

Host Country's Governance and the Size of Foreign Investors

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Abstract: This paper tests whether smaller foreign investors are more sensitive to the quality of host country's governance than larger investors. This may be the case as smaller foreign firms have less bargaining power, undertake more innovative activities and/or are more sensitive to uncertainty and risk. The results lend support to the hypothesis.

Keywords: *foreign direct investment, governance, property rights.*

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1. Introduction

The determinants of foreign direct investment (FDI) have received lots of attention in the empirical literature.¹ A number of studies show that host country governance characteristics, such as poor protection of property rights and corruption can negatively affect FDI by increasing the threats of expropriation and the costs of doing business (Lee and Mansfield (1996), Li and Resnick (2003), Wei (2000a and 2000b)). However, the empirical literature has paid little attention to the *differential* impact of host country governance characteristics on foreign investors of various sizes. This issue is policy relevant given the importance that policymakers attach to the role and internationalization of small and medium size businesses (SME) and the crucial role they play in fostering innovation (Acs et al. (1996), Beck et al. (2005), UNCTAD (1998)).

There are reasons to believe that smaller foreign investors can be more sensitive to host country's institutional quality than larger investors. Svensen (2003) found that the bargaining power of the foreign investors matters for their investment decisions. Larger foreign investors are more likely to have bargaining power, make more credible threats of retaliation to foreign governments if their property rights are violated, and can afford lawyers and bribes due to more resources, contacts and clout (Acs et al, 1996). Moreover, as Acs et al. (1996) argue, since innovation is largely due to smaller firms, they need better protection of property rights.² Finally, poor institutions increase risk and uncertainty. As Ghosal and Loungani (2000) show, smaller firms are more sensitive to heightened uncertainty and risk.

We test the hypothesis that a smaller firm's FDI is more sensitive to host country's governance characteristics than a larger firm's FDI using detailed firm level data on European investments. Various property rights and corruption indices are used as proxies for the quality of governance in host countries. We find that poor governance in host countries has a larger deterrent effect on smaller foreign investors.

¹ See Blonigen (2005) for a survey of the literature.

² According to Acs and Audretsch (1988), the correlation of patents with the rate of product and production innovation is higher for smaller firms than larger firms. According to UNCTAD (1993) report, transnational SMEs conduct more R&D and produce more patented goods compared to domestic SMEs.

The paper is structured as follows. Section 2 outlines the model. Section 3 describes the data and the variables. Section 4 discusses the results. Section 5 concludes.

2. The Model

We estimate the following fixed effect logit model

$$FDI_{ic} = 1 \text{ if } FDI_{ic}^* > 0$$

$$FDI_{ic} = 0 \text{ otherwise}$$

where

$$FDI_{ic}^* = d_i + \beta_1 X_c + \beta_2 Governance_c + \beta_3 Governance_c * Size_i + u_{ic} \quad (1)$$

where the dependent variable takes on the value of one if firm i has invested in country c and zero otherwise. For each firm the number of observations is equal to the number of possible destination countries in the sample. To control for unobserved firm characteristics, firm-specific dummy variables (d_i) are employed. On the right hand side we include controls for host country characteristics (X_c), and an interaction term between a proxy for the destination country's quality of governance and parent firm's size, measured by the logarithm of firm's total assets.

3. Data Description

The data come from the commercial database *Amadeus*. We focus on the largest 10,000 firms operating in Europe (the size measured by the value of total assets in 1999) and their subsidiaries in twenty-three Western and Eastern European countries during 1998-2001.³

A data set on new subsidiaries is constructed by comparing the subsidiary listings for companies included in both the 1998 and 2001 versions of the Amadeus database. The ownership information pertains mostly to year 2000 and 1999.

³ We focus only on European subsidiaries, as they represent almost 90% of the new subsidiaries. The following countries are included: Austria, Belgium, Bulgaria, Switzerland, Czech Rep., Denmark, Germany, Spain, Finland, France, UK, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Sweden, Slovakia, Turkey, Ukraine.

We use several governance measures. The Property Rights index comes from the *Global Competitiveness Report 2001-2002* (World Economic Forum). It is based on an extensive survey of managers and intends to capture the possibility of expropriation of assets, insecurity of property rights and contracts. A higher score implies better protection of property rights.

Next, we use the governance measure derived by Kaufmann, Kraay and Zoido-Lobaton (1999), henceforth Governance KKZ. Higher values imply better governance. The Governance_KKZ index is a more sophisticated and improved version of the popular Transparency International Corruption index.

Following Smarzynska and Wei (2004), we also use the composite corruption measure, called GCR_WDR, based on data from the *Global Competitiveness Report* (GCR) 1997 and from the *World Development Report* (WDR) surveys. Higher numbers mean more corruption.

The final measure - German Exporter Index is based on the information obtained by Neumann (1994) from German exporters. The measure indicates the proportion of the transactions that involved corrupt payments.⁴ A higher value means more corruption.

Turning to other host country specific characteristics, we control for factors commonly mentioned in the literature as determinants of FDI. Population size is used as a proxy for market size. We expect that larger markets will attract more foreign investors. We use the FDI_Restrictions Index derived by Wei (2000). The index focuses on areas such as foreign exchange controls, exclusion of foreign firms from strategic sectors, and restrictions on the share of foreign ownership. A higher value implies more restrictions. Corporate taxation in the host country is another factor that can affect FDI (Hines, 1996, Devereux and Griffith, 1998). We employ the corporate tax rates as reported by KPMG (2000). If several rates apply, the highest one is used. Finally, we add a dummy variable for transition countries to control for other differences between industrialized and transition economies that may not be captured by the explanatory variables.

