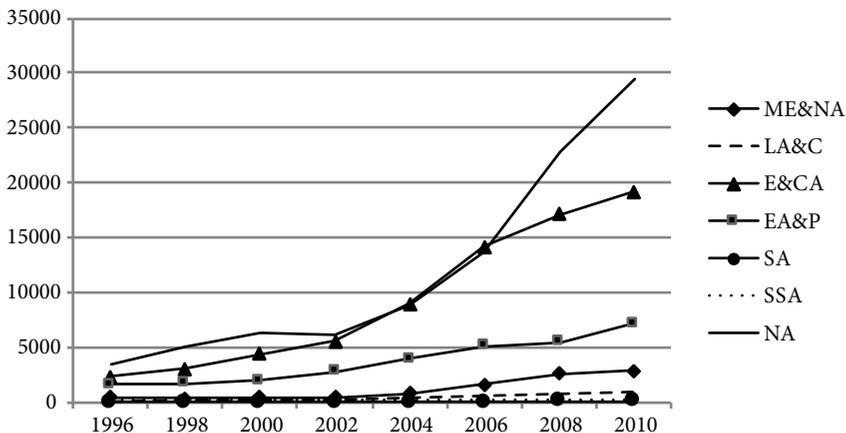
Source: own calculation based on UNCTADstat data, http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sRF_ActivePath=P,5,27&sRF_Expanded=P,5,27, accessed: 2013-07-01.

During the period of years 1996–2010 the average value of stock of OFDI per capita was growing significantly (Figure 1). In spite of the economic crisis of recent years, that trend has continued. Biennial results indicate the increasing importance of locating assets abroad. It is important to mention here that part of this growth may be explained by changes in the valuation of foreign assets or reinvestment of profits.

When analyzing the regional pattern of outward FDI stocks, there is a high disproportionality between particular regions (Figure 2). The dominance of North America and Europe has been even more evident in recent years. In the beginning of the analyzed period differences between regions were less stark, but subsequent years brought significant changes. The divergence between regions may be explained by the income gaps between them. Rich countries have abundant capital, allowing entities originating to examine investment opportunities abroad. This pattern may also be associated with the low level of interest rates in the developed world compared to less advanced regions. As a result, cheap money may be used to invest in locations bringing higher yields.

The ranking of East Asia and the Pacific region is significant, as this region is rapidly developing and may become important source of this type of capital. Latin America, South Asia, and Africa lag comparing to the remaining regions in capital expansion. Their levels are significantly lower than those of the other groups in the study.

FIGURE 2. Average value of outward stock of FDI/capita by regions [in USD]



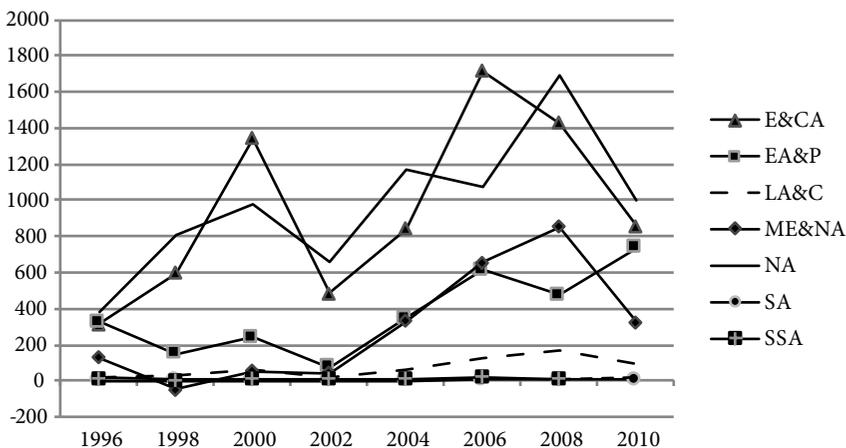
Note: population consists of 125 economies.

Source: own calculation based on UNCTADstat data, http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sRF_ActivePath=P,5,27&sRF_Expanded=P,5,27, accessed: 2013-07-01.

