MASTER THESIS

MSc International Economics

CORRUPTION, FDI AND ECONOMIC GROWTH

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Abstract

Various papers in the past have analysed the relationship between corruption, level of foreign direct investment and economic growth. While previous papers unanimously agree on the negative impact of corruption on economic growth, findings regarding impact of corruption on economic growth are contradicting. In this paper, I analyze the impact of corruption, measured by corruption index of International Country Risk Guide, on the level of foreign direct investment flow and economic growth. According to Cobb-Douglas model, the economic growth depends on the presence of capital. Since the FDI is regarded as a source of capital, negative impact of corruption also negatively impacts economic growth due to less exposure to capital. Results of this paper, confirm the idea that presence of corruption deters the foreign direct investment and limits the economic growth.

1. Introduction

Globalization tendencies around the world increased the amount of investment directed into other countries. Since the foreign direct investment involved so much financial resources of developed countries, it has received significant attention from various scholars. One of the hot topic in analysis of Foreign Direct Investment in the determinants of FDI.

One of the factors impacting the foreign direct investment into the host country is the level of corruption present in that country. According to economic theory, rational investor will deter from making an investment in a country with high level of corruption. Despite the fact that various papers have analyzed the impact of corruption over the period of the past three decades, there is still no agreement on impact of corruption on the amount of Foreign Direct Investment. Several research papers have analyzed the impact of corruption on the amount of foreign direct investment and found that corruption has negative correlation with the amount of FDI flow. However, after controlling for the presence of strong institutions the corruption seemed not to impact the level of FDI. It is explained by the fact that while investors deter from investments into countries with high corruption level, the presence of strong institutions lessen the effect of corruption.

Moreover, if it assumed that corruption negatively impacts the level of FDI flow into the country, then corruption will also negatively impact the economic growth of the country. Based on the Cobb-Douglas model of economic growth, the economic growth is obtained by increasing labor, capital, or total productivity factor. Since developing countries lack capital

to invest and to obtain necessary economic growth, those countries need an external source of capital. Therefore, FDI will serve as a source of external capital and therefore stimulate an economic growth. Considering all of the above, I formulate my research question as follows:

RQ: What is the impact of Corruption on FDI and Economic Growth?

In this paper, I analyze the impact of corruption on FDI and economic growth. The rest of the paper is structure as follows: Section II presents Literature review, Section III focuses on Methodology, Section IV presents Data, Section V describes Results, and Section VI presents Conclusion.

2. Literature Review

2.1 Determinants of FDI

Following the relative stability in political arena after the World War II, the amount of foreign direct investment started to increase. In 1990s, the foreign direct investment has achieved the highest popularity. Political stability, globalization, and openness of economy caused dramatic increases in the amount of Foreign Direct Investment. While in 1990 the total amount of foreign direct investment constituted 225 billion USD, in 2014 this amount equaled to 1.23 trillion USD (United Nations World Investment Report, 1994 and 2015).

Foreign Direct Investment has been important and crucial part of globalization around the world. International integration of countries around the world has significantly influenced both the amount of FDI transferred from one country to another and diversified direction of the FDI flows. However, the direction of FDI flows is dependent on some specific factor whether it is country based factors or industry based, and sometimes the firm specific factors. For example, after the collapse of the Soviet Union and so called Eastern Block, huge FDI were expected to flow to these countries. These countries possessed natural resources, cheap and educated workforce. Nevertheless, despite such evident advantages of those countries the FDI expectations did not materialize (Kinoshita and Campos, 2003). Investments in East Asian countries and Latin American in the period of 1990 to 1994 accounted for 20 and 10 percent of total FDI flow, respectively (UNCTAD, 2002). In comparison FDI into transition economies (Eastern Block) accounted for only 2.1 percent of total FDI during the same period of time (UNCTAD, 2002).

Currently two theories try to explain the foreign direct investment flow: endowments-based trade theory and new trade theory (Kinoshita and Campos, 2003). According to endowments-

based trade theory the determinant factors in FDI flow are lower wages and abundant natural resources. While, new trade theory states that economies of scale play the most important role in determining the flow of FDI (Kinoshita and Campos, 2003).

According to Kinoshita and Campos (2003) the direction of FDI depends on the motives of investors. The motives of the FDI is in fact depends on the type of FDI. Dunning (1983) classifies FDI in three types: market seeking FDI, resource or asset seeking FDI, and finally efficiency seeking FDI.

In the market seeking FDI, the investor's primary purpose is to find market for its products. FDI is directed towards replication of host countries production facility to better serve local population (Kinoshita and Campos, 2003). FDI with the purpose of gaining natural resources, raw materials or labor is asset-seeking type of FDI. For example, most of FDI to Commonwealth of Independent State are done to States with abundant natural resources (Esanov et al, 2001).

The final type of foreign direct investment is efficiency-seeking FDI. Efficiency-seeking FDI is the rarest form of FDI. For efficiency seeking FDI, several countries need to be under common governance (Kinoshita and Campos, 2003). The first wave of FDI after integration of Western European countries into EU, was efficiency seeking (Bevan and Estrin, 2000).

Considering the facts it is reasonable to assume that a country with abundant natural and human resources, with the potential market for growth, and with favorable terms for business and under common governance, is more likely to be recipient of FDI.

Shamusddin (1994) classified the determinants of FDI into three general categories. According to him, FDI is determined by market factors, cost factors, and investment climate. In referring to market factors Shamusddin meant GDP growth per capita and annual population growth. Cost factor was measured as a wage cost of employees. Moreover, Froot and Stein (1991) and Klein and Rosenger (1994) emphasized that when a country devalue its national currency the costs become relatively less and cause an increase in FDI. Investment climate was the openness of the country and the investor protection present in the country. One of the significant variables omitted by Shamusddin was the political factor. This idea was emphasized by Khan (1997). Khan (1997) states that "political instability and law and order situation" discourage the FDI.

Shah and Ahmed (2003), in contrast to Shamusddin (1994), classified the determinants of FDI into four categories: market size, cost, political and social factors. However, among of those variables only market size was statistically significant. Other variable despite having large coefficient were not statistically significant. Shah and Ahmed (2003) conclude that despite not being statistically significant those factors can be utilized by a government to increase the amount of FDI flow into a country.

Other researchers have studied impact of state liberalization policies on Foreign Direct Investment flow into the country. Gastanaga, Nugent, and Pashamova (1998) state that openness of economy and corporate tax rates play a significant role in attracting FDI flow.

2.2 FDI and State Policies

One of the significant issues that has been analyzing over FDI is its dependence on government regulations. Chen et al (1995) analyzed FDI effect on economic growth in the case of China post 1978 period. During the pre-1978 period, China had strong government policy on restrictions for inflow FDI. Having a threat from the Soviet Union, from the political and international geostrategic environmental perspective, China wanted to improve relationships with United States. Moreover, growth in GNP of China from 1957 was at an average annual rate of 2.5-3.0 % (Chen et al, 1995). These figures are significantly low comparing to the Japan and South Korea. In order stimulate economic growth and obtain support of United States, China in 1979 has decided to open economy for foreign direct investment (Liu et al, 2014).

