Foreign Direct Investment and Democracy

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ABSTRACT

Foreign Direct Investment (FDI) is a focal point of empirical research and government policies. Developing nations are becoming increasingly reliant on international capital flows in the form of FDI. This is because FDI can create positive externalities that lead to higher rates of growth. In addition, FDI is a form of long-term investment that is able to withstand crises more effectively. The increased democratization of least developed nations infers that the relationship between democracy and FDI needs to be empirically established. I utilize the Democracy and Dictatorship dataset to empirically estimate the effect of democracy on FDI (inflows and as % of GDP) in a dynamic panel data model. Specifically, I utilize generalized method of moments (GMM) estimators. Accounting for endogeneity, I find evidence that there is no relationship between democracy and FDI.

INTRODUCTION

In 2012, developing economies were able to absorb more Foreign Direct Investment (FDI) than developed countries for the first time. In fact, the least developed economies accounted for nearly 52 percent of global FDI flows. Developing nations are becoming more prevailing targets for FDI inflows. For instance, out of the top twenty host economies for FDI in 2012, nine are categorized as developing nations (UNCTAD, 2013). The historical trends of FDI to developing nations, along with increased democratization worldwide, necessitate further empirical research on the relationship between FDI and democracy. Political institutions and governance may possibly impact inflows of FDI. Governments are placing additional emphasis on policies that create favorable investment climates for foreign investors. There is a best case scenario in which increased democratization can lead to higher levels of FDI inflows. However, it is impossible to ignore the possibility of a negative relationship between democracy and FDI. Such correlation would imply a trade-off between pursuing foreign capital and granting political rights to citizens of developing nations. After accounting for reverse causality between democracy and FDI, I find that there is actually no empirical evidence to support claims that link regime types and FDI.

Within the past decade, many developing nations have competed for capital, internationally. During the same time period, we've seen an abundance of empirical work dedicated to examining the role of foreign capital inflows on developing economies. Convincingly, the growth literature thoroughly dissects the channels by which foreign capital can create positive externalities in the host economy (Borensztein et al., 1998; Blomstrom and Kokko, 1998; Haskel et al., 2007; Javorcik, 2004; Keller and Yeaple, 2003; Markusen and Venables, 1998).

FDI is a long-term investment. It is mobile *ex ante* and illiquid *ex post*. In other words, it is mobile because of the risk associated with it, but once an FDI project has begun, it is very costly to divest. Consequently, FDI can play a key role for economies since it is more capable of withstanding economic crises. The fact that it is a long-term investment also indicates that firms must undertake a substantial amount of risk in their choice of locale (Borenzstein et al., 1998). Determinants of FDI have been extensively studied (Blonigen, 2005; Helpman, 2006; Noorbakhsh et al., 2001; Moran, 1998; Moosa, 2002; Balasubramanyam, 1996). Some of those factors are country-specific attributes such as market openness, market size, development, abundance of labor force, macroeconomic stability, etc.

In this paper, I empirically estimate the effect of democracy on FDI. Moreover, I employ a dynamic model of democracy and FDI. Furthermore, I utilize Cheibub et al.'s (2009) Democracy-Dictatorship dataset. This is because they provide a minimalist approach to regime classification. They claim that their measure is generalizable and interpretable, unlike common subjective measures of regimes. Mainly, I contend that in order to properly estimate the correlation between FDI and regime type, it is imperative that the model accounts for endogeneity. For instance, while political regime may influence FDI inflows, it is also possible that more investment activity could lead to changes in regime type. I employ a generalized method of moments (GMM) dynamic panel data model to account for those issues. My results indicate that after controlling for various country specific factors, controlling for previous realizations of FDI inflows, and more importantly, accounting for endogeneity, there is no significant evidence to support claims that democracy influences FDI.

FDI SPILLOVER EFFECTS

Technology and Knowledge Externalities

The least developed economies, in theory, should experience a catch-up effect in the level of technological advancement (Weil and Galor, 2000; Basu and Weil, 1998; Mankiw et al., 1992). As evidenced in the growth literature, technology and productivity are the long-run determinants of GDP growth rates. Consequently, the gap between developed and developing nations is best explained by differences in technological progress. A catch-up effect should result since developing nations face lower costs of copying to be able to innovate. FDI directly influences this channel by spreading the knowledge base around the world in the form of capital investment, therefore speeding up the rate at which developing nations converge to developed nations. Studies have argued that FDI is an effective tool to spread knowledge, and technology across countries (Borenzstein et al., 1998; Javorcik, 2004). The effect of FDI on growth explains the significance of FDI from a policy standpoint.

Findlay (1978) finds that FDI can increase the rate of technological progress through a contagion effect from advanced technology, management practices, etc. He stipulates that foreign firms must teach the current workforce their best practices including the usage of their equipment. The workers then benefit from the added skillset resulting in higher levels of human capital stock. The channels by which FDI can influence technology are through the transmission of new ideas and new technologies. Borensztein et al. (1998) develop an endogenous growth formula in which technological progress is the key determinant of long run growth rates of income per capita. Their results suggest that FDI is an important vehicle from which growth can occur in larger measure than previously thought, especially relative to domestic investment.

Impact on Domestic Industries

The technological externalities, knowledge spillovers, and demonstration effects for the economy have a positive impact on domestic firm's total factor productivity and on their propensity to export (Keller and Yeaple, 2003). The arrival of an FDI project changes supply and demand in a number of related industries. An FDI project may create additional competition and possibly damage the local industry. However, studies have found that while one sector might experience more competition, there are benefits to other firms in other sectors (Javorcik, 2004).

The added demand for inputs for the production of goods and services strengthens supply industries, which in turn feed to local firms. Local firms experience lower costs and higher profits. The linkage effect allows intermediate good producers to lower cost from increased competition, and benefit from improved product quality. Instead of displacing local firms, FDI can create complementarities which, in turn, benefit the domestic final goods producers in an economy. Markusen and Venables (1999) test the relative strength of these linkages and they find that in scenarios in which the initial equilibrium has no local production then multinational entry can actually push the economy over to a new equilibrium with some level of local production in the intermediate market and final goods market.

Another channel by which externalities occur as a result of FDI projects is the presence of backward linkages. Backward linkages allow domestic industry to flourish by expanding local production in both the intermediate and final goods market. Eventually, studies have found that these linkages become as strong as to drive the multinational firms out of the economy. Hobday (1995) finds that in the computer parts industry, initial FDI created demand for local suppliers in Taiwan and improved their product quality, productivity, and product diversity.