Using the stock of FDI, instead of flows in particular years, increased the meaningfulness of the results. Under this approach the long-term evolution of FDI was examined. However,

in order to capture the dynamics of FDI it is more convenient to use flows in particular years (Figure 3). The resulting general conclusions are similar to those presented in the case of stocks of FDI, with the exception that differences between particular regions are much lower. In 2010, the values of FDI flowing out of East Asia and Pacific almost reached the level of European countries, evidencing the rise of newly industrialized countries in Asia. Second tier regions are represented by Latin America, Sub-Saharan Africa, and South Asia.

FIGURE 3. Average value of annual outflows of FDI/capita by regions [in USD]



Note: population consists of 125 economies.

Source: own calculation based on UNCTADstat data, http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sRF_ActivePath=P,5,27&sRF_Expanded=P,5,27, accessed: 2013-07-01.

We also see the high volatility of FDI. Matched against events in the world economy, the vulnerability of FDI due to unfavourable economic conditions is apparent.

There is a high level of divergence between particular regions, which an econometric analysis should take into account. In so doing, a panel analysis will enhance the cluster feature.

Econometric Strategy

The empirical part of this paper investigates the relationship between institutional quality and the OFDI levels. The key dependent variable (*FDICAP*) is the natural logarithm of stock of O FDI per capita (see Table 1 for technical specifications). The measure adjusted for the number of citizens has been frequently used in this type of analysis,

which confers the important advantage of controlling for the size of an economy. Using data for the stock of FDI, instead of flows in particular years, allows for avoiding missing and negative values that would significantly limit the size of the sample. Since the goal of this paper is to provide the largest FDI picture, such additional restrictions would limit the value of the results. Another advantage of using stock values was to avoid deformation of the results caused by a single large transaction. Such transactions are particularly dangerous for the interpretation of results of developing economies, where FDI flows are at relatively lower levels.

Nevertheless, to achieve a more dynamic approach and, at the same time, check the robustness of the results, an analysis employing OFDI in particular years was also conducted (dependent variable *FDIFLOWCAP*). Due to the limitations mentioned above, the sample was less numerous but still provided important insight into the analyzed issue.

The independent variables may be divided into three groups. The first group consists of economic variables. These control variables were employed in the model as indicators of the level of development (*GDPCAP*) and growth of economies (*GDPG*). We can intuitively anticipate that a higher level of income in an economy will positively influence capital outflows. This is associated with the fact that higher levels of GDP/capita indicate an abundance of capital ready to invest in locations that bring higher returns. This is also consistent with the assumptions of Dunning's [1981] Investment Development Path.

The rate of GDP growth should be negatively associated with the outflows. Low levels of growth are a sign of weaker performance of a home economy, making long-term investors more interested in locations offering better prospects. Low growth rates do not attract new investment. Indeed, when economic growth is flatering the biggest drop tends to be in investment. Multinational corporations are perceived to be motivated also by the drive for diversification bringing higher returns than those attainable in the home economy [Caves, 2007, p. 25].

The second group of regressors is composed of variables indicating the quality of the institutional environment in a home country. This group pertains mostly to the quality of institutions on a macro level. They are important for business opportunities, but also influence the general political and social situation in a country.

Our data source was the Worldwide Governance Indicators (WGI) database. "These indicators are based on several hundred variables obtained from 31 different data sources, capturing governance perceptions as reported by survey respondents, nongovernmental organizations, commercial business information providers, and public sector organizations worldwide" [Kaufman, Kraay, Mastruzzi, 2010, p. 2]. WGI cover 6 areas of governance, however due to collinearity only 3 of them might have been employed in the estimation. Despite this limitation, the remaining variables still embrace areas that are crucial from the point of view of this analysis. The period covered by the indicators was between 1996 and 2011 (note: values for 1997, 1999, and 2001 were not available).

