FDI: A RESPONSE TO GLOBAL AND LOCAL VARIABLES

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Abstract

Economic literature has long shown that capital flows and their volatilities are important for the development, growth and economic stability of economies. Developing countries have been increasingly integrated into the world market exposing their capital inflows to global shocks in addition to domestic shocks driven by country specific characteristics. This paper aims to quantify the effects of the global and domestic factors on capital inflows using FDI as a proxy. Using panel data for 84 countries spanning 1970-2009, the model was estimated using fixed effects. There are four major findings from this study. First, the importance of global and country specific effects depends on the country’s stage of development. In particular, financial depth is the only important contributor to FDI in emerging countries. Second, the 2008 Financial crisis positively affected the inflows to developing countries showing a redistribution of assets by investors. Third, the insignificance of exchange rate risk for FDI may indicate the ability of investors to hedge against exchange rate risk.

KEYWORDS: (Capital inflows, FDI, global shocks)
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CHAPTER I
INTRODUCTION

Typically, capital flows and its volatility are important for the development, growth and stability of a country. Since the increased integration of developing countries into the world market, they have increased their vulnerability to global shocks. In this paper, foreign direct investments (FDI) are used as a proxy for capital inflows. In past two decades, global net FDI inflows have exploded. Figure 1.1 shows this huge increase starting in the mid 1990s up until 2000 and then from 2003 to 2007. Table 1.1 shows the percent changes of the two major booms in FDI and the two major declines in FDI inflows.

In this paper, FDI is used to measure the amount foreign capital flows coming into countries. Foreign Direct investment (FDI) is the amount of investment necessary to attain lasting management in an ongoing enterprise which is operating in an economy other than that of the investor. FDI inflows are the best measure when looking at developing and emerging countries where a strong financial system may not be present making it difficult to examine other types of capital inflows. FDI is also stable due to the long term nature of the investment made. It has been shown in addition to other country-specific variables to boost economic growth in developing countries. Multinational enterprises use it as a tool to access markets, avoid trade costs, and to take advantage of cheaper labor and materials.

To explain the variation in FDI, two sets of variables were created, global and local. Global variables are determinants that have an effect across several countries while
the local variables are the determinants that are country-specific. It is expected that global variables will have a significant effect due to increased market integration. In a further extension of the model, three major crises (the Savings and Loan, the East Asian, and the 2008 Financial crises) are controlled for to see their effect on FDI flows. The models were run with a fixed effects estimation using all countries then 3 sub-samples: developed, developing, and emerging countries.

There are three major findings are in this paper. First, in emerging countries financial stability is the only important factor to impact FDI inflows. Second, the 2008 financial crisis positively contributes to FDI inflows for developing countries. This indicates that investment in developing countries at that time was the only place for investors to put their money. Also it indicates that since the crisis originated in developed countries and spread among them (contrary to previous crises), funds and capital moved out of developed countries towards emerging and developing. This change in risk of investment, investors reshuffled their capital. Third finding is the increase in investor’s effectiveness in hedging exchange rate volatility in countries through financial derivatives.

The paper will proceed with related literature to FDI, and then move onto the model and methodology. After the model and methodology, the data is discussed. Next section is the results and analysis of the regressions. Last is the conclusion with extensions and potential policy implications of the conclusions drawn from the regressions.
Table 1.1: Booms and Recession Percent Changes
CHAPTER II

LITERATURE REVIEW

Of all capital inflows into emerging and developing markets, we specifically look at Foreign Direct Investment (FDI). FDI is the amount of investment necessary to attain lasting management in an ongoing enterprise which is operating in an economy but does not include that of the investor. The reason for looking at FDI is that it is the fastest way for international capital to flow into emerging markets. It is also a crucial form of private financing to developing economies. FDI is the least volatile form of capital due to the long term nature of the investment being made by multinational firms.

This section will review the literature about FDI. It is broken up into four different sections. First it reviews the literature about how FDI relates to positive economic growth. Second part reviews the literature on multinational enterprises and the decisions to choose FDI. The third section reviews discusses the country specific drivers of FDI inflows. The last section discusses the global drivers of FDI and how it relates to integration.


