Composition of International Equity Flows*

Alina Arefeva†

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Abstract

The paper examines the influence of the size of a firm on the investor's choice between foreign direct and foreign portfolio investment. The foreign direct investment (FDI) is more efficient due to stronger control rights of the investor. But foreign portfolio investment (FPI) is more liquid. The size of the firm brings about additional concerns regarding the FPI vs FDI trade-off. First, large firms have an attractive feature: the government has an incentive to support large firms who face bankruptcy in order to avoid the harmful consequences of their failure for the economy. On the other hand, large FDI firms are more vulnerable to expropriation or nationalization, at least in countries with poor protection of property rights and weak democratic institutions. In the model higher degree of support from the government to big firms results in higher investment in FPI relative to FDI for bigger firms. The preliminary empirical evidence based on the World Bank Survey of Productivity and Investment Climate[1] supports the hypothesis of positive relationship between size of the firm and FPI investment.

Keywords: Foreign Direct Investment, Foreign Portfolio Investment

JEL classification: F21, F23, G11

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†New Economic School and Higher School of Economics, Russia, E-mail: alina.arefyeva@gmail.com

[1]The data were kindly provided by Veronica Santarosa, Yale University (http://www.econ.yale.edu/ vas32/)

1 Introduction

The investor faces a trade-off between FDI and FPI: Foreign Direct Investment is more efficient than FPI, because of influence of investor on the management of the enterprise, whereas FPI is more liquid. The substitutability of FDI and FPI flows is suggested by their negative correlation in the data for many emerging economies, and in the small open economy model with financial frictions, as was pointed out by Smith and Valderrama (2009)[2]. Size of the firm affects the decisions of investors. First, big firms can be protected by government, because their bankruptcy may hurt economy. Secondly, big FDI projects can be expropriated. FDI projects can be expropriated, because investors can be spotted out and deprived of ownership. Big project are subject to expropriation, as the expropriation is costly and expropriation makes sense only if benefits from expropriation are high (big firms).

The purpose of the paper is to analyse the influence of size of firm on the choice of investor between FDI and FPI. I build a model, in which investor can choose type of investment and size of project to invest in, and test empirically the prediction of the model using the data from 2002 to 2005 for developing and developed countries. In the model FDI projects are advantageous for investors due to their efficiency and information superiority. However, FDI projects have disadvantage of being less liquid[3]. The prediction of the model that FPI investment is associated with bigger projects is consistent with empirical evidence.

Foreign Direct Investment is defined by IMF as "a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is a resident in another economy". Foreign Direct Investment

[2]The model was calibrated for Mexico

[3]Liquidity is not modeled explicitly, for analysis of liquidity risks see Goldstrein, Razin (2006); The FDI benefits in the model are overweighted by incurring costs of gaining superior information

is usually in the form of owning productive assets of the company, whereas Foreign Portfolio Investment is usually made in form of buying shares. In contrast to FDI, portfolio investor does not retain control.

Both FDI and FPI serve as a source of additional financing resources, but FDI is less volatile and less reversable than FPI. Countries are usually interested in stimulating foreign direct investment as a stable type of capital inflows. Optimal policy design and explanation of empirical regularities regrading inflows and outflows of Foreign Direct Investment and Foreign Portfolio Investment requires examination of political and economic factors undermining the choice between FDI and FPI. The paper focuses on political factors and their interaction with the size of the firm that affect the FDI/FPI ratio.

The paper is organized as follows. The second section reviews literature on the foreign investment flows. The third section presents the model of the investor choice of financing FDI or FPI projects and the choice of the size of the projects. The forth section tests the implications of the model using firm-level data. The final section concludes.

2 Literature Review

Determinants of composition of international equity flows affect the choice between FDI and FPI at the level of investors in the source country and at the level of the firms in the host country.

Goldstrein, Razin (2006), Goldstrein, Razin, Tong (2008) focus on factors at the level of investors in the source country, in particular on asymmetric information and liquidity risks. The contribution of Goldstrein, Razin, Tong (2008) is showing theoretically and empirically that higher probability of aggregate liquidity crisis induces more FPI than FDI, and the effect strengthens as the capital transparency worsens.

My model differs from Goldstrein, Razin (2006), Goldstrein, Razin, Tong (2008) in two ways. Firstly, heterogenous firms (small and big) are considered and, secondly, model accounts for factors of composition of capital flows in host country.