During the first years, China has experienced significant improvement in its economy. According to Chen et al (1995), FDI during the period of 1979-1981 amounted 679 million US dollars, which makes around 7% of total foreign capital inflow during that period. Chen et al (1995) explains this slow growth of economy due to government restrictions existing in China. After mid-1980s, when China has eliminated several governmental restrictions it has improved investment environment in China. This has resulted in rapid growth of Chinese economy. According to Fan et al (2007) during the period of 1990 through 2003 foreign direct investment inflow has made 4.3% of total GDP compared to world's average 2.1%. This illustrates the fact that the state policies were the crucial factor, which has influenced Chinese economic growth through FDI investments. Fan et al (2007) also stated that FDI and its impact on economic improvement has significantly impact by governmental policies.

Different governmental factors can influence the level of FDI investment in the country. According to Root and Ahmed (1978) corporate tax level was an incentive for investors to make manufacturing FDI during the period of 1966-1970. Moreover, Gubitz (1990) argues that one of the incentives for German Multinational Enterprises to invest in FDI in developing countries was increase of guaranties by German Government. However, Brewer (1992) argues that most of the previous studies do not have empirical evidences of the influence of the governmental policies or other political factors to the FDI investment. Brewer (1992) listed several host country factors such as production control, tax reduction, accelerated depreciation, training grants, relaxation of industrial relations law etc. as an incentive for investors to make FDI investment. Factors such as minimum wage requirements, limits on use of used equipment are regarded discouraging for investor in FDI investment.

Abdalla and Nour (2014) state that double taxation can be a barrier for foreign investors to make FDI. Moreover, governments can discourage foreign investors by reducing privileges of FDI investments as well as by imposing restrictions on money transfers outside the country. These factors are in line with the case of China FDI boom. Governments can control the level of FDI by imposing the various restrictions and constrains on the foreign investors. As discussed earlier, incentives for the government to impose such restrictions are result of the political strategy of the host countries.

2.3 Corruption Level and FDI

Various literature in the past have analyzed the impact between corruption and foreign direct investment. Wheeler and Mody (1992) has performed the analysis of the amount of FDI and the corruption risk factor present in the host country. Wheeler and Mody (1992) did not find statistically significant relationship between the amount of FDI and corruption level and concluded that importance of FDI as a determinant of FDI recipient should be discounted. Wei (2000), however, argued with the result of Wheeler and Mody. According to Wei (2000) using FDI indicators separately, instead of combining twelve indicators together, would have yielded different results. Wei further argues that even some of the indicators may be statistically insignificant as a determinant of FDI, other indicators are considered to important determinants of FDI.

In other research, Hines (1995) analyzed the impact of Foreign Corrupt Practices act of 1977 on the amount of foreign direct investment directed to highly corrupt countries. Hines finds

that after enacting Foreign Corrupt Practices act of 1977, the amount of FDI in highly corrupt countries has decreased. Foreign Corrupt Practices act of 1977 states:

"*The Foreign Corrupt Practices Act prohibit U.S. persons and businesses (domestic concerns), U.S. and foreign public companies listed on stock exchanges in the United States or which are required to file periodic reports with the Securities and Exchange Commission, and certain foreign persons and businesses acting while in the territory the United States (territorial jurisdiction) from making corrupt payments to foreign officials to obtain or retain business".*

Abed and Davoodi (2000) analyzed the impact of corruption on foreign direct investment on per capita level. The findings of Abed and Davoodi suggest that countries with low level of corruption tend to receive higher amount of foreign direct investment. However, after organizational and structural reforms were considered corruption factor became statistically insignificant. Based on these results, Abed and Davoodi(2000) concluded that structural reforms to attract investors are more useful than measures to decrease corruption in attracting of foreign direct investment.

In other paper, Wei (2000a) analyzed the impact of taxation and corruption level of host country on Foreign Direct Investment. Wei found that tax rates and corruption level are negatively correlated with the level of foreign direct investment (i.e. increase in the taxation rates and corruption level decrease the amount of FDI).

Akcay (2001) used cross-sectional analysis to investigate the impact of corruption on foreign direct investment. While performing the analysis on the sample of 52 countries and utilizing two different measures of corruption, he found no statistically significant relationship between foreign direct investment and corruption. According to Akcay (2001), the determinants of Foreign Direct Investment are market size, corporate tax rates, labor costs, and openness of the country to investors.

Smarzynska and Wei (2002) used a different approach of analyzing the impact of corruption on Foreign Direct Investment. Rather than evaluating total inflow of capital from one country to another, they analyzed the effect of corruption in terms of the decision of the firm to invest in a host country. Based on the findings of Smarzynska and Wei (2002) when making an investment in a country with high corruption level, the entities prefer to invest in a joint venture rather than in a subsidiary. This explained by the fact that an investor firm tries to avoid transaction costs with local officials (Smarzynska and Wei, 2002).

Habib and Zurawicki (2002) analyzed the relationship between Foreign Direct Investment and corruption level present both in home and host country. According to Habib and Zurawicki (2002) the greater the difference in corruption level between host and home country the smaller is the foreign direct investment.

Voyer and Beamish (2004) analyzed the impact of corruption level in host countries on the amount of Foreign Direct Investment invested by Japan. The findings suggest that Japan tend to avoid investment in countries with high corruption level present in the country.

Barassi and Zhou (2011) analyzed the impact of corruption in host country on foreign direct investment from the perspective of multinational enterprises. Barassi and Zhou find that "not only can corruption negatively affect the probability of FDI at the individual firm level, but it can also affect MNE's FDI choices at aggregate level". Barassi and Zhou further suggest that for countries with high level of corruption and low level of FDI taking adequate measures to eliminate the corruption will result in increase in the amount of FDI and therefore increase in the economic growth. However, for countries with high level of corruption and FDI (such as China), policies to reduce corruption will not have the desired economic impact. The impact will be observed however from social standpoint.

Despite the fact that various researches have arrived at different conclusion regarding the impact of corruption on foreign direct investment, I stipulate that corruption negatively impacts foreign direct investment. First, developed countries, as the main resource of FDI, avoid in investing in corrupted countries in order to avoid negative publicity. Second, the Foreign Corrupt Practices Act of 1977 prohibits an individual or an entity from OECD country from bribing foreign officials in order to obtain preferential treatment. Considering all those above I hypothesize the following:

H1: Corruption negatively impacts the flow of Foreign Direct Investment

2.4 Corruption Level and FDI

Foreign Direct Investment and Economic Growth

Foreign Direct Investment into a developing country is partially caused by increased saving (Fry, 1994). However, the rapid decline in the world's saving rates in 1970s let to dramatic rise of interest rate. In this situation the FDI was an only source of financing for developing countries. This idea was supported by World Bank. In its report World Bank stated that "Foreign Direct Investment is a large and growing source of finance that may help

developing countries close the technology gap with high income, upgrade managerial skills, and develop their export markets" (World Bank Report 3, 1993).

Achieving economic growth is one of the main objectives of the FDI investment. Moosa (2002) explains that for developing countries FDI is regarded as a tool for future economic growth. Developing countries are experiencing lack of capital creates an incentive for developing countries to attract FDI for economic growth.However, researches has not reached the conclusion on the impact of FDI on economic growth. Some of the literature supports the argument that FDI followed by economic growth in the country, while others disagree with this statement. Abdalla and Nour (2014) state that FDI investment can decrease unemployment rate. Availability of finance can lead to expansion of the company, which followed by increase of required human capital. Moreover, research performed by Alessandrini and Resmini (2001) found positive relationship between product growth rate (factor of economic growth) and FDI.