FDI and Economic growth

There has been a lot of work done on the link between FDI and economic growth. FDI can bring about the adoption of new technology in various production processes through capital spillovers. It can also bring about a transfer of knowledge about labor and training and skills. The host countries, the ones receiving FDI, can benefit from the direct contact with the rest of the world that comes with FDI. It can also accelerate growth and development of emerging markets by encouraging firms to make use of the host countries infrastructure. FDI can be the catalyst to the establishment of local industrial sectors in developing countries if FDI is complimentary to the industry.

FDI can stimulate economic growth given certain country specific economic conditions. FDI, in addition to other variables, can be a major contributor to economic growth. These variables include Trade openness, a rich income per capita, certain education levels, and a well developed financial market. It is important to recognize that


FDI has had heterogeneous results across countries because there are other country-specific conditions need to be in place in order for it to have a positive effect on economic growth.¹

Multinationals and FDI Multinational firms can serve foreign markets by exporting, increasing FDI or licensing foreign firms to produce their products.¹⁰

Multinational enterprises (MNE) are typically thought of in theory as profit maximizing. Theory also states that multinationals that choose to make FDI are more productive than firms that only choose to export.¹³

A firm choosing to invest abroad faces the proximity-concentration tradeoff. This means the firm gives up concentration of production raising the fixed costs, but it saves on unit costs by avoiding trade costs.¹⁴ Typically FDI is sorted into either horizontal or


¹Henrik Hansen and John Rand. "On the Causal Links between FDI and Growth in Developing Countries."


For more review of initial literature the reader is referred to Caves (2007) "Helpman et al., "Export Versus FDI with Heterogeneous Firms." pp. 300-316

"ibid
vertical. Horizontal FDI takes place to serve the local market in the host country while vertical FDI adds value to the products that are destined to the source country. Horizontal FDI is undertaken if a firm wants to enter a market where tariffs are high; making it cheaper for the firm to choose FDI. Vertical FDI is part of a profit maximization strategy that the MNE will choose if the costs are lower in the host country while tariffs are low in the home country. Vertical FDI typically exploits the host country’s low wages and unskilled labor. 15

Other reasons for engaging in FDI is to exploit profit opportunities resulting from the difference in capital costs across borders. Theory suggests that world capital markets are informationally efficient and integrated. Since markets are not informationally efficient, it allows multinationals to act as effective arbitragers. Arbitrage in its simplest form is the act of exploiting the mispricing of two or more securities to achieve risk-free profits. 16 There are two main hypotheses regarding to multinationals as arbitragers. The first hypothesis is the “cheap financial capital” hypothesis. This suggests that FDI flows are an opportunistic use of low cost financial capital available to overvalued source country firms. An example of this is a MNC is overvalued and it sells stock in order to purchase overseas assets where it stock then begin to appreciate further. The second hypothesis is the “fire sale” or “cheap assets” hypothesis. This theory suggests that FDI flows reflect the purchase of undervalued host-country assets. 17 Both hypotheses suggest


that FDI is linked to firm’s attempts to take advantage of arbitrage opportunities.

Empirically it has been shown that FDI favors cheap financial capital but not cheap assets.

Other studies have shown that firms also engage in FDI for labor cost arbitrage and goods arbitrage by direct production. This means that firms are using FDI to exploit low wages, low cost of materials, and avoiding tariffs by direct production. They are also avoiding other costs of exporting such as the cost of actually transporting the goods.

Another reason firms engage in FDI is to optimize the spread of production across locations when the production displays decreasing returns to scale. This means that FDI allows firms to increase output when they begin to see that the amount of input into producing a good is greater than the amount of output.

FDI as a risk sharing tool for investors can be very useful by diversifying the production across many locations. This was shown to be the case for investors in Germany, Canada, and the US during the “lost” decade in the 1980s.


"Shi et al., "Foreign Direct Investment and International Stock Market Integration."