From the point of view of the Dunning's theory[4], which argues that the international production is driven by a firm's specific ownership of assets, the firm's internalization benefits and the location-specific features of the firm, this article concentrate on the third set of factors. The local-specific advantages, as noted by Li, Resnik (2003), comprise "high economic development, or favorable macroeconomic, microeconomic, and FDI-specific government policies", for instance, "government policies on tariffs, ...investment or tax regulation of foreign firms,...intellectual property right protection." The theoretical and empirical literature on the location-specific factors considers the political economy of FDI capital flows.

Durnev, Enikolopov, Petrova, Santarosa (2010) discuss political factors at the level of the firm in the host country. They analyse influence of political instability, political inequality and extent of agency problems on FPI/FDI ratio. The paper concludes that higher political instability, lower political inequality and greater extent of agency problems result in less FPI relative to FDI.

Jensen (2003) and Li, Resnik (2003) explore the relationship between democracy and FDI inflows. Jensen conducted the cross-sectional and time-series analysis for data on 114 countries from 1980 to 1990-s that suggests a positive relationship between democratic political institutions and FDI inflows. The estimations using Heckman model imply that democracy as opposed to autocracy is associated with 70% more FDI inflows. On of the mechanisms emphasized by Jensen of positive influence of democracy on FDI inflows is alleviating political risks. In particularly, decrease the risk of nationalization in form of expropriation of revenue streams (so called "creeping" expropriation) or implicit expropriation in form of taxing or other regulations. Li, Resnik

[4]Dunning (1988, 1993)

(2003) use empirical evidence from 53 developing countries in 1982-1995 to examine the channels of influence of democracy on FDI inflows. They found out that the democracy promote FDI inflows through strengthening property rights protection, but controlling for the improvements in the property rights protection, democracy hinders FDI inflows.

Heinsz (2000a) analyzes effects of political and contractual hazards on the decision of multinational firms to entry a foreign country and the choice of market entry mode. The three hypotheses are proposed and tested empirically using two-stage bivariate probit estimation. First, the higher is the level of contractual hazards (the risk of "devaluation or expropriation by a joint-venture partner" of assets of the MNF used in the joint-venture) the higher is the probability of choosing a majority-owned plant as the form of market entry mode. Second, the political hazards (explicit expropriation or implicit assets' capture, for example, through taxation or regulation) induce preference for a minority-owner over a majority-owned market entry mode. Third, political hazards strengthen the positive effects of contractual hazards on probability of a majority-owned plant as an investment mode. The results of estimation using the Conference Board Manufacturers' Database, political hazards measures from Heinsz (2000b) and the International Country Risk Guide variables confirm these conjectures.

Baker, Foley and Wurgler (2009) treat Multinational Firms (MNFs), which buy FDI, as arbitrageurs on the financial market, and argue that stock market valuations in source and host country influence FDI flows. They test two hypotheses: a "cheap financial capital" hypothesis and a "cheap asset hypothesis". The cheap financial capital hypothesis brings about outward FDI flows from the source country when the stock valuations in source country are high, because the overvalued source country firm has cheap financial resources it can invest in FDI. The cheap asset hypothesis means that multinational firms have more incentives to provide funds for FDI to the firm which is under-

valued. The empirical evidence[5] shows that the positive relationship between country level stock market valuations and FDI flows is strong, which is in favor of the cheap financial cost hypothesis, but the cheap asset hypothesis fails to gain empirical support.

Antras, Desai, Foley (2009) analyze the design of optimal contact between the multinational corporation, the external creditor and individual entrepreneur who uses technologies of the MNC to supply products on the foreign (for MNC) market. They prove that weak investor protection implies that in the optimal contract MNC used FDI flows instead of the arms-length technology transfer to make external investor confident that the establishment maximizes profit, and the firm-level data confirm their findings.

3 The Model

3.1 Setup

The model is based on Goldstein, Razin (2006). There is a continuum of risk-neutral investors (investor i, $i\epsilon[0,1]$) who may invest in small open economy. Each investor maximize profits[6], and can finance one project. I assume that investor can choose the size of investment.

3.2 Timing, Strategies and Payoffs

There are 4 types of projects. Investor can choose between FDI and FPI and small and big firm. The FDI projects are managed by investors, that is, investors have direct control over the project.

[5]Based on FDI outlows and inflows to US, M&A (Mergers and Acquisitions, frequently FDI is in form of cross-border M&A) data and the OECD FDI dataset

[6]Of course, investors can pursue objectives other than maximizing profits, but assumption about profit maximization is adopted as a starting point

But investor incurs cost c of acquiring information about the FDI project. The FPI projects are less efficient, since the project is not directly controlled by investors.