Another research about effect of FDI on economic growth was performed by Iwasaki and Suganuma (2014). In this paper FDI assessed against economic development in Russia. Having a lack of technological enhancements created incentive for post-communist states to bring FDI. Iwasaki and Suganuma (2014) are aiming to evaluate whether synergetic effect exist between FDI and R&D, and identify absorptive capacity hypothesis of Russian Region. The results of this paper suggest that FDI positively related to total factor productivity. This illustrates that FDI investments in Russia resulted in economic growth of the country. Moreover, Iwasaki and Suganuma (2014) validated legitimacy of absorptive capacity hypothesis.

Suliman and Elian (2014) tested influence of FDI on economic growth arguing mediator effect of banks for FDI investment and economic growth in Jordanian Economy. The results of this study suggest that development of financial institutions is crucial for FDI investments. With the well-developed financial institutions, FDI investments can achieve better economic growth.

On the other hand, Curwin and Mahutga (2014) suggest that FDI is negatively related with economic growth. This research analyzed on post-socialist transition countries. According to Hunya (2000), after the fall of Soviet Union, post-soviet countries were short in availability of capital and started the process of privatization. FDI was the key method to obtain capital during the 1990s for post-soviet countries. However, the results of this paper suggest that less

FDI investment is better for host countries. Curwin and Mahutga (2014) argue that FDI investments can lead to economic contractions. The results of Pacheco-Lopez (1995) support the findings of Curwin and Mahutga (2014). Pacheco-Lopez (1995) analyzed impact of FDI to the economic development in Mexico, and reached conclusion that increase in FDI resulted in additional difficulties of Mexican economy. Results illustrates that average increase in GDP during the period of pre-FDI was higher comparing to post –FDI. Even so, an export of the country has increased; FDI has negatively impacted on local industries of the country.

Even though the evidence of impact of Foreign Direct Investment on economic growth is not persuading, I stipulate that Foreign Direct Investment is positively associated with economic growth. Cobb-Douglas model of economic growth takes the following form: $Y = TK^{\alpha}L^{(1-\alpha)}$, where Y is the total production, T is total factor productivity, K is the capital input, and L is the labor input, while the coefficient alpha is output elasticity. Based on this formula, one of the key elements of economic growth is the capital. Since the developing countries lack capital resources to fund their economic growth themselves, they need an external capital. Therefore, foreign direct investment in any country should result in economic growth. Considering all of the mentioned and the first hypothesis that corruption negatively impacts amount of FDI and stipulate the following:

H2: Corruption negatively impacts the economic growth through decreased FDI

2.5 Empirical Literature

Ali Al-Sadig (2009) has utilized both cross-sectional and panel data regression analytics to analyze the impact of corruption on Foreign Direct Investment. The model proposed by Ali Al-Sadig takes the following form:

$$
\begin{aligned}
&Log\ (FDI\ /\ POP)_{i,t} \\
&\quad = \beta_0 + \beta_1 ICRG_{i,t-1} + \beta_2 Risk_{i,t-1} + \beta_3 \log(GDPPC)_{i,t-1} + \beta_4 GDPG_{i,t-1} \\
&\quad + \beta_5 OPEN_{i,t-1} + \beta_6 INF_{i,t-1} + \beta_7 SCH_{i,t-1} + \beta_8 POPG_{i,t-1} + \beta_9 UPOPG_{i,t-1} \\
&\quad + \beta_{10} AGGLO_{i,t-1} + \beta_{11} Law_{i,t-1} + \beta_{12} Democ_{i,t-1} + \eta_i + \varepsilon_{i,t}
\end{aligned}
$$

The definitions of variables are as follows:

- GDPPC – Gross Domestic Product divided by midyear population
- INF – Inflation, GDP deflator
- POPG – Growth rate of population
- UPOPG – Growth rate of urban population

- AGGLO – FDI stock and a percentage of GDP
- SCH – School Enrollment
- ILL – Illiteracy rate of persons aged 15 years and over
- OPEN – Trade measured as percentage of GDP
- ICRG – International Country Risk Guide corruption index
- LAW – The variable measuring the strength of law and order in the country
- RISK – Political Terror Scale
- DEMOC – Index of Democratization

Ali Al-Sadig (2009) found that results of cross sectional analysis suggest that corruption negatively affects FDI. However, after controlling for the quality of institutional organizations in a host country, the negative impact of corruption disappeared. Considering this, Ali Al-Sadig argued that investors value presence of strong institutions more than the level of corruption. However, it should not interpreted in the way that corruption factor is ignored by investors. Corruption factor deters investors from directing investments in a country; however, the presence of quality institutions lessens the impact of corruption. Therefore after adjusting for characteristics of institutional organizations the impact of corruption becomes statistically insignificant.

Another paper analyzing the impact of institutional organization on FDI was Rossi and Volpin (2002). However, Rossi and Volpin analyzed the impact of FDI in terms of cross-border mergers and acquisitions. Rossi and Volpin defined foreign direct investment as a function of GDP growth and investor protection. A definition of investor protection was taken from La Porta et al (1998). La Porta defines investor function as the quality of accounting standards, law enforcement and order, shareholders' rights, and creditors' rights.

Accounting standards are measured by inclusion or omission of important disclosures from annual statement. La Porta et al (1998) state that "for investors to know anything about the companies they invest in, basic accounting standards are needed to render company disclosures interpretable". La Porta et al (1998) further add that accounting standards play an important role in contractual obligation in case of litigation and therefore may be considered as a form of investor protection in countries where investor rights are weak. This idea was previously supported by Hay et al (1996). Hay et al (1996) argues that even in a country with poorly run court system, the presence of clearly defined rules might help in detecting the violation of legislation.

La Porta et al (1998) emphasized the importance of the legal system and efficiency of law enforcement. The general idea is that "no two nations' laws are exactly alike, some national legal systems are sufficiently similar in certain critical respects to permit classification of national legal systems into major families of law" (La Porta et Al, 1998). Even though no clear approach exists for definition and classification of legal systems, Glendon, Gordon, and Osakwe (1994) offered the following criteria to be applied in judgment: history of development of legal system, theories and hierarchies of sources of law, methodology applied by lawyers within a legal system, characteristics of legal concepts employed by the system, the legal institutions of the system, and divisions of law employed within a system.

On the basis of judgment criteria offered by Glendon, Gordon, and Osakwe (1994), La Porta et al (1998) categorized the legal systems into two groups: civil law and common law. Based on the analysis of legal systems of 49 countries, La Porta et al (1998) concluded that despite variations in legislation around the world, no legal system provide investors with preferential treatment. Countries with common-law legal system tend to have more investor protection rather than civil law countries, especially French civil law (La Porta et al, 1998). The weakness of investor protection in French civil law system is also observed through the quality of law enforcement. German civil-law countries and common-law countries have strong law enforcement, while the weakest quality of law enforcement was observed in French civil law countries. Considering the fact, that various legal systems offer various protection to investors and have various level of quality of law enforcement, rational investor will consider those factors in making an investment.

