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Institutions, Distance, and Foreign Direct Investment

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Abstract

In this paper, I examine institutional differences between countries and the effect that those differences have on FDI flows using data from 193 countries and ten institutional indicators from the Index of Economic Freedom. I find a statistically significant result for five institutional distance variables. My results also support existing literature that claims that strong institutions increase FDI flows. I found that strong institutions are negatively associated with FDI inflows to low income countries, with the exception of trade and natural resources, suggesting that firms are investing in low income countries for natural resources and cheap production that can be exported efficiently. For middle income and high income countries, strong institutions are positively associated with FDI; however, for middle income countries, governance and regulation are important and for high income countries financial markets and capital mobility are more important. I also found that institutions are especially important determinants of FDI for countries in Europe, Latin America, and Sub-Saharan Africa.

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Introduction

The growth-promoting aspects of foreign direct investment (FDI) have long been established in economic literature. Strong institutions have also been associated with increased FDI flows, which enhance economic growth in the destination country. Figure 1 shows this relationship. In this study I will focus on the link between FDI and Institutions, rather than FDI and economic growth. Although this is a heavily trodden area of study, relatively little research has been done on the relationship between institutional distance and FDI. Institutional distance measures how similar the origin country and the destination country are to one another based on the quality of their institutions.

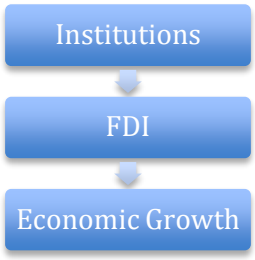


Figure 1: Institutions, FDI, and Economic Growth

This topic is important because countries may be able to attract FDI more effectively from countries with similar institutions and thus promote domestic economic growth. It may also suggest that weaker institutions pose less of an impediment to FDI flows than previously assumed because small institutional differences may counteract some of the negative effects of weak institutions. My initial hypothesis was that the smaller the institutional distance between two countries, the greater the FDI flows between them. The intuition behind this is that multinational firms will invest more in countries that have similar institutional characteristics to their home country because they are used to operating in a similar manner. The true answer seems to be far more nuanced. To test

different indicators of institutional distance, I will use the Heritage Foundation's Index of Economic Freedom (2014). This paper is broken into six parts: a literature review, an examination of the data, a description of the model used, an analysis of the results, a section of possible problems, and a conclusion, which includes a discussion about future work on this topic.

Literature Review

This literature review looks at the existing literature that ties economic growth, institutions, and FDI together. The main proxies for institutions are the Fraser Institute Index and the Index of Economic Freedom produced by the Heritage Foundation. This is a heavily studied area; however, there are a number of gaps in existing literature, as it is mostly regional or at a particular income level. Another possible problem that is not addressed in many of the papers is the regression technique used, as most of the following studies use an OLS regression, which may not be the proper technique when using FDI data for reasons that will be explained during the explanation of the model.

There are a vast number of studies that establish the role of FDI in promoting economic growth. Using data from 1971 to 2000, Shiva Makki and Agapi Somwaru provide evidence that FDI and Trade contribute significantly to economic growth in 66 developing countries (2004). On a regional level, Marta Bengoa and Blanca Sanchez-Robles find that FDI is positively correlated with economic growth in Latin America (2003).

There are also studies that show that not only does FDI promote economic growth, but it also can increase the strength of institutions if they are already at a minimum level of development. In a paper by Abdoul Ganiou Mijiyawa, Mijiyawa uses the Fraser Institute as a proxy for property rights

and attempts to argue that FDI inflows can contribute to the reform of property right institutions in developing countries as long as the country already has a minimum level of institutions (2013). This study shows that one of the positive effects of FDI is that it can increase the strength of institutions, which can increase economic growth in the host country as well as presumably the welfare of its citizens. Mijiyawa uses the system-generalized methods of moments (GMM) regression technique to provide robust results in the face of endogeneity.

There are also a number of studies that examine the impact of strong institutions on FDI. These studies mostly look at particular regions or specific income levels. Many of the studies also use the Index of Economic Freedom, which is that index I use as a proxy for institutions in my research. At the regional level, there are an abundance of studies focusing on the relationship between economic freedom and FDI in the European Union (EU), Latin America, East Asia, the Middle East North Africa (MENA), and Sub-Saharan Africa. In a 2009 study, José Caetano and António Caleiro provide evidence that economic freedom and FDI are positively associated for countries in MENA as well as the EU using the Index of Economic Freedom (2009). Another paper by Wassem Michel Mina suggests that in MENA the best approach to increasing FDI flows is to strengthen domestic institutions (2012). Marta Bengoa and Blanca Sanchez-Robles examine the relationship between FDI, economic freedom, and growth in Latin America for 18 Latin American countries and determine that economic freedom in the host country has a positive association with FDI flows (2003). In a more recent paper by Miguel Eduardo Sánchez-Marín, Rafael de Arce, and Gonzalo Escrobano, there is evidence that trade openness and government stability are significant determinants of FDI in Latin America (2014). Rahim Quazi contributes to the literature by showing the positive relationship between economic freedom and FDI in East Asia (2007). Finally, Vito Amendolagine, Amadou Boly, Nicola Daniele Coniglio, Francesco Prota, and Adnan Seric conducted

work in Sub-Saharan Africa in a 2013 study that uses firm-level data collected by UNIDO in the Africa Investor Survey 2010 (2013). Amendolagine et al. find that efficient legal systems and a good environment for private business are important for attracting FDI. The authors also find that strong institutions increase the number of local linkages that result from FDI. This means that strong institutions not only increase FDI, which has a positive effect on economic growth, but also have the spillover effect of increased growth of domestic firms that supply services to foreign firms. The literature supports the general theory that higher levels of economic freedom, which is a proxy for institutions, will enhance FDI. However, much of this research is outdated, incomplete, and has a regional emphasis.

Most of these studies have a regional perspective, however, there are a few papers that focus on income levels of countries regardless of region. One such study that is significant is by Bülent Doğru, who shows that the institutions of middle-income countries have a significant impact in attracting inbound FDI. However, Doğru finds that there are other macroeconomic variables such as market size and population growth rate that are superior determinants of FDI flows. He uses the Fraser Institute as a proxy for institutions, but he uses only 3 institution variables: country risk level, global competiveness, and ease of doing business.

There are only a few studies that look at the effect of institutional distance on FDI. One work, *Institutional Determinants of Foreign Direct Investment* by Angès Bénassy-Quéré, Maylis Coupet, and Thierry Mayer provides the inspiration for the model that will be elaborated in the next section (2007). Bénassy-Quéré and her co-authors find that institutional proximity between the origin country and the receiving country matter when looking at FDI flows: the smaller the institutional distance, the greater the FDI flows. This is significant because the authors use a gravity vector that

includes GDP per capita, distance, and other variables to demonstrate the institutional impact separate from GDP.

This study will contribute to the existing literature in a few ways. First, I will expand upon the work of Angès Bénassy-Quéré et al. by contributing new data, as their data only spans from 1985 to 2000. In addition, Bénassy-Quéré and her co-authors use institutional variables taken from the Fraser Institute that is available only every five years, as opposed to the yearly publication of the Index of Economic Freedom (2014). Finally, my analysis will include a more specific breakdown of the institutional indicators to see which indicators are most important when it comes to institutional distance.

Data

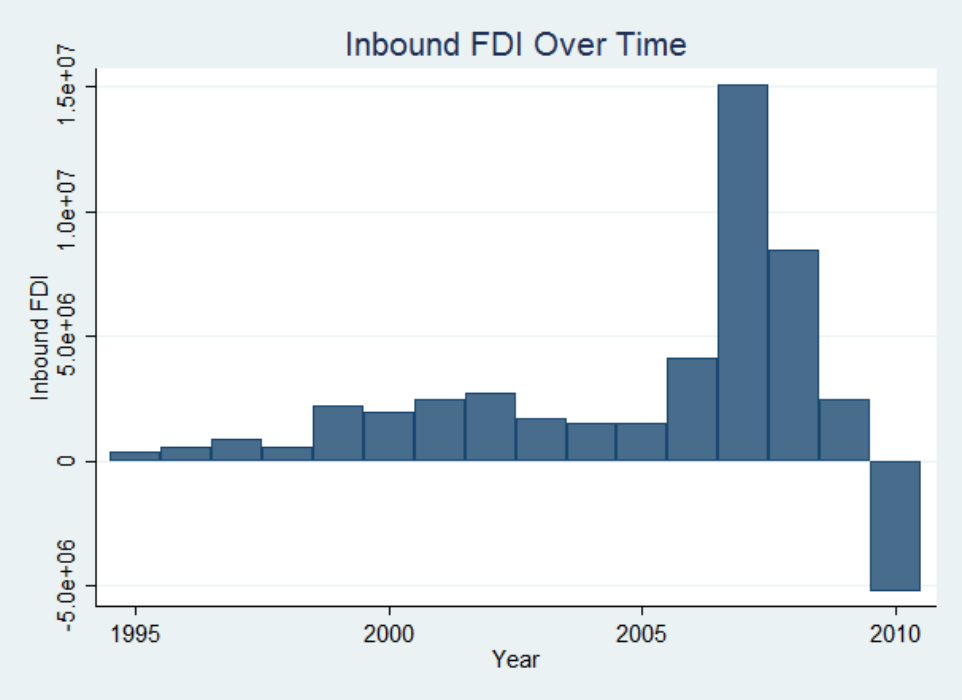
The data that I am using for this research comes from four main sources between 1995 and 2010 for the 30 OECD countries and their trading partners shown in the table 1. The full list of all 193 countries is in appendix 1.

Australia	Czech Republic	Germany	Italy	Norway	Sweden
Austria	Denmark	Greece	Japan	Poland	Switzerland
Belgium	Estonia	Iceland	Luxembourg	Portugal	Turkey
Canada	Finland	Ireland	Mexico	Slovenia	United Kingdom
Chile	France	Israel	New Zealand	Spain	United States

Table 1: List of OECD Countries

The data for the FDI flows is from the OECD, shown over time in graph 1, the indicators for the Index of Economic Freedom are from the Heritage Foundation, the GDP per capita data is from the United Nations database, the information for the distance variable is from the CEPII database, the natural resource data, income level, and regional categorization data are from the World Bank. I use this time period because the Index of Economic Freedom extends back only until 1995 and the

OECD data is available only until 2010. However, this data set provides an ample time period ranging from a little after the fall of communism through the first decade of the twenty-first century. The summary statistics for the variables are shown in the table 1. The FDI flows are in millions, GDP per capita is in 2014 U.S. dollars. The distance variable is calculated by using the biggest 20 cities by population in a given country and calculating a weighted population center of each country, which is then used to calculate distance in kilometers. The natural resource data is an estimation of the current natural resource wealth of a country based on current rents and future rents derived from existing resources.



Graph 1: FDI between 1995 and 2010.

A visual of the natural resource methodology can be found in appendix 2. The income level data from the World Bank divides countries into a number of different income groups based on GDP per capita, but I reduced this to four groupings. I classify income levels as follows: low income for countries where the GDP per capita is $1,045 or less; middle income for countries with a GDP per

capita between $1,046 and $12,745; high income OECD, which are countries with GDP per capita over $12,746 and in the OECD; and finally high income non-OECD, which are countries with GDP per capita over $12,746 and not part of the OECD. The regional data divides the countries used in this study into nine different regions: the Caribbean, East Asia and Pacific, Eastern Europe and Central Asia, Europe, Latin America, Middle East and North Africa (MENA), North America, South Asia, and Sub-Saharan Africa.

