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(updated version of WP 07-02)
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International Studies Program
Andrew Young School of Policy Studies
Georgia State University
Atlanta, Georgia 30303
United States of America

Phone: (404) 651-1144
Fax: (404) 651-4449
Email: ispaysps@gsu.edu
Internet: http://isp-aysps.gsu.edu

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Public Policies and FDI Location: Differences between Developing and Developed Countries

Timothy Goodspeed[*], Jorge Martinez-Vazquez[**], and Li Zhang[***]
**Hunter College and CUNY Graduate Center*
*** International Studies Program, Andrew Young School of Policy Studies, Georgia State University*
****Central University of Finance and Economics, China*

Abstract

Host country government officials in developing and developed countries alike would like to know the impact of their public policies on foreign investment in their countries. Unfortunately, the literature does not provide a single view, and there are likely to be differences between developing and developed countries. This paper examines the impact of three host country government policies on the host's FDI stock: taxation, good governance, and infrastructure. We focus on whether the impact of these factors on FDI differs depending on the level of development of the host country. The regression results indicate that FDI is sensitive to host country taxation in developed countries, but not in developing countries; FDI is sensitive to host country corruption in developing countries but not developed; and FDI shows sensitivity to host country infrastructure quality in both developed and developing host countries, though FDI appears to be more sensitive in developing host countries.

I. Introduction

Foreign direct investment (FDI) can provide a number of benefits to countries that need capital including higher growth, greater exports, higher wages, and greater productivity through technology spillovers to local firms. While the evidence of the impact of FDI is somewhat mixed,[1] government officials in developing and developed countries alike would like to know the impact of their public policies on foreign investment in their countries. Unfortunately for government officials, the literature does not provide a single view. This is in part because the literature on the impact of policies on FDI has taken place in at least three sub-disciplines within economics (public finance, international economics, and regional economics). In addition, Blonigen and Wang (2004) argue that there is good reason to think that host country public policies have different marginal effects depending on the level of development of the host country. This paper examines the impact of a host country's public policies on its FDI stock, with particular emphasis on the development level of the host country.

We begin with a brief review of the literature. The public finance literature has focused on taxation and generally finds significant tax effects, though the estimated elasticity varies significantly depending on the data set used and whether the study is cross-sectional or panel. This literature starts with a set of papers from the 1980s, including Hartman (1984), Boskin and Gale (1987), and Young (1988). These papers use a time series of aggregate BEA data and find significant effects of taxation on FDI with an elasticity of about -0.6. Others, such as Swenson (1994) find significant effects when

[1] Lipsey (2002) surveys this literature and finds that the evidence indicates that FDI increases exports, sometimes increases growth (especially in developing countries with export promotion policies), has a somewhat ambiguous impact on local wages, and also has an unclear impact on technology spillovers to local firms.

disaggregating the data by industry. A second set of studies, such as Hines and Rice (1994) and Grubert and Mutti (1991), use the cross-sectional depth of the BEA data to examine FDI across countries for a given year. These studies also find significant effects, though with more variation in the point estimate of the effect of taxes. A third set of studies uses firm-level data, usually in a panel. Studies such as Auerbach and Hassett (1993) and Cummins and Hubbard (1995) use Compustat data, Ondrich and Wayslenko (1993) use a Commerce Department survey, and Altshuler, Grubert, Newlon (2001) use U.S. Treasury data. Hines (1996) also uses a panel, but exploits state-level tax differences using BEA data. All these studies also find significant effects of taxation, but with a wide range of elasticity estimates.

In the international literature, Wheeler and Mody (1992) conducted an early and influential study of foreign investment determinants and found that agglomeration – measured by infrastructure quality – is an important determinant while taxes are not a significant determinant. An alternative interpretation is that infrastructure quality measures government investment spending since roads and many forms of infrastructure are in fact publicly provided. A more recent study by Cheng and Kwan (2000) examines FDI in China and finds a positive impact of infrastructure, but they do not include a tax measure.[2]

The idea that government spending and investment decisions as well as taxes influence location decisions is a central theme of studies that examine regional or within-

[2] There is also a literature in development economics that examines FDI flows. For instance Loree and Guisinger (1995), Kumar (2001), and Asiedu (2002) study the impact of infrastructure on FDI flows. A recent study by Dollar et al. (2004) uses a firm-level data set for eight countries to estimate the effect of some "investment climate" indicators (days to clear goods through customs, days to get a telephone line and sales lost to power outage) on FDI flows. Their study is cross-sectional in nature and they find that FDI is larger in those countries where these indicators are better.

country location of mobile factors and is embodied in Tiebout (1956) models of location. The basic insight is that owners of mobile factors of production consider the benefits from government spending as well as the costs of taxation in location decisions.[3] The logic of this argument suggests that government spending that is beneficial to investors (such as public investment in infrastructure for foreign investors) should have positive effects on FDI in a region.

Other papers in public finance have started to incorporate spending as well as taxes. For instance, Buettner (2002), looks at bilateral FDI flows within Europe and finds that while the marginal tax burden and the statutory tax rate have strong effects, the effects of public expenditures (including indicators of public spending in general and rankings of competitiveness related to public sector activities) are weak. Bénassy-Quéré et al. (2007) attempt to examine tax competition by regressing U.S. foreign direct investment in 18 European Union countries over 1994-2003 on several variables, including the corporate tax rate and the stock of public capital, used as a proxy for public input. These authors find a dominant role for the tax factor. Mutti and Grubert (2004) examine multinational affiliate production and find that sensitivity to taxes is more pronounced in high-income countries, suggesting that "they offer better infrastructure, agglomeration benefits, or a uniquely attractive market opportunity." (p. 357)

Recently, a literature has arisen within public finance that recognizes that an important factor affecting FDI location is institutions that provide a good environment for conducting business. The level of corruption is one measure of the business environment and Wei (2000a, 2000b) has carefully studied this aspect. He finds significant negative

[3] A recent review of many aspects of this literature is found in Oates (1999); for some recent empirical work in this area see Buettner (2002).

effects using several definitions of corruption. Dharmapala and Hines (2006) document the importance of good governance for tax havens. A recent OECD working paper, Hajkova, Nicoletti, Vartia, and Yoo (2006) finds that government policies other than taxes are important determinants of FDI location in OECD countries.