The big firms can profit from attractive opportunity: the government wants to support big firms in case of bankruptcy to avoid harmful consequences for economy. Specifically, the government provides funds to insure that the return of the project isn't affected by extremely negative values of shocks (in particular, revenue shocks). Additionally, large FDI projects can be expropriated (with probability p), at least in countries with poor protection of property rights and weak democratic institutions. The assumption about expropriating FDI firms is based on the results of works Antras, Desai, Foley (2009), Heinz (2000a), Li, Resnik (2003), Jensen (2003) and taken here as given. Additionally, I assume that big firms are expropriated, because there are costs, associated with expropriation. Therefore expropriation is justified if the costs are overwhelmed by the benefits (Guriev, Kolotilin, Sonin (2010)), and in case of big firms benefits of expropriation are potentially higher.

The net cash flow from the project (as in Goldstrein, Razin (2006)) is

$$R(K, \epsilon) = (1 + \epsilon)K - K^2/2 \tag{1}$$

where K is capital, ϵ is revenue shock, distributed on $[-1, 1]$ with probability distribution function $g(.)$ and cumulative distribution function $G(.)$ (with $E\epsilon = 0$).

As in Goldstrein, Razin (2006) FDI investors can efficiently choose $K(\epsilon)$, since they observe realization of ϵ, but FPI investors can't choose conditionally on the realized value of ϵ.

There are 3 periods $(t = 0, 1, 2)$. The timing is the following:

1. Investors choose the type of project.

2. The shock ϵ is realized. FDI investors make their choice of $K(\epsilon)$. And FPI investors instruct their manages to choose K (they don't know the exact value of the shock).

3. The big FDI projects are expropriated with exogenous probability p and the government guarantees that the revenue never falls less than $(1 + \underline{\epsilon})$ per unit of labor. Investors get net cash flow from their projects.

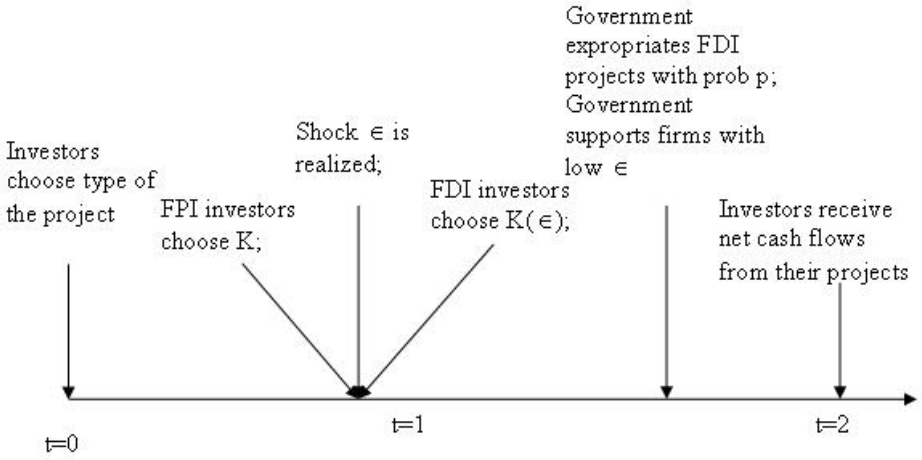

Figure 1. Timing

The strategy of investor i is a function $s_i \colon T \times V \times C^{T \times V} \to T \times V \times C$, where $\tau \in T = \{FDI, FPI\}$ is type of investment, $\nu \in V = \{S, B\}$ is the size of the firm (S stands for Small, B - for Big), C is the set of continuous functions of one variable. That is, investor i chooses type of investment τ from the set T, size of the project ν from the set V, and optimal labor function L, depending on the type of the project. The set of possible strategies of investor i is S_i, which is a set of all possible strategies s_i. I focus on pure strategies. The utilities derived from strategies s_i are presented in table 1.

Table 1. The payoffs from 4 types of projects

$U_i(s_i)$	Small	Big
FPI	$R(K,\epsilon)$	$\begin{cases} R(K,\epsilon), & \text{if } \epsilon > \underline{\epsilon}, \\ R(K,\underline{\epsilon}), & \text{otherwise} \end{cases}$
FDI	$R(K,\epsilon) - c$	$\begin{cases} -K^2/2 - c, & \text{expropriation} \\ R(K,\epsilon) - c, & \text{if } \epsilon > \underline{\epsilon} \text{ and no expropriation} \\ R(K,\underline{\epsilon}) - c, & \text{otherwise} \end{cases}$

3.3 The Choice of Investor

The optimal choice of investor are found by backward induction. First, the optimal capital is found depending on the type of investment. Secondly, the optimal type of investment and size of project for investor are determined.