"Helpman and Krugman, *Market Structure and Foreign Trade*

Country-Specific Effects

There are many country specific factors that can effect a firm’s decision to go into FDI. Country specific factors of FDI in-country variables that can affect an investor’s decision to engage in FDI, these variables have no effect on surrounding countries.²²

In order to attract foreign investors, host countries will offer benefit packages that usually include things like tax holidays, stable labor market guarantees, low or fixed wage rates, and good infrastructure.²³ Many countries have become tax havens for MNC since they offer low or zero corporate tax rates. Often times they can also offer zero withholding tax rates on foreign investors in addition to bank secrecy laws. Tax havens tend to be countries with better political and legal systems and with lower corruption levels as compared to non-haven countries.²⁴ Countries that are tax havens often attract large amounts of FDI and investor interest.

Other local factors include the level of tariffs levied on imports. Countries with higher tariffs may attract more investment as firms establish production within the borders of the country to avoid tariffs as stated above. Alternatively trade openness and lower tariff rates and low trade barriers, in general allow countries to exploit their comparative advantage and may attract more capital flows as a result.

²³ ibid
Real exchange rates are a significant determinant to the amount of FDI flows to a country. Cushman (1985) showed that FDI decreased in the US when the real exchange increased and there was an even greater reduction when the expected appreciation of real foreign currency. He also was able to show that increases in risk or reductions in expected real foreign exchange rate appreciation increases FDI and decreases exports.

Growth potential of a country and the stability of this growth are major determinants of FDI. Instability drives investors away as it increases uncertainty. For investors to exploit investment opportunities, the quality and stability of government and local institutions play an important role. Therefore, variables such as government deficit and size are taken into consideration. This can mean that the government is likely to back down from initial agreements or that the government could be overthrown. Multinationals also consider the amount and areas of spending of the government, the debt burden and the role the government plays in the country.

Finally, a well functioning financial system of a country can indicate the economic efficiency and growth of a country and is necessary for capital flow into any country. In a study of the integration of the US and Japan stock markets show that even though USD depreciating against yen, the Japan capital outflows decreased due to the financial stress Japanese banks were in. A strong financial system can facilitate a monitoring system of firm managers and exert corporate controls taking out the risk of making an inefficient investment.


27 Klein, Michael W., Peek, Joe, Rosengreen, Eric S., “Troubled banks, impaired foreign direct investment: the role of relative access to credit.” American Economic Review 92, 664–682. 2002
Global Effects and Integration

As stated in the previous section, domestic characteristics that differ across countries have an important role to play in capital inflow. However, the state of the global economy plays a role. This point is made by Calvo et al. (1993) regarding Latin American countries and again by Loayza et al. (2005). Many of the drivers used in this paper are similar instruments to those used by Campbell and Hamao (1992) studied of long-term capital market integration between the US and Japan. In Albuquerque et al. (2003), 3 case studies of FDI by three multinational corporations document the importance of global factors in the decision making process to invest in a country. The global business cycles and other general economic conditions that can cause fluctuations in the multinational’s ability to invest are also variables to consider.

Many studies try to quantify the importance of the global factors in determining FDI in a certain country. Global factors affecting capital flows across countries include inflation of the dollar and the stock market returns.

"Albuquerque et al. “World Market Integration through the Lens of Foreign Direct Investors.”" 
Ibid.

"Ibid


Calvo, Leiderman, and Reinhart, "Capital Inflows and Real Exchange Rate Appreciation in Latin America: The Role of External Factors." pp 10-82
Different factors, both global and domestic, affect the capital flows in countries. Increased flows are typically associated with a country integrating into the world economy. The process of integration comes with decreased trade barriers and financial liberalization. Several studies look at this process and study its effects and drivers. However, source country variables have the similar properties to the global variables, therefore are already taken in account. Integration is the country entering into the world economy. It can happen through relaxing trade barriers or through financial liberalization. Albuquerque et al. (2005) examine the effects of world market integration on FDI determining that global factors are a driver of FDI. In contrast, Shi et al. (2010) examined how FDI impacts stock market integration. They found an increase in bilateral FDI, stocks and trade increase the level of co-movement between stock market pairs. Their results indicated that bilateral FDI and trade ties are more important than openness to trade or FDI in explaining stock market integration.