Presence of creditor and shareholder protection is fundamental to attract investors. Various literature in the past has supported this idea. According to King and Levine (1993) and Levine and Zervos (1998) developed equity and debt market contributes to economic growth. Rajan and Zingales (1998) further states that countries with developed equity and debt market achieve higher growth rate in capital-intensive industries. The link between the institutional protection of shareholders and creditors and the presence of developed equity and debt market is direct. La Porta et al (1997) found that countries with poor investor protections have smaller debt and equity markets in contrast to countries where creditors and shareholders' rights are protected.

Rights of shareholders can be measured by their voting power for directors and on major corporate issues (La Porta et al, 1996). However, various countries have different legislation

on voting procedures for corporate shareholders. For example, according to Grossman and Hart (1998) and Harris and Raviv (1988), countries, where shareholders are subject to one share one vote rule, have better investor protection. However, in most countries, the company issuing shares legally may put restrictions on the voting rights of the shares. In case of La Porta et al (1998), only 11 countries out of 49 had forbidden restriction of voting rights of shareholders.

Rights of shareholders can be expressed through either their participation in decision-making or their rights against directors (La Porta et al, 1998). La Porta et al (1998) defines six rights, which are considered fundamental in determining the shareholder rights. First, in some countries shareholders must participate in person or be represented by a legal representative to be able to exercise voting rights. In other countries, shareholders are permitted to vote by mail. Second, in some countries shareholders are prohibited from liquidating their position several day before and after the shareholder meetings. Third, some countries allow cumulative voting for directors, and a proportional representation on the board. Proportional representation on the board allows minority shareholders to elect directors to represent their interests. Fourth, some countries to support minority shareholders allow them, to challenge the management in the court or activate the share repurchase. Fifth, in some countries minority shareholders have a priority right to purchase new issue of stock. The idea is to protect minority shareholders from dilution. And finally, some countries set up minimum percentage of capital requirement to call up extraordinary meeting. This percentage changes from 3 percent in Japan to 33 percent in Mexico (La Porta et al, 1998).

Creditors' rights are conceptually different from shareholders' rights. Protecting the rights of one type investors may hurt interests of other investors. As stated by La Porta et al (1998) in case of default, rights of senior tranche secured creditors are protected, since they get the collateral. The rights of junior unsecured creditors, however, are violated, since the junior unsecured creditor wish the preservation of the company in hope of getting money back.

Moreover, in case of financial distress of the company, the company is either liquidated or reorganized. The senior secured creditor will repossess the collateral in case of liquidation; however, will have limited access to collateral in case of reorganization. In some countries, liquidation is perceived to be an undesirable process. Therefore, the reorganization is preferred to liquidation (La Porta et al, 1998).

To assess the creditors' rights, La Porta et al analyzes five aspects of creditor protection. In some countries, during the organization process no assets can be withdrawn from entity, even by senior secured creditors. This limitation, secures unsecured creditors and managers of the entity. Second, in some countries state and employees' interests have priority over those of secured creditors. Third, in some instances, management can go for reorganization without consent of creditors. Even though such circumstances are rare, they undermine the rights of creditors. Fourth, in some countries however, management is isolated during the reorganization. Finally, in some instances legal reserve requirement exists. According to La Porta et al (1998), "this requirement forces firms to maintain a certain level of capital to avoid automatic liquidation".

3. Methodology

To analyze the impact of corruption on the amount of foreign direct investment flow the following economic model will be utilized:

$$FDI\ /\ Population = \beta_0 + \beta_1 Corruption\ Index + \beta_2 GDP\ Growth + \beta_3 Investor\ Protection$$

However, by referring to the definition of investor protection offered by La Porta et al (1998) the equation takes the following form:

$$FDI\ /\ Population = \beta_0 + \beta_1 Corruption\ Index + \beta_2 GDP\ Growth + \beta_3 Accounting\ Standards + \beta_4 Law\ Enforcement + \beta_5 Shareholders\ Rights + \beta_6 Creditors\ Rights$$

The FDI variable will be taken as a total amount of foreign direct investment in a host country during a year. Corruption index, following the approach offered by Ali Al-Sadig (2009) will be obtained from International Country Risk Guide. GDP growth is the growth of Gross Domestic Product in nominal terms from prior year.

The approach to use FDI over population was adapted by Ali Al-Sadig (2009). He states that foreign direct investment has direct positive relationship with the country population. This idea is based on the fact that investors engaging in FDI consider it as a source of obtaining additional market channel. While other measures could also have been used such FDI over GDP, or FDI over GDP per capital, they have not been considered suitable for the purpose of this study. First, for large countries with high GDP, the amount of FDI will always constitute

a very small percentage of GDP. A country with low level of GDP will, in contrast, always have high level of FDI/GDP ratio. This creates unnecessary bias in the model utilized.

Additionally FDI / GDP per capita could also have been used. However, as was mentioned in the literature review, FDI has different purposes. For example, if an investment is directed to a country abundant with natural resources, then GDP per capita will not be correlated with FDI. However, if an investor is investing with the purpose of reaching new markets, then GDP per capita is very important variable. Considering all those factors above, FDI over Population was selected as the most appropriate variable for the purpose of this paper.

To measure the investor protection offered by La Porta et al. (1998) the following strategy will be utilized:

- Accounting standards. The index of accounting standards is created by examining financial statement of companies in all countries under study. Countries get one point by the presence of each of the following seven factors: general information, income statements, balance sheets, funds flow statement, accounting standards, stock data, and special items). Following the approach offered by La Porta et al (1998) at least three companies were analyzed in each country.
- Law Enforcement. The quality of law enforcement is consisted of efficiency of judicial system, rule of law, corruption, risk of expropriation, and repudiation of contract by government.
    - Efficiency of judicial system will be assessed through "efficiency and integrity of the legal environment as it affects business, particularly foreign firms". The rating is produced by Business International Corp. Scale from 0 to 10.
    - Rule of law will be assessed through presence of tradition of law. Rating is produced by International Country Risk guide. Scale from 0 to 10.
    - Corruption in the government will also be assessed via International Country Risk Guide. Scale from 0 to 10. Low scores for higher risk of corruption
    - Risk of expropriation is defined by International Country Risk guide as risk of "outright confiscation" or "forced nationalization". Scale from 0 to 10. Low scores for higher risk.
    - ICR refers to repudiation of contract by government "risk of a modification in a contract taking the form of a repudiation, postponement, or scaling down"

due to various political or economic reasons. Scale from 0 to 10. Low scores for higher risk.

- Shareholders' rights (also referred to as Antidirector rights by La Porta et al, 1998) are considered from the aspects of shareholder voting rights and Antidirector rights. The index ranges from zero to six.
    - One share one vote equals to one, if based on the company law or commercial code one share represents one vote.
    - Proxy by mail allowed equals to one if voting through mail is allowed, and zero otherwise.
    - Share blockage before shareholder meeting equals one, if liquidation of shares are prohibited several days before and after shareholder meeting day.
    - Cumulative voting equals to one if company law or commercial code allows cumulative voting.
    - Oppressed minorities mechanism equals to one, it the based on company law or commercial code the minority shareholders can challenge the directors' decision in court or the minority shareholders have the rights to trigger share repurchase by the company
    - Preemptive rights equal to one if shareholders have first priority on new stock issues.
- Index of creditors' rights consists of several components.
    - Restriction for going into reorganization equals one, if there is restriction, zero otherwise.
    - No automatic stay on secured assets equals one, if there no automatic stay on assets during reorganization and zero otherwise.
    - Secured creditors first equals one if secured creditors are compensated first, and zero otherwise.
    - Management does not stay equals one if during the organization management is relieved from its duties and zero if management remains at company.