Hundreds of local firms entered the intermediate good market to supply components or assembly services to MNCs. Growth of these component and intermediate good markets created forward linkage effect to the final goods producers, drawing in more investment by MNCs and domestic firms. Eventually, it was found that these domestic final goods producers were able to displace the multinationals over time as they became more efficient from the presence of backward linkages with suppliers. Javorcik (2004) supports this argument, stating that spillover channels from FDI improve efficiency by copying technologies of foreign affiliates operating in the local market either through observation or by hiring workers trained by the affiliates. The argument can be made that backward linkages can lead to direct knowledge transfers from foreign customers to local suppliers. Backward linkages also increases demand for better product quality and on-time delivery. Consequently, firms are incentivized to improve efficiency and innovation. Lastly, it increases demand for intermediate inputs allowing for economies of scale.

The positive externalities created by FDI are beneficial to developing economies. The realization of their importance has led to institutional policies that encourage the entry of foreign capital into a host economy. Despite backlash from domestic producers and the workforce that it temporarily displaces, governments are now competing to make their locales a relatively favorable investment climate for foreigners.

DETERMINANTS OF FIRM INVESTMENT DECISIONS

Dunning (1991) proposes a framework that guides the decision making process by which a firm chooses to invest internationally. The OLI paradigm focuses on transaction cost economics, trade and location theory, and industrial organization approaches. Dunning (1991)

argues that operating overseas must have some perceived advantages in order for it to take place. The main driving forces can be broken down in three parts.

First, ownership-advantages include the ownership of intangible assets and common governance of cross-border production. Some examples are product innovations, management practices, marketing techniques, and brand names. Additionally, ownership-advantages allow the firm to exploit economies of scale and develop monopoly power. The need to monopolize implies that property rights protection is more important to firms looking for these advantages (Dunning, 1991; Dunning, 1993).

Second, firms can obtain internalization advantages by seeking control of cross-border production. Firms can take direct control of their value-added activities in multiple countries instead of using other strategic entrances into the market via outsourcing, trade, or licensing. Internalizing may be beneficial if there is risk of opportunism by foreign buyers and sellers. It may also lead to other market failures such as the violation of property rights in high technology industries. Consequently, firms may have substantial incentives to internalize production to minimize the risk of leakages. These advantages are affected by antitrust or competition oriented regulation in the host country (Dunning, 1991; Dunning, 1993).

Lastly, location specific advantages can be perceived by firms in terms of their economic environment or government policies. Some examples are the presence of key raw inputs, abundant labor, high economic development, favorable macroeconomic policies, and other FDI specific government policies (Dunning, 1991; Dunning, 1993). Overall, firms ultimately decide to invest if there is a perceived benefit. Tangible benefits can be readily measured such

as profits and return on investment. Dunning (1991; 1993) establishes a framework by which government policies can impact the competitiveness of foreign investors.

ESTABLISHING CAUSALITY BETWEEN POLITICAL REGIME AND FDI

Since location-specific advantages may have a positive or negative effect on the induction of FDI inflows, then governments have a substantial amount of power in how they manage FDI policies. Governments may limit the advantages of seeking FDI or adopt protectionist policy that shields domestic firms from foreign entry. Some of these limitations include screenings and geographical restrictions (UNCTAD, 2013). Expecting several spillovers outlined earlier, governments may attempt to reign in investment by offering financial and fiscal incentives. Governments can strengthen the competitiveness of the foreign investor, and investors must also rely on policies to continue to sustain advantages. The potential for having a good and a bad investment climate depends on whether there is a correlation between political regime type and FDI.

Democratic countries have specific characteristics such as the presence of checks and balances and veto players (Jensen, 2003). Furthermore, democratic leaders must be voted into office by the electorate. The differences between a democratic leader and an autocratic leader therefore comes down the process in which they come to power, the method by which they sustain the power, and also how much flexibility they have for policy making purposes.

Trade Off Between Political Rights and FDI Inflows

During the late 1990s and early 2000s, there was growing a sentiment that globalization exploited the economically and politically repressed. Multinationals have been heavily accused of having complete disregard for civil society's rights. According to Amnesty

International (2002), there is evidence that United Fruit backed a government overthrow in Guatemala. Also, that ITT had a contributing role in the overthrow of the elected Allende government in Chile, and that international extractive industries supported authoritarian regimes such as Shell Oil in Nigeria, Unocal in Myanmar, and British Pretroleum in Colombia. Harms and Ursprung (2002) try to establish a link between political repression and FDI inflows. They find that autocracies repress political rights, whereas democracies grant political rights to their constituents. It is possible that MNCs may have a special liking for autocratic countries. Part of the reason lies in the autocrat's ability to suppress wages by not allowing workers to organize themselves. Profit-maximizing multinationals would benefit significantly as they would be able to lower operating costs. As a result, autocracies enact efficiency policies by providing a better environment for domestic and foreign investment than democratic countries (Huntington and Dominguez, 1975). This is particularly important for extractive and manufacturing enterprises that depend heavily on labor costs.

Multinationals will benefit from that ability and seek to collude with autocratic leaders. Busse (2004) finds repressive regimes induced more FDI in the 1970s. Adam and Filippaios (2007) find that the presence of political repression also increases the likelihood of having more FDI. Haggard (1990) contends that authoritarian rule is attractive to investors in countries with traditions of strong pressure from labor. Authoritarian regimes can give political elites autonomy from distributionist pressures, allowing for more economic policy options. Authoritarian regimes have shown an ability to suppress wages and favor the elite. More importantly, they have more flexibility for policy options. These policy options allow autocrats to provide favorable FDI policies that the electorate may not necessarily agree with

(Li and Resnick, 2003; Jakobsen and De Soysa, 2006; Olson, 1993; Busse, 2004; Clague et al., 1996; Busse and Hefeker, 2007).

Li and Resnick (2003) find that democratic institutions reduce FDI inflows. They explain that the negative relationship is due to the fact that democratic institutions have incentives to develop public policies that reflect popular sentiment. The popular sentiment may include a diverse set of opinions which may impact electoral and public policy making outcomes. Popular sentiment then constraints the executive power in democratic institutions. For instance, if there is a strong sentiment in a country that the entrance of foreign capital displaces the labor force in a domestic industry, or causes domestic industries to face increased competition, then the electorate may not support a democratic leader that enacts policies to increase inward FDI. In contrast, autocratic politics is biased in favor of narrow elite control, meaning that they have more executive power to enact policies that may benefit multinationals. MNCs operate in markets in which they are typically the dominant firm. They have substantial market power to try to monopolize. They can obtain more market share by colluding with autocratic governments. Moreover, the likelihood of bribery and corruption is more likely to take place in an autocratic country, because freedom of expression and open media in democratic countries bring about a more transparent political system. Additionally, the autocrat's primary focus is to generate more revenues for the ruling elite. Rulers will tolerate imperfect competition and concentrated market power of the monopolistic and oligopolistic foreign firms.