Variable	Count	Mean	SD	Min	Max
FDI(Inbound)	52745	787.5161	38670.51	-2510000	4610000
Property Rights	48076	49.71545	25.10285	0	95
Corruption	48076	42.49555	24.30139	4	100
Fiscal	48076	71.15704	15.53043	0	99.9
Government	48076	64.72129	24.5966	0	99.3
Business	48076	64.70114	16.41024	0	100
Labor	27669	61.07331	17.07536	0	100
Monetary	48076	74.09692	14.9714	0	95.4
Trade	48076	68.70737	15.2096	0	95
Investment	48076	52.53692	19.86494	0	95
Financial	48076	52.30198	20.58618	0	90
GDP per Capita (host)	58720	12632	18403.55	80.11819	142810.4
GDP per Capita (origin)	63310	29824.15	20099.82	3057.82	112336.6
Distance	53730	7135.149	4477.886	160.9283	19647.66
Natural Resource (host)	55691	9.617121	15.88665	0	100.3669
Natural Resource (origin)	65958	2.268077	5.350206	0	100.3669

Table 1: Institutional Variables Summary Statistics

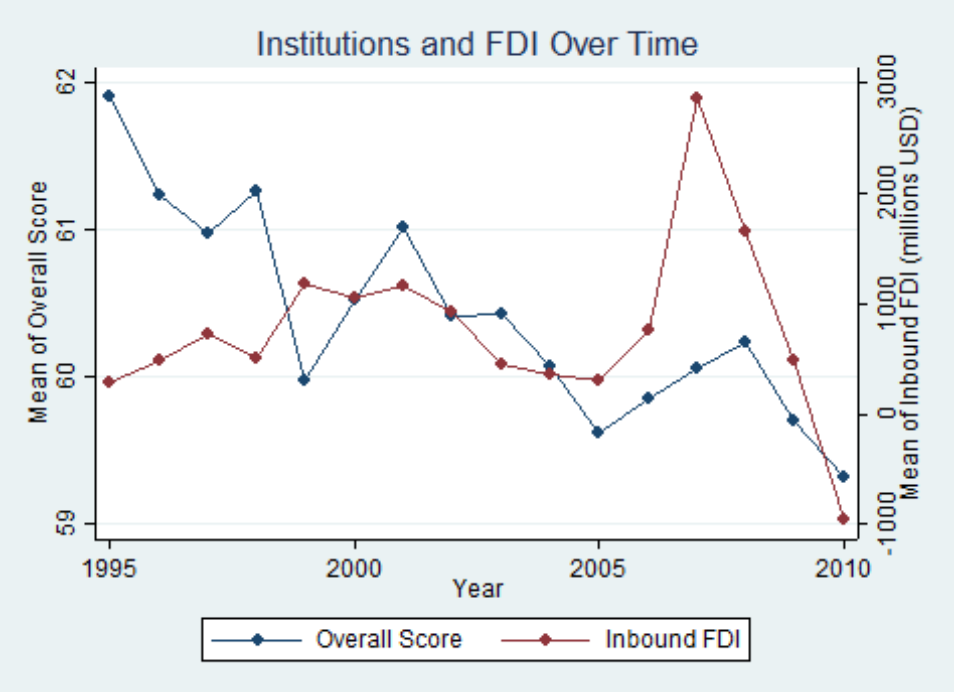
The ten variables for the Index of Economic Freedom are shown in Table 1. They range from 0 to 100 for each country, with higher scores being associated with stronger institutions. The list below gives a brief explanation of each variable.

1. Property Rights: a measure of the government's commitment to private property rights and enforcement of those rights.
2. Freedom from Corruption: a measure of corruption levels in the public sector derived from Transparency Internationals index.

3. Fiscal Freedom: a measure the burden of taxation that reflects both marginal tax rates and the overall level of taxation on individuals and corporations.
4. Government Spending: a measure of the burden imposed by government spending. This is the most controversial indicator because the optimal level of government spending is difficult to identify.
5. Business Freedom: a measure of the government's efficiency in business regulation including starting, operating, and closing a business.
6. Labor Freedom: a measure of the legal and regulatory framework of a country's labor market. This data is only available from 2005 onwards, which limits the size of the data set for regressions where it is included.
7. Monetary Freedom: a measure of a country's price controls and inflation.
8. Trade Freedom: a measure of tariff and non-tariff barriers to trade.
9. Investment Freedom: a measure of the mobility of capital both within the country and across borders.
10. Financial Freedom: a measure of banking efficiency and ease of financing in the country.

These ten indicators can be broken down into four different categories as defined by the Heritage Foundation. These categories include: Rule of Law, which includes property rights and freedom from corruption; Limited Government, which includes government spending and fiscal freedom; Regulatory Efficiency, which includes business freedom, labor freedom, and monetary freedom; and Open Markets, which includes trade freedom, investment freedom, and financial freedom.

Looking at inbound FDI and Overall institutions over time provides some interesting insights before undertaking a more thorough investigation of the reasons for FDI. This data can be seen graphically in the Graph 2. Using the information from my data set there are two clear conclusions that can be drawn from graph 2. The first is that over time overall institutions globally have declined marginally. The other conclusion is that the mean inbound FDI grew globally until the financial crisis in 2007-2008 and then there was actually a negative average FDI after the financial crisis in 2010 after the global financial crisis. A negative FDI means that money is being withdrawn from the country. It makes sense that there was a delay after the crisis because FDI is a longer-term commitment of capital, and therefore it is not easy to withdraw from a foreign country quickly. There seems to be a relationship between FDI and institutions, but stronger conclusions can be drawn from regression results rather than graphically.



Graph 2: Institutions and FDI Over Time

Model

In order to support existing theories as well as test my own theory, I performed four sets of regressions. The first set of regressions looks at the effects of institutional variables on FDI inflows, the second set of regressions looks at the effects of the institutional distance variables on FDI flows, the third set of regressions at the effect of the host country's income level, and the fourth set considers the effect of the host country's region. I ran each regression with all of the variables, then each institutional variable individually to enhance the robustness of my results. I use year and country fixed effects in all my regressions.

In this study I use the Poission Pseudo-Maximum Likelihood regression technique or PPML. Although it is traditionally used for count data, J.M.C. Santos Silva and Silvana Tenreyro argue that the PPML technique should be used for cross sectional trade data (2006). The PPML model is consistent in the presence of heteroskedasticity and corrects for zero values. In order to look at the effects that the PPML has on regression results, Silva and Tenreyro compare OLS results to PPML results and find that in the presence of zeros and heteroskedasticity the estimates from the OLS model are biased and can lead researchers to come to the wrong conclusion. Therefore, with a similar gravity model and cross sectional FDI data, using the PPML regression is the most robust way to ensure accurate results. The iterative technique used in a PPML regression means that negative dependent variables have to be dropped, which reduced my total data set from 52745 to 46277.

The first tests examine the existing literature's claim that high quality institutions attract higher levels of FDI flows. To do this I ran a PPML regression first on all the institutional variables,

the GDP per capita variable, the distance variable, natural resource variable and dummy variables for each year of the data. The model is shown in equation 1, where the distance and GDP per capita variables are combined into a vector of the gravity variables, Gravity, and dYR are the year dummy variables. I also combined the institutional variables into vector X_{Inst}. Y is the destination countries' FDI inflows.

$$Y= \beta_0+\delta_1' X_{Inst} +\alpha_1'Gravity+dYR +\varepsilon_i$$
(Equation 1)

After running this initial regression, I will run each of the institutional indicator variables separately while including the control variables. The reasoning behind this is because labor freedom is only available from 2005 onwards. I will repeat this regression with both the host and origin countries' institutions.

Second, in order to test the hypothesis that countries with similar institutions have greater FDI flows, I must test the difference between the origin country and the destination country using the independent variables in table 2. There are three different ways I define distance in this paper. The reason for this is that each different definition of institutional distance provides unique insight into the reasons that countries engage in FDI. The first way I define institutional distance is to set

$$X_{instdist}=X_a-X_b \text{ (Equation 2)}$$

where $X_{instdist}$ =institutional distance variable listed in table 2, X_a is the host country's institutional indicator, and X_b is the origin country's institutional indicator. The complete model is shown in equation 3.

$$Y_a=\beta_0+\delta_1' X_{instdist} +\alpha_1'Gravity+dYR +\varepsilon_i \text{ (Equation 3)}$$

After running this initial regression, I will run each of the institutional distance variables separately while including the control variables.

The second way I define institutional distance is to set

$$X_{instdist}=X_b-X_a \text{ (Equation 4)}$$

where $X_{instdist}$ =institutional distance variable listed in table 2, X_a is the host country's institutional indicator, and X_b is the origin country's institutional indicator. The complete model is shown in equation 4.

$$Y_a=\beta_0+\delta_1' X_{instdist} +\alpha_1'Gravity+dYR +\varepsilon_i \text{ (Equation 5)}$$

After running this initial regression, I will run each of the institutional distance variables separately while including the control variables.

The third way I define institutional distance is to set

$$X_{instdist}=|X_a-X_b| \text{ (Equation 6)}$$

where $X_{instdist}$ =institutional distance variable listed in table 2, X_a is the host country's institutional indicator, and X_b is the origin country's institutional indicator. The complete model is shown in equation 4.

$$Y_a=\beta_0+\delta_1' X_{instdist} +\alpha_1'Gravity+dYR +\varepsilon_i \text{ (Equation 7)}$$

After running this initial regression, I will run each of the institutional distance variables separately while including the control variables.

Table 3 shows the summary statistics of the institutional difference variables as defined in equation 2. Most of the means and medians for most the variables are negative because the X_b countries are OECD countries, which have higher institutional indicators. On the other hand, X_a countries are a mix of OECD and non-OECD countries. This does not hold for government and fiscal freedom indicators because OECD countries score poorly on those two categories. This is because government is an indicator that measures government spending levels, and fiscal freedom is an indicator that measures the tax burden that both individuals and corporations pay.

In the third set of regressions both the institutional variable regressions and the institutional distance variable regressions are used, however the host countries are divided into different levels of income: low income, middle income, high income OECD, and high income non-OECD as defined by the World Bank. The division of the host countries into different income levels allows for a more nuanced approach to understanding the effects of institutions on FDI.

Variable	Count	Mean	SD	Min	Max
Property Rights	47571	-27.83072	28.87392	-95	45
Corruption	47571	-26.32209	31.28327	-95	80
Fiscal	47571	10.52717	19.65581	-89.5	67.9
Government	47571	19.67077	32.23864	-93.1	99.3
Business	47571	-13.94001	19.77471	-99.9	46.2
Labor	27669	-3.408576	24.01215	-100	61.9
Monetary	47571	-6.165178	16.9458	-94.2	62.7
Trade	47571	-12.28539	15.3344	-90	40.4
Investment	47571	-19.58557	23.90028	-95	45
Financial	47571	-17.9498	26.09637	-90	60

Table 3: Institutional Distance Variable Summary Statistics

The final set of regressions also uses both the institutional variables and the institutional distance variables; however the host countries are divided by region. The host countries are sortied into nine different regions loosely following guidelines by the World Bank. The division of the host countries into different regions allows for us to determine if the region that the host country is based contributes to a more complete explanation of the effect of institutions on FDI. In both income and regional categories, the host country's income level and region determines which grouping the bilateral FDI inflow is put into.

Results

There are three main pieces to this study. The first piece is looking at the effect that the institutions of both the host and the origin country have on FDI inflows to the host country. The second piece looks at the effect that institutional distance has on FDI inflows to the host country. The third set of output looks at the both the institutional levels and institutional distance for low, middle, high income OECD countries, and high income non-OECD. The final set of output looks at both the institutional levels and institutional distance for the host countries in nine different regions. Once again these regressions are Poisson Pseudo Maximum Likelihood Regression (PPML). For the first regression interpretation, I will describe the results using the difference of expected logs, however I will then interpret the results in percentage terms. The results I found are mixed. Some of the results conform to my original hypothesis, however some of the results differ. I included both year and country fixed effects in the models.