In this paper we examine the impact of a country's public policies on the stock of its FDI. Our focus is on differences between developing and developed countries. We test for those differences along three public policy dimensions: taxation, infrastructure, and good governance. Our findings indicate that the stock of FDI is sensitive to host country taxation in developed countries, but not in developing countries; FDI is sensitive to host country corruption in developing countries but not developed; and FDI shows sensitivity to host country infrastructure quality in both developed and developing host countries, though FDI appears to be more sensitive to infrastructure quality in developing host countries.

The rest of the paper is organized as follows. In section II we present our data. In section III we discuss our estimation results. Section IV concludes.

II. Data

Our main objective is to estimate and compare the impact of a host country's taxation, infrastructure quality, and governance quality on its stock of FDI, testing for differences between developing and developed countries. To do this we will use a panel data set with a dummy for the type of country (developing or developed). The dummy will be interacted with our main variables of interest (taxation, infrastructure, and good governance). We, of course, will control for other well-known determinants of FDI.

Our dependent variable will be the log of the stock of FDI of country i in year t, and comes from UNCTAD (United Nations Conference on Trade and Development). Our three main policy variables are taxes, infrastructure quality, and governance quality. These variables present some measurement challenges. Our tax variable is computed as the minimum of: (i) the effective tax rate faced by the firm calculated using data from the Bureau of Economic Analysis (BEA),[4] and (ii) the statutory tax rate from data from the Office of Tax Policy Research (OTPR). The idea of this variable is that the statutory tax rate may be too high because of depreciation allowances, tax holidays, and so forth that are granted by the host country. The effective tax rate is a simple measure of foreign taxes paid in country i divided by profits; if it is lower than the statutory rate, we take this measure which helps to more accurately reflect the true tax burden. (King-Fullerton effective rates are unavailable for most developing countries.) We also lag our tax variable to try to correct for any endogeneity.

Our second main policy variable, the quality of infrastructure, uses a general index computed by the World Bank and it is based on data from the World Competitiveness Yearbook. The infrastructure index includes basic infrastructure (roads, other transportation infrastructure, health infrastructure, and others), technological infrastructure (telecommunications, computers, and so forth), energy self-sufficiency, and environmental infrastructure (waste treatment and so forth). The actual composition of the variable is described in Table A-2 in the Appendix. The third policy variable of interest is a measure of good governance. For this we use a measure of corruption, the

[4] The effective tax rate is calculated as the ratio ((foreign income taxes)/(foreign income taxes + net income)) of all affiliates for U.S. firms operating in each country abroad and for each year. This is a proxy variable as we do not expect that the taxes paid abroad by the U.S. multinationals to be identical to the taxes paid by other multinationals.

"Corruption Perception Index" from Transparency International. (This index uses a higher number for less corruption so in our empirical work we take the negative of the index in order to ease the interpretation.)

Our other control variables include the unemployment rate, population, GDP, and exports; this last variable, exports, is lagged to try to correct for potential endogeneity. These variables have been consistently found in the past literature to be determinants of FDI. The unemployment rate controls for business cycle effects. Population is a proxy for market size, which other things equal should attract more FDI. Exports control for the openness of an economy. Holding population constant, GDP is a measure of wealth and can be roughly interpreted as controlling for the return on investment or marginal product of capital. Generally, poorer countries lack capital and hence should be expected to have a higher return on investment than wealthier countries, other things equal, which implies an inverse relationship between GDP and FDI.

We should note that observations for the three main policy variables (the tax rate, the infrastructure index, and the corruption index) are available for varying numbers of years and countries. In all, 53 countries are covered for the tax rate for the years 1984 to 2002; 47 countries for the corruption index for 1995 to 2002; and 37 countries for the infrastructure index for 1996 to 2002. We thus limit our regressions to include countries and years for which all relevant information is available. The sample includes both developing and developed countries in different regions of the world. The list of the countries covered, missing data, definition of the variables, data sources, and summary statistics are presented in Tables A-1, A-2, and A-3 in the Appendix.

III. Estimation Results

This section analyzes the correlation between the pattern of host country FDI stocks and host country policy variables. A very rough way to begin our examination is to divide our host countries into developing and developed groups, then divide each of these groups in two again according to whether the relevant policy variable (tax rate, infrastructure index, corruption index) is high or low (defined relative to the median of each group). We can then compare the average FDI stock for high and low values of our policy variables within the developing country category, and similarly for developed countries.

The results of this exercise are shown in Charts 1, 2, and 3 for the year 1996. Chart 1 shows average host country FDI stocks for high- and low-tax developed countries, and average host country FDI stocks for high- and low-tax developing countries. A clear inverse relationship emerges for each group: low-tax developed countries have on average greater FDI stocks than high-tax developed countries. Similarly, low-tax developing countries have on average greater FDI stocks than high-tax developing countries. Chart 2 shows average host country FDI stocks for high- and low-corruption developed countries, and average host country FDI stocks for high- and low-corruption developing countries. Again a clear inverse pattern is observed: low-corruption developed countries have on average greater FDI stocks than high-corruption countries, and similarly for developing countries. Chart 3 presents average host country FDI stocks for high- and low-infrastructure quality for developed and developing countries. The inverse relationship is evident for developed country hosts – high-

infrastructure quality hosts have higher FDI stocks than low-infrastructure hosts for developed countries. The relationship for developing countries appears flat for 1996.