Autocratic leaders ultimately benefit from being able to enact policies without popular support. Some examples of such policy making are the ability to provide fiscal and financial

incentives to foreign investors with relative ease. For example, they can provide tax holidays, exemptions from import duties, deductions from social security contributions, accelerated depreciation allowances, investment grants, subsidized loans, and wage subsidies. These incentives are more likely to be granted in autocratic states because a democratic government is constrained by the time that it takes to coordinate domestic interests to the idea of providing a generous incentive to foreign capital (Li and Resnick, 2003). There might be a significant electoral backlash. Local business owners and the unemployed are likely to organize and lobby for protective industrial policy from the government.

Democracy Complements FDI

While autocracies provide benefits of shielding MNCs from redistribution, there are costs associated with increased risk of policy reversals by the autocrat's own distributional interests. In order words, multinationals cannot count on the autocrat's potential for sudden policy reversal as a result of his own personal interests. Accordingly, a lack of credibility is prevalent in autocratic regimes. Autocrats are argued to be short-sighted relative to the average citizen who has a longer time horizon. Political risks are minimized in a democratic system since it possesses checks and balances that prevent immediate policy reversal (Jensen, 2003). Olson (1993; 1996) look into which effect has more weight and finds that individual freedom attracts more FDI. This finding is also in line with Harms and Ursprung (2002).

Globerman and Shapiro (2002), who utilize the Kaufmann et al. (1999) measure of governance infrastructure, suggest that governance infrastructure attracts capital but also creates conditions under which domestic MNCs emerge and invest abroad. They conclude that positive governance infrastructure includes an impartial and transparent legal system that protects property rights and individual rights. Public institutions must be stable, credible, and

honest. This hints at the possibility that democratic states, which tend to be more stable and credible than autocratic ones, would benefit from increased FDI inflows (Jensen, 2003; Li and Resnick, 2003; Yang, 2007; Milner and Kubota, 2005; Rodrik, 1996).

Jensen (2003) contends that democratic governments attract as much as 70 percent more FDI as a percentage of GDP than their authoritarian counterparts. Autocratic nations increase political risk because of fear of expropriation or divestment. Jensen (2002) explains that political constraints for democratic regimes allow for higher levels of political stability and more favorable policies toward multinationals. Tsebelis (1995) argues that the existence of veto players can increase political stability. These policies are more likely to change in autocratic countries because the autocrat does not have to go through a system of checks and balances. Credibility is derived from the presence of veto players, and checks and balances. This is the major contribution that democracy provides. It is able to substantially lower the risks of losing assets once a costly FDI project has begun. Li and Resnick (2003) also contend that democracies are better at enforcing contracts and have a more transparent legal system. Corruption can impose unpredictable costs on firms. Effective rule of law, property rights protection, along with codified legal structure and institutionalized access to enforcement mechanisms make democracies more attractive by posing less risk. Ultimately, the presence of veto players over public policy plays the dominant role in offering a transparent system.

Additionally, government commitment to market friendly policies in the future can induce FDI. Democratic leaders are held accountable for their actions. Literature on audience costs explains that if a democratic leader fails to enact policies that promote stability and growth, then they will be replaced in a future election. As a result, democratic leaders are more likely

to be held accountable and might possibly enact more FDI seeking policies. Ultimately, a democratic leader suffers in terms of electoral votes if he/she does not promote a good investment climate. Leadership turnover in democratic systems can be associated with more market-friendly policies for MNCs. An example of this effect is the announcement made by da Silva of Brazil who belonged to the left-wing Workers' party which had overtaken President Cardoso in 2002. When this occurred, the stock and bond markets tumbled. Cardoso stressed that voting da Silva into power would ruin Brazil's image in the eyes of the international financial community. Consequently, Da Silva made pledges to the international community on his future policies making assuring that his policies would be market-friendly.

Recent empirical studies (Jakobsen and de Soysa, 2006; Busse and Hefeker, 2004; Yang, 2009) find that there is a positive link between democracy and FDI by applying statistical methods such as transforming the dependent variable, controlling for innovation, and focusing on regime type. Overall, studies are rather inconclusive due to the polarization of perspectives and the lack of a general definition of democracy. Additionally, a significant gap exists from an empirical standpoint, as many studies have failed to point out the possibility of an endogenous relationship between democracy and FDI. I contribute to the literature by controlling for endogeneity. Democracy should have an impact on FDI through their policies, but it is also possible that FDI projects and multinational presence might also apply political pressure and affect regime types. A multinational may in fact shape popular interest via advertising campaigns designed to promote globalization. Corporations looking for extractive assets such as oil fields, and minerals may influence politics by pushing for regime types, and leaders that are more likely to allow them to gain entry to their untapped natural resources.

This possible effect of FDI on political regime suggests that endogeneity must be accounted for.

MEASURING AND DEFINING DEMOCRACY

To empirically test the relationship between FDI and political regime, it was necessary to evaluate existing measures of regime type and identify the most appropriate data source. Instead of using popular measures such as Polity IV and Freedom House, I utilize the Democracy-Dictatorship dataset (Cheibub et al., 2009). Cheibub et al. (2009) analyze the differences in regime measures citing their strengths and weaknesses, and suggest that a regime classification must be able to address important research questions, be interpreted meaningfully and also be reproducible. Along those guidelines, they evaluate existing measures of democratization and create their own classification dataset. They contend that current popular measures are not interchangeable and that the choice of measure must be guided by theoretical and empirical underpinnings. They disagree with the view that the measures correlate with each other and question their reliability for robustness checks.

Subjectivity of Popular Measures

Popular measures of political regime can be found in the Freedom House (FH) data and the Polity IV data. FH focuses on political rights and civil liberties. The coding varies from year to year, thereby it may not be particularly helpful for time series analysis. Some of the questions that the data attempts to answer are subjective and arbitrary such as: “are there fair electoral laws?” “is the vote transparent?” “is there free and independent media?” and “is there equality of opportunity?”. These subjective questions could lead to small changes that result in misclassification. Polity IV focuses on competitiveness of political participation,

regulation of political participation, executive recruitment competition, openness of executive recruitment, and constraints on chief executive power. Polity weighs heavily on the executive branch constraints, making it appropriate to measure checks and balances but it also includes political violence, which complicates the measure. Additionally, the scoring is subjective and arbitrary, making it less useful to interpret the results. For instance, a positive change in a value from a year at t=0 to year t-1 implies that democracy improved, but it does not necessarily imply that the country is democratic. A politically repressed nation may become less repressed, but not necessarily more democratic. This makes it hard to evaluate across countries and to be able to interpret the results in a meaningful way. Both measures include difficult information to obtain and also employ subjective approaches. Such bias makes the measures particularly difficult to utilize in robustness checks and also do not allow for proper time-series and cross-sectional analysis.