Table 4 shows the Poisson regression using the host countries' institutions as the independent variables. The regression of all the variables yields significant results for both trade freedom and financial freedom. The output suggests that if there is a one-unit increase, where institutions are ranked on a scale of 1 to 100, in the host country's trade freedom, the difference in the logs of expected counts anticipates that an increase by 0.119 units ceteris paribus. In other words, an increase in the host country's trade freedom by one unit increases expected inbound FDI by 11.9%. This result is significant at the 1% level. This suggests that companies are attracted to countries that have low barriers to trade. The results for the overall regression also show that an increase in the host country's financial freedom by one unit corresponds to increase in expected inbound FDI by 5.84%. This is significant at the 1% level. This makes intuitive sense because firms will be more likely to invest in a country that has a strong financial system and availability of credit.

Overall Results

Table 4: Host Country's Institutions

VARIABLES	(1) All	(2) Overall	(3) Property	(4) Corrupt	(5) Fiscal	(6) Govern	(7) Business	(8) Labor	(9) Monetary	(10) Trade	(11) Invest	(12) Financial
propertyrights	0.0370		0.0275*									
	(0.0339)		(0.0165)									
freedomfromcorruption	0.0587			0.0402**								
	(0.0404)			(0.0204)								
fiscalfreedom	-0.0139				-0.0114							
	(0.0602)				(0.0111)							
governmentspending	-0.0520					-0.00315						
	(0.0354)					(0.0132)						
businessfreedom	-0.0277						-0.0368**					
	(0.0243)						(0.0176)					
laborfreedom	-0.0313							-0.0565				
	(0.0503)							(0.0528)				
monetaryfreedom	0.0340								0.0219			
	(0.0572)								(0.0423)			
tradefreedom	0.119***									0.0642***		
	(0.0446)									(0.0238)		
investmentfreedom	0.0284										0.00681	
	(0.0187)										(0.0104)	
financialfreedom	0.0584***											0.0244**
	(0.0192)											(0.0116)
gdppc	-7.17e-05	-3.61e-05	-3.89e-05	-3.47e-05	-3.41e-05	-3.23e-05	-1.78e-05	-6.41e-05	-3.39e-05	-3.74e-05	-3.46e-05	-4.12e-05
	(6.08e-05)	(2.86e-05)	(2.76e-05)	(2.73e-05)	(2.67e-05)	(2.59e-05)	(2.59e-05)	(5.91e-05)	(2.77e-05)	(2.68e-05)	(2.72e-05)	(2.67e-05)
gdppc2	-4.09e-06	-1.76e-05	-1.70e-05	-1.71e-05	-1.74e-05	-1.77e-05	-1.36e-05	-1.23e-05	-1.73e-05	-1.83e-05	-1.76e-05	-1.80e-05
	(3.96e-05)	(1.31e-05)	(1.32e-05)	(1.34e-05)	(1.32e-05)	(1.31e-05)	(1.32e-05)	(3.83e-05)	(1.27e-05)	(1.29e-05)	(1.30e-05)	(1.42e-05)
distw	-1.06e-05	-1.79e-05	-1.87e-05	-4.59e-05	-1.72e-05	-1.78e-05	-4.07e-06	-1.35e-05	-1.22e-05	-1.31e-05	-1.65e-05	-1.60e-05
	(7.64e-05)	(4.55e-05)	(4.69e-05)	(6.49e-05)	(5.04e-05)	(4.46e-05)	(5.40e-05)	(4.34e-05)	(4.96e-05)	(5.04e-05)	(4.48e-05)	(4.84e-05)
natre1	-0.000823	-0.0685	-0.0691	-0.0443	-0.0686	-0.0695	-0.0678	-0.0783	-0.0691	-0.0677	-0.0676	-0.0551
	(0.0595)	(0.0597)	(0.0593)	(0.0488)	(0.0607)	(0.0589)	(0.0592)	(0.0864)	(0.0610)	(0.0618)	(0.0603)	(0.0566)
natre2	-0.0808	-0.145***	-0.148***	-0.140***	-0.146***	-0.145***	-0.147***	-0.0974	-0.143***	-0.141***	-0.144***	-0.146***
	(0.0756)	(0.0534)	(0.0534)	(0.0537)	(0.0537)	(0.0539)	(0.0539)	(0.0824)	(0.0522)	(0.0533)	(0.0531)	(0.0554)
overallscore		0.0109										
		(0.0311)										
Observations	17,579	30,537	30,537	30,537	30,537	30,537	30,537	17,579	30,537	30,537	30,537	30,537
Number of ccodepair	3,908	4,086	4,086	4,086	4,086	4,086	4,086	3,908	4,086	4,086	4,086	4,086
Wald Chi2	98.81	476.3	482.9	582.4	441.9	484.1	495.9	66.20	483.4	467.8	485.0	464.8

Robust standard errors in parentheses

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

Next, I ran individual regressions that looked at each of the institutional variables individually. Property rights is significant at the 10% level, freedom from corruption, business freedom, and financial freedom are all significant at the 5% level and trade freedom is significant at the 1% level. The natural resources of the origin country are also significant for all of the regressions at the 1% level. A one-unit increase in property right corresponds to a 2.75% increase in expected

inbound FDI. This makes sense because stronger property rights and enforcement of those rights would make firms more likely to invest in a country long term because the firm's capital and property will be protected. This shows the other side of Mijiyawa argument that FDI can help increase property rights (2013). In other words, a host country with strong property rights can increase FDI and FDI can increase property rights, creating a positive feedback loop. A one-unit increase in freedom from corruption in the host country corresponds to a 4.02% increase in expected inbound FDI. This makes theoretical sense because high corruption could mean an increase in the cost of doing business through bribery and inefficiency. As mentioned previously, Doğru has done work with high-middle income institutions using the Fraser Institute as a proxy for institutions and found that ease of doing business is an important determinant in FDI. Ease of doing business has corruption incorporated within the variable, so the results of my study conform to the literature. A one-unit increase in business freedom in the host country corresponds to a 3.68% decrease in FDI. This is an interesting result and counter to what would be expected as it is the measure of the government's efficiency in business regulation including starting, operating, and closing a business. It turns out that business freedom has a significantly positive impact on FDI for low income countries, a significantly negative impact on middle income countries, and no significant impact on FDI flows for high income countries. This suggests that there may be a threshold of business freedom that must be met, but after it's met then it does not matter as much. When trade freedom of the host country is run individually a one-unit increase corresponds to a 6.42% expecting increase of FDI inflows. When financial freedom of the host country is run individually a one-unit increase corresponds to a 2.44% expecting increase in FDI flows.

The second set of output, shown in table 5, uses the origin country's institutions as the independent variables while continuing to use the inbound FDI to the host country as the dependent

variable. This is important because it allows us to look at the impact of the origin country's institutions and compare it to the impact of the host country's institutions. In the overall regression, government spending is significant at the 10% level, and labor freedom, trade freedom, and investment freedom are significant at the 1% level. GDP per capita and the natural resources of the host country are both significant at the 10% level. A one-unit increase in government spending freedom of the origin country corresponds to a 3.65% decrease in expected FDI inflows. The reason for this result is that OECD countries that make up the origin countries in this data set score relatively poorly in government spending freedom because it is a measure that attempts to determine the burden of government spending. This is because many OECD countries often operate at a deficit. A one-unit increase in the origin countries labor freedom corresponds to a 7.13% increase in expected inbound FDI flows to the host country. This makes theoretical sense because if the origin country has a relatively free labor market that is free from unionization it would easier to cut domestic jobs and move them to a foreign country where labor may be cheaper. A one-unit increase in trade freedom corresponds to a 16.2% increase in expected FDI inflows to the host country. This is a difficult result to interpret, as a country that has high trade freedom may not have the same incentives to engage in FDI; however, the results of the institutional distance regressions may contribute to our understanding of the reasons for engaging in FDI by the origin country. A one-unit increase in investment freedom in the origin country will lead to a 4.67% decrease in expected FDI. This is also difficult to interpret, but institutional distance may shed some light upon the reasons for that.

Table 5: Origin Country's Institutions

VARIABLES	(1) All	(2) Overall	(3) Property	(4) Corrupt	(5) Fiscal	(6) Govern	(7) Business	(8) Labor	(9) Monetary	(10) Trade	(11) Invest	(12) Financial
propertyrights2	0.00888		0.0185									
	(0.0392)		(0.0145)									
freedomfromcorruption2	-0.0364			-0.0414***								
	(0.0330)			(0.0144)								
fiscalfreedom2	-0.0372				-0.00920							
	(0.0455)				(0.0113)							
governmentspending2	-0.0365*					-0.0231**						
	(0.0216)					(0.0116)						
businessfreedom2	0.0420						-0.0216					
	(0.0395)						(0.0160)					
laborfreedom2	0.0713***							0.0330				
	(0.0273)							(0.0280)				
monetaryfreedom2	0.0293								0.0708***			
	(0.0373)								(0.0224)			
tradefreedom2	0.162***									0.112***		
	(0.0456)									(0.0260)		
investmentfreedom2	-0.0467***										-0.0372**	
	(0.0154)										(0.0147)	
financialfreedom2	0.00942											-0.0244**
	(0.0181)											(0.0118)
gdppc	-6.87e-05*	-5.49e-06	-5.24e-06	-4.04e-06	-5.93e-06	-4.28e-06	-5.81e-06	-5.26e-05	-6.25e-06	-1.30e-05	-6.15e-06	-7.68e-06
	(3.79e-05)	(2.40e-05)	(2.39e-05)	(2.29e-05)	(2.47e-05)	(2.43e-05)	(2.37e-05)	(4.16e-05)	(2.33e-05)	(1.92e-05)	(2.40e-05)	(2.37e-05)
gdppc2	-1.64e-05	-1.15e-05	-3.20e-05*	-2.47e-05*	-2.09e-05	-1.01e-05	-1.42e-05	-1.62e-05	-7.96e-06	-4.00e-05**	-2.23e-05**	-1.21e-05
	(3.83e-05)	(1.31e-05)	(1.82e-05)	(1.39e-05)	(1.30e-05)	(1.36e-05)	(1.32e-05)	(4.09e-05)	(1.18e-05)	(1.91e-05)	(1.12e-05)	(1.33e-05)
distw	7.45e-06	-2.59e-06	1.53e-05	1.51e-05	1.19e-06	-1.18e-05	3.08e-06	3.16e-07	5.25e-06	3.43e-05	-2.00e-06	1.67e-05
	(5.05e-05)	(5.14e-05)	(4.15e-05)	(4.00e-05)	(4.20e-05)	(4.85e-05)	(3.62e-05)	(4.64e-05)	(3.43e-05)	(3.25e-05)	(5.17e-05)	(4.68e-05)
natre1	-0.153*	-0.105*	-0.102*	-0.0906*	-0.105*	-0.119*	-0.0945*	-0.114	-0.0927*	-0.0698	-0.101*	-0.101*
	(0.0834)	(0.0600)	(0.0590)	(0.0542)	(0.0603)	(0.0658)	(0.0561)	(0.0826)	(0.0547)	(0.0453)	(0.0585)	(0.0589)
natre2	-0.134	-0.144***	-0.135**	-0.129**	-0.148***	-0.144***	-0.114**	-0.108	-0.145**	-0.0672	-0.185***	-0.132***
	(0.0880)	(0.0519)	(0.0568)	(0.0557)	(0.0538)	(0.0509)	(0.0446)	(0.0763)	(0.0570)	(0.0606)	(0.0640)	(0.0505)
overallscore2		-0.0789**										
		(0.0339)										
Observations	20,431	35,374	35,374	35,374	35,374	35,374	35,374	20,431	35,374	35,374	35,374	35,374
Number of ccodepair	4,247	4,444	4,444	4,444	4,444	4,444	4,444	4,247	4,444	4,444	4,444	4,444
Wald Chi2	136.4	679.2	647.6	510.0	637.4	565.5	705.8	65.63	635.2	689.8	646.5	878.8

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Next I ran individual regressions that looked at all of the origin country's institutional variables separately. All of the signs and magnitudes agree with the overall regression, however, the significance level of the variables is different. All of the variables are significant at the 1% or 5% level. With the individual regression freedom from corruption, monetary freedom, and fiscal freedom all become significant. Labor freedom is the only variable that becomes insignificant. An increase in the overall institutions of the origin country by one unit corresponds to a 7.89% decrease in FDI to the host country. This makes sense intuitively because if the origin country has

weaker institutions, firms will be more likely to invest abroad in institutions that are stronger. A one-unit increase in freedom from corruption corresponds to a 4.14% decrease in expected FDI. This means that more corrupt countries are going to invest more abroad. This makes intuitive sense because if a country has high corruption levels would be more likely to invest in a county with lower levels of corruption. A one-unit increase in monetary freedom corresponds to a 7.08% increase in expected inbound FDI. An increase of the origin country's financial freedom by one unit decreases expected inbound FDI by 2.44%.