The global factors are used in order to see if there is any contagion or spill-over effect in the world market. Contagion is a situation in which a faltering economy in one country causes otherwise healthy economies in other countries to have problems. Contagion occurs when two economies have highly integrated capital markets.


Caves, Multinational Enterprise and Economic Analysis pp 29-67
There are some fundamental channels through which contagion can occur. One channel is the large neighbor affect. With this, investors tend to be attracted to larger countries and through a herding effect other investors flock to the region and invest in the bordering countries. Regional contagion is typically effected by the instability in trade flows and increase in military spending at the expense of other activities. This often time will decrease the amount of contagion to occur within a region. Trade links and exposure to a common creditor can explain earlier regional crises like the 1980s and 1990s debt crises. During the Mexican crisis contagion more regional than global and that the spillovers were from larger countries to smaller countries and not the other way around.


35 Calvo and Reinhart “Capital flows to Latin America: is there evidence of contagion effects?”
CHAPTER III
MODEL AND METHODOLOGY

Model

The model being used to measure FDI inflows is based on Albuquerque et al. (2005). The model can be simply stated as,

\[ \text{FDI Inflow} = \text{Local Variables} \times \text{Global Variables} \]

Where \( t \) indicates year and \( j \) specifies the specific country. The global variables are set as and the local variables are set as . FDI inflow is indicated by . No variables describing the sending country are considered because the model is specifically looking at the inflows of FDI into the host countries.

In , the local variables are GDP growth, Financial Depth, real effective exchange rate (REER) growth, Government consumption, trade openness, free, REER volatility, GDP volatility, Terms of trade volatility. In , the global variables are US treasury Bill, world index return, Slope of the US yield curve, US credit spread, World GDP per capita growth, and the US inflation rate. The variables and their sources are explained in detail in the next chapter.
Methodology

The model will be estimated using fixed effects. Fixed effects estimation is used over random effects estimation because of the nature of the data. It is used in order to control for the differences within countries and measure the effects of the variables on FDI.

To decide on the empirical model, the Hausman test is implemented on the panel data collected. The test’s null hypothesis is that the estimators are random effects estimators and the alternative is that they are not random but fixed. Despite this result the Running the test on all countries it fails to reject that random effects is the right test to use. Fixed effects estimation appears to be a more appropriate model due to the nature of the data. That is the data set is across a large geographical unit, in this case countries and fixed effects is more convincing than random effects for policy analysis. In the results chapter there is a table containing the random effects estimations for the sample of all countries.

CHAPTER IV

DATA

The data is a pooled country-time observations from various sources. The observations are for 215 countries spanning from 1960 to 2009. This eventually produced 84 countries and a combined annual total of 1864 observations. The observations are separated into 4 samples: all countries, developed, developing, and emerging. Emerging markets are a sub sample of developing countries. Emerging markets are defined by the Morgan Stanley Capital International (MSCI) emerging markets index. Developing and developed countries are categorized into by the International Monetary Fund’s (IMF) definition of advanced economies and not advanced economies.

Data for FDI inflows as a percent of GDP was taken from The WDI catalogue. To find FDI is the sum equity capital, reinvestment of earnings, other long and short term capital in the balance of payment. Specifically, the data is the ratio of net FDI inflows to GDP in current US dollars. This is done to control for country size and to avoid any non-stationary issues that may arise with time series data.

The reason for choosing FDI as a proxy for capital inflow is because this type of investment has become strongly associated with a country’s integration into the global economy. Typically, part of the integration process necessitates removal of capital controls. This will attract foreign investors to participate in the domestic stock market. Also market integration of countries has been aided by the introduction of American

\[ \text{FDI inflows as a percent of GDP} = \frac{\text{Net FDI inflows}}{\text{GDP}} \]

\[ \text{Net FDI inflows} = \text{Equity capital} + \text{Reinvestment of earnings} + \text{Other long and short term capital} \]

\[ \text{GDP in current US dollars} \]

\[ \text{FDI inflows as a percent of GDP} \]

\[ R. \ Albuquerque, \ Norman \ Loayza, \ and \ Luis \ Serven. \ "World \ Market \ Integration \ through \ the \ Lens \ of \ Foreign \ Direct \ Investors." \ Journal \ of \ International \ Economics, \ no. \ 66 \ (2005): \ 267-295 \]
Depository Receipts (ADR) and country funds. Once a country is integrated into the world capital market, Bekeart and Harvey (2000) establish that capital inflows are the best measure of foreign presence in an emerging market.