3.4 Small firms

Maximization of expected return for FPI investors leads to instructing managers to choose $K_{S,FPI} = 1$. The expected net cash flow from FPI small firm is

$$U_{S,FPI} = ER(K_{S,FPI}, \epsilon) = 1/2, \tag{2}$$

where $E(.)$ denotes expectation.

In contrast to FPI, the FDI project's investor, who simultaneously is the manager, observes ϵ. Consequently, he can choose the optimal value of K for any realization of the shock:

$$K(\epsilon)_{S,FDI} = (1 + \epsilon) \tag{3}$$

and their ex-ante expected utility is

$$U_{S,FDI} = ER(K(\epsilon)_{S,FDI}, \epsilon) = E(1+\epsilon)^2/2 - c. \tag{4}$$

3.5 Big firms

The big FPI project investors maximize the ex-ante expected utility from the project:

$$E(R(K,\epsilon)|\epsilon \geq \underline{\epsilon}) = (1 + \underline{\epsilon}G(\underline{\epsilon}) + (1 - G(\underline{\epsilon}))E(\epsilon|\epsilon \geq \underline{\epsilon}))K - K^2/2 \tag{5}$$

Therefore, the optimal choice of capital is

$$K_{B,FPI} = (1 + \underline{\epsilon}G(\underline{\epsilon}) + (1 - G(\epsilon))E(\epsilon|\epsilon \geq \underline{\epsilon})) \tag{6}$$

Thus, the ex-ante expected utility from big FPI project is

$$U_{B,FPI} = E(R(K_{B,FPI}, \epsilon)|\epsilon \geq \underline{\epsilon}) = (1 + \underline{\epsilon}G(\underline{\epsilon}) + (1 - G(\epsilon))E(\epsilon|\epsilon \geq \underline{\epsilon}))^2/2 \tag{7}$$

The big FDI project are more efficient, but can be expropriated. In case of expropriation all the revenue is extracted.

$$U_{B,FDI}(K,\epsilon) = \begin{cases} (1-p)(1+\epsilon)K - K^2/2 - c & \text{if } \epsilon \geq \underline{\epsilon} \\ (1-p)(1+\underline{\epsilon})K - K^2/2 - c & \text{otherwise} \end{cases} \tag{8}$$

The optimal capital for each value of revenue shock is

$$K_{B,FDI}(\epsilon) = \begin{cases} (1-p)(1+\epsilon) & \text{if } \epsilon \geq \underline{\epsilon} \\ (1-p)(1+\underline{\epsilon}) & \text{otherwise} \end{cases} \tag{9}$$

The expected ex-ante utility from big FDI project is

$$U_{B,FDI} = U_{B,FDI}(K_{B,FDI}(\epsilon), \epsilon) = (1-p)^2(G(\underline{\epsilon})(1+\underline{\epsilon})^2 + (1 - G(\underline{\epsilon}))E((1+\epsilon)^2|\epsilon \geq \underline{\epsilon}))/2 - c \tag{10}$$

Table 2. The ex-ante expected returns of 4 types of projects

$U_{\nu,\tau}$	Small	Big
FPI	1/2	$((1+\underline{\epsilon})G(\underline{\epsilon}) + (1-G(\underline{\epsilon}))E((1+\epsilon)\|\epsilon \geq \underline{\epsilon}))^2/2$
FDI	$E(1+\epsilon)^2/2 - c$	$(1-p)^2(G(\underline{\epsilon})(1+\underline{\epsilon})^2 + (1-G(\underline{\epsilon}))E((1+\epsilon)^2\|\epsilon \geq \underline{\epsilon}))/2 - c$

The optimal type of investment and size of the project is $argmax_{\nu,\tau}U_{\nu,\tau}$. It is easy to see than in this simple model all investors make the same choice due to their homogeneity. But, as Goldstrein, Razin (2006) show, it can be changed by introducing heterogenous liquidity shocks to investors.

3.6 Comparative Statics

Prediction 1 The increased support from government, i.e. increased $\underline{\epsilon}$, makes it more attractive to invest in bigger firms relative to small firms

Prediction 2 The increased support from government (increase in $\underline{\epsilon}$), makes FPI more attractive relative to FDI.

The increased government support lead to investment in bigger firms and higher FPI/FDI ratio. Hence, higher size is associated with higher FPI relative to FDI.