The variables can be described as pertaining to broadly perceived political institutions. *GE* (governance efficiency) is an indicator of the quality of political life in a country. A higher level of this variable should indicate a high level of commitment by politicians to publicly important issues, including the country's economic development. Where present, a high level of this indicator also suggests that a country offers a good environment for developing superior companies that may compete in the world economy. The efficiency of government is also associated with its size; hence, larger governments have more tools to impact the economy [LaPorta et al., 1998].

The variable *PV* (political stability) pertains to the perceived stability and security in a country. A reasonable level of peace and order is a prerequisite condition for developing most businesses. Therefore, higher stability and security should boost the rise of strong firms. These firms are prospective investors abroad. Conversely, a low level of stability and security may lead to capital outflows to safer locations with more predictable political situations. The negative influence of crime in attracting FDI was confirmed by Daniele and Marani [2011]. The expected sign of this variable may be twofold.

The third indicator in this group – *VA* (voice and accountability) – represents the power of citizens in governing a country. A high level of participation in public life reflects the small distance between authorities and members of a society. This variable was selected to indicate the presence of freedom of expression and access to independent sources of information as boosting foreign operations by home country firms.

The last group of descriptive variables is composed of indicators assessing the business environment in home country. The source of the data was the Ease of Doing Business Index (EDBI), elaborated annually by the World Bank. EDBI is a universal measure of the conditions of running a business and investing in a country. It does not appear to have yet been employed to assess investing abroad. Annual indicators were available for years 2005–2011, which is a period significantly shorter than WGI. Thus, the results may be altered. Variables given by WGI and EDBI were employed separately in the estimation because they cover different institutional environment areas and time spans.

From the wide range of areas covered by the EDBI, those pertaining to protecting property, financing business, protecting investors, the taxation system, and foreign trade were of particular interest. This array of indicators helped cover the areas that are important for the internationalization of firms, or the escape of capital. As was mentioned earlier, the author assumes that these mixed motives are the foundations for outflows of capital from the analyzed countries.

The variable *CEC* (cost to enforce a contract) reveals expenditures on judicial procedures in resolving a commercial dispute. It may be interpreted as the quality of the legal environment in a home country. It also speaks to the ease of protecting private property in an economy. If the costs are high, it also translates into the risk of expropriation. Therefore, high costs should discourage residents from storing high value assets in the home country, and at the same time encourage transfers to more “property-friendly” locations.

The next variable is the combination of legal rights and financial environment in a country. *SLR* (strength of legal rights) indicates the protection of the rights of borrowers and lenders. The higher the rank, the easier the lending process – thus improving conditions of doing business. Together with this variable comes *DCI*, which informs about access to credit information about borrowers, which reduces the risk of borrowing to low creditworthy partners. From a macro perspective, low levels of these gauges hinder the development of the debt market in an economy [Djankov, McLiesh, Schleifer, 2007]. In such a case, underdevelopment of this type of financial market may lead to the outflow of capital.

TABLE 1. Definitions of variables

Variable name	Definition
FDICAP	FDI per capita [USD at current prices and current exchange rates]
FDIFLOWCAP	FDI flows per capita [USD at current prices and current exchange rates]
GDPCAP	GDP per capita [USD at current prices and current exchange rates]
GDPG	GDP growth [annual %]
GE	Government Effectiveness captures 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 [in units of a standard normal distribution]. Source: Worldwide Governance Indicators by The World Bank
PV	Political Stability and Absence of Violence/Terrorism captures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism [in units of a standard normal distribution]. Source: Worldwide Governance Indicators by The World Bank
VA	Voice and Accountability captures 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 [in units of a standard normal distribution]. Source: Worldwide Governance Indicators by The World Bank
CEC	Cost to enforce a contract [% of claim]. Source: Doing Business by The World Bank
SLR	Strength of legal rights index [0=weak to 10=strong]. Source: Doing Business by The World Bank
DCI	Depth of credit information index [0=low to 6=high]. Source: Doing Business by The World Bank
SIP	Strength of investor protection index [0 to 10]. Source: Doing Business by The World Bank
TPN	Tax payments [number]. Source: Doing Business by The World Bank
DEX	Documents to export [number]. Source: Doing Business by The World Bank

Source: own elaboration.

