MASTER’S THESIS

THE IMPACT OF CORRUPTION ON FOREIGN DIRECT INVESTMENTS IN TRANSITION COUNTRIES

Ljubljana, June 2015

LEJLA SMAILBEGOVIĆ
AUTHORSHIP STATEMENT

The undersigned Lejla Smailbegović, a student at the University of Ljubljana, Faculty of Economics, (hereafter: FELU), declare that I am the author of the master’s thesis entitled The Impact of Corruption on Foreign Direct Investments in Transition Countries, written under supervision of doc. dr Eldin Mehić, associate professor of School of Economics and Business, University of Sarajevo.

In accordance with the Copyright and Related Rights Act (Official Gazette of the Republic of Slovenia, Nr. 21/1995 with changes and amendments) I allow the text of my master’s thesis to be published on the FELU website.

I further declare
• the text of my master’s thesis to be based on the results of my own research;
• the text of my master’s thesis to be language-edited and technically in adherence with the FELU’s Technical Guidelines for Written Works which means that I
  o cited and / or quoted works and opinions of other authors in my master’s thesis in accordance with the FELU’s Technical Guidelines for Written Works and
  o obtained (and referred to in my master’s thesis all the necessary permits to use the works of other authors which are entirely (in written or graphical form) used in my text;
• to be aware of the fact that plagiarism (in written or graphical form) is a criminal offence and can be prosecuted in accordance with the Criminal Code (Official Gazette of the Republic of Slovenia, Nr. 55/2008 with changes and amendments);
• to be aware of the consequences a proven plagiarism charge based on the submitted master’s thesis could have for my status at the FELU in accordance with the relevant FELU Rules on Master’s Thesis.

Ljubljana, June 17th, 2015

Author’s signature: _______________________
# TABLE OF CONTENTS

**INTRODUCTION** .................................................................................................................. 1

**1 LITERATURE REVIEW** ...................................................................................................... 6
  1.1 Foreign Direct Investment (FDI) ..................................................................................... 6
    1.1.1 The definition of FDI .......................................................................................... 6
    1.1.2 The motivation of the home country ..................................................................... 7
    1.1.3 The motivation of the host country ....................................................................... 9
    1.1.4 Types of FDI: horizontal, vertical and conglomerate ........................................ 11
    1.1.5 Forms of FDI: greenfield investments, cross-border mergers and acquisitions (M&As) and joint ventures .......................................................... 12
    1.1.6 The importance of FDI in transition economy context ...................................... 13
  1.2 Corruption ...................................................................................................................... 15
    1.2.1 The definition and classification of corruption .................................................... 15
    1.2.2 The characteristics of corruption ....................................................................... 19
    1.2.3 The sources of corruption .................................................................................. 20
    1.2.4 The indicators of corruption ............................................................................... 22
    1.2.5 The effects of corruption .................................................................................... 23
    1.2.6 Corruption in transition countries ...................................................................... 27
  1.3 Conceptual framework of investigation ...................................................................... 28
    1.3.1 Corruption in the framework of the Institutional theory ................................... 30
    1.3.2 Corruption in the context of Ownership, location and internalization advantages theory (OLI paradigm) ................................................................. 32
      1.3.2.1 Ownership advantage – O (or FSA – Firm Specific Advantages) .............. 32
      1.3.2.2 Location advantage – L (or CSA – Country Specific Advantages) ........... 33
      1.3.2.3 Internalization advantage – I ................................................................. 34
    1.3.3 Relationship between corruption and FDI ......................................................... 37
      1.3.3.1 “Grease the wheels” hypothesis ................................................................ 38
      1.3.3.2 “Sand the wheels” hypothesis .................................................................. 38

**2 REVIEW OF EMPIRICAL STUDIES ABOUT RELATIONSHIP BETWEEN CORRUPTION AND FDI .................................................................................................................. 39**

**3 EMPIRICAL ANALYSIS: THE IMPACT OF CORRUPTION ON FDI IN TRANSITION COUNTRIES .................................................................................................................. 49
  3.1 Methodology ................................................................................................................ 49
  3.2 Gravity model ............................................................................................................. 50
  3.3 Data description and sources ...................................................................................... 52
  3.4 Model specification ..................................................................................................... 56
3.5 Results ...........................................................................................................................................57

CONCLUSION .........................................................................................................................................58

REFERENCE LIST ...................................................................................................................................62

APENDIXES

TABLE OF FIGURES
Figure 1: Taxonomy of corruption .........................................................................................................17