Table 6 shows the Poisson regression of institutional distance calculated by subtracting the origin country's institutions from the host country's institutions. The origin countries' institutions are stronger in general because they are all OECD countries, so for this regression the proper way to interpret the results is that negative values are an increase in FDI flows and positive numbers are a decrease in FDI flows. A one-unit increase in the overall score corresponds to a 4.76% increase in the expected FDI flows to the host country. This result is significant at the 5% level. The overall regression has three significant variables business freedom distance, financial freedom distance, and investment freedom distance significant at the 10%, 10%, and 1% level respectively. A one-unit increase in the business freedom distance variable corresponds to a 4.51% increase in expected FDI into the host country. This does not conform to my theory.

Table 6: Institutional Distance: (Host-Origin)

VARIABLES	(1) All	(2) Overall	(3) Property	(4) Corrupt	(5) Fiscal	(6) Govern	(7) Business	(8) Labor	(9) Monetary	(10) Trade	(11) Invest	(12) Financial
dprop12	0.0241		0.00355									
	(0.0271)		(0.0116)									
dcorr12	0.0410			0.0373***								
	(0.0298)			(0.0131)								
dfisc12	-0.00198				-0.00606							
	(0.0367)				(0.00735)							
dgove12	0.0166					0.00950						
	(0.0312)					(0.0110)						
dbusi12	-0.0451*						-0.00586					
	(0.0242)						(0.00948)					
dlabo12	-0.0529							-0.0532*				
	(0.0361)							(0.0323)				
dmone12	-0.0172								-0.0278			
	(0.0306)								(0.0226)			
dtrad12	-0.0320									-0.0512***		
	(0.0268)									(0.0161)		
dinve12	0.0363***										0.0171**	
	(0.0132)										(0.00823)	
dfina12	0.0264*											0.0219***
	(0.0152)											(0.00837)
dgdppc12	-3.81e-05	-5.50e-06	-1.50e-06	3.06e-06	-8.51e-08	-4.93e-06	1.96e-06	-1.34e-05	-2.38e-06	7.25e-06	1.08e-06	-6.30e-06
	(3.90e-05)	(1.40e-05)	(1.64e-05)	(1.24e-05)	(1.28e-05)	(1.24e-05)	(1.27e-05)	(3.89e-05)	(1.24e-05)	(1.31e-05)	(1.30e-05)	(1.29e-05)
dnatre12	-0.0137	0.0340	0.0350	0.0475	0.0343	0.0358	0.0370	-0.0163	0.0379	0.0331	0.0418	0.0393
	(0.0634)	(0.0411)	(0.0423)	(0.0359)	(0.0431)	(0.0416)	(0.0434)	(0.0620)	(0.0424)	(0.0369)	(0.0423)	(0.0418)
dover12		0.0476**										
		(0.0212)										
distw	-7.60e-05	-3.62e-05	-3.10e-05	-4.11e-05	-2.74e-05	-3.60e-05	-2.75e-05	-2.85e-05	-2.98e-05	-1.24e-05	-3.08e-05	-1.98e-05
	(6.27e-05)	(4.05e-05)	(3.49e-05)	(4.92e-05)	(3.77e-05)	(4.03e-05)	(3.72e-05)	(4.28e-05)	(2.92e-05)	(2.82e-05)	(3.51e-05)	(3.84e-05)
Observations	17,579	30,413	30,413	30,413	30,413	30,413	30,413	17,579	30,413	30,413	30,413	30,413
Number of ccodepair	3,908	4,086	4,086	4,086	4,086	4,086	4,086	3,908	4,086	4,086	4,086	4,086
Wald Chi2	106.3	620.0	662.9	527.2	559.1	586.7	525.7	55.58	518.9	525.5	689.6	622.9

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

A one-unit increase in the financial freedom distance variable corresponds to a to a 2.64% decrease in expected FDI into the host country. This makes theoretical sense because firms that need external financing are more likely to engage in FDI with a country that has similar financing to the host economy. A one-unit increase in the investment freedom distance variable corresponds to a 3.63% decrease in the expected inbound FDI to the host country. This is a measure of capital mobility both within and across borders so similar levels of investment freedom make intuitive sense because firms will most likely invest in countries that have similar capital mobility because if the origin country lets capital flow out of the country, the capital mobility regulations on the destination country are probably similar.

Next, I ran individual regressions that looked at the institutional distance variables separately. Investment freedom and financial freedom are still significant with the same signs and magnitude; however, monetary freedom is no longer significant. The freedom from corruption distance variable, labor freedom distance variable, and trade freedom distance variables are significant in the individual regressions at the 1%, 10%, and 1% levels respectively. A one-unit increase in the freedom from corruption variable corresponds to a 3.73% decrease in the host country's expected inbound FDI. This makes intuitive sense because origin country firms that are familiar with dealing with certain levels of corruption may be more adept at dealing with similar levels of corruption in the destination country. Another possible explanation for this result is that regulations from the host country affect the level of spending in countries that vary significantly in corruption levels from the origin country through sanctions or other means. A one-unit increase in the labor freedom corresponds with a 5.32% increase in the host country's expected inbound FDI. Although this does not conform to my original theory, this could make sense because firms may be trying to take advantage of cheap labor, which is often synonymous with lower labor freedom and regulations. A one-unit increase in trade freedom distance corresponds to a 5.12% increase in the host country's expected inbound FDI. This conforms to the literature that demonstrates that firms may engage with countries through FDI if they have high tariffs on imports and exports to gain access to the foreign market.

Table 7: Institutional Distance: (Origin-Host)

VARIABLES	(1) All	(2) Overall	(3) Property	(4) Corrupt	(5) Fiscal	(6) Govern	(7) Business	(8) Labor	(9) Monetary	(10) Trade	(11) Invest	(12) Financial
dprop21			0.00368									
			(0.0117)									
dcorr21	-0.0372			-0.0372***								
	(0.0290)			(0.0139)								
dfisc21	-0.00176				0.00355							
	(0.0348)				(0.00699)							
dgove21	-0.0227					-0.0121						
	(0.0303)					(0.0109)						
dbusi21	0.0431*						0.00360					
	(0.0232)						(0.00914)					
dlabo21	0.0503							0.0474				
	(0.0366)							(0.0319)				
dmone21	0.0126								0.0232			
	(0.0304)								(0.0222)			
dtrad21	0.0323									0.0531***		
	(0.0260)									(0.0163)		
dinve21	-0.0356***										-0.0175**	
	(0.0129)										(0.00800)	
dfina21	-0.0281*											-0.0213***
	(0.0145)											(0.00811)
dgdppc21	7.93e-05	4.09e-05	3.32e-05	3.18e-05	3.38e-05	4.30e-05	3.25e-05	6.85e-05	3.39e-05	2.89e-05	3.34e-05	3.86e-05
	(5.21e-05)	(2.92e-05)	(2.86e-05)	(2.50e-05)	(2.74e-05)	(2.62e-05)	(2.83e-05)	(5.29e-05)	(2.68e-05)	(2.53e-05)	(2.75e-05)	(2.68e-05)
dnatre21	-7.45e-05	-5.90e-05*	-5.91e-05**	-5.87e-05**	-5.68e-05*	-6.10e-05**	-5.67e-05*	-8.93e-05	-5.41e-05*	-6.02e-05**	-5.87e-05*	-5.57e-05*
	(5.04e-05)	(3.24e-05)	-(3.08e-05)	(2.91e-05)	(3.21e-05)	(3.02e-05)	(3.27e-05)	(5.78e-05)	(3.16e-05)	(2.91e-05)	(3.12e-05)	(3.17e-05)
dover21		-0.0501**										
		(0.0209)										
distw	-6.90e-05	-3.55e-05	-2.42e-05	-4.22e-05	-2.53e-05	-3.57e-05	-2.55e-05	-3.46e-05	-3.12e-05	-1.02e-05	-2.69e-05	-2.06e-05
	(5.63e-05)	(5.35e-05)	(4.53e-05)	(6.12e-05)	(4.86e-05)	(5.43e-05)	(4.85e-05)	(4.10e-05)	(3.90e-05)	(3.92e-05)	(4.87e-05)	(4.89e-05)
Observations	17,579	30,413	30,413	30,413	30,413	30,413	30,413	17,579	30,413	30,413	30,413	30,413
Number of ccodepair	3,908	4,086	4,086	4,086	4,086	4,086	4,086	3,908	4,086	4,086	4,086	4,086
Wald Chi2	100.5	488.2	451.4	451.4	461.8	492.9	431.0	58.39	436.9	440.7	506.6	579.4

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 7 shows the Poisson regression of the institutional distance calculated by subtracting the host country's institutions from the origin country's institutions. The origin countries' institutions are stronger in general because they are all OECD countries, so for this regression the proper way to interpret the results is that negative values are a decrease in FDI flows and positive numbers are a increase in FDI flows. A one-unit increase in the overall score corresponds to a 5.01% decrease in the expected inbound FDI to the host country. This is significant at the 5% level. The overall regression has three significant variables: business freedom distance, investment freedom distance, and financial freedom distance. The three variables are significant at the 10%, 1%, and 10% respectively. For a one unit increase in the difference in business freedom there is a 3.87%

increase in inbound FDI flows to the host country. For a one unit increase in investment freedom distance there is a corresponding 3.45% decrease in expected inbound FDI flows to the host country. This makes is logical because as the difference in investment institutions between two countries increase, this should lead to a decrease in FDI inflows to the host country. A one-unit increase in the financial freedom distance corresponds to a 2.71% decrease in expected inbound FDI flows to the host country. This conforms to my thesis.

Next, I ran individual regressions on each of the different institutional distance variables individually. In the individual regressions, distance of corruption and distance of trade institutions become significant, while distance of business institutions is no longer significant. A one-unit increase in distance of corruption corresponds to a 3.72% decrease in expected inbound FDI flows while a one-unit increase in distance of trade institutions corresponds to a 5.31% increase in expected in bound FDI flows. Both these relationships are significant at the 1% level. The result from distance of corruption conforms to my theory. The result for distance of trade institutions does not conform to my original theory; however, the result can be rationalized in the context of firms using FDI to avoid barriers to trade. This theory is further supported by the negative relationship between distance of investment institutions and FDI, which suggests that countries with similar levels of capital mobility will have higher FDI flows.