The other variable concerns investor protection and the ease of solving intra-corporate issues. *SIP* (strength of investor protection) measures the extent to which investors are protected against potential misconduct by managers of an enterprise. The easier the directors may be sued for their wrongdoing, and the more access investors have to company documents, the higher the rank. In this paper, investor protection is a proxy for corporate governance quality. In other words, the higher rank the higher the responsibility and quality of management. It reflects the degree to which private property rights are protected and how much effort is required to protect those rights. Poor protection of property and contractual rights may deter investors from a particular location [Keefer, Knack, 1997].

The variable *TPN* measures the number of taxes paid by an enterprise. It comprises of all types of taxes and contributions. The lower the number of taxes the more favourable the conditions for doing business. The taxation system in a home economy may influence the foreign diversification opportunities of local firms [Desai, Dharmapala, 2009].

The last variable-*DEX* directly relates to the foreign operations of a company. *DEX* measures the number of documents required to complete all procedures to export a container abroad. In this paper, it is used as an indicator of the openness of an economy towards the foreign operations of firms. The easier the completion of this procedure, the cheaper it is to trade, thus supporting enterprise growth.

The explanatory variables presented below do not have one expected sign, as their impact on FDI may be twofold. This ambiguity of institutions was confirmed in the case of developing and transition economies. The better the quality of institution, the lower the outflows of capital [Kayam, 2009].

One more technical remark applies to countries in the samples. To avoid distorting the results, countries that were purely offshore financial centres were removed from the analysis.

The characteristics of the research problem suggested application of two methods of econometric analysis. First, a cross-sectional analysis of the variables over the period of 15 years was conducted. The benchmark regression for the cross-section analysis using WGI independent variables is given as follows:

$$\ln FDI_i = \beta_0 + \beta_1 \ln GDP_i + \beta_2 GDPG_i + \beta_3 GE_i + \beta_4 PV_i + \beta_5 VA_i + \epsilon_i \quad (1)$$

The regression for the cross-section analysis using EDBI independent variables takes the following form:

$$\begin{aligned} \ln FDI_i = \beta_0 + \beta_1 \ln GDP_i + \beta_2 GDPG_i + \beta_3 CEC_i + \beta_4 SLR_i + \beta_5 DCI_i \\ + \beta_6 SIP_i + \beta_7 TPN_i + \beta_8 DEX_i + \epsilon_i \end{aligned} \quad (2)$$

To capture time specific factors the panel analysis was employed. The benchmark regression for the panel data analysis using WGI independent variables is given as follows:

$$\ln FDI_{it} = \beta_0 + \beta_1 \ln GDP_{it} + \beta_2 GDPG_{it} + \beta_3 GE_{it} + \beta_4 PV_{it} + \beta_5 VA_{it} + \epsilon_{it} \quad (3)$$

The regression for the panel data analysis using EBDI independent variables takes the following form:

$$\ln FDI_{it} = \beta_0 + \beta_1 \ln GDP_{it} + \beta_2 GDPG_{it} + \beta_3 DCI_{it} + \beta_4 TPN_{it} + \beta_5 DEX_{it} + \epsilon_{it} \quad (4)$$

In all four equations *FDI* stands for FDICAP or FDIFLOWCAP, *i* is the country indicator, β_0 is the country-level effect and ϵ is an error term.

The descriptive statistics for all variables are given in the appendix (Table A2).

Econometric Analysis Results

For the purpose of ordinary least squares (OLS) analysis, both the dependent and independent variables were transformed into average values for all years. The coefficient for GDP per capita is highly significant, as expected (Table 2). This finding is in line with previous empirical contributions (e.g., Mishra and Daly [2007], Busse and Hefeker [2007]). The variable describing economic growth in home countries appears to not be important in capital outflows. In other words, the pace of development of the home economy does not influence the foreign expansion of local firms.