Democracy-Dictatorship Measure:

Cheibub et al. (2009) add to the work of Alvarez et al. (1996) and Przeworski et al. (2000) and create a democracy classification known as the Democracy-Dictatorship (DD) dataset. It consists of a minimalist dichotomous measure of democracy that focuses on whether elections in a country are contested. The classification is binary. A democratic is country is assigned a value of "1" at time t. If classified as a dictatorship, it is coded "0". The rules for the classification are as follows: 1) the chief executive must be chosen by popular election or by a body that was itself popularly elected. 2) The legislative must be popularly elected. 3) There must be more than one party competing in the elections and 4) an alternation in power under electoral rules identical to the ones that brought the incumbent to office must have taken place (Cheibub et al., 2009).

This dataset finds 728 of the 1457 legislative elections, and 268 of the 489 presidential elections that took place from 1946 to 1996 as part of regimes that were classified as a dictatorships despite having held elections. Such a minimalist view limits the subjectivity of measuring democracy. The rules for classification can easily be observed, and are adjusted for the possibility of type II error, that is, any false positives in the data. Anecdotal evidence exists in the case of Malaysia from 1957 and 1969 where three multiparty elections took place. The incumbent party won an absolute majority in the first two but lost in the third. The Malaysian government declared a state of emergency, closed parliament, and rewrote the constitution in a way that guaranteed that they would not lose an election after parliament was re-opened. This country was classified as a dictatorship despite having held elections. For these reasons, the coding is clear and stark. It has less subjectivity and can be reliably used to address research questions. It focuses on reliability as opposed to validity (Cheibub et al., 2009).

DATA

I conduct a dynamic panel data analysis to investigate the relationship between FDI and democracy. To ensure robustness, I use two measures of FDI; FDI inflows and FDI as % of GDP. I examine 180 countries for the time period 1970 to 2008. The variable FDI inflows is defined as the investment necessary to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor. It is calculated as "the sum of equity capital, reinvestment of earnings, long-term capital, and short-term capital as shown in the balance of payments (World Bank, 2014)." I follow the literature and transform FDI inflows

using natural logarithms in order to reduce skewedness in its distribution (Yang, 2007; Busse, 2004; Busse and Hefeker, 2007; Jensen, 2003; and Globerman and Shapiro, 2002). My second dependent variable is the ratio of FDI to GDP, also collected from the World Bank (Busse, 2004; Yang, 2007). In addition, I employ various control variables used in previous empirical findings such as GDP per capita (PPP adjusted) in constant 2005 international dollars, real GDP per capita growth rates, real effective exchange rates, and trade openness measured as the sum of imports and exports divided by GDP (Busse, 2004; Li and Resnick, 2003; Jensen, 2003; Harms and Ursprung, 2002; Busse and Hefeker, 2007; Yang, 2007; Li, 2009). All variables are transformed using natural logarithms. It is important to note that it is a standard practice to use logs of real GDP per capita, and exchange rates. Busse (2004) and Busse and Hefeker (2007) also apply log transformations to trade openness and real GDP per capita growth rates. Thus, my data transformations are consistent with previous studies. Moreover, time dummies are also included based on Busse and Hefeker (2007) and Roodman (2006). Furthermore, I include a lag of my dependent variables (Busse and Hefeker, 2007; Li and Resnick, 2003). This is because it is possible that previous realizations of FDI influence current realizations, and the relationship may be dynamic.

EMPIRICAL MODEL

Model Specification

The baseline specification takes the following form:

$$FDI_{it} = \alpha FDI_{it-1} + Democracy'_{it}\beta + x_{i_t}\delta_i + u_{it}$$

Where *i* indexes countries, *t* indexes time periods, and *it-1* indicates a value at t-1. *Xi* represents the vector for other explanatory variables. The model is first estimated using pooled ordinary least squares (OLS) specification. Pooled OLS is a cross-sectional dimension of the data. Specifying the model using OLS poses various problems. Mainly, ignoring a time component could significantly bias the results. In the estimation process, the algorithm associates observations corresponding to one cross-sectional unit at time *t* with another cross-sectional unit at time *t+1*. For instance, lagged FDI for Brazil in 2008, will be combined with lagged FDI for Chile in 1970. This represents a problem because it mixes two cross-sectional units that should normally be separated and treated with a cross-sectional dimension and a time dimension. To correctly deal with changes over time, I specified the model using fixed effects panel OLS. While solving the time dimension issue with the previous model, the presence of endogeneity and also lagged dependent variables treated as regressors biases the results. More specifically, the OLS estimates would violate fundamental assumptions required for efficiency of OLS estimators. For instance, previous realizations of the dependent variable may be correlated with the fixed effects in the error term. Also, because of possible endogeneity and serial correlation, OLS estimators cannot be used reliably. Instead, I specify the model using GMM dynamic panel data technique proposed by Arellano and Bond (1991). This method controls for unobserved country-specific effects as well as endogenous explanatory variables and deals with possible serial correlation. I used the two variations of the GMM: differences GMM, and system GMM. Importantly, GMM estimators make fewer assumptions about the underlying data-generating process and use more complex techniques to isolate useful information.

Assumptions of GMM Specification

The assumptions necessary for a GMM model specification are as follows: 1) the estimation of FDI may be dynamic, with current realizations of the dependent variable influenced by past ones. 2) GMM estimates converge to the true beta coefficient as the sample size goes to infinity, implying that is efficient. 3) Some regressors may be endogenous. 4) It is also possible that the idiosyncratic disturbances apart from the fixed effects may have individual-specific patterns of heteroskedasticity and serial correlation. 5) Some regressors may also be predetermined but not strictly exogenous: even if independent of current disturbances, but still influenced by past ones. The lagged dependent variable is an example of this. 6) There is no perfect instrument waiting in the wings, it assumes that the only available instruments are "internal" based on the lags of instrumented variables (Roodman, 2006).

Differences GMM

A differences GMM was proposed by Arellano and Bond (1995) which is an addition to the GMM first developed by Hansen (1982) and also to Holtz-Eakin et al. (1988). The goal of a GMM model is to find the true value of the coefficients. In doing so, it does not assume any particular shape of the distribution of the data. Differences GMM removes the fixed effect by first differencing. First differencing consists of transforming the regressors into differences as opposed to levels. Doing so creates variables that are time-invariant. Then, the transformed or first-differenced lagged dependent variable (FDI) is instrumented with its past levels. If an explanatory variable is suspected of possibly being endogenous, it is instrumented with lags of the dependent variable allowing us to control for reverse causality. Dealing with endogeneity is unique to this model specification and generates results that are unbiased, as opposed to OLS estimators.