Table 8 shows the Poisson regression of the institutional distance calculated by using the absolute value of the origin country's institutions subtracted from the host country's institutions. I will not go through the results, but they mirror the results of the host minus the origin in terms of magnitude and significance. The only major difference is the labor is no longer significant when using absolute value.

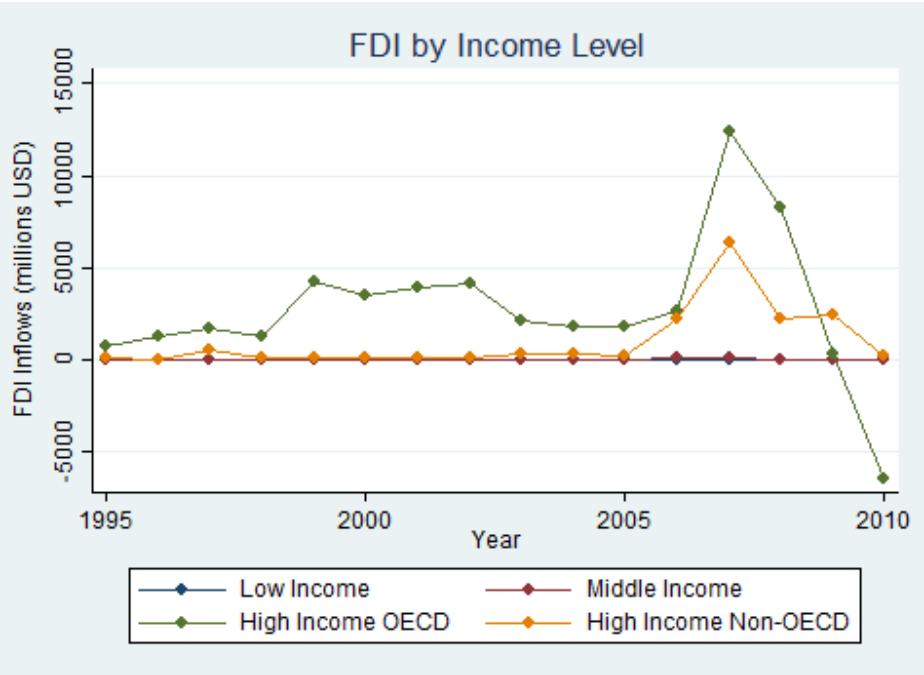
Table 8: Institutional Distance: ABS(Host-Origin)

VARIABLES	(1) All	(2) Overall	(3) Property	(4) Corrupt	(5) Fiscal	(6) Govern	(7) Business	(8) Labor	(9) Monetary	(10) Trade	(11) Invest	(12) Financial
dpropabs	-0.0172		-0.00534									
	(0.0278)		(0.00799)									
dcorrabs	0.0456*			0.0428***								
	(0.0251)			(0.0130)								
dfiscabs	0.0329				0.000811							
	(0.0357)				(0.0106)							
dgoveabs	0.0204					0.0126						
	(0.0285)					(0.00886)						
dbusiabs	-0.0201						0.0160					
	(0.0242)						(0.0126)					
dlaboabs	0.0101							0.0120				
	(0.0290)							(0.0311)				
dmoneabs	-0.0162								-0.0443			
	(0.0398)								(0.0280)			
dtradabs	-0.0298									-0.0843***		
	(0.0315)									(0.0194)		
dinveabs	0.0250										0.0200*	
	(0.0171)										(0.0104)	
dfinaabs	0.0270**											0.0229***
	(0.0123)											(0.00881)
dgdppcabs	1.13e-06	9.32e-06	9.68e-06	4.35e-06	9.51e-06	8.08e-06	4.66e-06	1.07e-05	2.53e-06	8.96e-06	9.57e-06	1.02e-05
	(4.18e-05)	(1.54e-05)	(1.69e-05)	(1.71e-05)	(1.66e-05)	(1.60e-05)	(1.75e-05)	(4.45e-05)	(1.51e-05)	(1.55e-05)	(1.64e-05)	(1.48e-05)
dnatreabs	-0.0815	-0.0947*	-0.0899*	-0.0578	-0.0895*	-0.0875*	-0.0799	-0.0970	-0.0807	-0.0625	-0.102*	-0.0791*
	(0.0729)	(0.0507)	(0.0508)	(0.0430)	(0.0503)	(0.0499)	(0.0520)	(0.0896)	(0.0514)	(0.0437)	(0.0555)	(0.0444)
doverabs		0.0632***										
		(0.0183)										
distw	-7.83e-06	-5.99e-06	-1.61e-05	9.30e-06	-1.34e-05	-2.29e-05	-1.26e-05	-1.71e-05	-1.55e-05	-3.12e-05	-2.22e-06	-2.68e-05
	(4.89e-05)	(4.13e-05)	(4.43e-05)	(3.57e-05)	(4.26e-05)	(4.67e-05)	(4.93e-05)	(5.57e-05)	(4.92e-05)	(5.05e-05)	(4.07e-05)	(3.86e-05)
Observations	17,579	30,413	30,413	30,413	30,413	30,413	30,413	17,579	30,413	30,413	30,413	30,413
Number of ccodepair	3,908	4,086	4,086	4,086	4,086	4,086	4,086	3,908	4,086	4,086	4,086	4,086
Wald Chi2	171.2	610.9	667.8	588.7	611.3	473.4	645.7	42.33	579.4	656.1	718.4	487.2

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Income Level Results

FDI varies greatly by income level as seen in graph 3. As mentioned in the literature review, a few previous studies look at how institutions affect FDI flows for countries of different income levels, most notably Doğru (2012). There are a number of interesting results that emerge. Rather than go through each individual regression, I will look at the trends in the results as a whole. Table 9 shows the results for both regressions using the host and the origin institutions for low, middle, high OECD, and high non-OECD income levels of the host country.

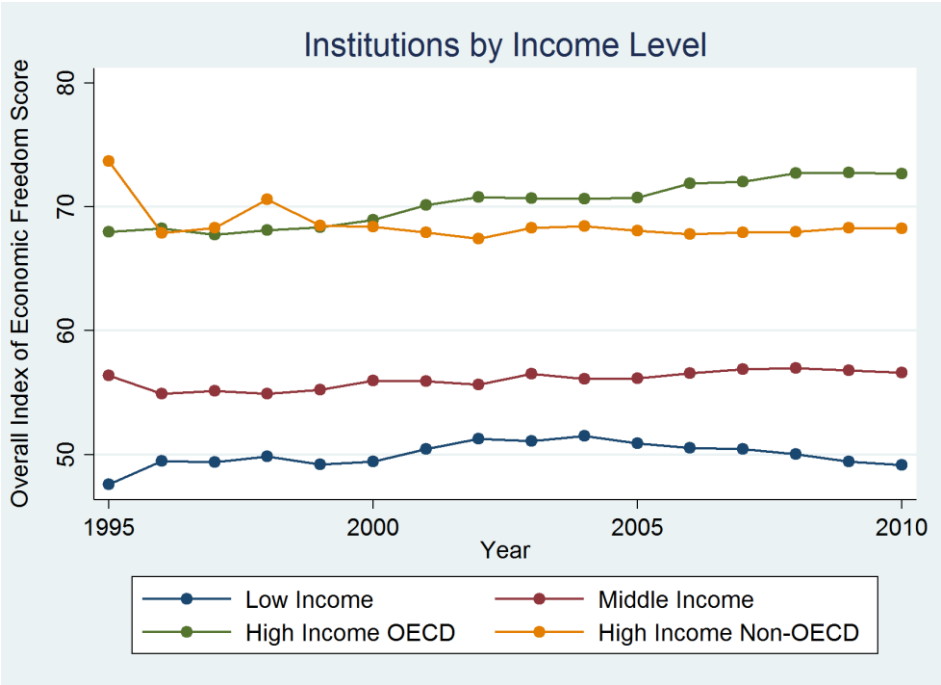


Graph 3: FDI by Income Level

Looking at the overall significance of institutions, they are more important for low and middle income countries than they are for either set of high income countries. This makes intuitive sense because in general, high income countries have stronger institutions than lower income countries. The relationship can be visualized in graph 4 below.

It is initially surprising is that many of the institutional indicators for the institutions of the host county for low income are significant and negatively related to inbound FDI. Fiscal freedom, government spending, labor freedom, monetary freedom, and investment freedom are all negatively related to FDI inflows to the host country. Only business freedom and trade freedom have a positive relationship. There are a few reasons for the relationships found in the regression. The first reason for this may be natural resources. Natural resources have been a reason for investment in foreign countries for centuries. Looking at both the host and the origin institutional regressions, it is evident that natural resources are significant. In the regression of the host country institutions, a one-unit increase in the origin country's natural resources corresponds to a 3.84% decrease in

FDI. This is logical because countries that have more abundant natural resources will be less prone to invest in another country's natural resources. The same intuition is present in the origin country's institutional regression where the origin country's natural resources have a negative relationship with FDI and the host country's natural resource wealth has a positive relationship with FDI. It seems that OECD countries invest in low income countries for natural resources that are not present in their own countries, which conforms to what is present in the global economy. Another reason is for low cost labor to produce low value added products. This is supported by the negative relationship with labor freedom, a measure of the regulatory and legal framework of the labor market and the positive relationship with trade freedom, a measure of barriers to trade. This suggests that the origin country invests in host countries that have low levels of worker regulations and high levels natural resources, but have low barriers to trade so that the labor intensive and natural resource products can be exported. The notion of cheap labor is also supported by the negative relationship between GDP per capita of the host country and inbound FDI. Often GDP per capita is seen as a proxy for a country's capital-labor ratio, which means that a negative sign for low income countries can be interpreted as affirming that low labor costs and high labor abundance matters for firms investing in low income countries. I believe that the other negative variables can be explained looking through this lens.



Graph 4: Average Overall Institutions by Income Level

For middle income countries the results are more encouraging for those that are hopeful that promote strong institutions. Middle income countries have much to gain if they increase institutions of law and governance, which in this case include fiscal freedom, government spending freedom, and monetary freedom. This means that the actions of the federal government and central bank are important to the origin countries firms. Also important is that GDP per capita of the host country is now positive. The combination of these results suggests that firms investing in middle income countries are not as interested in resource extraction, but rather a potential market for their products. The positive coefficient of GDP per capita also may demonstrate that a country demands more sophisticated goods. It is important to note that there are two variables that have negative relationships with FDI: business freedom and labor freedom. Labor freedom makes sense because less regulation on labor means that there may be lower costs to the firm engaging in FDI. Business freedom is much harder to rationalize as this variable is positive for low income countries and not significant for either high income bracket.