Using other variables to proxy for capital inflows has been proven problematic. The problem with using short term portfolio equity flows is that they are a reflection of weak development of the domestic capital market in the emerging economies. Another problem is that often time stock markets in emerging economies are not a significant portion of the domestic economy likely underestimating the impact of additional inflows.

The variables are separated into global and local factors. The following section will detail variables that determine both the domestic and global factors that drive FDI and capital inflows. The choice for the variables is driven by the literature review. The choice for the actual data was determined by availability and accessibility.

Local Factors

The local drivers of FDI and go as followed: GDP per capita growth, in order to measure domestic growth this data is from the World Development Indicators. Next driver we use is trade openness. This is measured by taking the residuals from the regression of the log of the ratio of real exports plus real imports to GDP on the logs of area and population and dummies


1 Albuquerque et al., "World Market Integration through the Lens of Foreign Direct Investors." pp. 267-295
for oil exporting and landlocked countries. This data is again from the World Development Indicators database. Financial depth is used as an indicator of financial stability. It is the ratio of private credit by deposit banks and other financial institutions to GDP this data is taken from the database developed by Beck et al. (2002). Government consumption is the ratio of government expenditures to GDP and is from the World development indicators database. To assess institutional quality created a dummy variable on whether the country was free or not using the ratings from Freedom House. Real effective exchange rate (REER) growth is used to capture possible wealth effects from the IMF International financial statistics. Then the following volatilities are included to measure uncertainty; GDP growth, REER growth, and Terms of Trade growth. They are calculated by taking the standard deviations of each of the growth rates. The terms of trade data was calculated from data from IMF international financial statistics.

Global Factors

The six global variables that are used to explain FDI inflows are US inflation, Slope of the US yield curve, 3-Month Treasury Bill, credit spread, and world growth. US inflation is used as a measure of inflation expectations which is an important determinant of the expected return on investment. The US Inflation rate is taken from the US Federal Reserve Bank database. The slope of US yield curve is used as a proxy for global inflation risk and will also be used as a measure of the premium on long term assets. The slope is calculated by taking the 10-year US bond rate and subtracting it from the 3 month US Treasury bill rate. The US 3-Month Treasury Bill is used as an index of total return in world stock markets. The data is from the US Federal Reserve Bank. The credit spread is used as a measure of global bankruptcy risk. It is the spread between Moody’s AAA and Moody’s BBB rated bonds, which is also taken from the US Federal Reserve Bank database. World growth provides a proxy for global productivity. It is the weighted average of the GDP growth rates of each country taken from the World development

Norman Loayza, Pablo Fajnzylber, and César Calderón. *Economic Growth in Latin America and the*
indicators database. Similar instruments have been used in the literature to explain expected equity returns.

6 Campbell, John Y., and Yasushi Hamao. Predictable Stock Returns in the United States and Japan: A
Table 4.1: Descriptive Statistics
CHAPTER V RESULTS The regression in this section evaluates the basic determinants of FDI inflows. It is implemented on the full sample of countries and three subsamples: developing, developed, and emerging countries. Table 5.1 shows the result of each of these regressions. Looking at the global variables, the finding is that they mostly explain the variation in developing countries. The US Treasury bill is insignificant for all samples except developing countries. For developing countries the Treasury Bill rate has a positive effect on developing countries. This indicates that an increase in the Treasury bill rate increases the amount of FDI going into developing countries. The world stock market return is not significant for any of the samples. This finding of the increased risk in long term investments decreases the amount of FDI going into the world as opposed to specific sub samples of countries. The credit spread is only significant for developing countries. This means that an increase in the global bankruptcy risk decreases the amount of FDI going into developing countries. The world growth rate of GDP per capita is significant for all countries and developing countries samples. The US inflation rate is significant for the developing countries while it is not for the other samples. An increase in the inflation expectations causes a decrease in the amount of FDI flowing into developing countries.
Concluding from this, developing countries are greatly impacted by the various global factors while the effects do not seem to matter for the entire sample. Developed and emerging countries seem to be less effected by the global factors.