The I justify predictions numerically. I used parameter values [7] $c = 0.3$, $p = 0.1$ and uniform distribution of revenue shock for drawing graphs (figure 3).

[7] The illustrations are qualitatively the same for other parameter values

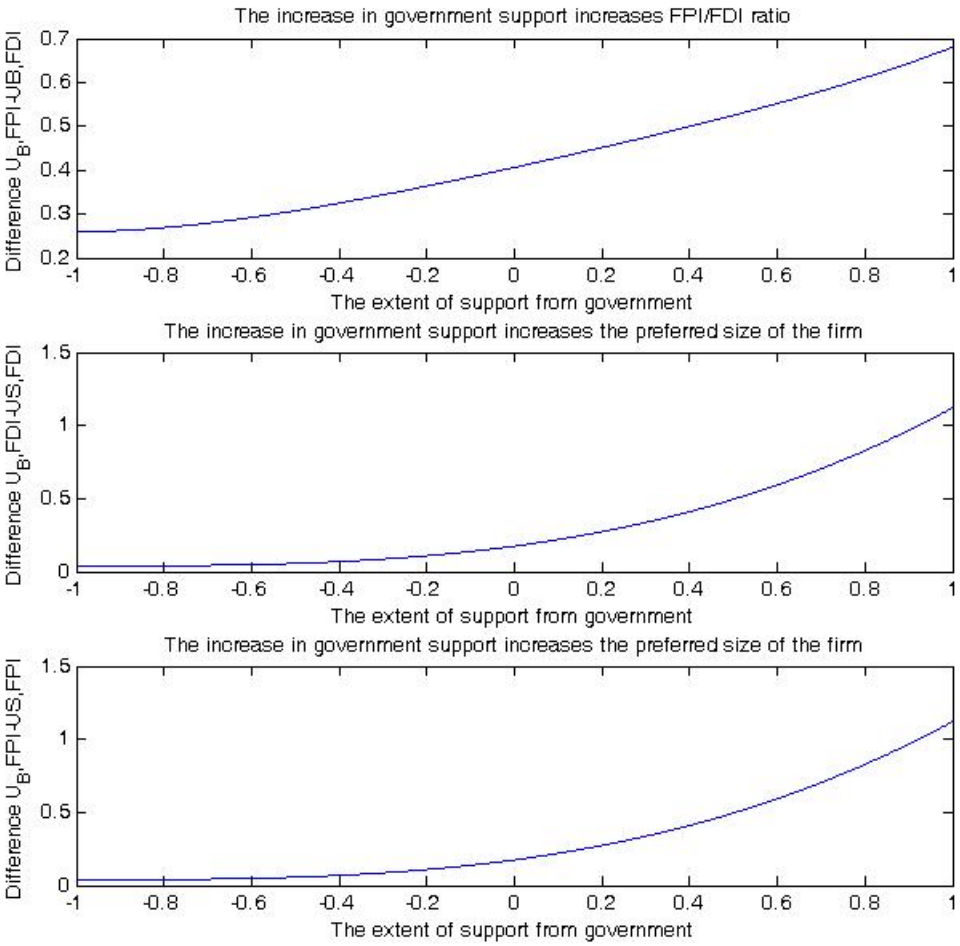

Figure 3. Illustration of Prediction 1 and 2.

4 Empirical Evidence

4.1 Data

Empirical evidence is based on the World Bank Survey of Productivity and Investment Climate. The Private Enterprise Survey of the World Bank contains yearly firm-level data from 2002 to 2006 on type and distribution of ownership, size of the firm and other variables. The Survey provides information on 72000 firms from 104 countries and 72000 firms. As I compare foreign direct investment and foreign portfolio investment, I restrict the sample to include only the firms with non-zero foreign ownership. The sample, used in the paper, includes approximately 8500 firms from 101 countries[8]. The summary statistics for the sample are provided in tables (3) and (4) in appendix.

The type of foreign ownership is determined by the following question: "What percentage of your firm is owned by 1) private sector ..., a) domestic ..., b) foreign ..., 2) Goverment/State ..., 3) Other ...?". The firms with non-zero foreign private investment are considered. Foreign Direct Investment is defined as ownership of more than 10 % of stake of the firm, and Foreign Direct Investment otherwise (non-zero foreign ownership, but less than 10 %) according to IMF definition.

Size of the firm is defined by number of permanent and temporary workers (accounting for duration) and varies from small (1-20 workers) to medium (20-100 employees) and big (more than 100 employees). I use dummies for medium and big firms in estimation.