TABLE OF TABLES
Table 1: Benefits and costs to the home country ........................................................................................9
Table 2: Benefits of FDI to the host countries ............................................................................................10
Table 3: Costs of FDI for the host countries ..............................................................................................11
Table 4: OLI advantages and MNC channels for serving a foreign market ...........................................34
Table 5: Incorporating institutional assets into the eclectic paradigm ..................................................36
Table 6: Summary of the empirical studies about the impact of corruption on FDI .........................46
Table 7: Overview of variables, measures, values and data sources ......................................................53
Table 8: Expected Signs of Variables ......................................................................................................55
Table 9: Descriptive statistics ..................................................................................................................55
Table 10: Correlation Matrix ...................................................................................................................56
Table 11: Regression results: FDI and corruption ..................................................................................57
INTRODUCTION

In recent years, the globalization of world economy has resulted in a significant increase of foreign direct investments (hereinafter: FDI) and transition countries are becoming more open to international business operations. It has been noticed that the growth of the multinational companies’ (hereinafter: MNCs) activity in the form of FDI has grown at a faster rate than most other international transactions (Blonigen, 2005; Cohen, 2007; OECD, 2011).

These activities have many positive effects on economic growth and development of countries in which they invest. Actually, FDI is significant for the growth of the host economies because FDI stimulates domestic investment, capital formation and expansion as well as enhances the technology transfer in the host countries (Falki, 2009). Furthermore, the impact of FDI on economic growth is also reflected in greater employment opportunities, enhancing productivity, boosting of exports and so on. According to Dunning and Lundan (2008), in general, there is a positive empirical relationship between the FDI and growth of world’s gross domestic product (hereinafter: GDP). Alfaro, Chanda, Kalemli-Ozcan and Sayek (2004) believe that FDI can play an important role in modernizing the national economy and promoting growth. Specifically, according to them the MNCs introduce the new technologies with know-how and serve as a catalyst to growth in the host countries.

The positive effects of FDI are associated with the environment within host country as well as its absorption capacity. But the effects of the FDI are not equal in all countries as not all countries are equally successful in that. The success primarily depends on the degree of overall social and economic development of the country and the ability of national governments and domestic companies to bring and exploit the benefits of FDI in the best way. To become an attractive location for FDI is not easy, because the foreign investors take into consideration many factors before they choose a location for their investments and make investment decisions. Some of them may prefer the past experiences of their peers or the reports done by specialized agencies, but usually they do not only rely on their recent experience. Generally speaking, the foreign investors are aware and well-informed of a number of influences when investing abroad. As one of the country-level influences on FDI, market entry and other decisions fundamental to strategic management at the international level is corruption (Robertson & Watson, 2004).

Corruption can be defined in different ways, from the investment risk to the particular acts of bribery, cronyism, nepotism, patronage, graft and embezzlement. Macrae (1982, p. 679) defines corruption as an “arrangement” that involves "a private exchange between two parties (the “demander” and the “supplier”), which (1) has an influence on the allocation of
resources either immediately or in the future, and (2) involves the use or abuse of public or collective responsibility for private ends.”

There are two streams of research about corruption in the academic literature. The first one refers to the causes and effects of corruption which is supported by Shleifer and Vishny (1993). They have developed the basis for theoretical framework on corruption and present two different types of corruption which have different impacts on companies and society. The first refers to a weak government system and the second to an illegality of corruption. The second stream of research can be divided into two groups. The first group investigates the general effects of corruption on economic growth while the second group studies the effects of corruption on FDI. Mauro (1995) was the first one who empirically studied relation between corruption and economic growth. His results show that corruption lowers investments which consequences have lower economic growth. Other scholars have investigated the effects of corruption on FDI. According to Smarzynska and Wei (2000), understanding this kind of relationship is important for many reasons. First of all, many developing and transition countries wish to attract the foreign investors with the advanced technologies, which they may bring. Second, the host country corruption ought to play a more significant role in theories and empirics of international capital flows than it does so far. Third, given that corruption is elusive to measure but important conceptually, it is useful to derive and test more nuanced predictions of the economic consequences of corruption, such as its effect on the composition of the FDI.

The debate on the effects of the level of corruption on FDI inflows has attracted interest of academic and public community for several reasons:

- FDI is one of the key drivers for the economic development in developing and transition countries. Namely, in these countries FDI is often seen as a way out of the economic crisis,
- On the other hand, the corruption is often seen as an additional cost or as an excess tax on economic activity. Given that the additional costs and taxes are an important determinant of FDI inflows, there is a theoretical reason why corruption may affect the reduction of FDI inflows,
- And finally, this could be tested easily thanks to the good availability of data.