Table 9: Host and Origin Institutions by Country Income Level

VARIABLES	(1) Low Income- Host	(2) Low Income- Origin	(3) Middle Income- Host	(4) Middle Income- Origin	(5) High Income OECD- Host	(6) High Income OECD- Origin	(7) High Income nonOECD- Host	(8) High Income nonOECD- Origin
propertyrights	-0.0165	0.0749***	-0.0280	-0.107*	0.0412	0.0127	0.156	0.118*
	(0.0230)	(0.0241)	(0.0496)	(0.0642)	(0.0410)	(0.0429)	(0.0982)	(0.0688)
freedomfromcorruption	-0.00205	-0.0139	-0.0261	0.0313	0.120**	-0.0240	-0.298***	-0.166**
	(0.0128)	(0.0175)	(0.0992)	(0.0450)	(0.0490)	(0.0367)	(0.101)	(0.0763)
fiscalfreedom	-0.0346**	0.0873**	0.152**	-0.289***	-0.0760	-0.0151	-0.101	0.176*
	(0.0148)	(0.0404)	(0.0653)	(0.102)	(0.0554)	(0.0448)	(0.195)	(0.102)
governmentspending	-0.0311**	-0.0282*	0.0870**	-0.0332	-0.0314	-0.0470*	0.0217	-0.0354
	(0.0124)	(0.0154)	(0.0351)	(0.0371)	(0.0477)	(0.0252)	(0.0350)	(0.0374)
businessfreedom	0.0367***	-0.0666***	-0.117***	-0.0517	0.0230	0.0456	0.0990	0.0394
	(0.0108)	(0.0211)	(0.0370)	(0.0440)	(0.0311)	(0.0417)	(0.0604)	(0.0618)
laborfreedom	-0.0107*	-0.0305	-0.157**	0.139**	0.00347	0.0588*	-0.0836	0.105*
	(0.00622)	(0.0212)	(0.0661)	(0.0635)	(0.0482)	(0.0300)	(0.167)	(0.0634)
monetaryfreedom	-0.0209*	-0.0746**	0.0979**	0.0190	-0.0657	0.0332	0.424***	-0.0447
	(0.0121)	(0.0320)	(0.0463)	(0.0816)	(0.0469)	(0.0394)	(0.139)	(0.0778)
tradefreedom	0.00634*	0.0443	0.0217	0.172***	0.182**	0.119***	0.0397	0.198*
	(0.00344)	(0.0338)	(0.0308)	(0.0523)	(0.0794)	(0.0306)	(0.0314)	(0.103)
investmentfreedom	-0.0177***	-0.0407***	0.0823*	-0.0422	0.0376*	-0.0436**	0.0301	-0.0507
	(0.00657)	(0.0116)	(0.0481)	(0.0304)	(0.0212)	(0.0189)	(0.0576)	(0.0336)
financialfreedom	0.00312	-0.00475	-0.0382	0.0879***	0.0407**	-0.00163	-0.0891*	-0.0194
	(0.00791)	(0.0115)	(0.0286)	(0.0305)	(0.0204)	(0.0165)	(0.0477)	(0.0296)
gdppc	-0.00256*	-0.000460	0.000543**	-0.000248	-9.42e-05	-8.93e-05*	-0.000210	0.000112
	(0.00155)	(0.00136)	(0.000248)	(0.000195)	(5.98e-05)	(4.71e-05)	(0.000130)	(9.10e-05)
gdppc2	2.18e-05***	4.21e-05***	-0.000115*	-7.33e-05	-6.08e-06	-1.51e-05	0.000219**	-5.86e-05
	(7.97e-06)	(1.42e-05)	(6.91e-05)	(5.44e-05)	(4.23e-05)	(4.05e-05)	(9.06e-05)	(6.84e-05)
distw	-3.71e-05*	-3.98e-05						
	(2.21e-05)	(4.06e-05)						
natre1	-0.00423	0.106***	0.0182	-0.0294	0.113	0.00562	-0.170**	-0.103**
	(0.0165)	(0.0236)	(0.0419)	(0.0287)	(0.150)	(0.156)	(0.0858)	(0.0526)
natre2	-0.0384*	-0.0899**	-0.0173	0.0311	-0.0975	-0.151	0.0708	-0.00733
	(0.0226)	(0.0425)	(0.165)	(0.142)	(0.0802)	(0.102)	(0.282)	(0.142)
overallscore								
Observations	3,233	3,634	9,120	10,789	3,034	3,034	2,192	2,974
Number of ccodepair	645	687	2,047	2,195	722	722	494	643
Wald Chi2	44.45	633.1	3688	5331	150.3	147.2	2871	2912

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The regression for high income OECD countries shows that the OECD countries invest in other OECD countries for four main reasons: freedom from corruption, trade freedom, investment freedom, and financial freedom. Corruption is positive and significant for the first time, which is interesting, but looking at the table of countries in the OECD the interpretation becomes clearer. Even in the OECD, there are countries ranging from New Zealand, which has a corruption level of

91, to Greece, which has a corruption level of 40. This means that even though it is the OECD and it would seem that levels of corruption would be similar this is not the case. The positive significance of the three market variables show that firms engage in FDI in OECD countries for very different reasons than in low and middle income countries. The trade freedom variable suggests that firms are expanding internationally to contribute to their supply chains. The positive relationship between investment freedom and FDI suggests that mobility of capital is an important issue for firms engaging in FDI, which conforms to the literature. Finally, the positive coefficient on financial freedom makes sense because firms want to invest in countries that have an efficient banking system.

Finally, the regression of high income non-OECD countries does not have the same significant variables or signs that high income OECD countries have, which is surprising. There are three significant variables when looking at the host county's institutions. Freedom from corruption and financial freedom are both significant and negative, while monetary freedom is significant and positive. The positive relationship between monetary freedom and inbound FDI makes intuitive sense because OECD firms will likely be concerned with inflation and monetary policy. The mean values of the financial institutions of high income OECD countries and high income non-OECD countries are 70.53 and 60.80 respectively. This may mean that OECD firms choose to finance their operations in OECD countries because they are more efficient. The negative relationship between corruption freedom and FDI, which suggests that higher levels of corruption attract enhanced levels of FDI, does not seem to make intuitive sense.

Overall it seems that low income countries are engaged in a race to the bottom where countries with weaker institutions are rewarded with greater FDI flows with the exception of business freedom and trade freedom. Firms that invest in low income countries may have different

priorities such has higher levels of natural resources, lower levels of labor regulation, and low barriers of trade to export both cheap goods and natural resources. On the other hand, middle income countries have much to gain from increasing institutions that have to do with governance and regulation. This supports evidence provided by Mijiyawa, who claims that FDI can help enhance institutions that have already achieved some minimal level of institutions (2013). High income OECD countries also can gain from strengthening institutions, particularly institutions that have to do with the markets. Once again this makes sense because most countries within the OECD have high levels of institutions to begin with, so FDI will flow into countries that have lower trade barrier, more capital mobility, and stronger financial institutions. Firms have different incentives to invest when investing in OECD countries than when investing in low or middle income countries and thus have different needs. Finally the results for high income non-OECD countries are less conclusive, but they seem to get their financing from other sources, while monetary policy is a big concern for the OECD investors.

The next set of regressions, shown in table 10, used the income level data to look at institutional distance. There are some trends that emerge when looking at the results. The results for low income countries suggest that as institutional distance increases for property rights, fiscal freedom, and government freedom, there will be an increase in FDI flows. This suggests that OECD countries with stronger institutions are providing most of the FDI into low income countries. The significant and positive coefficient for business freedom suggests the same finding in the institutional regression of the low income countries, which is that OECD countries will invest in countries that are easy to do business in and have similar levels of business freedom.

Table 10: Institutional Distance by Country Income Level

VARIABLES	(1) Low Income: Host-Origin	(2) Low Income: Origin-Host	(3) Middle Income: Host-Origin	(4) Middle Income: Origin-Host	(5) High Income OECD: Host-Origin	(6) High Income OECD: Origin-Host	(7) High Income nonOECD: Host-Origin	(8) High Income nonOECD: Origin-Host
dprop12	-0.0482***	0.0471***	0.0460	-0.0426	0.0284	-0.0261	0.0291	-0.0270
	(0.0133)	-0.0128	(0.0350)	(0.0346)	(0.0308)	(0.0305)	(0.0547)	(0.0596)
dcorr12	0.0176	-0.0187*	-0.0129	0.0162	0.0711**	-0.0676**	-0.148**	0.161**
	(0.0114)	-0.0105	(0.0541)	(0.0527)	(0.0301)	(0.0299)	(0.0578)	(0.0681)
dfisc12	-0.0376***	0.0374***	0.170**	-0.180***	-0.0475	0.0403	0.0504	-0.0125
	(0.0143)	-0.0135	(0.0708)	(0.0674)	(0.0319)	(0.0314)	(0.0856)	(0.0810)
dgove12	-0.0146***	0.0133**	0.0441	-0.0473*	0.0386	-0.0435	0.0426	-0.0591
	(0.00535)	-0.00544	(0.0289)	(0.0267)	(0.0288)	(0.0281)	(0.0527)	(0.0688)
dbusi12	0.0221***	-0.0236***	-0.0468	0.0458	-0.0243	0.0165	0.0287	-0.0345
	(0.00746)	-0.00771	(0.0313)	(0.0297)	(0.0357)	(0.0316)	(0.0793)	(0.0853)
dlabo12	-0.00152	0.004	-0.187***	0.151***	-0.0410	0.0364	0.0200	-0.0331
	(0.00663)	-0.00529	(0.0648)	(0.0554)	(0.0379)	(0.0373)	(0.0578)	(0.0694)
dmone12	0.0155	-0.0139	0.0475	-0.0472	-0.0633**	0.0589**	0.262***	-0.250***
	(0.0110)	-0.0113	(0.0391)	(0.0372)	(0.0252)	(0.0246)	(0.0731)	(0.0770)
dtrad12	0.00480	-0.00763**	-0.0357	0.0254	-0.0515*	0.0443	0.0381	-0.0344
	(0.00381)	-0.00353	(0.0271)	(0.0245)	(0.0277)	(0.0271)	(0.0603)	(0.0740)
dinve12	-0.00148	0.00028	0.0658**	-0.0764***	0.0388***	-0.0358***	0.0137	-0.00485
	(0.00598)	-0.00597	(0.0295)	(0.0296)	(0.0113)	(0.0110)	(0.0429)	(0.0483)
dfina12	0.00272	-0.00306	-0.0682***	0.0783***	0.00877	-0.0106	0.0309	-0.0386
	(0.00757)	-0.00721	(0.0238)	(0.0254)	(0.0117)	(0.0115)	(0.0262)	(0.0293)
dgdppc12	-2.43e-05***	0.00294**	0.000178**	-0.000460**	-4.58e-05	9.67e-05*	-0.000149**	9.77e-05
	(7.94e-06)	-0.00149	(7.09e-05)	(0.000216)	(4.23e-05)	(5.29e-05)	(5.85e-05)	(0.000100)
dnatre12	0.0185	-0.00292*	-0.0318	0.000353	0.0770	-8.73e-05*	-0.124	8.33e-05
	(0.0112)	-0.00149	(0.0364)	(0.000222)	(0.0862)	(5.25e-05)	(0.0931)	(0.000116)
Observations	3,233	3,233	9,120	9,120	3,034	3,034	2,192	2,091
Number of ccodepair	645	645	2,047	2,047	722	722	494	469
Wald Chi2	56.55	63.21	4722	7372	216.9	189	2378	1843

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

For middle income countries there are four significant institutional distance variables. As institutional distance for labor freedom and financial institutions increases, there will be an increase in expected FDI inflows to the host country. On the other hand, an increase in institutional distance for fiscal and investment institutions corresponds to a significant decrease in FDI flows to the host country. The difference in labor freedom is probably better explained by the institutional results. It

is evident that OECD FDI flows are attracted to countries that have weaker labor markets. Although a positive relationship between FDI flows and financial distance would not be initially expected for middle income countries, this may be because OECD firms finance themselves using their the origin country's financial institutions rather than the hosts country's financial institutions. Having similar fiscal institutions corresponding with higher FDI flows makes sense intuitively because this means that they have similar tax systems. The result for investment distance also makes sense because countries that have similar levels of capital mobility will attract FDI flows between one another.