System GMM

As Blundell and Bond (1998) demonstrate, if the dependent variable is close to a random walk, then difference GMM performs poorly because past levels convey little information about future changes, so untransformed lags are weak instruments for transformed variables. In other words, instrumenting with levels is not particularly useful. Blundell and Bond develop an approach by transforming the instruments to make them exogenous to the fixed effects. In order words, regressors can be time-invariant. For random walk-like variables, past changes may indeed be more predictive of current levels than past levels are of current changes so that the new instruments are more relevant. In the difference GMM, Arellano-Bond instruments differences with levels. Instead, Blundell-Bond instruments levels with differences. This is known as the system GMM. System GMM combines both equations for levels and differences. In doing so, system GMM is thought to be more efficient because it allows the use of more instruments.

Specification Tests

There are two methods to specify GMM to account for heteroskedasticity. First, I specify the model using "one-step" estimation along with robust standard errors. One-step estimation includes replacing the variance with a proxy based on one-step residuals. This leads to robust standard errors. I additionally specify the model using "two-step" estimation. This specification is efficient and robust to whatever patterns of heteroskedasticity and cross correlation the estimator models (Roodman, 2006). A drawback of the two-step is that it ends up mining the data by overweighing observations that fit the model and under-weighing those that contradict it. While it may not result in inconsistent estimates, it does result in spurious precision in the form of implausibly small standard errors. To account for the possible

overfitting, I utilize the Windmeijer (2005) correction. Windmeijer (2005) corrects standard errors to overcome the downward bias present in the two-step estimator; he finds that two-step GMM performs better than one-step GMM in estimating coefficients, with lower bias and standard errors.

A critical assumption for the validity of the GMM is that the instruments are exogenous. If a model is exactly identified, detection of invalid instruments is impossible. The Hansen test for overidentifying restrictions tests the validity of the instruments used in the model. The null hypothesis is that of joint validity of the instruments. Therefore, failing to reject the null would deem the instruments valid. Therefore, Hansen becomes the only relevant measure of validity of instruments. I also perform a difference-in-Sargan/Hansen test, which performs estimation with and without a subset of suspect instruments, under the null of joint validity of the full instrument set. Ultimately, the Sargan/Hansen test should not be relied upon too faithfully, because it is prone to weakness as the number of instruments increases.

Autocorrelation is a phenomenon that would render some lags invalid as instruments, such as autocorrelation in the idiosyncratic disturbance term. That is, if the lags of the variables are correlated with some unobservable effects found in the error term. If the idiosyncratic disturbances are serially correlated of order 1, that makes the lagged instruments invalid. This would warrant longer lags, however if there is order-2 serial correlation, then even longer lags would need to be used. It is important to note that serial correlation of order 1 is expected; therefore rejecting the null does not pose a problem. A test for autocorrelation is performed by Arellano-Bond later referenced as AR(1) and AR(2) (Arellano and Bond, 1991).

EMPIRICAL RESULTS

Table 1 displays the pooled OLS regression estimates. In column 5, the results indicate that lagged FDI is statistically significant and positively correlated with FDI inflows. Thus, investment activity in a country is an important factor in determining whether more investment will take place in the future. Moreover, the results also indicate that democracy is not statistically significant. Therefore, I do not find any evidence to suggest that democracy impacts FDI. Consequently, democracy has a limited effect on FDI. It is important to note that without the presence of exchange rates, democracy becomes statistically significant but negatively correlated with FDI (column 4), consistent with Li and Resnick (2003). The same is true if trade openness is omitted from the model specification.

Real GDP per capita is statistically significant at the 1% level and positively correlated with FDI. Therefore, OLS regression estimates indicate that economic development will increase the flows of capital to a particular country. This is consistent with the growth literature which suggests that economic development will lead to higher levels of FDI. Growth prospects are also positive and significant but only at the 10% level. If a country is expected to have higher growth, then the amount of inward FDI to the country will increase. Surprisingly, I find that trade is negative correlated and statistically significant at the 1% level. This implies that a country that is market friendly is less likely to receive FDI. That is a particularly surprising result because the literature has found trade to have positive influences on FDI because multinational corporations seek markets that allow them to import and export relatively easier. Finally, the exchange rates are also positively correlated and significant at the 10 % level. This implies that if the value of the currency of a host country increases relatively to a weighted average of other currencies, there will be more inward FDI.

As evidenced in Table 2, in column 5, the results are the same when I use an alternate dependent variable. There are some differences. For instance, GDP per capita is not statistically significant and trade becomes positively correlated. This is not in line with my previous results. This implies that a country's level of development does not have an impact on how much foreign investment is coming into the country. It also finds that an economy that is more open to trade is more likely to receive FDI. This is now consistent with the previous studies.

Panel fixed effects regression estimates are displayed in Table 3. Overall the results remain the same (column 5). Democracy remains not statistically significant. I also find that GDP per capita, trade, and the exchange rate are positively correlated and statistically significant. However, this model finds that growth prospects do not affect a country's FDI inflows. Moreover, the estimates are able to predict approximately 66 percent of the variance in FDI flows over the time period, a significant difference from the 89 percent predicted variance in pooled OLS estimates.

Utilizing the alternate dependent variable, panel fixed effects regression estimates are different (Table 4). In column 5, the results show that GDP per capita and the exchange rate are not statistically significant. The usage of an alternate dependent variable for panel data analysis is not consistent with the results for FDI inflows (Table 3). These results are not consistent with previous empirical findings (Jensen, 2003; Li and Resnick, 2003).

The One-step differences GMM regression estimates are displayed in Table 5. In column 5, the results indicate that lagged FDI is statistically significant and positively correlated, thus confirming my previous estimates. This model also confirms that growth and the exchange

rate are not statistically significant. Mainly the results also provide more evidence that there is no relationship between democracy and FDI. Using two-step differences GMM model, I find that lagged FDI is not statistically significant (Table 6). It still confirms my previous results that democracy is not significant. Moreover, it also confirms that growth and the exchange rate are not significant.

Using the alternate dependent variable in Table 7, the results indicate that trade is actually statistically significant at the 1% level (column 5). The democracy variable remains not statistically significant. In addition, it also confirms that growth and the exchange rate hold no impact on FDI as % of GDP. The two-step differences GMM regression estimates corroborate these findings (Table 8).

One-step system GMM regression estimates continued to reveal that democracy is not statistically significant (Table 9, column 5). Now, I find that GDP per capita is found not to be statistically significant. I also find evidence that the exchange rates are positively correlated and statistically significant at the 10% level. It is imperative to document that without the presence of all the control variables, democracy is positively and significantly associated with FDI. Nevertheless, it is important to control for other determinants of FDI in order to generate unbiased regression estimates. The Two-step system GMM regression estimates confirm the one-step system GMM regression results (Table 10). The only difference is the variable exchange rate which is now not statistically significant.