However, the empirical literature on the relationship between corruption and FDI does not have the common conclusion. The reason for this is partly due to the fact that there exist the diversity among the countries they use in analysis (for example: developed, developing, transition countries, etc.) and due to using the different models, methods and data in a different period of time. Also, there are different types of corruption which leads to different solutions.
Most of the studies have found a negative relationship between corruption and FDI. Abed and Davoodi (2000) examine the effects of corruption on per capita FDI inflows in 25 transition countries over the period of 1994-1998 using a cross-sectional data analysis. They found a significant relationship between corruption and FDI, which in terms of low levels of corruption attracts more FDI inflows per capita. Interestingly enough, their findings suggest that progress on structural reforms is both statistically more significant and economically more important than corruption in explaining differences in economic performance as reflected in FDI.

Wei (2000a, p.1) finds in his study about the effects of taxation and corruption on FDI, involving 14 home to 45 host countries, that „an increase in either the tax rate on MNCs or the corruption level in the host governments would reduce inward FDI“. Wei (2000b) also finds that corruption in capital-important countries affects both the volume and the composition of their capital inflows and reduces inward FDI substantially.

Negative relationship between corruption and FDI has also been proved in studies by Smarzynska and Wei (2000), Habib and Zurawicky (2002), Javorcik and Wei (2009). Egger and Winner (2006) presented results that effects of corruption differ among certain groups of countries. According to Velkova (2006), the high level of corruption and weak property rights system deter FDI inflows in South-East Europe countries and that is the main reason why FDI would not promote growth and development in these countries.

Al-Sadig (2009) in his study, which employs panel data for 117 countries (developed and developing) over the period of 1984-2004, concludes that corruption has a negative effect on FDI in all countries. Mathur and Singh (2011) in their results concluded that corruption perception plays a critical role in investors' decisions of where to invest.

On the other hand, there also exist a strand of the literature which claims that corruption may act as „helping hand“ for rigid economic regulations and red-tape and includes the empirical research by Lui (1985), Beck and Maher (1986), Saha (2001) and Bjorvatn and Soreide (2005). In these cases, corrupt activities are usually used in order to accelerate administrative processes and circumvent bureaucratic restrictions.

Furthermore, Egger and Winner (2005) reported that corruption in the host country will not necessarily discourage FDI. In their study of 73 developed and less developed countries, they used the aggregate inward FDI stocks and the corruption perception index (hereinafter: CPI) from Transparency International (hereinafter: TI) in a period between 1995. and 1999. They found that corruption has positive effects on FDI in the host countries, both in the short-run and long-run.
Also, there exist some studies which failed to find a significant correlation between corruption and FDI. Wheeler and Mody (1992) in their study did not find a significant relationship between these two variables. They explained that reason for this may be that corruption is not explicitly incorporated into their model because they combined corruption with twelve other indicators and formed one variable, where some of indicators may be not so important for FDI. Furthermore, Alesina and Weder (2002) showed in their study that there is no evidence that less corrupt countries receive more FDI.

The available empirical literature regarding the relationship between corruption and FDI is lacking in transition countries, which are perceived to be among the most corrupt. Actually, there are not enough researchers of this issue in transition countries from several reasons. These reasons are such as the lack of information in these countries, than this is a rather new area as well as due to the diversity among transition countries. Hereof, the main focus of this master thesis will be to investigate the effects of corruption on FDI inflows in transition countries.

The purpose of the thesis is to offer a better understanding of FDI and corruption, the relationship between them and to examine empirically the effects of corruption on FDI inflows in transition countries in order to provide them recommendations for attracting, absorbing and retaining FDI. Actually, these countries have gone through a very turbulent period of twenty years development which can be a fertile ground for corruption. Therefore, it is reasonable to devote attention to these countries and investigate what impact corruption has on FDI in this region. So, the main research question in this research is:

- What impact corruption has on FDI inflows in transition countries?

The hypothesis of this research is set up as follows:

H1: Corruption has negative and significant effects on FDI inflows in transition countries

The objectives of the thesis are:

- to examine relationship between corruption and FDI,
- to estimate the impact of corruption on FDI inflows in transition countries using an appropriate econometric model,
- to provide policy recommendations for transition countries in the context of the corruption effects on FDI.
The research will be conducted on a sample of transition countries, depending on the data availability for variables that will be included in an econometric model. The econometric model which will be used in this research is a gravity model. The gravity model is often used for statistical analyses of bilateral flows between different geographical entities. This model has been used in a number of fields, but also has become an important model for analysis location factors that attract FDI in different countries. Its popularity can be explained with the high explanatory power, data easily available and established standard practices that facilitate the research work.