The results in the charts above are suggestive and we next move to our regression analysis. We start with very basic regressions for each of our main variables. We first regress the log of FDI on each of our policy variables separately with the only additional variables a developed/developing dummy and an interaction term. This gives a first look at the explanatory power of each policy variable in a regression framework, and the different impact of the policy variables on developed and developing countries. We then add additional control variables and year dummies and again focus on differences in the coefficients and significance of our policy variables for developing and developed countries. Our general specification is thus:

$$\text{Log FDI}_{it} = \alpha_0 + \alpha_1 \text{Dev\_Dum}_i + \alpha_2 \text{Year\_Dum}_t + \sum \beta_m \text{PolicyVar}_{mit} + \sum \gamma_m \text{PolicyVar} * \text{Dev\_Dum}_{mit} + \sum \phi_n \text{Controls}_{nit} + u_{it} \quad (1)$$

where FDI_{it} is the stock of FDI in country i in year t, Dev_Dum_i represents a developing/developed country dummy, $Year\_Dum_t$ represents a year dummy, $PolicyVar_{mit}$ represents policy variable m (where m = tax variable, governance variable, infrastructure variable as discussed above), and $Controls_{nit}$ represents control variable n. The semi-log specification implies a non-linear, exponential relationship between the stock of FDI and the explanatory variables.

Tables 1a, 1b, and 1c show the results of our first basic regressions with only our policy variables (each included separately), a developed/developing dummy, and an interaction term. Column 1 of each table shows the regression with a constant, the policy variable, and a developing/developed country dummy. Column 2 shows the interaction term when the developing country takes a value of zero for the dummy variable and

column 3 show the results when the developed country takes a value of zero. We will follow this presentation method throughout the paper because it eases interpretation, so we offer a short explanation here. Obviously the coefficient of the interaction term in column 3 will be the negative of the interaction term in column 2. We present the results in this way in order to present the correct standard error along with the coefficient of the developing and developed groups. Since the developing country dummy is zero in column 2, the coefficient on the policy variable of column 2 presents the correct estimate and standard error for developing countries. The developed country dummy takes on a value of zero in column three. Hence, the coefficient of the policy variable in column three presents the correct estimate and standard error for the developed country.

Table 1a focuses on the tax variable. The first column indicates a negative and highly significant coefficient for the tax variable and the developing/developed country dummy, which is consistent with previous literature. The more interesting results are in the second and third columns. The coefficient in the second column indicates that the tax variable is insignificant for developing countries, while the third column indicates a significant coefficient for developed countries, and a larger marginal effect than for column one. This basic regression thus suggests that our tax measure is an important influence on FDI in developed countries, but not for developing countries.

Table 1b focuses on the corruption variable. The sparse regression results fail to show significance for this variable, though the negative sign indicates some weak negative correlation between the level of corruption and the stock of FDI. The developing/developed dummy is significant, however, indicating some difference in the intercept of the relationship.

Table 1c repeats the exercise for the infrastructure index variable. The first column indicates a positive and significant effect of infrastructure quality on a country's stock of FDI. However, column two suggests that this variable is not significant for developing countries while column three suggests a statistically significant effect for developed countries. The developing/developed dummy is not significant in these regressions.

Figures 1a, 1b, and 1c plot the simple regression lines and can be used to summarize the sparse regression results. These figures illustrate the regression results visually. It is easy to see the significant relationship for the tax variable for developed countries and the insignificance of the relationship to developing countries in Figure 1a. The slope difference between developing and developing countries for the corruption variable is evident in Figure 1b, as is the insignificance of the slope coefficient. The upward slope coefficient for infrastructure is evident in Figure 1c, as is the similarity of marginal change on FDI in developing and developed countries.

Table 2 adds a number of control variables to our Table 1 specification. We add the unemployment rate, population, GDP, lagged exports, and year dummies. These variables are highly significant and greatly improve the estimates for the sparse regressions. We continue our presentation methodology from above. Table 2 has a total of six columns; the first two relate to the tax rate, the second two include the corruption variable as well as the tax rate, and the third two columns include the infrastructure variable and the tax rate. The first column in each of these pairs defines the developed/developing dummy to be 0 for developing countries (so that the coefficient of the relevant policy variable has the correct standard error for developing countries) while

the second column of the pairs defines the developed/developing dummy to be 0 for developed countries (so that the coefficient of the relevant policy variable has the correct standard error for developed countries).

We begin our discussion with the first two columns of Table 2 which incorporate all the control variables but only the tax variable from the set of policy instruments. The first column indicates that the tax variable is insignificant for developing countries while the second column indicates a strong negative correlation of the tax rate for developed countries. The control variables are highly significant and increase the R^2 from 0.29 in Table 1a to 0.61 in Table 2.

The next two columns of Table 2 (columns 3 and 4) are the same as the first two, but add the corruption variable. Adding the corruption variable reduces the number of observations from 716 to 293 because, as noted above, there are fewer years and countries with these data available. The results for the tax variable are relatively unchanged from the first two columns: the tax variable is significant and negative for the developed countries, but insignificant for developing countries. Interestingly, the corruption variable is significant and negative for developing countries and insignificant for developed countries. The control variables are highly significant and we see that the R^2 rises to 0.67 even though the number of observations is more than halved as compared with the first two columns of Table 2.

The last two columns of Table 2 replace the corruption variable with the infrastructure variables, but are otherwise the same specification as in columns 3 and 4. The number of observations is reduced to 238 for the reasons already discussed above; the R^2 of 0.69 is comparable to the previous two columns. The results for the tax variable

are again relatively unchanged from the other columns: developing countries show an insignificant effect of taxes and developed countries show a significant effect. The infrastructure variable is positive and significant for both developed and developing countries, though the coefficient is larger and the significance level higher for the developing countries.

To summarize, the results of Table 2 suggest that FDI in developing countries is more responsive to corruption, more responsive to infrastructure, and less responsive to taxes than in developed countries. Conversely, FDI in developed countries is more sensitive to taxes than FDI in developing countries and also responds to infrastructure, though less markedly than in developing countries; corruption does not seem to be a factor for FDI in developed countries.

Table 3 presents the regression results from including together all three policy variables. Unfortunately, there is a multicollinearity problem between the infrastructure and the corruption variables. The R^2 at 0.70 is virtually unchanged from the last two columns of Table 2. Nevertheless, the tax variable shows exactly the same pattern: FDI appears to be sensitive to taxes in developed but not developing countries. The infrastructure variable is positive and significant for developing countries and insignificant for developed countries. The corruption variable loses its significance for developing countries.