The most relevant variables, in the context of this paper, are those describing the political situation in home countries. The coefficient for government efficiency (*GE*) is positive and highly significant. It means that better quality institutions support outflow of capital. This should be read in tandem with the variable indicating security conditions in a country. The coefficient for the variable *PV* indicates that the lower the level of stability, the more outflows from a country. It confirms the hypothesis that safety is a basic condition necessary for running a business. The third observed variable (*VA*), indicating participation of citizens in the public life, is not important to decisions about the outflow of capital. These results are in line with expectations, as investors focus mostly on the stability of government and relative safety in the country of investment. The democratization of the country is a high priority.

Importantly, estimations using different dependent variables (stocks and flows), and sample sizes yielded similar results. This confirms the robustness of the model.

The findings previously presented are the framework for the rest of the analysis. Over the analysed period of 16 years, the most important indicators were those describing basic safety and quality of governance.

Various diagnostic tests were conducted for the OLS estimation. Multicollinearity was dismissed as a problem as the variance inflation factor (VIF) was very low. Normality of residuals was checked using the Shapiro-Wilk test. Homoscedasticity of residuals was

confirmed by White's test. Finally, the correctness of model specification was inspected and confirmed the inclusion of all relevant variables.

TABLE 2. OLS estimation results

Independent variables	LFDICAP		LFDIFLOWCAP	
	Coefficient	Standard error	Coefficient	Standard error
LGDPFCAP	1.708***	0.118	1.728***	0.136
GDPG	0.001	0.048	0.074	0.054
GE	0.805***	0.252	0.698**	0.269
PV	-0.477***	0.164	-0.345*	0.182
VA	-0.040	0.181	-0.037	0.198
_cons	-9.340	1.011	-11.853	1.183
Prob> F	0.000		0.000	
Adj. R2	0.902		0.897	
obs.	125		97	

Note: *, **, *** represent statistical significance at 0.1, 0.05, 0.01 level respectively.

Source: own elaboration.

The second part of the analysis is based on panel data (Table 3). This panel set is very close to be fully balanced (some details for only several observations are missing). Hausman's test confirms that a fixed effects model should be used instead of a random effects model. The estimation is enhanced by the clustering option. This allows the disturbance terms to be correlated within each cluster, but independent between clusters [Baum, 2006, p. 138]. The observations were grouped in 7 clusters with respect to the geographic region. Using cluster the option helped overcome the issue of heteroscedasticity and autocorrelation [Hoechle, 2007].

To increase the robustness of the results, the dependent variables were 1 year lagged. This seems justified by the time necessary to identify the impact of institutional changes by enterprises interested in investing in a particular location.

The results of this part of the analysis differ moderately from those of OLS estimation. Although the coefficient for income per capita remained positive and significant in the case of stock of FDI, the other economic indicator – GDP growth – appeared to be statistically significant but negative. This value is straightforward to interpret. FDI outflows from economies recording a low level of the dynamics of growth. Capital should flow to economies with brighter growth outlooks, as confirmed by Busse and Hefeker [2007]. Similar results were obtained through estimating lagged variables. Somehow mixed were the results on the impact of growth on FDI flows. In this case, higher growth was associated with more outward FDI.

The institutional variables changed their values comparing to OLS analysis. Government efficiency (*GE*) is no longer significant, but retains the positive sign. Peaceful conditions (*PV*) still negatively impact capital outflow. The coefficient for public accountability (*VA*) became significant, but only when dependent variables were not lagged. The two institutional variables that are statistically significant point to rising outflows when there are weaker local conditions. This may be a motive to relocate the business and capital. Weaker impact of institutions on the flows of FDI was confirmed by the second part of the panel data analysis (columns: LFDIFLOWCAP and Lagged LFDIFLOWCAP). Public accountability was significant at a very low 10% level, but when the dependent variable was lagged, only political stability proved to be an important factor influencing OFDI.