By using this gravity model, this research will evaluate the effects of corruption on FDI inflows in transition countries, based on the analysis of data collected from international organizations such as the Vienna Institute for International Economic Studies (hereinafter: WIIW), CEPII distance database, the TI and the United Nations Economic Commission for Europe (hereinafter: UNECE). There are a lot of other sources, such as the United Nations Conference on Trade and Development (hereinafter: UNCTAD), the International Monetary Fund (hereinafter: IMF) and etc., but in order to avoid any problems from different variable definitions and data adjustment, data will be used from these sources. Also, the WIIW is one of the most comprehensive and up-to-date databases for transition countries which is specialized for FDI data.

The thesis is structured as follows. In the first chapter, a literature review will be provided, where the section 1.1 will introduce concepts of FDI, while the concept of corruption will be described in the section 1.2. The section 1.3 will provide a conceptual framework of this investigation, which cover the institutional theory, OLI paradigm and relationship between corruption and FDI. Review of the empirical studies about relationship between corruption and FDI is presented in the second chapter. The third chapter refers on the empirical analysis about the impact of corruption on FDI in transition countries and it has been divided into five sections. Section 3.1 describes methodology of this investigation; section 3.2 gives a theoretical foundation of gravity model which is used in this investigation for examining the impact of corruption on FDI in transition countries. Section 3.3 explains data sources, dependent, independent and control variables which are included in the model as well as data sources. Section 3.4 gives a model specification and the final section 3.5 gives the results of this investigation. Finally, in the conclusion part, all results and findings from this investigation will be summarized and explained, as well as the contribution to the knowledge and the limitations of this investigation. Also this part of thesis provides some policy implications, potential topics for further research and conclusion.
1 LITERATURE REVIEW

1.1 Foreign Direct Investment (FDI)

1.1.1 The Definition of FDI

In the literature are found the different definitions of FDI according to the different authors. But the definition which is mostly used is as follows: “Direct investment is a category of cross-border investment made by a resident in one economy (the direct investor) with the objective of establishing a lasting interest in an enterprise (the direct investment enterprise) that is resident in an economy other than that of the direct investor. The motivation of the direct investor is a strategy of long-term relationship with the direct investment enterprise to ensure a significant degree of influence by the direct investor in the management of the direct investment enterprise. The „lasting interest“ is evidenced when the direct investor owns at least 10% of the voting power of the investment enterprise“ (OECD, 2008, p. 17). Companies that are engaged in FDI are MNCs and own or, in some way, control value-added activities in more than one country (Dunning & Lundan, 2008). These companies may take several forms. In subsidiaries, over 50% of the voting power is held; in associates, between 10% and 50% and quasi-corporations are effectively 100% owned by their foreign parent companies (OECD, 2002).

According to Mallampally and Sauvant (1999), FDI presents such form of investments by MNCs in foreign countries with the aim of controlling assets and managing activities in those countries. Ayanwale (2007) offers a definition of FDI according the ownership of the ordinary shares or voting stocks and defines that FDI appears when resident of a home country (direct investor) becomes an owner of 10% or more of a company in a host country, while ownership of less than 10% is presented as a portfolio investment.

In the literature are found two concepts of FDI. The first concept describes FDI as a form of the capital’s flow across international boundaries, while the second one defines FDI as a set of economic activities or operations carried out in a host country controlled or partly controlled by companies in home country. These activities are, for example, production, employment, sales, the purchase and use of intermediate goods and fixed capital, and the carrying out of research (Lipsey, 2002).

FDI helps in creating such a business environment which may ensure stable and long-lasting links between economies of two countries, what in turn may bring benefits to both, the home and the host country. Specifically, under the right policy framework, FDI has a many benefits to both economies. For example, the benefits for the home country among others include increased market access, improved competitiveness due to a better access to
cheaper inputs and strengthening the company's capital base as a result of strategic partnership with foreign partners. At the other hand, some of the benefits for the host country are an improved access to technology, marketing channels, organizational and managerial skills, the contribution to domestic savings and investment, transfer of know-how and technology, new ideas, etc. In addition to these direct effects, FDI also promotes development of labor and financial markets. In regard on the abovementioned benefits of FDI, in the next subsections it will be discussed in details about the motivation of the home and the host countries for FDI.