The summary statistics are presented in Tables 1.

⁴ Neumann's index was also used by Ades and Di Tella (1997).

4. Estimation results

The estimation results are reported in Table 2. The first 4 columns report the regression results for various governance indices used (without the interaction term). The rest of the columns include the interaction term. Since information on FDI_Restrictions is missing for some countries, in the last four columns we drop the FDI_Restrictions index to add more observations.

The size of host country's population positively affects FDI – a larger population implies a larger market, making FDI more attractive. Host country FDI_Restrictions have a negative effect on FDI. A higher corporate tax rate makes the country less attractive for FDI. The transition dummy is significantly negative. Transition countries could be at a disadvantage vis-à-vis Western Europe as they have opened to FDI relatively recently, implying lower agglomeration and knowledge transmission effects.

The specifications in column (1)-(4) use various governance indices as regressors. Column (1) uses the Property_Rights index; column (2) uses the Governance_KKZ index; column (3) uses the GCR_WDR index; and column (4) uses the German_Exporter index. For the first two indices, as the value of the index increases, governance becomes better. The opposite is true for the last two indices. It follows from Table 2 that improved governance in host country increases a firm's incentive to undertake FDI in that country.

To test if governance affects foreign investors differently, in the last 8 columns we interact the host country's governance measures with the size of the foreign investor. In column (5), host country Property_Rights index is interacted with the size of foreign investor. The interaction term is significantly negative at 1%, implying that larger foreign investors are less sensitive to host country's Property_Rights protection. In Column (6) the Governance_KKZ index is interacted with foreign investor's size. It is significant at 1%. In Columns (7) and (8), the GCR_WDR and German_Exporter indices are used. Both interaction terms are significant at 1%.

To increase the number of transition countries, columns (9)-(12) drop the FDI_Restrictions index. The results indicate that our previous findings are robust to increasing the number of countries in the dataset.

As another robustness check, not presented here to save space, we focused on explaining the determinants of FDI volume rather than the decision to invest. The results

confirm our previous findings that smaller foreign investors are more sensitive to host country's institutional quality than larger investors.⁵

5. Conclusion

The existing empirical literature on determinants of FDI has paid little attention to the impact of host country's institutional quality on foreign investors of various sizes. Smaller investors may be more sensitive to property rights protection and/or corruption as they have lower bargaining power and undertake more innovative activity. Our results support the hypothesis that poor governance in host countries has a larger deterrent effect on smaller foreign investors.

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⁵ These results are not included due to space constraints but are available upon request.

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Table 1. Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Host country population (log)	81420	16.679	1.071	15.138	18.800
FDI_Restrictions	81420	1.478	1.74	0	4
Tax_Rate	81420	32.89	7.11	18	51
Property_Rights	81420	5.33	1.20	2.4	6.5
Governance_KKZ	81240	1.35	1.11	-0.89	2.58
GCR_WDR	81240	2.93	1.36	1.3	5.5
German_Exporter	81240	2.26	2.72	0	8

Table 2. Fixed Effect Logit

	Columns (1)-(4): No Interaction Term				Columns (5)-(12): With Interaction Term							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Population	1.136*** [0.017]	1.241*** [0.019]	1.223*** [0.018]	1.241*** [0.018]	1.131*** [0.017]	1.235*** [0.019]	1.225*** [0.018]	1.238*** [0.018]	1.187*** [0.017]	1.354*** [0.018]	1.294*** [0.017]	1.295*** [0.017]
FDI_Restrictions	-0.483*** [0.016]	-0.350*** [0.019]	-0.374*** [0.018]	-0.448*** [0.016]	-0.482*** [0.016]	-0.347*** [0.019]	-0.372*** [0.018]	-0.446*** [0.016]				
Tax_Rate	-0.103*** [0.002]	-0.094*** [0.002]	-0.073*** [0.002]	-0.091*** [0.002]	-0.104*** [0.002]	-0.094*** [0.002]	-0.073*** [0.002]	-0.091*** [0.002]	-0.119*** [0.003]	-0.082*** [0.002]	-0.069*** [0.002]	-0.093*** [0.002]
Transition_Dummy	-1.503*** [0.063]	-0.917*** [0.077]	-1.120*** [0.070]	-1.564*** [0.062]	-1.517*** [0.064]	-0.922*** [0.079]	-1.130*** [0.070]	-1.577*** [0.062]	-1.151*** [0.060]	-0.406*** [0.070]	-0.779*** [0.064]	-1.615*** [0.055]
Property_Rights	0.736*** [0.025]				1.441*** [0.116]				1.672*** [0.109]			
Governance_KKZ		0.555*** [0.037]				1.068*** [0.115]				1.414*** [0.101]		
GCR_WDR			-0.647*** [0.024]				-0.861*** [0.085]				-1.216*** [0.081]	
German_Exporter				-0.252*** [0.009]				-0.448*** [0.040]				-0.589*** [0.039]
Property_Rights * Size					-0.098*** [0.016]				-0.089*** [0.015]			
Governance_KKZ * Size						-0.075*** [0.017]				-0.025* [0.013]		
GCR_WDR * Size							0.030*** [0.012]				0.038*** [0.011]	
German_Exporter * Size								0.027*** [0.005]				0.032*** [0.005]
Observations	81420	81420	81420	81420	81420	81420	81420	81420	95688	95688	95688	95688

Standard errors in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%