In Table 11, I report the one-step system GMM regression results for the alternative dependent variable (FDI as % of GDP). In column 5, GDP per capita becomes negatively correlated and statistically significant at the 10% level. Also, trade becomes statistically

significant and positively correlated which does not coincide with previous system GMM regression estimates. The two-step system GMM regression estimates in Table 12 also present similar findings.

Specification tests such the Hansen test, reveals that the instruments are valid by failing to reject the null hypothesis of valid instruments. Furthermore, the AR (2) tests shows that the model does not suffer from serial correlation. Specification tests reveal that the GMM estimators are an appropriate model to study the relationship between FDI and democracy.

Overall, I provide evidence that lagged FDI is statistically significant and positively correlated. Also, I find no evidence to support claims that there is a link between democracy and FDI. Additionally, I also find that the effects of growth and the exchange rate on FDI to be inconclusive. I also find that FDI inflows and FDI as % of GDP are not interchangeable for estimating the relationship between GDP per capita, GDP per capita growth rates, trade, and the exchange rate. But, my results consistently show that there is no correlation between democracy and FDI for either of the dependent variables. While my findings are consistent with Yang (2007), they are not in line with empirical studies by Li and Resnick (2003), Jensen (2003), Busse (2004), and Busse and Hefeker (2007).

CONCLUSION

After controlling for endogeneity, I do not find evidence to support claims that there is a link between FDI and democracy. This does not mean that political institutions do not influence FDI. Instead, the results indicate that if a country is democratic it does not impact inward FDI. Government policies may still very well affect FDI. Government policies in the form of regional FDI consist of agreements between governments which would allow investors from a

particular country to gain entry into their market, usually designated geographically and, or by sector. An example of this is the recent agreement between Japan and India, which allows Japanese investors to participate in special economic zones in India (UNCTAD, 2013). Governments may still influence property rights, and other policies that are relevant to FDI. Furthermore, I find that the level of development is a significant factor in obtaining more FDI flows. The government may decide to allocate resources more efficiently by focusing on development policies to acquire more foreign investment.

APPENDICES

Table 1 – Pooled OLS Regression Estimates (FDI Inflows)

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.8957*** (0.0108)	0.8585*** (0.0152)	0.8680*** (0.0188)	0.8499*** (0.0217)	0.8400*** (0.0330)
Democracy	0.1593*** (0.0336)	0.0213 (0.0412)	-0.0509** (0.0473)	-0.1288*** (0.0512)	-0.1162 (0.0814)
GDP Per Capita		0.1679*** (0.0250)	0.1575*** (0.0296)	0.2216*** (0.0372)	0.2191*** (0.0490)
GDP Growth			0.0334* (0.0206)	0.0482** (0.0214)	0.0558* (0.0307)
Trade				-0.2312*** (0.0395)	-0.2192** (0.0921)
Exchange Rate					0.0495* (0.0294)
Constant	1.7270*** (0.2545)	1.1537*** (0.2398)	0.6949*** (0.2907)	1.4840*** (0.4272)	1.9485*** (0.7175)
R-Squared	0.85	0.86	0.86	0.87	0.85
F-Statistic	369.54***	348.07***	271.95***	379.45***	132.63***
Observations	4535	3586	2675	2636	1069

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust Standard errors are reported in parenthesis.

Table 2 – Pooled OLS Regression Estimates (FDI % of GDP)

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.7554***	0.7160***	0.7122***	0.6512***	0.6227***
	(0.0179)	(0.0219)	(0.0261)	(0.0261)	(0.0523)
Democracy	0.7782**	-0.0145	-0.0979**	-0.0551	0.0875
	(0.0313)	(0.0377)	(0.0415)	(0.0407)	(0.0661)
GDP Per		0.0600***	0.0706***	0.0437**	0.0091
Capita		(0.0172)	(0.0182)	(0.0177)	(0.0283)
GDP Growth			0.0514***	0.0420**	0.0562**
			(0.0188)	(0.0188)	(0.0277)
Trade				0.3828***	0.4726***
				(0.0395)	(0.0664)
Exchange					0.0635**
Rate					(0.0283)
Constant	-0.3723*	-0.4866**	-1.0200***	-2.4401***	-2.9645***
	(0.1934)	(0.1909)	(0.2236)	(0.2699)	(0.4711)
R-Squared	0.87	0.85	0.85	0.85	0.84
F-Statistic	425.32***	389.21***	267.43***	245.19***	189.01***
Observations	4535	3586	2675	2636	1069

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 3 – Panel Fixed Effects Regression Estimates (FDI Inflows)

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.5273*** (0.0261)	0.4399*** (0.0282)	0.4393*** (0.0362)	0.4138*** (0.0358)	0.3704*** (0.0459)
Democracy	-0.0338 (0.0971)	0.0911 (0.1011)	0.0723 (0.1165)	-0.0831 (0.1070)	0.0723 (0.1807)
GDP Per Capita		0.7730*** (0.1538)	0.6051*** (0.1623)	0.5542*** (0.1625)	0.6933** (0.2763)
GDP Growth			0.0361* (0.0214)	0.0273 (0.0214)	0.0151 (0.0262)
Trade				0.5024*** (0.1202)	0.5515*** (0.1673)
Exchange Rate					0.0919** (0.0408)
Constant	7.6132*** (0.4351)	3.3522*** (1.1284)	4.5101*** (1.1772)	3.3778*** (1.3048)	3.9881*** (2.5098)
R-Squared	0.95	0.80	0.85	0.79	0.66
F-Statistic	224.82***	145.87***	106.79***	41.26***	70.11***
Observations	4535	3586	2675	2636	1069
Groups	180	172	170	168	88

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 4 – Panel Fixed Effects Regression Estimates (FDI % of GDP)

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.5016***	0.4627***	0.4728***	0.4381***	0.3720***
	(0.0108)	(0.0252)	(0.0269)	(0.0268)	(0.0448)
Democracy	-0.0447	0.0755	0.0314	-0.0653	-0.0061
	(0.0931)	(0.1006)	(0.1105)	(0.1061)	(0.1878)
GDP Per Capita		0.1541	-0.0293	-0.1241	-0.1237
		(0.1492)	(0.0212)	(0.1558)	(0.2711)
GDP Growth			0.0279	0.0131	0.0120
			(0.0212)	(0.0208)	(0.0251)
Trade				0.6866***	0.7798***
				(0.1206)	(0.1773)
Exchange Rate					0.0641
					(0.0523)
Constant	-0.3396*	-1.5110	-0.2655	-2.3031*	-1.7358
	(0.1953)	(1.2439)	(1.2711)	(1.4008)	(0.2.7149)
R-Squared	0.95	0.87	0.92	0.81	0.79
F-Statistic	74.01***	58.37***	39.43***	41.26***	20.24***
Observations	4371	3554	2658	2622	1062
Groups	178	171	169	167	87