The looking the local factors we find that an increase in GDP per capita results in increases in FDI inflows and that strong domestic growth increases the amount of FDI in developing countries. We also find that the more willing and open a country is to trade will increase the amount of FDI flowing into the developing country.

Financial depth is significant for emerging and developing countries. An increase in financial stability is a positive contributor to FDI inflows for developing and emerging countries. This is an interesting result because it is the only significant variable for emerging countries. Accessibility to the investment opportunities that comes with the financial depth in emerging countries seems to be the only driving factor of capital inflows into these countries. This might be interpreted as evidence of herd behavior among investors who flock to emerging economies as they integrate into the global economy ignoring the possible country specific risks associated with these investments. This shows the herding effect shown by investors in emerging countries.

The lack significance of exchange rate volatility shows a shift in investors’ ability to hedge against exchange rate risk. Investors do this through forwards and options. Forwards are contracts that lock in an exchange rate for the future and an option is a contract where an investor sets a rate at which they can choose to exchange currencies at


or up to some date in the future. Options allow investors to choose not to exercise the option if the exchange rate is more favorable to them. Exchange rates is interesting because it has been shown that they have been an important factor in the past when choosing to invest in a country. ²

The civil liberties variable is not significant for any of the samples. When it is dropped the general conclusions still hold true. The reason behind this is that these variables do not change over time and therefore are hard to use under fixed effects estimation.

The terms of trade variable is also dropped, because it is very similar to exchange rate volatility. It was dropped was to see if exchange rate volatility became significant because the two are similar resulting in possible collinearity. This sensitivity check of the regression is shown Table 5.3. The estimation of the sensitivity check resulted in the same conclusions made in the regression of the basic determinants of FDI. It also shows that these two variables did not explain much of the variation in FDI inflows.

From these local variables, it can be concluded that developed countries are greatly affected by country specific factors. Looking at emerging and developed countries, it can be seen that these countries have been established and there is not a huge amount of risk involved in investing there. Developing countries on the other hand have more risk but greater returns so investors are more careful about how they invest in the country.

Table 5.2 uses controls for the recessions by including dummy variables for the 1981, 1997, and 2008 years, corresponding to the Savings and Loans crisis, East Asian

crisis and the recent financial crisis that resulted from the housing bubble respectively.

Controlling for these years we find some differences from the original regression. The credit spread is significant and negative for developed and all country samples. This is an important result. In times of increased global risk, investors revert to domestic assets. The increase in spread results in a -0.015% decrease in FDI as a percent of GDP for all countries and a -0.057% decrease in FDI as a percent of GDP in developed countries. An increase in the global bankruptcy risk decreases the amount of FDI into developed countries and globally as well. When the long term premium on assets increases, we see that it decreases the amount of FDI flowing into developed countries. World growth is significant for developing countries and increases in magnitude when recessions are controlled for. The US inflation rate is significant for the samples of all countries and of developing countries. This variable may also reflect the importance of the changes in exchange rates, particularly for countries who peg their currency to the US Dollar. This may be contributing to the insignificance of exchange rate volatility on top of risk hedging.

World stock market return is significant for all countries developed and developing countries. The increase in the world return increases the amount of FDI flows into developing countries while it decreases the amount into all countries and developed countries. This indicates that controlling for times of crises is the better model. This may be the case because investors react differently in times of panic.