Another model also will be utilized to obtain evidence on relationship between corruption and foreign direct investment flow. The model is as follows:

$$FDI\ /\ Population = \beta_0 + \beta_1 Corruption\ Index + \beta_2 GDP\ Growth + \beta_3 Inflation + \beta_4 Population\ Growth\ Rate + \beta_5 Population\ Growth\ Rate\ Urban + \beta_6 Openness\ of\ Economy$$

Based on the equation above, Inflation is either Consumer Price Index or GDP deflator depending on the availability of data. Inflation was considered in the equation to offset possible bias from GDP growth. While the high GDP growth indicates good economic performance, such growth can be associated also with high inflation rate, which may at the end turn real GDP growth to negative. Population growth rate and population growth rate of urban areas were considered since the rational investor when making an investment expects to generate return. For any given country, based on Cobb-Douglas model of economic growth, the economic growth can be achieved either through increase in labor or in capital. The availability of high growth rate means that country possesses enough labor forces. Due to strong competition in the market, the cost of labor is also to be expected to be cheap.

Openness of the economy shows the attractiveness of the country to investors. This measure will be obtained by computing the percentage of trade activities in the GDP balance of the country.

To measure the impact of corruption on economic growth another model will be utilized.

$$Economic\ Growth = \alpha + \beta_1 FDI\ /\ Population + \beta_2 Corruption\ Index + \beta_3 Schooling\ Years + \beta_4 Population\ Growth\ Rate + \beta_5 Capital\ Stock/GDP$$

The equation above is based on the economic growth model suggested by Cobb-Douglas. According to the model proposed by Cobb-Douglas economic growth is function of Labor, Capital, and Total productivity output. In the mode above, labor is considered as a population growth rate, capital stock is a total productivity output, and FDI is a level of total capital. Another variable, schooling year, was added, since the availability of educated labor force has higher impact on GDP growth rather than availability of uneducated labor force. Corruption Index was added to the check the relationship between corruption level present in the country and economic growth.

4. Data

The data for the purpose of this research has been obtained from World Bank, United States Federal Reserve of St. Louis, Proxy Statements of companies, Audited Financial Reports of the companies, and International Country Risk Guide. The analysis has been performed on the sample of 40 countries from different continents. The following countries have been selected: Argentina, Australia, Austria, Belgium, Canada, Chile, Colombia, Egypt, Finland, France, Germany, Malaysia, Mexico, Peru, Pakistan, Singapore, South Africa, Turkey, United Kingdom, Zimbabwe, India, Denmark, Portugal, Spain, United States, South Korea, Norway, Indonesia, Netherlands, Israel, Italy, Kenya, Philippines, Venezuela, Sri Lanka, Thailand, Brazil, Ecuador, Greece, and Jordan.

Table 1 above presents statistical information of FDI / Population, GDP growth, and Corruption Index for each country. The amount of FDI / Population is total net inflow amount presented in USD over total population of the country. GDP growth is presented in terms of percentage growth from prior year. Corruption Index is obtained from International Country Risk Guide. The results for FDI/Population, GDP growth, and Corruption Index are for 2014, since some variables were missing in 2015. In addition, the table above shows the Corruption Index of countries based on the International Country Risk Guide metrics. According to the International Country Risk Guide, the closer the number to one, the less country is vulnerable to corruption risk.

Based on Table 1, the largest FDI / Population ratio in 2014 was Singapore with 12 thousand USD per person. The lowest receiver was Belgium, which had negative 1,460 USD per person. The largest GDP growth was in Pakistan and equaled to 5.54 percent. The lowest GDP growth was observed in Argentina.

The highest corruption index or the lowest corruption level was observed in Finland. The corruption index in Finland equaled to 0.93. Generally, the European countries (i.e. United Kingdom, Germany, Austria, and Belgium), Canada and Singapore had the corruption index in the range between 0.80 and 0.93.

Table 2 presents descriptive statistics on GDP growth, Corruption Index, and Foreign Direct Investment / Population. For the table 2 refer to the Appendix.

Based on table 2, mean FDI / Population was 870 USD per person. The mean corruption index for the sample of 40 countries was 0.6705, while the mean GDP growth was 2.30 percent.

Table 3, presents indexes for investor protection variable as was defined by La Porta et al. Based on table 3, it is clear that the highest investor protection is observed at European countries. Finland, Canada, and United Kingdom have the highest quality of accounting standards. The highest quality of law enforcement and shareholder rights was observed at Finland, where it equaled to 10 out of 10. The highest creditor rights were at Belgium, Canada, and United Kingdom. Overall, the country with poorest investor protection was Zimbabwe. Considering the amount of investment in Zimbabwe (only 588 million) this finding is not surprising.

Table 4 presents the correlation matrix between FDI / Population, GDP Growth, Corruption Index, Accounting Standards, Law Enforcement, Shareholder Rights, and Creditor Rights. Based on the correlation matrix, GDP growth and Foreign Direct Investment/Population have negative correlation. This finding comes as a surprise, since the GDP growth should be one the main determinants of Foreign Direct Investment/Population. Investor when making a decision to which country to invest, analyzes the potential of the new market. GDP growth generally shows the market size of the new country. Therefore, GDP growth should be positively related to Foreign Direct Investment.

The rest variables were positively correlated with Foreign Direct Investment. Since the high value of corruption index meant low corruption in the country, its positively correlation with FDI is considered normal. According to the correlation table, lower level of corruption (or high corruption index) positively impacts the amount of foreign direct investment flow in the country. The rest variables measuring the investor protection also were positively correlated, meaning that investor protection plays an important role in attracting the foreign direct investment.

Additionally, based on the analysis of correlation table, the potential multicollinearity issue may be present. Corruption index had very high positive correlation with Accounting Standards, Law Enforcement, and Shareholder rights. This should not come as a surprise since the countries with the lowest corruption level, generally has the best investor protection practice.

Table 5 presents data for GDP Deflator as a measurement of Inflation, Population Growth Rate, Urban Population Growth rate, and Openness of economy defined as a percentage of Trade balance over GDP. Based on the results of the table, the highest inflation was observed in Argentina where it equaled to 29.34 percent. The lowest was observed in Singapore, where it equaled to only 0.04 percent. Among countries represented in the sample, only Germany had negative population growth. The highest population growth was in Zimbabwe, while the highest urban population growth was in Pakistan. The openness of economy was the highest in Singapore, where it equaled to 24.44 percent.

Table 6 presents descriptive statistics for the variables above. As was said above, the highest GDP deflator was in Argentina, while the lowest in Singapore. In addition, the highest population growth was in Zimbabwe, while the Germany had negative population growth. Even though the highest population growth rate was in Zimbabwe, the highest urban population growth rate was in Kenya. This shows that Kenya is more industrialized country than Zimbabwe. Singapore also had the highest net trade to GDP ratio of 24 percent. The lowest ratio was at Egypt, where net trade to GDP ratio was negative at 8.8 percent.