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 5 – One-Step Differences GMM Regression Estimates (FDI Inflows)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.7969*** (0.0321)	0.5048*** (0.0878)	0.4695*** (0.0788)	0.4219*** (0.0863)	0.4132*** (0.1531)
Democracy	0.1876 (0.5291)	-0.0010 (0.4907)	0.0137 (0.5482)	-0.8985 (0.7403)	0.7543 (1.3811)
GDP Per Capita		2.6456*** (0.7298)	2.6851*** (0.8101)	2.1608*** (0.5583)	1.5690* (0.8481)
Growth			0.3568 (0.4621)	0.4343* (0.2427)	-0.0242 (0.0319)
Trade				-0.0101 (.0264)	0.0896 (0.4380)
Exchange Rate					0.0357 (0.0337)
Instruments	110	85	86	87	60
Hansen	0.038	0.026	0.006	0.056	0.318
AR(1)	0.000	0.000	0.000	0.000	0.001
AR(2)	0.054	0.038	0.040	0.137	0.143
χ^2	768.62***	610.76***	533.40***	366.56***	130.66***
Observations	4157	3275	3216	2033	794
Groups	179	170	168	166	85

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 6 – Two-Step Differences GMM Regression Estimates (FDI Inflows)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.8053*** (0.0341)	0.4909*** (0.0878)	0.4211*** (0.1212)	0.4070*** (0.1024)	0.1745 (0.1169)
Democracy	0.1692 (0.5749)	-0.2076 (0.4907)	-0.9257 (0.7197)	-1.1185 (0.7870)	0.1173 (0.6613)
GDP Per Capita		2.6730*** (0.7298)	2.4883*** (0.8302)	2.2989*** (0.6955)	2.5082*** (0.8994)
Growth			-0.0065 (0.0305)	-0.0081 (0.0299)	-0.0422 (0.0322)
Trade				0.5336* (.2838)	0.4428 (0.3531)
Exchange Rate					0.0377 (0.0330)
Instruments	110	85	86	87	88
Hansen	0.038	0.026	0.034	0.056	0.593
AR(1)	0.000	0.000	0.000	0.000	0.007
AR(2)	0.055	0.038	0.093	0.167	0.221
χ^2	633.79***	457.44***	255.93***	250.08***	106.16***
Observations	4157	3275	2061	2033	794
Groups	179	170	167	166	85

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 7 – One-Step Differences GMM Regression Estimates(FDI % of GDP)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.2222 (0.1430)	0.1057 (0.1170)	-0.0564 (0.1021)	-0.1398 (0.1648)	-0.2309 (0.1601)
Democracy	3.2257* (1.6959)	-1.6401 (2.2614)	-20.4476** (9.4136)	-13.6505 (8.8077)	0.4483 (3.3282)
GDP Per Capita		9.7650 (1.9757)	12.9414* (7.0502)	4.1912 (3.7416)	1.5894 (5.1547)
Growth			0.0908 (0.1333)	-0.0115 (0.1040)	-0.0517 (0.1542)
Trade				9.0330*** (2.2027)	9.8823*** (3.6480)
Exchange Rate					0.3621 (0.3458)
Instruments	110	85	86	87	88
Hansen	0.024	0.029	0.227	0.060	0.538
AR(1)	0.026	0.044	0.031	0.051	0.023
AR(2)	0.886	0.544	0.842	0.556	0.307
χ^2	10.04***	31.68***	8.98***	60.41***	16.11***
Observations	4839	3861	2292	2251	887
Groups	178	170	169	167	86

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 8 – Two-Step Differences GMM Regression Estimates (FDI % of GDP)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.2270* (0.1415)	0.1132 (0.1172)	-0.0520 (0.1025)	-0.1300 (0.1683)	-0.2304 (0.1601)
Democracy	2.5700* (1.4383)	-1.3981 (2.1648)	-17.0310 (12.2477)	-11.3136 (8.5382)	0.4759 (3.3376)
GDP Per Capita		8.5576*** (1.6104)	11.4130** (5.7476)	4.1746 (3.1508)	1.4896 (5.0985)
Growth			-0.0077 (0.1021)	-0.0418 (0.1054)	-0.0504 (0.1460)
Trade				7.8740*** (2.0079)	9.8714*** (3.6130)
Exchange Rate					0.4000 (0.3884)
Instruments	110	85	86	87	88
Hansen	0.024	0.029	0.227	0.060	0.538
AR(1)	0.048	0.056	0.178	0.217	0.377
AR(2)	0.893	0.552	0.871	0.483	0.236
χ^2	10.39***	32.75***	7.69*	61.59***	16.24***
Observations	4839	3861	2292	2251	887
Groups	178	170	169	167	86

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 9 – One-Step System GMM Regression Estimates (FDI Inflows)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.9941*** (0.0054)	0.9899*** (0.0126)	0.9868*** (0.0168)	0.9999*** (0.0120)	0.9431*** (0.1531)
Democracy	0.5082*** (0.1886)	-0.0093 (0.1401)	-0.1866 (0.2009)	-0.0206 (0.2523)	-0.0745 (0.3336)
GDP Per Capita		0.0423 (0.0346)	0.0629*** (0.0496)	0.0196 (0.0557)	0.0982 (0.1057)
Growth			0.0307 (0.0268)	0.0262 (0.0275)	0.0334 (0.0316)
Trade				0.0070 (.0463)	-0.0089 (0.0498)
Exchange Rate					0.0965* (0.0561)
Instruments	180	143	138	139	131
Hansen	0.000	0.000	0.393	0.428	0.998
AR(1)	0.000	0.000	0.000	0.000	0.000
AR(2)	0.056	0.028	0.055	0.080	0.182
χ^2	884075.64*** *	3.69e^06*** *	2.38e^06*** *	2.38e^06*** *	751871.03*** *
Observations	4535	3586	2675	2636	1069
Groups	180	172	170	168	88

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 10 – Two-Step System GMM Regression Estimates (FDI Inflows)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.7969*** (0.0321)	0.9915*** (0.0129)	0.9886*** (0.0187)	0.9977*** (0.0115)	0.9497*** (0.0466)
Democracy	0.1876 (0.5291)	-0.0240 (0.1483)	-0.1904 (0.1861)	-0.0243 (0.2609)	-0.0985 (0.3393)
GDP Per Capita		0.0400 (0.0360)	0.0595*** (0.0528)	0.0231 (0.0510)	0.0902 (0.1108)
Growth			0.0300 (0.0241)	0.0314 (0.0251)	0.0323 (0.0335)
Trade				0.0083 (0.0400)	-0.0082 (0.0549)
Exchange Rate					0.0882 (0.0636)
Instruments	180	143	138	139	131
Hansen	0.449	0.128	0.393	0.428	0.998
AR(1)	0.000	0.000	0.000	0.000	0.001
AR(2)	0.056	0.027	0.054	0.079	0.183
χ^2	878604.91***	3.06e^06***	2.71e^06***	2.31e^06***	644494.79***
Observations	4535	3586	2675	2636	1069
Groups	180	172	170	168	88