IV. Conclusion

Being able to attract foreign direct investment is an important part of the growth strategies of developed and developing countries alike. There is a variety of policies that

governments may implement to become more attractive to foreign investors ranging from granting a more favorable tax regime to building new infrastructure capacity to improving governance institutions. A fundamental motivation for this paper is that country government officials everywhere would like to know the answer to this basic question: what are the most effective policy measures I can take to attract foreign investment to my country? Unfortunately, the literature has not directly approached this question and has not provided a single view; furthermore, the literature has not allowed always for the answers to be different for developing and developed countries.

In this paper we examine the impact of a country's public policies in the areas of taxation, infrastructure, and good governance on the stock of its FDI. In the analysis we allow for differences in the response of FDI between developing and developed countries. Our findings indicate that the stock of FDI is sensitive to host country taxation in developed countries, but not in developing countries; FDI is sensitive to host country corruption in developing countries but not developed; and FDI shows sensitivity to host country infrastructure quality in both developed and developing host countries, though FDI appears to be more sensitive to infrastructure quality in developing host countries. Thus, an important implication of our findings is that in order to be more effective in attracting FDI, government officials in developing countries should pay more attention to policy programs aimed at improving governance institutions and public infrastructure and, at the same time, deemphasize imitating the taxation policies of developed countries regarding FDI. It would appear, therefore, that taxation issues are indeed still important for FDI choices, but only after more fundamental institutional governance issues are addressed and good levels of public infrastructure are made available.

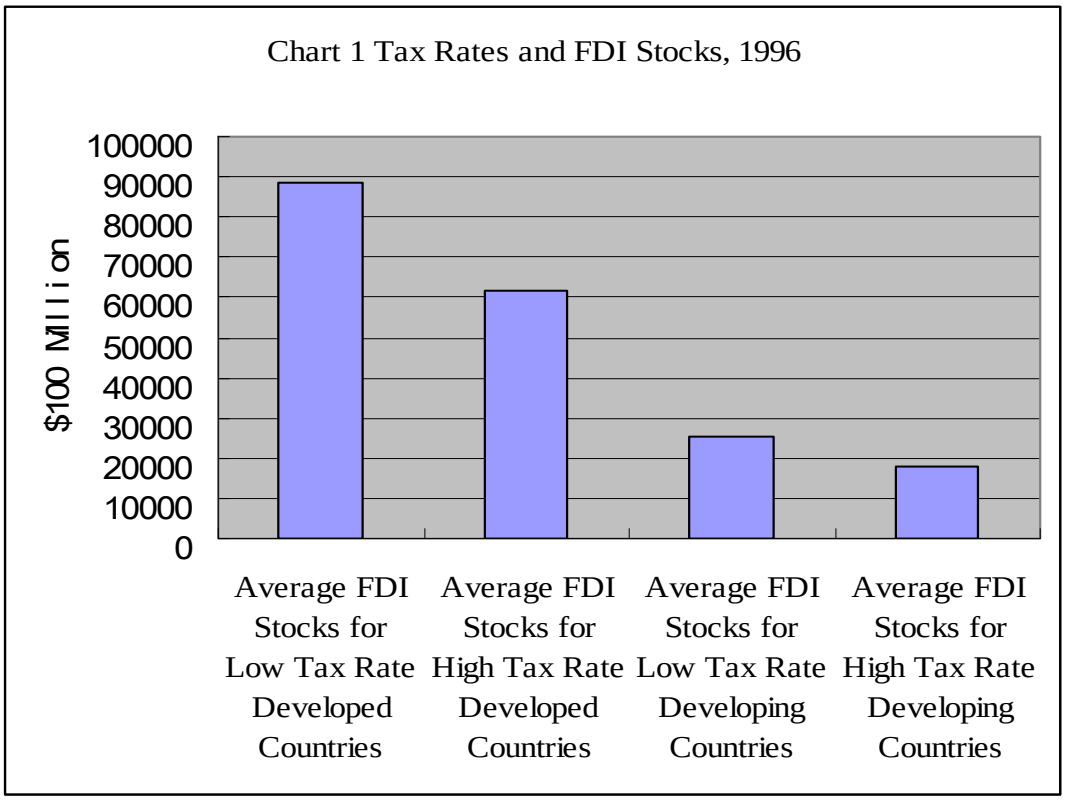
Chart 1 Tax Rates and FDI Stocks, 1996
$100 Million
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
Average FDI Stocks for Low Tax Rate Developed Countries
Average FDI Stocks for High Tax Rate Developed Countries
Average FDI Stocks for Low Tax Rate Developing Countries
Average FDI Stocks for High Tax Rate Developing Countries