Table 7 presents the correlation matrix between variables in the model 2. As in the case with table 4, Corruption index is positively related to FDI. However, other variables GDP Growth rate, GDP Deflator, Population Growth rate, and urban population growth rate are negatively related to the level of foreign direct investment made in the country.

According to table 8 below, the largest schooling years is in Germany and the United States, 12.9 years, followed by Argentina, 12.8 years. The lowest schooling year was in India, 4.4 years. The schooling is very from important from the aspect of economic growth, since the qualified labor force produce higher output than an unqualified one. Capital stock is all necessary machine, equipment, and technology used in provision of service and goods in the country. Germany possesses the largest capital stock (13 trillion USD). The lowest capital stock formation was at Zimbabwe (only 83 billion).

Table 9 presents descriptive statistics on Schooling years and Capital Stock / GDP.Average schooling years in the sample of 40 countries is 9.59 with the standard deviation of 2.27. Average capital stock to GDP ratio is 5.04, with standard deviation of 5.08.

Table 10 presents correlation matrix between dependent and independent variables. GDP growth has very low correlation with Corruption index (0.006). Furthermore, GDP growth is negatively correlated with schooling years. This caused by the fact that country with the

lowest schooling years, India, has the highest GDP growth. Venezuela, in contrast, with average schooling years of 8.6, has negative GDP growth of 3.5 percent. The next section presents the results of the regression analysis.

5. Results

I used the SPSS version 22.1 to run regression analysis and obtain the results. Table 11 presents results for the regression. Based on the results of the regression analysis, R-square equals to 40 percent, while adjusted R-square equals to 30 percent. This means that variables in the model, changes in independent variables in the model 1, explain 30 percent changes in the dependent variable. F-statistics equals to 3.777, with statistical significance at 1 percent. This indicates that at least of the variables in the model is statistically significant.

Among 6 independent variables only 3 are statistically significant, namely Corruption Index, Shareholder Rights, and Creditor Rights. The coefficient of corruption index has positive coefficient of 7.6 and is statistically significant at 5 percent level of statistical significance. The results suggest that one percent increase in the corruption index (i.e. decrease in the level of corruption) will increase the FDI / Population ratio by 7.6 percent. The negative relationship between the presence of the corruption and the negative direct investment directed toward the country has found support in the prior literature as well. However, other papers suggested that after accounting for the presence of strong institutions the impact of corruption on FDI level seems to be insignificant (Abed and Davooddi, 2000) (Wei, 2001a). Even though the model 1, included four control variables defined as investor protection, only two of them are significant.

Shareholder rights and Creditor rights are significant at 1 and 10 percent level, respectively. The results suggest that shareholder and creditor rights protection, as was defined by La Porta et al (1998), are very important in attracting the FDI per capita. Based on economic reasoning, any rational investor will seek the protection of the investment made. However, surprisingly other control variables were not statistically significant. One would expect investor to invest in a country with the presence of high accounting standards. Nevertheless, the insignificance of the accounting standards suggests that accounting standards may not be an important determinant of the FDI in the end. Considering the literature review, one of the highest FDI recipient China, did not have high quality of accounting standards (Chen et al, 1995).

Table 12 presents the results for the second regression model. Based on the results of the second regression equation, it seems that the second model in contrast to the first model has better predictive power. R-square and adjusted R-square in the second regression equal to 58.5 and 50.9 percent, respectively. This percentage is higher in contrast to the first regression where R-square and adjusted R-square equalled to 40 and 30 percent, respectively. F-statistics equals to 7.740 and is significant at 1 percent level, meaning that at least one variable is statistically significant.

Similar to the first model, Corruption Index in the second model is also statistically significant at 5 percent level. Openness of the economy is significant at 1 percent level, while other variables are statistically insignificant.

The hypothesis 1 states that countries with lower corruption level or higher corruption index tend to receive higher Foreign Direct Investment. Results of the both model 1 and model 2 show that Corruption Index is statistically significant determinant of the FDI.

Model 3 is used to test the Hypothesis 2 that corruption index negatively impacts the economic growth. Based on the results in table 13, R-square and adjusted R-square equal to 38 and 29 percent, respectively.

Corruption index in the model 3 is significant at 5 percent level of significance. This means that higher corruption negatively impacts that economic growth. From the economic point of view, presence of corruption puts uncertainty in the market, which limits investment activities in the market. Following the Cobb-Douglas model of economic growth to achieve economic growth the company needs capital, labor force, and total productivity output. While corruption is less likely to impact the availability of labor force and total productivity output, it is most likely that corruption will impact capital, in terms of capital from foreign investors.

Moreover, total productivity output measured as capital stock by GDP and labor force measured as population growth rate are significant at 1 percent level of significance. This means that capital stock and population growth rate are important components of GDP growth rate.

6. Conclusion

This paper aimed to analyse the relationship between corruption, foreign direct investment and economic growth. Economic theory states that corruption negatively impacts investor sentiment and therefore deters investors from making investments. This in turn should slow down economic growth, since investment represent source of capital and based on Cobb-

Douglas model of economic growth capital is one the major determinants of economic growth.

The impact of corruption index on FDI level was analysed using 2 models with different set of control variables. Results of both model show that corruption index is significant determinants of FDI level in the country. While this idea found the support in previous papers as well, most of researches however concluded that after accounting for presence of institutional structures in the country the impact of corruption index becomes insignificant.

Further, the analysis of corruption index on economic growth also shows the significant relationship between those variables. I believe that corruption index through impacting the investor sentiment in the country impacts the economic growth measured in terms of GDP growth rate. While the results of this paper suggest that corruption and economic growth are negatively related, some other scholars consider it vice versa. This is based on the idea of helping hand of corruption. Nevertheless, on the short-term "helping hand" of corruption may benefit the economy, but in the long-term it negatively impacts it.

The statistical model used in the paper was cross-sectional multivariate regression analysis. Due to the limited time, I was not able to utilize the panel data analysis. I believe that panel data analysis would have yielded different results. The amount of FDI into any country is dependent on various factors. Different onetime events may have negatively impacted the amount of FDI in that specific year. Therefore considering using panel data will improve this deficiency.