For high income OECD countries there are four significant institutional distance variables. An increase in corruption and investment distance corresponds to a decrease in FDI flows as expected. This confirms what was seen in the high income institutional results where corruption was a significant factor in determining FDI flows for OECD countries investing in other OECD countries. Having similar levels of capital mobility is also important. On the other hand, an increase in monetary distance and trade distance corresponds to an increase in FDI flows. Trade makes sense because firms may want to engage in FDI with countries that have dissimilar levels of tariffs in order to break into the market without the use of exports. Monetary freedom makes less sense, but perhaps it is because firms want to take advantage of a country that has a different level of inflation or price controls.

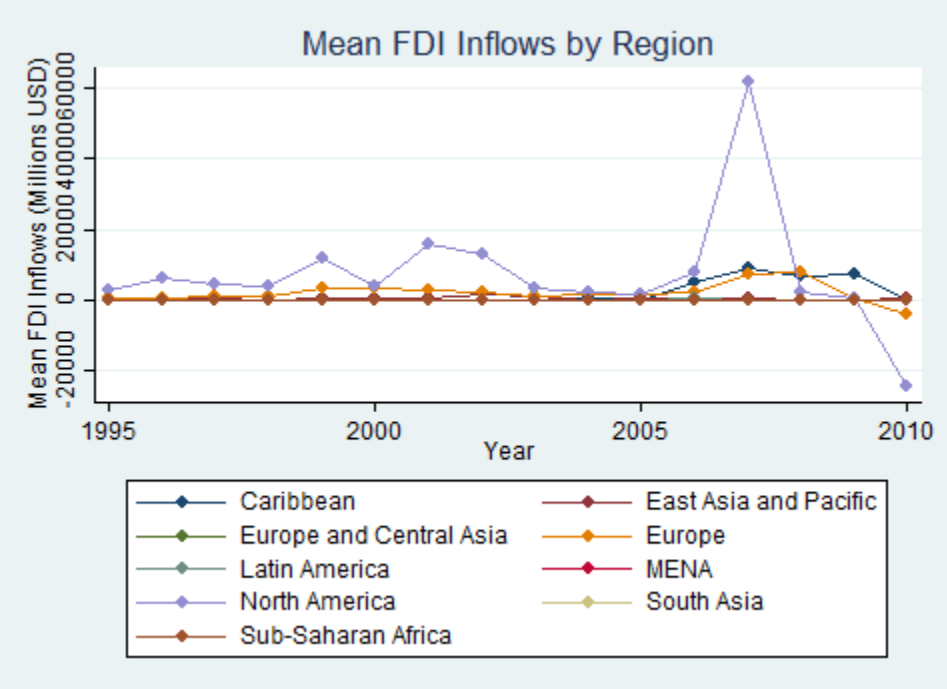
Finally, for high income non-OECD countries there are two significant institutional distance variables. As corruption distance increases, FDI to the host country increases as well. This means that the larger difference in corruption, the greater the inbound FDI flows. The second result is that as monetary distance decreases, there will be an increase in expected inbound FDI flows. This makes sense because inflationary concerns are important for investors. This means that inflation and price controls are more important when OECD countries are investing high income countries that are not

a part of the OECD than when they are investing in OECD countries. Overall there are mixed results when looking at how institutional distance influencing FDI flows at countries of different income levels.

Regional Results

The next two sets of regressions look at how institutions and institutional distance can affect FDI flows in nine different regions. The motivation for doing this is because there are a number of regional studies, many of which are mentioned in the literature review, and because there are significant differences in FDI flows and institutions in different regions. Looking at graph 4, it is evident that there is great variation in mean FDI depending on the region. North America is dominated by the three large advanced economies, so it is no surprise that that average inbound FDI is highest for the North American Region. Europe and South Asia also not surprisingly have fairly high average inbound FDI. The most surprising countries that have relatively high inbound FDI are the countries in the Caribbean region.

The first regression I ran for using the regional data sets was for the institutions. For the Caribbean and North America, I was not able to get results using the PPML technique. Since the results are extensive, I will only be focusing on overall trends in the results. Table 11 shows the host country's institutions.



Graph 4: Mean FDI Inflows by Region

Although there are significant variables in every region, institutions seem to play an important role for countries in Europe, Latin America, and Sub-Saharan Africa. For Europe there are five significant variables and they all have a positive coefficient. As expected, the market variables are extremely important for European countries. Property rights and freedom from corruption are also positively associated with expected inbound FDI flows. European countries have a lot to gain from improving institutions. Latin America also has a number of significant variables; however, stronger institutions do not unambiguously increase expected inbound FDI. Fiscal, government spending, monetary, and investment institutions all have a positive coefficient. This makes sense when thinking about the history of Latin America. Government spending, ability to raise taxes, inflation, and price controls have been problems for a number of countries in the region in the past so it makes intuitive sense that firms would invest in countries that have stronger institutions in those areas. On the other hand, property rights, business freedom, and labor freedom are negatively

associated with expected inbound FDI flows. Property rights seems especially counter-intuitive. Business freedom may make sense because there are other reasons that firms are investing in Latin America, such as market size, that over power the ease of starting and operating a business. This theory is backed up when looking at the positive and significant variable of GDP per capita in the host country. Labor freedom may also make sense because firms may be drawn to countries that have lower labor standards to cut costs. Sub-Saharan Africa is the final region in which there are a number of significant institutional results. These results are mixed as well. Property rights, monetary policy, and trade institutions are all positively associated with expected inbound FDI. On the other hand, government spending, investment, and financial institutions are negatively associated with expected inbound FDI flows. The reason for this may be because the coefficient of natural resources of the origin country is negative and significant, suggesting that the OECD origin countries are investing in the Sub-Saharan region due to a shortage of natural resources in the home country. This means that strong institutions for government spending and investment may not be as significant as the property rights to protect firms investments in natural resources and the trade institutions needed to export those natural resources.

Table 11: Host Country's Institutions by Region

VARIABLES	(1) East Asia	(2) Europe/ Asia	(3) Europe	(4) Latin Am.	(5) MENA	(6) S. Asia	(7) Sub-Saharan
propertyrights	-0.0626	0.0617	0.0709*	-0.105*	-0.0340	-0.0666	0.0523*
	(0.0542)	(0.0993)	(0.0372)	(0.0624)	(0.0512)	(0.0421)	(0.0279)
freedomfromcorruption	0.171**	0.0740	0.0839*	-0.0375	0.0279	0.0112	0.00187
	(0.0816)	(0.0777)	(0.0479)	(0.0781)	(0.0473)	(0.0163)	(0.0314)
fiscalfreedom	-0.0392	-0.0717	-0.0904	0.254***	-0.00345	0.102***	0.0251
	(0.130)	(0.0580)	(0.0562)	(0.0694)	(0.0277)	(0.0314)	(0.0303)
governmentspending	0.0179	0.0390	-0.0266	0.114**	-0.0679*	0.139	-0.0435***
	(0.0891)	(0.0265)	(0.0472)	(0.0540)	(0.0366)	(0.0973)	(0.0148)
businessfreedom	-0.0389	0.104**	0.0457	-0.200***	0.0361**	0.0190	0.0188
	(0.0426)	(0.0465)	(0.0279)	(0.0489)	(0.0174)	(0.0273)	(0.0206)
laborfreedom	-0.00368	-0.0409	-0.000930	-0.396***	0.0156	-0.0414***	-0.0378
	(0.0594)	(0.0288)	(0.0525)	(0.0767)	(0.0220)	(0.0146)	(0.0293)
monetaryfreedom	0.0695	-0.0772	-0.0433	0.0751*	-0.00222	-0.0246	0.0558**
	(0.0757)	(0.0528)	(0.0477)	(0.0451)	(0.0336)	(0.0519)	(0.0238)
tradefreedom	-0.0395	0.0947	0.208**	0.0107	0.0109	0.0119	0.0575***
	(0.0549)	(0.0604)	(0.102)	(0.0785)	(0.0128)	(0.00869)	(0.0168)
investmentfreedom	0.0466	-0.0585	0.0431*	0.138***	0.0255	-1.28e-05	-0.0441**
	(0.0421)	(0.0416)	(0.0237)	(0.0509)	(0.0231)	(0.0102)	(0.0189)
financialfreedom	-0.0970*	-0.0336	0.0666***	-0.0621*	-0.0270	0.0145	-0.0346*
	(0.0519)	(0.0293)	(0.0208)	(0.0346)	(0.0289)	(0.0183)	(0.0178)
gdppc	-0.000156*	-0.000510	-0.000107*	0.000626***	-1.82e-05	0.000851	0.000174
	(8.75e-05)	(0.000502)	(6.03e-05)	(0.000204)	(2.16e-05)	(0.000946)	(0.000353)
gdppc2	-6.27e-05	-5.52e-05	4.62e-05	4.25e-05	-8.52e-05	2.04e-05	-6.36e-05
	(6.79e-05)	(5.00e-05)	(2.95e-05)	(9.73e-05)	(5.87e-05)	(1.72e-05)	(5.01e-05)
natre1	0.153	-0.0417	0.138	0.131	0.0290	-0.0256	-0.0412*
	(0.180)	(0.0262)	(0.183)	(0.139)	(0.0280)	(0.0470)	(0.0242)
natre2	0.134	-0.222**	-0.179*	0.0802	0.0882	0.0352	-0.412***
	(0.125)	(0.111)	(0.0949)	(0.103)	(0.121)	(0.0313)	(0.146)
Observations	1,662	1,982	3,034	2,757	1,791	552	4,810
Number of ccodepair	432	410	712	583	387	138	988
Wald Chi2	1112	330.3	98.86	12564	187.2	46.21	216.3

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 12 shows the institutional distance defined as the host country minus the origin country for each region. For every region with the exception of MENA, there are significant institutional distance variables. Institutional distance seems to have the greatest impact on countries in Eastern Europe and Central Asia, Europe, Latin America, and Sub-Saharan Africa. For Eastern Europe and Central Asia, similar levels of corruption, government spending, ease of doing business, and tariffs attracted outsized expected FDI, while fiscal, investment, and financial distance decreased FDI into the host country. For Europe similar levels of government spending, investment freedom, and financial institutions increased expected FDI inflows, while the greater the difference

in monetary policy the greater the expected FDI flows. Latin America had the most mixed results. For Latin America, similar levels of property rights, fiscal freedom, and investment freedom attracted FDI. The greater the distance for business, labor, financial, and trade freedom the greater the FDI flows. Finally, similar levels of property rights and trade institutions are important for countries in Sub-Saharan Africa, while institutional distance has a positive relationship with FDI for government spending, labor freedom, and financial freedom.