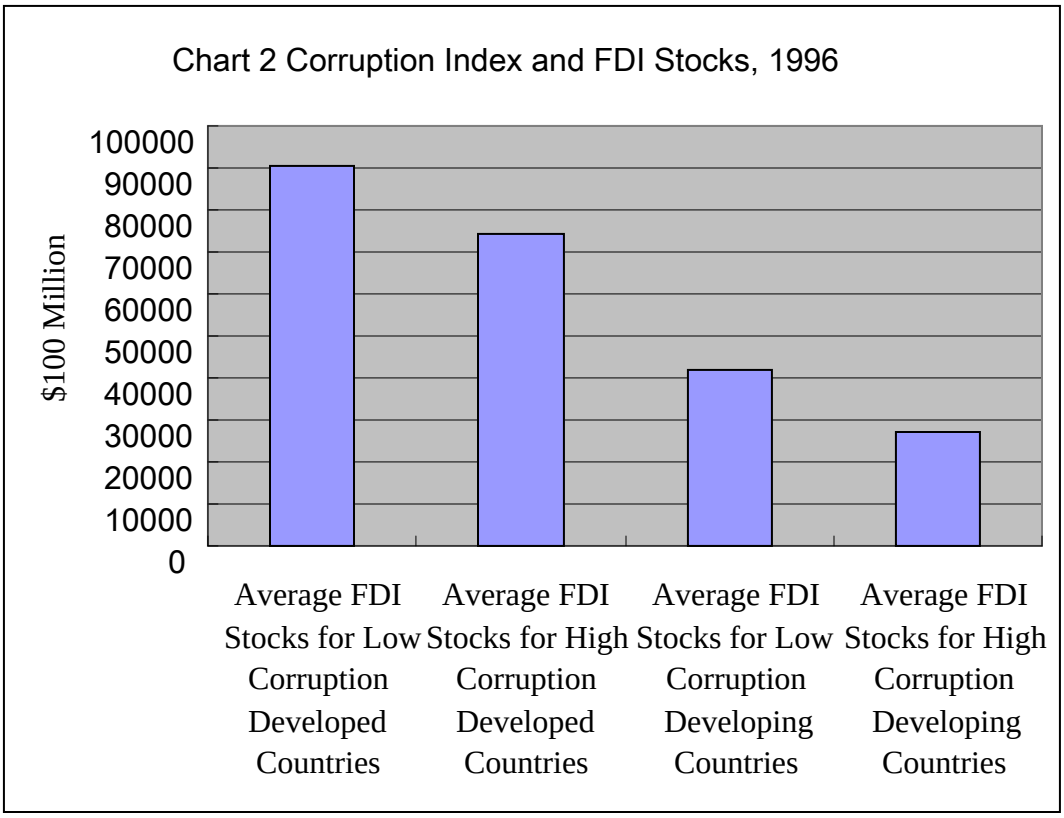
Chart 2 Corruption Index and FDI Stocks, 1996
$100 Million
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
Average FDI Stocks for Low Corruption Developed Countries
Average FDI Stocks for High Corruption Developed Countries
Average FDI Stocks for Low Corruption Developing Countries
Average FDI Stocks for High Corruption Developing Countries

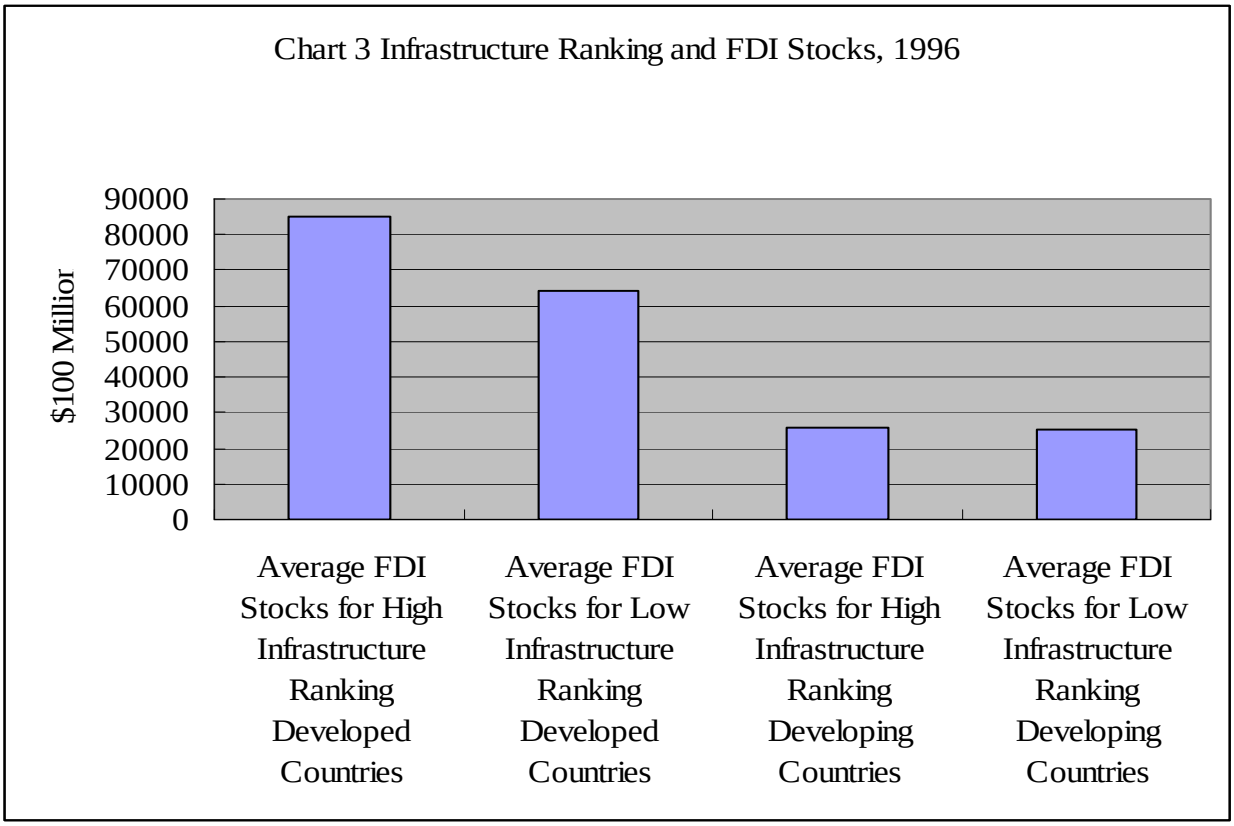
Chart 3 Infrastructure Ranking and FDI Stocks, 1996
$100 Millior
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
Average FDI Stocks for High Infrastructure Ranking Developed Countries
Average FDI Stocks for Low Infrastructure Ranking Developed Countries
Average FDI Stocks for High Infrastructure Ranking Developing Countries
Average FDI Stocks for Low Infrastructure Ranking Developing Countries

Table 1a. Simple Regressions with Separate Developing/Developed Tax Coefficients

	(1)	(2)	(3)
Dependent Variable : Log of FDI Stock			
Constant	10.927	11.623	11.623
	(100.55)***	(82.75)***	(82.75)***
Tax rate	-0.019	-0.002	-0.041
	(7.16)***	(0.66)	(10.50)***
Developing Dummy	-1.486	-2.735	-2.735
	(15.28)***	(14.30)***	(14.30)***
Tax rate * Dummy (developing = 0)		-0.039	
		(7.51)***	
Tax rate * Dummy (developed = 0)			0.039
			(7.51)***
Observations	918	918	918
R-squared	0.25	0.29	0.29