Country-level control variables that are used in specification are logarithm of GDP per capita, logarithm of Population and Market Capitalization in % of GDP.

[8]The list of countries can be found in table (1) in appendix

4.2 Results

The basic specification is linear probability model with country fixed effects (and clustered standard errors):

$$FPIDummy_{it} = \alpha + \beta_0 MediumSizeDummy_{it} + \beta_1 BigSizeDummy_{it} + \gamma X_{it} + \varepsilon_{it} \quad (11)$$

FPI Dummy equals one if private foreign ownership is between 0 and 10%, and zero, if it equals or exceeds 10%. Medium Size Dummy is a dummy for medium size firm, i.e. number of employees of the firm is between 20 and 100. Big Size Dummy is a dummy for big size firms, that is, number of employees is more than 100. X_{it} is the vector of control variables: logged GDP per capita, logged Population and Market Capitalization as % of GDP.

The results of estimation of the basic specification can be seen in table 3. Estimates of coefficients for both Size Dummies (Dummy for Medium Size firm and Dummy for Big Size firm) are significant at 1 % significance level. Medium Size Firms are associated with 1% higher probability of foreign portfolio investment (as compared with foreign direct investment) than small firms. The effect is magnified for bigger firms: the probability of FPI is 1.9 % higher for big firms as opposed to small firms, and 0.9 % higher as opposed to medium firms.

Table 3. Testing the size hypothesis

Dependent variable Dummy FPI - Dummy for no foreign control				
VARIABLES	(1)	(2)	(3)	(4)
Dummy Medium Size Firm	0.0097**	0.0096**	0.0095*	0.0095*
	[0.0046]	[0.0046]	[0.0049]	[0.0049]
Dummy Large Size Firm	0.0186***	0.0187***	0.0188***	0.0189***
	[0.0058]	[0.0057]	[0.0062]	[0.0060]
Log (Population)	0.0972	0.2819	0.0970	0.2816
	[0.1152]	[0.2196]	[0.1187]	[0.2194]
Log (GDP per capita)	0.0662**	0.0787	0.0663**	0.0796
	[0.0286]	[0.0656]	[0.0288]	[0.0659]
Market capitalisation, as % of GDP	-0.0011**	-0.0013***	-0.0011**	-0.0013***
	[0.0004]	[0.0005]	[0.0004]	[0.0005]
Fixed effects				
Year	no	yes	no	yes
Industry	no	no	yes	yes
Observations	8,549	8,549	8,496	8,496
R-squared	0.0314	0.0318	0.0311	0.0316

Robust standard errors in brackets

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

The firms with non-zero foreign ownership are included in the sample

I estimated additional specifications to control for possible nonlinear effects and provide robustness checks. Firstly, specifications with interaction terms between controls and Size Dummies were estimated (tables (5)-(8) in appendix). The estimated coefficients become insignificant for some specifications with a lot of interaction terms possibly due to collinearity. The coefficients for interaction terms are insignificant. Secondly, I add industry[9] and year fixed effects; the results essentially do not change (tables (6)-(8) in appendix).

5 Conclusion

The size of the firm influences choice of investor between FDI and FPI. On the one hand, support from government to big firms makes them more attractive for investment, on the other hand, big FDI projects can be expropriated. It can be concluded that FPI investment is associated with bigger firms in theory and in practice.

Future research includes additional robustness checks of the empirical results (other definition of size of the firm; adding other controls, for example, differentiate exporters and non-exporters; using probit and logit models), analyzing factors that determine not only the decision between FDI and FPI, but also the volume of FPI and FDI investment (can be done by estimating heckit model), explicit inclusion of proxy for support of the government in empirical specification and possible modification of the model.

[9]Industries are defined according to standard ISIC two-digit classification, 30 industries