Table 12: Institutional Distance (Host-Origin) by Region

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
VARIABLES	Caribbean	East Asia	Europe/ Asia	Europe	Latin Am.	MENA	N. America	S. Asia	Sub-Saharan
dprop12	0.432	-0.0191	-0.0158	0.0395	0.115**	-0.0241	-0.0394	0.0746***	0.0534*
	(0.329)	(0.0302)	(0.0324)	(0.0352)	(0.0569)	(0.0336)	(0.0400)	(0.0246)	(0.0317)
dcorr12	0.0242	0.0634	0.151**	0.0416	0.0284	0.0512	0.0960**	-0.0359*	0.0267
	(0.130)	(0.0626)	(0.0598)	(0.0286)	(0.0646)	(0.0404)	(0.0404)	(0.0188)	(0.0223)
dfisc12	-0.427	-0.0197	-0.126**	-0.0467	0.295***	-0.00975	-0.170*	0.00207	0.0341
	(0.315)	(0.0673)	(0.0601)	(0.0322)	(0.0824)	(0.0237)	(0.0909)	(0.0144)	(0.0242)
dgove12	-0.248	0.00864	0.0577***	0.0555**	0.0104	-0.0306	-0.0373	0.0138	-0.0381**
	(0.171)	(0.0354)	(0.0190)	(0.0269)	(0.0352)	(0.0221)	(0.0449)	(0.0208)	(0.0164)
dbusi12	-0.0313	-0.0363	0.0758**	0.0270	-0.171***	0.0288	-0.135*	0.00445	-0.0124
	(0.248)	(0.0369)	(0.0346)	(0.0201)	(0.0609)	(0.0177)	(0.0687)	(0.00893)	(0.0201)
dlabo12	0.543	-0.0488	-0.0136	-0.0221	-0.257***	0.0138	-0.0960*	-0.0284**	-0.0736***
	(0.483)	(0.0316)	(0.0208)	(0.0321)	(0.0694)	(0.0179)	(0.0513)	(0.0137)	(0.0268)
dmone12	-0.328*	0.105*	-0.0409	-0.0561**	-0.0353	-0.0278	-0.0271	-0.0545**	0.0412*
	(0.178)	(0.0623)	(0.0341)	(0.0251)	(0.0564)	(0.0205)	(0.0554)	(0.0264)	(0.0249)
dtrad12	0.0908	-0.0354	0.0634**	-0.0431	-0.109***	-0.00511	-0.139**	0.00229	0.0575***
	(0.168)	(0.0447)	(0.0293)	(0.0305)	(0.0364)	(0.0115)	(0.0686)	(0.00608)	(0.0205)
dinve12	-0.236**	-0.00397	-0.0996***	0.0415**	0.0838**	0.0226	0.0516**	0.00234	-0.0184
	(0.109)	(0.0195)	(0.0294)	(0.0168)	(0.0350)	(0.0191)	(0.0256)	(0.00448)	(0.0136)
dfina12	-0.109	-0.0161	-0.0566*	0.0341***	-0.105***	-0.0228	-0.0437**	0.0110	-0.0258*
	(0.0847)	(0.0197)	(0.0325)	(0.0104)	(0.0331)	(0.0174)	(0.0222)	(0.0103)	(0.0147)
dgdppc12	-4.90e-05	-3.29e-05	-9.90e-06	-9.35e-05***	6.48e-05	-8.94e-06	0.000164***	-1.15e-05	7.60e-05
	(0.000148)	(4.19e-05)	(5.99e-05)	(3.38e-05)	(7.26e-05)	(2.31e-05)	(5.68e-05)	(1.91e-05)	(4.88e-05)
dnatre12	-0.188	0.0854	-0.0319	0.0842	-0.0370	0.0454	-0.142	0.0185	-0.0250
	(0.178)	(0.115)	(0.0318)	(0.115)	(0.0783)	(0.0315)	(0.169)	(0.0216)	(0.0246)
Observations	384	1,662	1,982	3,034	2,757	1,791	244	552	4,810
Number of ccodepair	104	432	410	712	583	387	60	138	988
Wald Chi2	281.6	488	1088	71.96	15814	100.2	8132	33.03	188.5
Prob.>chi2	0	0	0	0	0	0	0	0	0
AIC	77775	1.032e+06	33432	1.440e+07	222374	27002	1.220e+06	1143	31406
SC	77843	1.032e+06	33528	1.440e+07	222475	27095	1.220e+06	1217	31523

Robust standard errors in parentheses

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

Conclusion, Policy Implications, and Future Analysis

My research shows that strong institutions increase FDI flows and that institutional distance has a negative impact on FDI flows for corruption, investment, and financial institutions, and it has a positive influence on FDI flows the greater the labor and trade distance is. My results are statistically significant for five of the ten institutional distance indicators. I also found that a country's income level is important for determining what the impact of institutions is on FDI flows. It is evident that for low income countries, weaker institutions attract higher levels of FDI, which may be because firms that invest in low income countries want cheap labor and natural resources to export. Middle income countries can benefit from increased governance and regulatory institutions. Finally, high income OECD countries depend on strong investment, financial, and trade institutions to attract FDI. It is also clear that there are major differences regionally in what attracts FDI flows that are unique to the history of the region and that region's relationship with OECD countries. Institutions are especially important for Europe, Latin America, and Sub-Saharan Africa.

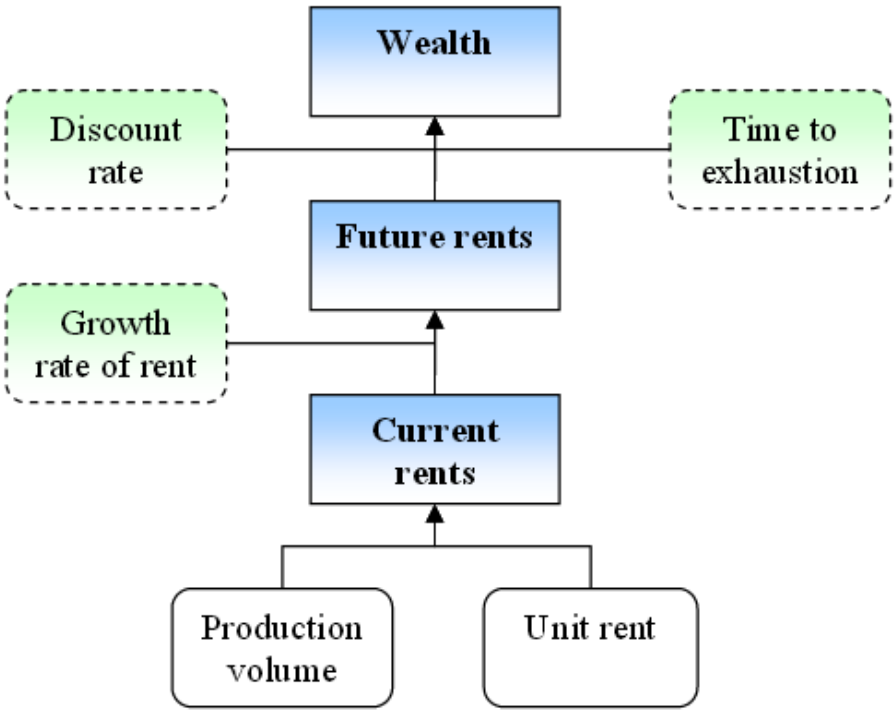
The policy implications of this work are significant, as it will help policy makers attract foreign direct investment more effectively, independent of GDP per capita and distance between countries, by focusing on countries with institutional similarities that have the greatest effect on FDI flows. The analysis demonstrates that weaker institutions may pose a smaller impediment to FDI flows than previously assumed because small institutional differences may counteract some of the effects of weak institutions. This information can help countries attract FDI and thus increase economic growth.

Appendix

Appendix 1: List of Countries

Afghanistan	Cyprus	Liberia	Samoa
Albania	Czech Republic	Libya	San Marino
Algeria	Democratic People's Republic of Korea	Liechtenstein	Sao Tome and Principe
Andorra	Denmark	Lithuania	Saudi Arabia
Angola	Djibouti	Luxembourg	Senegal
Anguilla	Dominica	Madagascar	Seychelles
Antigua and Barbuda	Dominican Republic	Malawi	Sierra Leone
Argentina	Ecuador	Malaysia	Singapore
Armenia	Egypt	Maldives	Slovakia
Aruba	El Salvador	Mali	Solomon Islands
Australia	Equatorial Guinea	Malta	Somalia
Austria	Eritrea	Marshall Islands	South Africa
Azerbaijan	Ethiopia	Mauritania	Spain
Bahamas	Fiji	Mauritius	Sri Lanka
Bahrain	Finland	Mexico	Suriname
Bangladesh	Former Sudan	Micronesia (Federated States of)	Swaziland
Barbados	France	Montserrat	Sweden
Belarus	Gabon	Morocco	Switzerland
Belgium	Gambia	Mozambique	Syrian Arab Republic
Belize	Georgia	Myanmar	Tajikistan
Benin	Germany	Namibia	Thailand
Bermuda	Ghana	Nauru	Macedonia
Bhutan	Greece	Nepal	Togo
Bolivia	Greenland	Netherlands	Tonga
BosniaHerzegovina	Grenada	Netherlands Antilles	Trinidad and Tobago
Botswana	Guatemala	New Caledonia	Tunisia
Brazil	Guinea	New Zealand	Turkey
B. Virgin Islands	Guinea-Bissau	Nicaragua	Turkmenistan
Brunei Darussalam	Guyana	Niger	Turks and Caicos Islands
Bulgaria	Haiti	Nigeria	Tuvalu
Burkina Faso	Honduras	Norway	Uganda
Burundi	Hungary	Oman	Ukraine
Cabo Verde	Iceland	Pakistan	United Kingdom
Cambodia	Indonesia	Palau	United States
Cameroon	Iran, Islamic Republic of	Panama	Uruguay
Canada	Iraq	Papua New Guinea	Uzbekistan
Cayman Islands	Ireland	Paraguay	Vanuatu
Central African	Italy	Peru	Venezuela
Chad	Jamaica	Philippines	Viet Nam
China,	Japan	Poland	Yemen
China: Hong Kong SAR	Jordan	Portugal	Zambia
China: Macao SAR	Kazakhstan	Qatar	Zimbabwe
CÌ«te d'Ivoire	Kenya	Republic of Korea	
Colombia	Kiribati	Republic of Moldova	
Comoros	Kuwait	Romania	
Congo	Kyrgyzstan	Russian Federation	
Cook Islands	Lao	Rwanda	
Costa Rica	Latvia	Saint Kitts and Nevis	
Croatia	Lebanon	Saint Lucia	
Cuba	Lesotho	Saint Vincent and the Grenadines	

Appendix 2: General Framework for the Estimation of Natural Resources Wealth



Appendix 3: Correlation Matrix for Institutional Variables

	Property Rights	Corruption	Fiscal	Government	Business	Labor	Monetary	Trade	Investment	Financial	GDPPC1	GDPPC2	Dist	Natre1	Natre2
Property Rights	1														
Corruption	0.8922	1													
Fiscal	-0.2421	-0.2988	1												
Government	-0.3511	-0.4431	0.4482	1											
Business	0.7381	0.7209	-0.0766	-0.2231	1										
Labor	0.4199	0.3856	0.0759	-0.0995	0.486	1									
Monetary	0.4545	0.4082	-0.113	-0.0243	0.3609	0.1591	1								
Trade	0.423	0.4589	-0.0049	-0.1847	0.4374	0.2204	0.202	1							
Investment	0.6951	0.6304	-0.1492	-0.1867	0.6126	0.284	0.4758	0.482	1						
Financial	0.6437	0.5779	-0.06	-0.173	0.5613	0.2975	0.4958	0.4801	0.7236	1					
GDPPC1	0.7414	0.8302	-0.2636	-0.3952	0.594	0.28	0.3263	0.4502	0.4912	0.4955	1				
GDPPC2	-0.0185	-0.0155	0.0142	0.0105	-0.0096	-0.0052	-0.0208	0.0125	-0.0107	-0.0104	-0.0103	1			
Dist	-0.0693	-0.0725	0.0698	0.1772	-0.0258	0.0729	-0.0783	-0.0898	-0.0925	-0.0828	-0.1489	-0.0609	1		
Natre1	-0.3242	-0.3052	0.1663	0.1619	-0.3177	-0.13	-0.1981	-0.2001	-0.3863	-0.3279	-0.0816	0.0042	-0.0189	1	
Natre2	0.0034	0.0039	0.002	-0.0002	0.0009	-0.001	0.0012	0.0039	0.0045	0.0066	0.0063	0.1112	0.2244	0.0041	1

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