Absolute value of z-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1%

Table 1b. Simple Regressions with Separate Developing/Developed Corruption Coefficients

	(1)	(2)	(3)
Dependent Variable : Log of FDI Stock			
Constant	11.249	11.235	11.235
	(89.98)***	(79.63)***	(79.63)***
Corruption perception index	-0.045	-0.057	-0.039
	(1.12)	(0.81)	(0.80)
Developing Dummy	-0.963	-0.870	-0.870
	(4.60)***	(1.78)*	(1.78)*
Corruption perception index * Dummy (developing = 0)		0.018	
		(0.21)	
Corruption perception index * Dummy (developed = 0)			-0.018
			(0.21)
Observations	329	329	329
R-squared	0.22	0.22	0.22

Absolute value of z-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1%

Table 1c. Simple Regressions with Separate Developing/Developed Infrastructure Coefficients

	(1)	(2)	(3)
Dependent Variable : Log of FDI Stock			
Constant	10.372	10.331	10.331
	(40.80)***	(35.95)***	(35.95)***
Infrastructure Ranking	0.023	0.019	0.024
	(3.17)***	(1.26)	(2.92)***
Developing Dummy	-0.169	-0.078	-0.078
	(0.85)	(0.22)	(0.22)
Infrastructure Ranking * Dummy (developing = 0)		0.005	
		(0.31)	
Infrastructure Ranking * Dummy (developed = 0)			-0.005
			(0.31)
Observations	259	259	259
R-squared	0.12	0.12	0.12

Absolute value of z-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1%

Figure 1a:

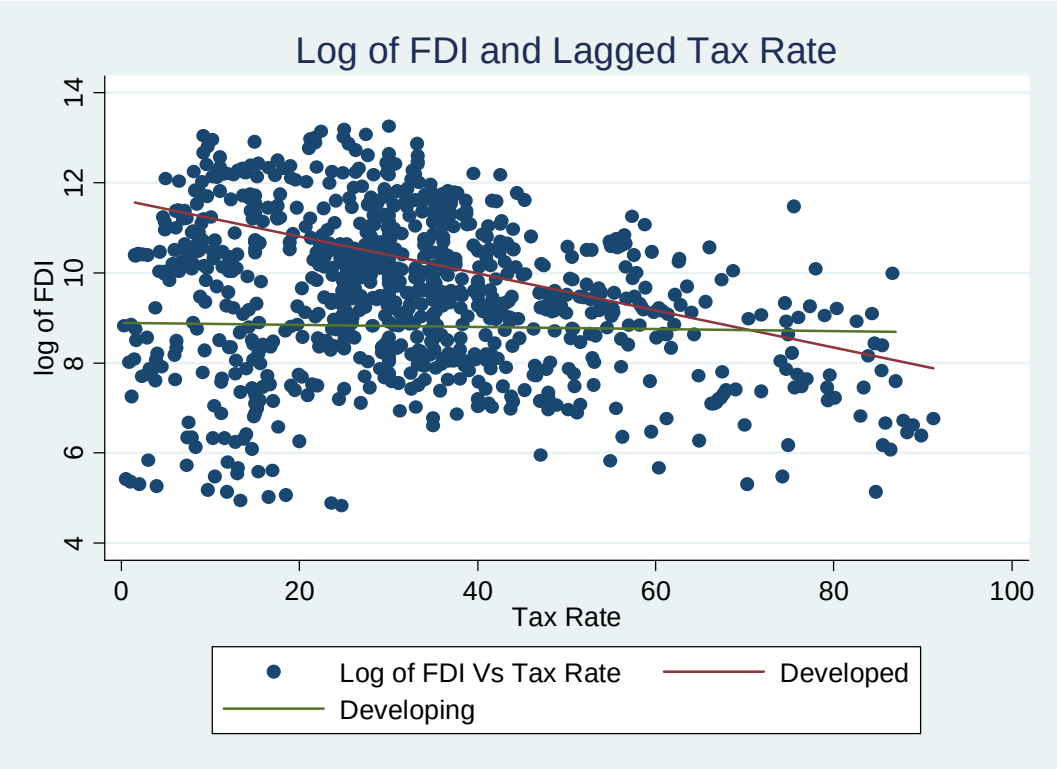

Figure 1b:

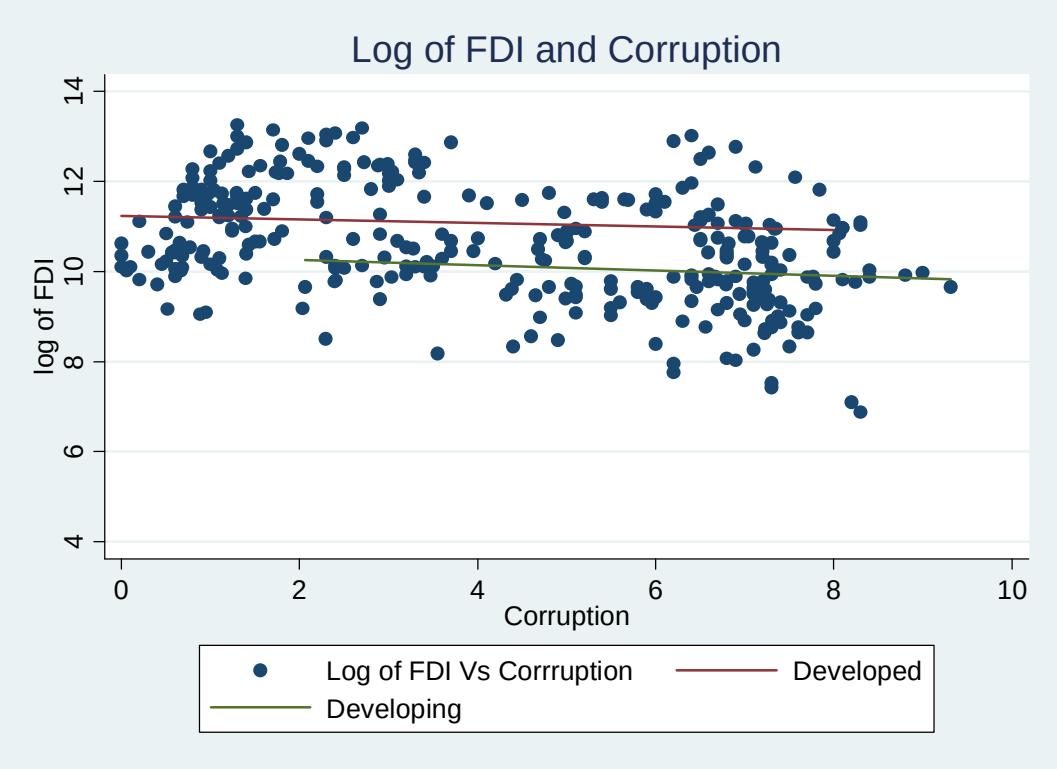

Figure 1c:

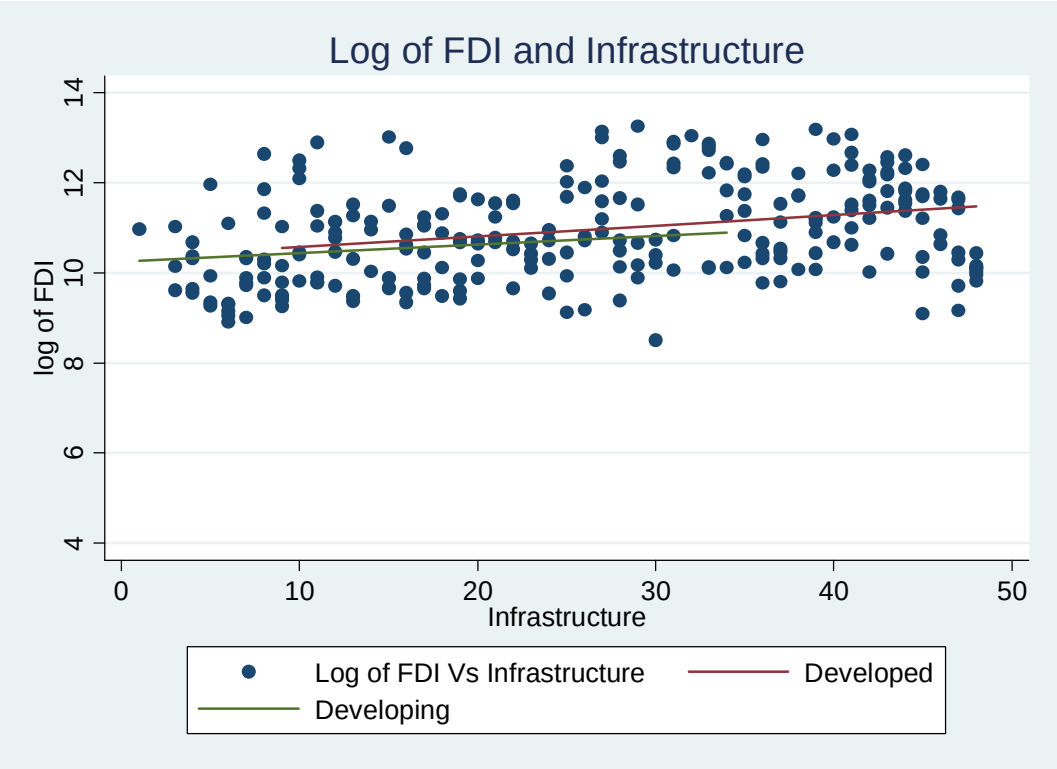
Log of FDI and Infrastructure
log of FDI
4
6
8
10
12
14
0
10
20
30
40
50
Infrastructure
Log of FDI Vs Infrastructure
Developed
Developing

Table 2: Multiple Regressions with Year Dummies and Separate Developing/Developed Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable: Log of FDI Stock						
Constant	10.111	10.111	10.849	10.849	10.274	10.274
	(60.65)***	(60.65)***	(48.96)***	(48.96)***	(35.52)***	(35.52)***
Tax Rate	0.005	-0.021	0.004	-0.026	-0.006	-0.029
	(1.46)	(4.93)***	(0.44)	(3.99)***	(0.67)	(4.86)***
Tax rate * Dummy	-0.026		-0.030		-0.023	
(developing = 0)	(4.79)***		(2.87)***		(2.04)**	
Tax rate * Dummy		0.026		0.030		0.023
(developed = 0)		(4.79)***		(2.87)***		(2.04)**
Corruption Perception			-0.113	-0.040		
Index			(2.15)**	(1.13)		
Corruption perception			0.074			
index * Dummy			(1.17)			
(developing = 0)						
Corruption perception				-0.074		
index * Dummy				(1.17)		
(developed = 0)						
Infrastructure Ranking					0.024	0.010
					(2.31)**	(1.89)*
Infrastructure Ranking *					-0.014	
Dummy (developing = 0)					(1.23)	
Infrastructure Ranking *						0.014
Dummy (developed = 0)						(1.23)
Developing Dummy	-1.950	-1.950	-0.717	-0.717	-0.740	-0.740
	(10.26)***	(10.26)***	(1.76)*	(1.76)*	(1.79)*	(1.79)*
Unemployment Rate	-0.021	-0.021	0.019	0.019	0.013	0.013
	(2.51)**	(2.51)**	(1.89)*	(1.89)*	(1.37)	(1.37)
Population	0.000	0.000	0.000	0.000	0.000	0.000
	(8.89)***	(8.89)***	(8.25)***	(8.25)***	(6.73)***	(6.73)***
GDP	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(5.46)***	(5.46)***	(6.35)***	(6.35)***	(6.68)***	(6.68)***
Lagged Exports	0.000	0.000	0.000	0.000	0.000	0.000
	(12.10)***	(12.10)***	(13.55)***	(13.55)***	(14.07)***	(14.07)***
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	716	716	293	293	238	238
R-squared	0.61	0.61	0.67	0.67	0.69	0.69