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 11 – One-Step System GMM Regression Estimates (FDI % of GDP)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.4432*** (0.1151)	0.4223*** (0.1197)	0.3042** (0.1312)	0.4483*** (0.1317)	0.2954** (0.1346)
Democracy	3.5945*** (0.7727)	0.7147 (1.1183)	1.2680 (1.5341)	5.8078*** (1.8018)	1.2972 (2.4396)
GDP Per Capita		0.1986* (0.1064)	0.1703 (0.1176)	-1.5529*** (0.4693)	-1.0186* (0.5742)
Growth			0.5512** (0.2582)	0.3103 (0.2427)	0.5583 (0.4070)
Trade				2.8093*** (.8194)	3.6767*** (1.2015)
Exchange Rate					-1.1285 (0.8501)
Instruments	181	143	138	139	133
Hansen	0.538	0.146	0.148	0.273	1.000
AR(1)	0.019	0.024	0.032	0.054	0.046
AR(2)	0.627	0.665	0.258	0.220	0.668
χ^2	260.45***	577.65***	439.06***	406.66***	472.25***
Observations	5036	4040	2920	2868	1170
Groups	178	171	170	168	88

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 12 – Two-Step System GMM Regression Estimates (FDI% of GDP)

Variables	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*
Lagged FDI	0.4432*** (0.1151)	0.4222*** (0.1191)	0.3065** (0.1324)	0.4512*** (0.1311)	0.2969** (0.1345)
Democracy	3.5966*** (0.7751)	0.6973 (1.0544)	1.2320 (1.4701)	5.7256*** (1.9849)	1.2267 (2.3335)
GDP Per Capita		0.1971* (0.1016)	0.1703 (0.1131)	-1.5540*** (0.4391)	-1.0049* (0.5397)
Growth			0.5422** (0.2657)	0.2939 (0.2015)	0.5355 (0.3712)
Trade				2.8112*** (.7646)	3.6721*** (1.1707)
Exchange Rate					-1.1453 (0.8266)
Instruments	181	143	138	139	133
Hansen	0.538	0.146	0.148	0.273	1.000
AR(1)	0.028	0.033	0.074	0.086	0.157
AR(2)	0.597	0.631	0.274	0.198	0.629
χ^2	261.96***	562.92***	517.39***	349.46***	441.49***
Observations	5036	4040	2920	2868	1170
Groups	178	171	170	168	88

***,**,* denotes statistical significance at the 10%,5%, and 1% level of significance, respectively.
Robust standard errors are reported in parenthesis.

Table 13 – List of Variables

Variable Name	*Description*	*Source*
FDI Inflows	Net inflows of investment to acquire a lasting management interest in an enterprise in an economy other than of the investor. Sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. In current dollars.	World Development Indicators
FDI % of GDP	Divides new investment inflows less disinvestment in the reporting economy from foreign investors and is divided by GDP.	World Development Indicators
Democracy	Classified as "1" for democracy, and "0" if not.	Dictatorship-Democracy Dataset
GDP Per Capita(PPP, constant)	GDP converted to international dollars using purchasing power parity rates. Constant 2005 international dollars.	World Development Indicators
Real GPP Per Capita Growth	Aggregates are based on 2005 U.S dollars. GDP per capita divided by midyear population. Annual percentage growth rate of GDP per capita based on a constant local currency.	World Development Indicators
Trade Openness	Sum of exports and imports divided by GDP	World Development Indicators
Real Exchange Rate	Nominal effective exchange rate(a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs.	World Development Indicators

Table 14 – List of Countries

Afghanistan	***Chile***	***Grenada***	***Macedonia***	***Poland***	***Trinidad and Tobago***
Albania	China	Guatemala	Madagascar	Portugal	Tunisia
Algeria	Colombia	Guinea	Malawi	Qatar	Turkey
Angola	Comoros	Guinea-Bissau	Malaysia	Romania	Turkmenistan
Antigua & Barbuda	Congo (Brazzaville, Republic of Congo)	Guyana	Maldives	Russian Federation	Uganda
Argentina	Costa Rica	Haiti	Mali	Rwanda	Ukraine
Armenia	Cote d'Ivoire	Honduras	Malta	Samoa	United Arab Emirates
Australia	Croatia	Hungary	Marshall Islands	Saudi Arabia	United Kingdom
Austria	Cuba	Iceland	Mauritania	Senegal	United States of America
Azerbaijan	Cyprus	India	Mauritius	Serbia and Montenegro	Uruguay
Bahamas	Czech Republic	Indonesia	Mexico	Seychelles	Uzbekistan
Bahrain	Czechoslovakia	Iran	Micronesia, Federated States of	Sierra Leone	Vanuatu
Bangladesh	Democratic Republic of the Congo (Zaire, Congo-Kinshasha)	Iraq	Moldova	Singapore	Venezuela
Barbados	Denmark	Ireland	Mongolia	Solomon Islands	Viet Nam
Belarus	Djibouti	Israel	Morocco	Somalia	Yemen Arab Republic
Belgium	Dominica	Italy	Mozambique	South Africa	Zambia
Belize	Dominican Republic	Jamaica	Myanmar	South Korea	Zimbabwe
Benin	Ecuador	Japan	Namibia	Spain	
Bhutan	Egypt	Jordan	Nepal	Sri Lanka	
Bolivia	El Salvador	Kazakhstan	Netherlands	St. Kitts and Nevis	
Bosnia and Herzegovina	Equatorial Guinea	Kenya	New Zealand	St. Lucia	
Botswana	Eritrea	Kiribati	Nicaragua	St. Vincent and the Grenadines	
Brazil	Estonia	Kuwait	Niger	Sudan	
Brunei Darussalam	Ethiopia	Kyrgyzstan	Nigeria	Suriname	
Bulgaria	Fiji	Laos	North Korea	Swaziland	
Burkina Faso	Finland	Latvia	Norway	Sweden	
Burundi	France	Lebanon	Pakistan	Switzerland	
Cambodia	Gabon	Lesotho	Palau	Syria	
Cameroon	Gambia	Liberia	Panama	Tajikistan	
Canada	Georgia	Libyan Arab Jamahiriya	Papua New Guinea	Tanzania	
Cape Verde	Germany	Liechtenstein	Paraguay	Thailand	
Central African Republic	Ghana	Lithuania	Peru	Togo	
Chad	Greece	Luxembourg	Philippines	Tonga	

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