TABLE 3. Panel data estimation results

Independent variables	LFDICAP		Lagged LFDICAP		LFDIFLOWCAP		Lagged LFDIFLOWCAP	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
LGDP CAP	1.696***	0.360	1.391***	0.275	2.283***	0.205	1.776***	0.31
GDPG	-0.015*	0.007	-0.03**	0.01	0.032**	0.009	-0.021*	0.009
GE	0.518	0.268	-0.034	0.152	0.367	0.225	-0.079	0.313
PV	-0.098*	0.042	-0.343*	0.16	0.24	0.187	-0.552*	0.136
VA	-0.518**	0.178	0.078	0.268	0.279*	0.14	0.532	0.486
_cons	-9.325	3.049	-6.672	2.336	-16.833	1.835	-12.073	2.733
Prob> F	0.000		0.005		0.000		0.001	
R2 (within)	0.423		0.337		0.363		0.186	
R2 (between)	0.876		0.880		0.907		0.884	
No of groups	125		125		97		97	
No of obs.	1593		1104		1126		782	

Note: *, **, *** represent statistical significance at 0.1, 0.05, 0.01 level respectively. Standard error adjusted for 7 clusters.

Source: own elaboration.

Our previously presented estimation assessed the overall political conditions in home countries. This analysis employs variables directly associated with the environment of doing business (Table 4). The same framework as for the WGI data is employed. The basic variables describing economic conditions retain their mixed significance. In this specification, the volume of GDP and its growth behave in the same way as reported earlier (Table 2). Importantly, the institutional variables appear to not be highly significant. Only three out of six variables influence the values of FDI located abroad, and this impact is significant merely at the 5% and 10% levels.

The highest significance was the variable describing the legal environment (*SLR*) in a home country. It also proved important in the case of FDI flows. The impact is positive, thus indicating that the level of protecting financial relations has a positive impact on the level of OFDI.

The coefficient for the number of tax payments (*TPN*) comes as expected; the higher the number of contributions, the lower the level of outward FDI. The last variable – number of days necessary to conduct an exporting procedure (*DEX*), indicates that the longer it took, the lower level of FDI. This may be read as making foreign contacts even more difficult.

TABLE 4. OLS estimation results

Independent variables	LFDICAP		LFDIFLOWCAP	
	Coefficient	Standard error	Coefficient	Standard error
LGDPCCAP	1.833***	0.114	1.854***	0.129
GDPG	0.023	0.039	0.073*	0.041
CEC	0.006	0.006	-0.002	0.008
SLR	0.100**	0.050	0.092*	0.054
DCI	-0.040	0.061	-0.135*	0.073
SIP	0.039	0.078	0.044	0.092
TPN	-0.009*	0.005	-0.005	0.006
DEX	-0.112*	0.062	-0.106	0.073
_cons	-10.268	1.263	-12.273	1.463
Prob> F	0.000			
Adj. R2	0.897			
obs.	125			

Note: *, **, *** represent statistical significance at 0.1, 0.05, 0.01 level respectively.

Source: own elaboration.

The panel data analysis employing Ease of Doing Business indicators had to be redesigned due to collinearity between variables. Out of six variables used in the OLS analysis, only three were employed in panel analysis.

The results of this part of analysis confirm the importance of economic variables (Table 5). The institutional variables are here less significant and only two of them have any influence on the outflow of capital. Similarly, the tax variable is negative and significant, thus indicating the negative impact of a rising number of contributions on the level of investment abroad. This may be read as making business more difficult. The other significant variable was access to business intelligence. The higher the level of available data, the more outflows from an economy.