Absolute value of t-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1%

Table 3: Multiple Regressions with all variables and Separate Developing/Developed Coefficients

	(1)	(2)
Dependent Variable: Log of FDI Stock		
Constant	11.126	11.126
	(29.75)***	(29.75)***
Tax Rate	-0.006	-0.025
	(0.59)	(4.05)***
Tax rate * Dummy (developing = 0)	-0.019 (1.70)*	
Tax rate * Dummy (developed = 0)		0.019 (1.70)*
Corruption Perception Index	0.007 (0.10)	-0.044 (1.08)
Corruption perception index * Dummy (developing = 0)	-0.050 (0.63)	
Corruption perception index * Dummy (developed = 0)		0.050 (0.63)
Infrastructure Ranking	0.024	-0.000
	(2.00)**	(0.04)
Infrastructure Ranking * Dummy (developing = 0)	-0.025 (1.75)*	
Infrastructure Ranking * Dummy (developed = 0)		0.025 (1.75)*
Developing Dummy	-1.170	-1.170
	(1.73)*	(1.73)*
Unemployment Rate	0.008	0.008
	(0.80)	(0.80)
Population	0.000	0.000
	(6.65)***	(6.65)***
GDP	-0.000	-0.000
	(7.04)***	(7.04)***
Lagged Exports	0.000	0.000
	(14.38)***	(14.38)***
Year Dummies	Yes	Yes
Observations	231	231
R-squared	0.70	0.70

Absolute value of t-statistics in parentheses
* Significant at 10%; ** significant at 5%; *** significant at 1%

Appendix

Table A-1: Countries and missing data[5]

	Corruption Index		Infrastructure Index
	1995-2002		1996-2002
1	Argentina	1	Argentina
2	Australia	2	Australia
3	Austria	3	Austria
4	Belgium	4	Belgium
5	Brazil	5	Brazil
6	Canada	6	Canada
7	Chile	7	Chile
8	China	8	China
9	Colombia	9	Colombia
10	Costa Rica[6]		
11	Denmark	10	Denmark
12	Ecuador [7]		
13	Egypt [7]		
14	Finland	11	Finland
15	France	12	France
16	Germany	13	Germany
17	Greece	14	Greece
18	Guatemala [8]		
19	Honduras[8]		
20	Hong Kong	15	Hong Kong
21	Indonesia	16	Indonesia
22	Ireland	17	Ireland
23	Israel [9]	18	Israel
24	Italy	19	Italy
25	Jamaica [10]		
26	Japan	20	Japan
		21	Korea, Republic
27	Luxembourg [6]	22	Luxembourg
28	Malaysia	23	Malaysia
29	Mexico	24	Mexico
30	Netherlands	25	Netherlands
31	New Zealand	26	New Zealand
32	Nigeria[9]		
33	Norway	27	Norway
34	Panama [11]		
35	Peru [7]		

[5] Stocks of FDI are missing for Belgium and Luxembourg, therefore were not included in the tables above.
[6] CPI is missing for 1995-1996.
[7] CPI is missing for 1995-1997.
[8] CPI is missing for 1995-1997, and 2000.
[9] CPI is missing for 1995.
[10] CPI is missing for 1995-1997, 2000-2001.
[11] CPI is missing for 1995-2000.

Table A-1: Countries and missing data (continued)

	Corruption Index		**Infrastructure Index**
36	Philippines	28	Philippines
37	Portugal	29	Portugal
38	South Africa	30	South Africa
39	Spain	31	Spain
40	Sweden	32	Sweden
41	Switzerland	33	Switzerland
42	Thailand	34	Thailand
43	Trinidad and Tobago[11]		
44	Turkey	35	Turkey
45	United Kingdom	36	United Kingdom
46	Venezuela[9]	37	Venezuela

Table A-2 Data Sources and Definitions

Variable	Definition	Source	Years
FDI[12]	See footnote	UNCTAD	1984-2002
Population	Population (10,000s)	World Development Indicator (WDI) 2006	1984-2002
GDP	In Current Dollars	World Development Indicator (WDI) 2006	1984-2002
Export	Exports of goods and services	World Bank	1984-2002
Tax Rate	The minimum of the BEA tax rate and statutory tax rate, where BEA tax rate= foreign income taxes/(foreign income tax + net income) of all affiliates for U.S. firms operating abroad in each country and year	Calculated with data from Bureau of Economic Analysis (BEA) and OTPR for statutory rate	1984-2002
Corruption Perception Index	Corruption Perception Index, ranging from 0-10, with 10 denoting least corrupt	Transparency International	1995-2002
Infrastructure Ranking	Ranking for infrastructure among factors of competitiveness, measured by the extent to which resources and systems are adequate to serve the basic needs of business	World Competitiveness Yearbook, World Competitiveness Center, IMD	1996-2002
Unemployment Rate	Total unemployment rate, % of total unemployed in total labor force	World Development Indicator (WDI) 2006	1984-2002

[12] According to the UNCTAD definition, for associate and subsidiary enterprises, FDI stock is the value of the share of their capital and reserves (including retained profits) attributable to the parent enterprise (this is equal to total assets minus total liabilities), plus the net indebtedness of the associate or subsidiary to the parent firm. For branches, it is the value of fixed assets and the value of current assets and investments, excluding amounts due from the parent, less liabilities to third parties.

Table A-3 Summary of statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
FDI stock	984	73329.61	107567.1	666.2854	713005.8
Population	842	7.973207	4.974676	0.5	29.5
GDP	1007	6985.851	19774.57	25.3	128040
Export	1007	290353.3	599011.1	1144.931	5283057
Tax Rate	969	42430.38	74279.24	120.48	568259.8
Corruption Perception Index	1007	31.52903	18.2782	0.25562	91.20715
Infrastructure Ranking	343	4.220554	2.577954	0	9.31
Unemployment Rate	273	26.29304	13.40086	1	48

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