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6 Appendix

Table 1: **Countries included in the sample (101 country)**

Albania	Colombia	India	Moldova	South Africa
Algeria	Congo, Dem. Rep.	Indonesia	Mongolia	South Korea
Angola	Costa Rica	Ireland	Morocco	Spain
Argentina	Croatia	Jamaica	Namibia	Sri Lanka
Armenia	Czech Republic	Jordan	Nicaragua	Swaziland
Azerbaijan	Dominican Republic	Kazakhstan	Niger	Syrian Arab Republic
Bangladesh	Ecuador	Kenya	Oman	Tajikistan
Belarus	Egypt	Kyrgyz Republic	Pakistan	Tanzania
Benin	El Salvador	Lao PDR	Panama	Thailand
Bolivia	Eritrea	Latvia	Paraguay	Turkey
Bosnia and Herzegovina	Estonia	Lebanon	Peru	Uganda
Botswana	Ethiopia	Lesotho	Philippines	Ukraine
Brazil	Gambia, The	Lithuania	Poland	Uruguay
Bulgaria	Georgia	Macedonia, FYR	Portugal	Uzbekistan
Burkina Faso	Germany	Madagascar	Romania	Vietnam-B
Burundi	Greece	Malawi	Russia	West Bank and Gaza
Cambodia	Guatemala	Malaysia	Rwanda	Zambia
Cameroon	Guinea	Mali	Senegal	
Cape Verde	Guyana	Mauritania	Serbia and Montenegro	
Chile	Honduras	Mauritius	Slovakia	
China	Hungary	Mexico	Slovenia	

Table 2: **Correlations between variables of interest**

	FPI Dummy	Size	Logarithm of Population	Logarithm of GDP per capita	Market Capitalization, % of GDP
FPI Dummy	1				
Size	0.0548	1			
Logarithm of Population	0.0145	0.2282	1		
Lorarithm of GDP per capita	0.0205	0.0404	-0.0761	1	
Market Capitalization, % of GDP	0.053	0.1868	0.2229	0.4702	1

Table 3: **Summary statistics for FDI and FPI firms**

Type of investment	Mean			
	Size	Population, mln	GDP per capita	Market capitalization
FDI	2.2	146.7	3,028.9	30.4
FPI	2.5	105.0	3,237.5	41.9
Total	2.2	145.4	3,035.6	30.8

Table 4: **Descriptive statistics**

Variable	Mean	Std. Dev.	Min	Max
FPI Dummy	0.031	0.17	0	1
Size	3.2	1.4	1	5
Logarithm of Population	16.97	1.76	13.15	20.97
Logarithm of GDP per capita	7.42	1.12	4.53	10.30
Market Capitalization, % of GDP	31.50	39.14	0	209.71

Size is a categorical variable. Size equals 1 (small firms) if number of employees is less than 20, equals 2 (medium firms) if number of employees is between 20 and 100, and equals 3 (big firms) if number of employees is more than 100.

Market capitalization in % of GDP

Table 5: **Testing the size hypothesis (with interactions)**

Dependent variable Dummy FPI - Dummy for no foreign control				
VARIABLES	(1)	(2)	(3)	(4)
Dummy Medium Size Firm	0.0073	0.0046	0.0077	0.0065
	[0.0051]	[0.0277]	[0.0056]	[0.0261]
Dummy Large Size Firm	0.0180***	-0.0086	0.0158**	-0.0099
	[0.0066]	[0.0356]	[0.0074]	[0.0328]
log(GDP)*Medium Size Dummy		0.0005		0.0001
		[0.0038]		[0.0034]
log(GDP)*Large Size Dummy		0.0035		0.0037
		[0.0050]		[0.0043]
Market Capitalization*Medium Size Dummy/100		-0.0021	-0.0002	
		[0.0141]	[0.0129]	
Market Capitalization*Large Size Dummy/100		0.0012	0.0070	
		[0.0194]	[0.0170]	
Log (Population)	0.2738	0.2598	0.2661	0.2612
	[0.2200]	[0.2167]	[0.2182]	[0.2173]
Log (GDP per capita)	0.0724	0.0700	0.0720	0.0698
	[0.0671]	[0.0671]	[0.0670]	[0.0672]
Market capitalization, as % of GDP	-0.0013***	-0.0013***	-0.0014***	-0.0013***
	[0.0005]	[0.0005]	[0.0005]	[0.0005]
Year and industry fixed effects	yes	yes	yes	yes
Observations	8,496	8,496	8,496	8,496
R-squared	0.0359	0.0360	0.0359	0.0360