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Appendix

Table 1: Country Level Analysis

Country	FDI/Population	Corruption Index	GDP Growth
Argentina	117.8532	0.5511	0.4536
Australia	1,956.7335	0.8984	2.2578
Austria	1,322.1461	0.8801	0.8621
Belgium	- 1,460.9536	0.8226	1.3739
Canada	1,841.1369	0.9126	1.0783
Chile	1,257.8193	0.7670	2.0661
Colombia	341.5783	0.5227	3.0819
Egypt	53.3960	0.4558	4.2000
Finland	2,988.5818	0.9331	0.5461
France	119.6547	0.7421	1.1560
Germany	116.6273	0.8908	1.6877
Malaysia	355.1412	0.6818	4.9524
Mexico	204.7715	0.5095	2.5469
Peru	254.5605	0.5663	3.2569
Pakistan	10.0895	0.4735	5.5381
Singapore	12,522.6722	0.8346	2.0084
South Africa	107.1366	0.5533	1.2833
Turkey	161.5375	0.4792	3.9849
United Kingdom	703.5195	0.8870	2.3292
Zimbabwe	35.7343	0.3592	1.0734
India	26.1496	0.6398	7.5701
Denmark	- 120.0298	0.8567	1.1786
Portugal	1,261.0435	0.7431	1.4545
Spain	736.4956	0.7348	3.2143
United States	413.3770	0.8598	2.4260
South Korea	23.0033	0.7600	7.1964
Norway	1,523.8918	0.9435	1.5981
Indonesia	103.2693	0.5530	4.7939
Netherlands	5,596.0498	0.9145	1.9906
Israel	820.1371	0.7412	2.4881
Italy	280.1159	0.6878	0.7595
Kenya	21.0489	0.5066	5.6492
Philippines	57.8944	0.5922	5.8057
Venezuela	12.7061	0.2942	- 5.7000
Sri Lanka	43.0229	0.4987	4.7860
Thailand	54.9084	0.4779	2.8197
Brazil	470.1862	0.5354	- 3.8474
Ecuador	48.6034	0.4751	0.2904
Greece	154.4763	0.6793	- 0.2316
Jordan	270.9387	0.6070	2.3827

Table 2. Descriptive statistics: FDI / Population, Corruption Index, and GDP Growth

FDI/Population		*Corruption Index*		*GDP Growth*	
Mean	870	Mean	0.6705	Mean	2.3090
Standard Error	345	Standard Error	0.0281	Standard Error	0.3978
Median	183	Median	0.6806	Median	2.1620
Standard Deviation	2,185	Standard Deviation	0.1777	Standard Deviation	2.5157
Sample Variance	4,772,318	Sample Variance	0.0316	Sample Variance	6.3285
Kurtosis	22	Kurtosis	- 1.1021	Kurtosis	2.3691
Skewness	4	Skewness	- 0.0754	Skewness	- 0.6129
Range	13,984	Range	0.6493	Range	13.2701
Minimum	- 1,461	Minimum	0.2942	Minimum	- 5.7000
Maximum	12,523	Maximum	0.9435	Maximum	7.5701
Sum	34,807	Sum	26.8212	Sum	92.3616
Count	40	Count	40	Count	40

Table 3: Investor Protection Variables

Country	Accounting Standards	Law Enforcement	Shareholder Rights	Creditors Right
Argentina	5	7.6	4	3
Australia	8	9.8	6	4
Austria	8	9.5	5	4
Belgium	7	9.4	6	4
Canada	9	9.8	5	4
Chile	4	5.4	3	3
Colombia	3	3.6	2	3
Egypt	2	2.2	1	1
Finland	9	10	6	4
France	7	9.8	5	4
Germany	7	9.8	5	4
Malaysia	6	6.4	6	3
Mexico	4	3.2	3	2
Peru	4	4.4	2	2
Pakistan	3	2.6	3	2
Singapore	7	8.6	5	2
South Africa	5	5.2	5	3
Turkey	5	6	4	2
United Kingdom	9	9.8	5	4
Zimbabwe	3	2.2	1	1
India	7	7	4	3
Denmark	8	9	5	1
Portugal	8	8	5	4
Spain	8	8	5	4
United States	9	9	6	4
South Korea	8	7	5	4
Norway	9	8	6	4
Indonesia	7	6	4	2
Netherlands	9	8	5	4
Israel	8	7	4	3
Italy	8	8	5	4

Kenya	6	6	3	2
Philippines	5	5	4	2
Venezuela	5	5	2	2
Sri Lanka	5	4	4	2
Thailand	6	5	4	2
Brazil	7	6	4	3
Ecuador	6	5	4	4
Greece	7	7	5	3
Jordan	6	6	3	2

Table 4. Correlation matrix

	FDI/Population	*Corruption Index*	*GDP Growth*	*Accounting Standards*	*Law Enforcement*	*Shareholder Rights*	*Creditors Right*
FDI/Population	1.0000						
Corruption Index	0.3839	1.0000					
GDP Growth	-0.0787	0.0006	1.0000				
Accounting Standards	0.2635	0.7937	- 0.1479	1.0000			
Law Enforcement	0.2769	0.8583	- 0.2002	0.8720	1.0000		
Shareholder Rights	0.4795	0.7587	- 0.0325	0.7692	0.7955	1.0000	
Creditors Right	0.0645	0.6689	- 0.1606	0.6883	0.7006	0.5962	1.0000

Table 5: Analysis of GDP Deflator, Population Growth, Urban Population Growth, and Openness of Economy

Country	GDP Growth	GDP Deflator	Population Growth Rate	Population Growth Rate Urban	Openness of Economy
Argentina	0.4536	29.3414	1.0331	1.1991	0.5168
Australia	2.2578	1.4136	1.4887	1.6412	-0.6088
Austria	0.8621	1.6283	0.7309	0.7840	3.6615
Belgium	1.3739	0.6652	0.4318	0.4748	0.3526
Canada	1.0783	1.7565	1.0981	1.3163	-0.9426
Chile	2.0661	5.5532	1.0573	1.2601	0.9763
Colombia	3.0819	2.1369	0.9440	1.3097	-2.9894
Egypt	4.2000	11.5129	2.2189	2.3211	-8.8138
Finland	0.5461	1.6591	0.4136	0.5730	-0.4640
France	1.1560	0.5519	0.7909	1.0865	-0.8032
Germany	1.6877	1.7343	-1.4104	-1.1384	6.5517
Malaysia	4.9524	2.4730	1.4710	2.4567	9.2698
Mexico					-

	2.5469	4.6898	1.3212	1.6764	1.1576
Peru	3.2569	3.0273	1.3250	1.7487	-1.5167
Pakistan	5.5381	6.9484	2.1034	3.2667	-8.4308
Singapore	2.0084	0.0434	1.2984	1.2984	24.4483
South Africa	1.2833	5.7955	1.6157	2.4121	-1.8791
Turkey	3.9849	8.2709	1.6913	2.4087	-4.6106
United Kingdom	2.3292	1.8375	0.7533	1.0611	-1.8920
Zimbabwe	1.0734	1.3387	2.3075	1.8378	-
India	7.2435	3.2996	1.2267	2.3827	-0.0329
Denmark	1.2619	0.7804	0.5071	0.7107	0.0528
Portugal	0.9058	0.9514	-0.5392	0.3710	0.0114
Spain	1.3607	-0.3965	-0.2990	-0.0137	0.0249
United States	2.4278	1.6427	0.7807	0.9896	-0.0293
South Korea	6.8524	4.7647	1.3580	2.6688	-
Norway	2.2148	0.4763	1.1277	1.4637	0.0920
Indonesia	5.0239	5.3871	1.2602	2.6872	-0.0034
Netherlands	1.0111	0.8110	0.3598	1.0731	0.1140
Israel	2.5997	0.9599	1.9195	1.9891	0.0195
Italy	-0.3432	0.8075	0.9175	1.1139	0.0290
Kenya	5.3319	7.9937	2.6441	4.3129	-0.1537
Philippines	6.1323	3.2052	1.5933	1.2679	-0.0448
Venezuela	-3.8944	0	1.3705	1.4233	0
Sri Lanka	4.8786	3.8607	0.9287	1.0379	-0.0801
Thailand	0.8176	0.9629	0.4062	2.9414	0.0660
Brazil	0.1034	6.8651	0.8864	1.1935	-0.0226
Ecuador	3.6750	2.7053	1.5309	1.8747	-0.0127
Greece	0.6540	-2.2082	-0.6661	-0.2339	-0.0224
Jordan	3.0963	3.4443	2.7512	3.0344	-0.2641