Looking at the, local variables there is an increase in the magnitude of GDP growth in all countries and a decrease in magnitude in developing countries. REER growth is still insignificant. Financial depth decreases in magnitude for emerging and developing countries. It also remains to be the only significant variable for emerging countries. REER volatility
becomes slightly significant for all countries this provides further evidence towards the original conclusion made before. The East Asian crisis was significant for developing countries which happen to agree with other studies done.
The financial crisis is significant for all of the samples except emerging countries. For all countries and developed countries the 2008 recession had a negative impact as expected. Although the recession had a fairly large negative impact on developed countries, it had a significant positive impact on developing countries. Due to the different nature of the financial crisis many safe investments of the past were no longer safe including gold. With interest rates close to zero, investors decided to put money into developing countries based upon their assessment of risk. During the crisis there was a collapse of international trade, gold prices dropped, indices plummeted, banks failing, there were not many options. Investors needed to put money somewhere and FDI may have proved to be a good alternative.

In Table 5.4, a sensitivity check is done by dropping the 1981 and 1997 recessions. It produced similar results and confirms the conclusions made about the results in Table 5.2. This shows the robustness of the estimation and strengthens the conclusions made.

There are four major findings drawn from these results. First, in emerging countries financial depth is the only important factor to impact FDI inflows. Second, the 2008 financial crisis positively contributing to FDI inflows for developing countries indicating that investment in developing countries at that time was the only place for investors to put their money. Third, is the investor’s effectiveness in hedging exchange rate volatility in countries through financial derivatives. Lastly, controlling for time of crisis, results in a better explanation of capital flows.
Table 5.1 Basic Model: Determinants of FDI
Table 5.2: Recessions
Table 5.3: Sensitivity Check
Table 5.4: Sensitivity Check
Table 5.5: Random Effects Estimation on All Countries
CHAPTER VI
CONCLUSION

The literature has long established the importance of capital inflows and its volatility for the development, growth, and stability of countries. Given this importance, this paper attempts to look at the determinants of FDI as a proxy of capital inflows. And since increase integration of developing countries into the world market, has made these countries more vulnerable to global shocks, these factors are treated separately into the analysis along with the domestic determinants of FDI.

FDI inflows are the best measure of capital inflows when looking at developing and emerging countries where a strong financial system may not be present. FDI is also a stable due to the long term nature of the investment made. It has been shown in addition to other country specific variables to boost economic growth in developing countries. Multinational enterprises use it as a tool to access markets, avoid trade costs, and to take advantage of cheaper labor and materials.

To explain the variation in FDI two sets of variables were created, global and local. Global variables are determinants that have an effect across several countries while the local variables are the determinants that are country-specific. It is expected that global variables will have a significant effect due to increased market integration across countries. In further extension of the model three major crisis’s (the Savings and Loan, the East Asian, and the 2008 Financial crisis’s) are controlled for to see their effect on FDI flows.
The models were run with a fixed effects estimation using all countries then three sub-samples: developed, developing, and emerging countries. Four major conclusions are drawn from these estimations. First, in emerging countries financial depth is the only important factor to impact FDI inflows. Second the 2008 financial crisis positively contributing to FDI inflows for developing countries. This indicating that investment in developing countries at that time was the only place for investors to put their money or that investors had redistributed assets since typical safe assets were longer safe. Third conclusion is the increase in investor’s effectiveness in hedging exchange rate volatility in countries through financial derivatives. Last is the significance of the world stock market return when controlling for recessions.

There are some issues with model, however. The variable for civil liberties since civil liberties do not change that much over time causing issue with using a fixed effects estimation. Instead another variable that could proxy this that does vary over time would produce a better result given the estimation. Another variable that goes along with the civil liberties is government consumption as indicator of government corruption and a further indicator of civil liberties. Another issue with is using net FDI inflows instead of total inflows. This is an issue because total inflows are not effect by the previous time periods unlike net inflows.

Extension to this paper would be to examine the non-linear relationship of FDI to the variables by taking the log of FDI. Another would be to examine FDI in a dynamic model using generalized method of moments (GMM) estimation. To take into account various trade agreements like the North American Free Trade Agreement (NAFTA) and to include other events like the introduction of the Euro and the European Union and its impact on FDI would be another extension to this model.
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