TABLE 5. Panel data estimation results

Independent variables	LFDICAP		Lagged LFDICAP		LFDIFLOWCAP		Lagged LFDIFLOWCAP	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
LGDP CAP	0.825***	0.183	0.830***	0.137	1.109***	0.247	0.431	0.509
GDPG	-0.020***	0.003	-0.028***	0.003	0.030***	0.004	-0.017	0.01
DCI	0.169***	0.011	0.210***	0.031	0.057**	0.023	0.146	0.08
TPN	-0.011***	0.003	-0.010***	0.003	-0.011*	0.004	-0.008	0.004
DEX	0.002	0.033	0.002	0.043	-0.015	0.067	-0.050	0.072
_cons	-1.926	1.702	-2.232	1.081	-5.838	2.015	0.217	4.293
Prob> F	0.000		0.000		0.000		0.0363	
R2 (within)	0.234		0.212		0.071		0.034	
R2 (between)	0.853		0.836		0.877		0.802	
No of groups	125		125		97		97	
No of obs.	859		735		609		522	

Note: *, **, *** represent statistical significance at 0.1, 0.05, 0.01 level respectively. Standard error adjusted for 7 clusters.

Source: own elaboration.

The results presented in this section predominantly refer to developing or transition economies, which represent 93 out of 125 economies in the main sample (the countries of average income per capita lower than USD 20,000). Therefore, some of the results seem ambiguous. In most cases, poor quality of institutions at home determined larger outflows than might be expected from observing only an economic dimension.

Summary and Conclusions

This paper explores the influence of quality of institutions on the outflows of foreign direct investment in 125 countries. Two different groups of variables, representing the political environment and the business environment, were employed in the econometric analysis.

It bears emphasis, before stating any conclusions, that the author was very cautious throughout this paper in designating the outflows of capital as the expansion of multinational corporations. In many instances, the authentic reasons for flows were not of a business nature. These outflows may be better described as an escape from a home country. The composition of the sample indicates that this may be the case. Most countries in the sample belong to the group of developing and transition economies where, on one the hand, institutions are not in perfect shape and, on the other hand, the number

of multinational corporations lags as compared to developed countries. Moreover, in the case of developed countries, OFDI may also be motivated by the desire to escape from high public contributions or uncertainties about the local financial system.

The main finding of this paper is that the quality of institutional environment plays an important role in the value of the capital located abroad in the form of FDI. However, this impact is particularly significant in the case of governance quality and political stability. The democratization of the home country is therefore a high priority.

When examining the quality of the business environment, the results are less straightforward. Only variables describing the quality of the legal environment and taxation system were of particular importance in this respect.

The general trend observed in this paper was that improved conditions of a home country's environment decreased the volume of OFDI. This is in accord with earlier works employing different sizes of samples and using different indicators for institution quality. This finding is useful from the point of view of policy implications. Many countries focus on attracting inflows of FDI, but do little to retain capital in their economy. Improving home country institutions does not incur as high costs as some other measures undertaken to attract investment from abroad; for example, road infrastructure or education. Creating better institutional conditions could reduce undesirable outflows of capital from a home country.

Notes

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² Earlier version of this paper was presented at the European Trade Study Group Conference 2013 in Birmingham, United Kingdom.

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Appendices

TABLE A1. Regions

1	EA&P	East Asia & Pacific
2	E&CA	Europe & Central Asia
3	LA&C	Latin America & Caribbean
4	ME&NA	Middle East & North Africa
5	NA	North America
6	SA	South Asia
7	SSA	Sub-Saharan Africa

Source: own elaboration.

TABLE A2. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
CEC	875	29.177	20.048	0	142.4
DCI	875	3.358	2.124	0	6,0
DEX	875	6.158	2.382	0	14,0
GDPG	1625	3.817	4.284	-17.955	37.756
GE	1625	0.196	0.973	-1.727	2.408
LFDICAP	1602	4.973	3.303	-5.806	12.53
LFDIFLOWCAP	1132	3.489	3.29	-10.268	10.406
LGDPFCAP	1616	8.395	1.592	4.71	11.494
PV	1625	-0.023	0.93	-2.734	1.665
SIP	875	4.989	1.848	0	9.7
SLR	875	5.331	2.67	0	10,0
TPN	875	28.811	23.53	0	147,0
VA	1625	0.062	0.96	-1.939	1.826

Source: own elaboration.