Table 6. Descriptive Statistics for GDP Deflator, Population Growth Rate, Urban Population Growth Rate, and Openness of Economy

GDP Deflator		*Population Growth Rate*		*Population Growth Rate Urban*		*Openness of Economy*	
Mean	3.4673	Mean	1.0687	Mean	1.5321	Mean	0.2853
Standard Error	0.7948	Standard Error	0.1341	Standard Error	0.1621	Standard Error	0.7721
Median	1.7970	Median	1.1129	Median	1.3130	Median	-0.0176
Standard Deviation	5.0271	Standard Deviation	0.8484	Standard Deviation	1.0253	Standard Deviation	4.8833
Sample Variance	25.2713	Sample Variance	0.7198	Sample Variance	1.0512	Sample Variance	23.8469
Kurtosis	18.1007	Kurtosis	1.2772	Kurtosis	0.9655	Kurtosis	15.8170
Skewness	3.7404	Skewness	-0.6166	Skewness	0.1432	Skewness	3.1325
Range	31.5495	Range	4.1616	Range	5.4513	Range	33.2621
Minimum	-2.2082	Minimum	-1.4104	Minimum	-1.1384	Minimum	-8.8138
Maximum	29.3414	Maximum	2.7512	Maximum	4.3129	Maximum	24.4483
Sum	138.6911	Sum	42.7479	Sum	61.2823	Sum	11.4120
Count	40	Count	40	Count	40	Count	40

Table 7: Correlation Matrix Model 2

	FDI/Population	*Corruption Index*	*GDP Growth*	*GDP Deflator*	*Population Growth Rate*	*Population Growth Rate Urban*	*Openness of Economy*
FDI/Population	1.0000						
Corruption Index	0.3839	1.0000					
GDP Growth	-0.1369	-0.1173	1.0000				
GDP Deflator	-0.1796	-0.3414	0.1597	1.0000			
Population Growth Rate	-0.0542	-0.4774	0.3981	0.2973	1.0000		
Population Growth Rate Urban	-0.1229	-0.4982	0.5144	0.2831	0.8331	1.0000	
Openness of Economy	0.7156	0.3253	-0.1140	-0.2222	-0.1947	-0.2267	1.0000

Table 8: Data on Schooling Years and Capital Stock / GDP

Country	Schooling Years	Capital Stock / GDP
Argentina	12.8	3.8008
Australia	10.8	2.6435
Austria	9.8	3.7879
Belgium	10.9	4.1862
Canada	12.3	3.3356
Chile	9.8	4.4033
Colombia	7.1	4.8145
Egypt	6.4	4.1329
Finland	10.3	3.8066
France	11.1	4.1131
Germany	12.9	3.5870
Malaysia	9.5	5.6023
Mexico	8.5	5.0068
Peru	9	4.4204
Pakistan	4.7	6.0412
Singapore	10.2	5.1152
South Africa	9.9	6.1896
Turkey	7.6	4.6418
United Kingdom	12.3	3.3801
Zimbabwe	7.2	5.9113
India	4.4	10.8636
Denmark	12.1	3.2148
Portugal	8.2	7.4446
Spain	9.6	6.0617
United States	12.9	2.9508
South Korea	11.8	2.5776
Norway	12.6	2.4343
Indonesia	7.5	14.8130
Netherlands	11.9	3.8295
Israel	12.5	2.5290
Italy	10.2	5.5359
Kenya	6.3	4.7088
Philippines	8.9	7.0261
Venezuela	8.6	-
Sri Lanka	10.8	7.2939
Thailand	7.3	8.9607
Brazil	7.2	5.5073
Ecuador	7.6	5.9622
Greece	10.2	6.6753
Jordan	9.9	6.0509

Table 9. Descriptive Statistics: Schooling Years and Capital Stock / GDP

Schooling Years		*Capital Stock / GDP*	
Mean	9.5900	Mean	5.084
Standard Error	0.3596	Standard Error	0.396
Median	9.8500	Median	4.675
Standard Deviation	2.2742	Standard Deviation	2.503
Sample Variance	5.1722	Sample Variance	6.266
Kurtosis	- 0.5407	Kurtosis	5.352
Skewness	- 0.3747	Skewness	1.677
Range	8.5000	Range	14.813
Minimum	4.4000	Minimum	-
Maximum	12.9000	Maximum	14.813
Sum	383.6000	Sum	203.360
Count	40	Count	40

Table 10: Correlation Matrix (Model 3)

	GDP Growth	*Corruption Index*	*Schooling Years*	*Population Growth Rate*	*Capital Stock / GDP*
GDP Growth	1.0000				
Corruption Index	0.0006	1.0000			
Schooling Years	-0.2434	0.6950	1.0000		
Population Growth Rate	0.2705	-0.4774	-0.3783	1.0000	
Capital Stock / GDP	0.4082	0.3113	0.5329	-0.0128	1.0000

Table 11. Regression Coefficients Model 1

Dependent Variable: FDI / Population

Variables	Coefficients	P-value	T-Statistics
Constant	-1,879	0.138	-1.521
Corruption Index	7,593**	0.041	2.132
GDP Growth	-204	0.121	-1.593
Accounting Standards	-113	0.731	-0.347
Law Enforcement	-488	0.166	-1.417
Shareholder rights	1070***	0.005	3.049
Creditor rights	-832*	0.057	-1.969
R-square	0.407		
Adjusted R-square	0.299		
F statistics	3.777***		
F-statistics (significance)	0.006		

*** - *Significance at 1 percent level*

** - *Significance at 5 percent level*

* - *Significance at 10 percent level*

Table 12. Regression Coefficients Model 2

Dependent Variable: FDI / Population

Variables	Coefficients	P-value	T-Statistics
Constant	-2,054	0.161	-1.432
Corruption Index**	3,549	0.047	2.060
GDP Growth	-148	0.275	-1.110
GDP Deflator	3.265	0.951	0.062
Population Growth Rate	547	0.308	1.035
Population Growth Rate Urban	145	0.764	0.303
Openness of the Economy***	296	0.000	5.529
R-square	0.585		
Adjusted R-square	0.509		
F statistics	7.740***		
F-statistics (significance)	0.000		

*** - *Significance at 1 percent level*

** - *Significance at 5 percent level*

* - *Significance at 10 percent level*

Table 13. Regression Coefficients Model 3

Dependent Variable: GDP Growth

Variables	Coefficients	P-value	T-Statistics
Constant	-5.06*	0.09	-1.748
FDI / Population	0.000	0.211	-1.275
Corruption Index	8.001**	0.013	2.621
Schooling Years	-0.184	0.448	-0.767
Population Growth Rate	1.403***	0.006	2.938
Capital Stock / GDP	0.484***	0.006	2.904
R-square	0.381		
Adjusted R-square	0.289		
F statistics	4.177***		
F-statistics (significance)	0.005		

*** - *Significance at 1 percent level*

** - *Significance at 5 percent level*

* - *Significance at 10 percent level*