Robust standard errors in brackets

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

The firms with non-zero foreign ownership are included in the sample

Table 6: **Testing the size hypothesis (with interactions)**

Dependent variable Dummy FPI - Dummy for no foreign control				
VARIABLES	(1)	(2)	(3)	(4)
Dummy Medium Size Firm	0.0097**	0.0117	0.0101**	0.0129
	[0.0046]	[0.0277]	[0.0050]	[0.0260]
Dummy Large Size Firm	0.0186***	-0.0121	0.0171**	-0.0108
	[0.0058]	[0.0347]	[0.0065]	[0.0321]
log(GDP)*Medium Size Dummy		-0.0002		-0.0004
		[0.0038]		[0.0034]
log(GDP)*Large Size Dummy		0.0042		0.0039
		[0.0049]		[0.0044]
Market Capitalization*Medium Size Dummy/100		-0.0018	-0.0007	
		[0.0132]	[0.0122]	
Market Capitalization*Large Size Dummy/100		-0.0017	0.0049	
		[0.0169]	[0.0149]	
Log (Population)	0.0972	0.0886	0.0932	0.0885
	[0.1152]	[0.1152]	[0.1145]	[0.1157]
Log (GDP per capita)	0.0662**	0.0648**	0.0665**	0.0650**
	[0.0286]	[0.0289]	[0.0286]	[0.0288]
Market capitalisation, as % of GDP	-0.0011**	-0.0010**	-0.0011**	-0.0011**
	[0.0004]	[0.0005]	[0.0005]	[0.0004]
Year and industry fixed effects	no	no	no	no
Observations	8,549	8,549	8,549	8,549
R-squared	0.0314	0.0316	0.0314	0.0316

Robust standard errors in brackets

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

The firms with non-zero foreign ownership are included in the sample

Table 7: **Testing the size hypothesis (with interactions)**

Dependent variable Dummy FPI - Dummy for no foreign control				
VARIABLES	(1)	(2)	(3)	(4)
Dummy Medium Size Firm	0.0073	0.0048	0.0077	0.0070
	[0.0052]	[0.0276]	[0.0056]	[0.0261]
Dummy Large Size Firm	0.0176**	-0.0089	0.0154**	-0.0101
	[0.0068]	[0.0359]	[0.0075]	[0.0332]
log(GDP)*Medium Size Dummy		0.0004		0.0000
		[0.0038]		[0.0034]
log(GDP)*Large Size Dummy		0.0035		0.0037
		[0.0050]		[0.0044]
Market Capitalization*Medium Size Dummy/100		-0.0025	-0.0006	
		[0.0142]	[0.0131]	
Market Capitalization*Large Size Dummy/100		0.0011	0.0068	
		[0.0195]	[0.0171]	
Log (Population)	0.0692	0.0615	0.0644	0.0627
	[0.1181]	[0.1176]	[0.1171]	[0.1182]
Log (GDP per capita)	0.0601**	0.0588**	0.0604**	0.0588**
	[0.0290]	[0.0293]	[0.0290]	[0.0292]
Market capitalisation, as % of GDP	-0.0010**	-0.0010**	-0.0011**	-0.0010**
	[0.0004]	[0.0004]	[0.0004]	[0.0004]
Year fixed effects	no	no	no	no
Industry fixed effects	yes	yes	yes	yes
Observations	8,496	8,496	8,496	8,496
R-squared	0.0354	0.0355	0.0354	0.0355

Robust standard errors in brackets

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

The firms with non-zero foreign ownership are included in the sample

Table 8: **Testing the size hypothesis (with interactions)**

Dependent variable Dummy FPI - Dummy for no foreign control				
VARIABLES	(1)	(2)	(3)	(4)
Dummy Medium Size Firm	0.0096**	0.0116	0.0099**	0.0065
	[0.0046]	[0.0278]	[0.0050]	[0.0261]
Dummy Large Size Firm	0.0187***	-0.0120	0.0171***	-0.0099
	[0.0057]	[0.0345]	[0.0065]	[0.0328]
log(GDP)*Medium Size Dummy		-0.0002		0.0001
		[0.0038]		[0.0034]
log(GDP)*Large Size Dummy		0.0041		0.0037
		[0.0049]		[0.0043]
Market Capitalization*Medium Size Dummy/100		-0.0012	-0.0002	
		[0.0131]	[0.0121]	
Market Capitalization*Large Size Dummy/100		-0.0012	0.0053	
		[0.0169]	[0.0148]	
Log (Population)	0.2819	0.2659	0.2762	0.2612
	[0.2196]	[0.2169]	[0.2181]	[0.2173]
Log (GDP per capita)	0.0787	0.0761	0.0784	0.0698
	[0.0656]	[0.0658]	[0.0656]	[0.0672]
Market capitalisation, as % of GDP	-0.0013***	-0.0013***	-0.0013***	-0.0013***
	[0.0005]	[0.0005]	[0.0005]	[0.0005]
Year fixed effects	yes	yes	yes	yes
Industry fixed effects	no	no	no	no
Observations	8,549	8,549	8,549	8,496
R-squared	0.0318	0.0320	0.0319	0.0360

Robust standard errors in brackets

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

The firms with non-zero foreign ownership are included in the sample