1.1.2 The Motivation of the Home Country

Many previous studies have examined the motivation of the home country (the direct investor’s country of origin) for FDI and tried to give an answer why MNCs invest in specific locations. The most of these studies have a common conclusion (Dunning 1993, Globerman and Shapiro 1999, and Globerman and Shapiro 2001) that MNCs mainly find attractive investing abroad in chosen specific location because of strong economic fundamental such as market size, skill labor, trade policies and political and macroeconomic environment.

Specifically, the certain company will be able to expand its activities to other countries, if it has some specific advantages over the local competitors which include: advanced technology, trademarks, patents, economies of scale, management and marketing skills. All of these advantages together are called intangible assets. Buckley and Casson (1976) argue that is not necessary that the MNC has a company in another country and manages its business in order to be able to use the specific advantages at the international level. The benefits can also be used with the export or license agreements with local companies in foreign markets. According to this, the company owning intangible assets will be able to become an international company if also possesses necessarily so-called internal economies. This internationalized company aims to conduct business transactions in a more efficient and economical manner. Actually, the company can achieve considerable savings with use of the specific advantages of FDI, while cannot do it with export of final products or sale of licenses.

Another possible explanation for the motivation of MNCs to invest abroad is based on the rationalization of the cost of capital. Specifically, MNCs used to establish subsidiaries abroad because debt presents for them a cheaper way of financing then property. Therefore, MNCs prefer to invest abroad in the form of FDI, rather than paying dividends.
The other motives for MNCs to invest abroad are as follows:

- Conquest of new markets is one of the most important motives of the direct investors. For example, if a company finds difficult to enter an interesting market because of macro-economic policy of the state or because of competition in that market, then company will try to enter that market with investment strategy. The objective of direct investor in this case is conquest of new or expansion of existing markets.
- Lower labor costs. MNCs use cheap labor and on that way organize production with significantly lower costs, which contributes that their products become more competitive in the global market.
- Access to cheaper and better raw materials which ultimately affects the reduction of the total cost what implies a cheaper final product. In this way the final product acquires a better position in the market.

The motivation of the home country for FDI also depends on benefits and costs that may arise from FDI. The greater are the benefits then costs, the greater is motivation for FDI. In the Table 1 are shown the main benefits and costs of FDI to the home country and as it can be seen the benefits of FDI arise from three sources. First, the capital account of the home country's balance of payments benefits from the income of foreign earnings. Second, FDI may import intermediate goods or complementary products from the home country, what in turn effects on creating jobs and has a positive employment effects. And third, MNC may learn skills from its exposure in foreign countries that can be subsequently transferred back to the home country and contributes to the home country's economic growth rate.

Contrary to these benefits, there also exist the set of costs of FDI for the home country. The most important costs are related to the balance of payments and employment effects. In order to understand the explanation, the balance of payment will be explained in short. Namely, the balance of payment consists of two main sections: the current and the capital account.

The current account records transactions from three main categories:

- the first category refers to the export or import of goods,
- the second refers to the export or import of services,
- the third refers to income from foreign investments and payments that have to be made to the foreigners investing in a country.

The capital account records transactions that involve the purchase or sale of assets. So, the home country's balance of payments may suffer in three ways. At first, the capital account of the balance of payments suffers from the initial capital outflow required to finance the
FDI. But this effect is usually set off by future stream of foreign earnings. Secondly, the current account suffers if FDI serves the home market from a low-cost production location and third, the current account suffers if FDI is a substitute for direct exports. In respect of employment effects, the biggest costs occur when FDI is seen as a substitute for domestic production.

Table 1. Benefits and Costs to the Home Country

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream of income from foreign earnings</td>
<td>Balance of payment:</td>
</tr>
<tr>
<td></td>
<td>Initial capital outflow (but often set off by future stream of foreign earnings)</td>
</tr>
<tr>
<td>FDI may import intermediate goods or inputs for production from the home country, creating jobs</td>
<td>Current account suffers if FDI is to serve home market from low-cost production location</td>
</tr>
<tr>
<td></td>
<td>Current account suffers if FDI is a substitute for direct export</td>
</tr>
<tr>
<td>MNCs may learn skills from exposure to foreign countries</td>
<td>Employment effects:</td>
</tr>
<tr>
<td></td>
<td>FDI a substitute for domestic production</td>
</tr>
</tbody>
</table>


1.1.3 The Motivation of the Host Country

The motivation of the host country (the target country of investment) may be explained by comparing the social benefits and social costs caused by FDI. In this case, the host countries put an effort in existing more social benefits.

The social benefits from FDI in the host country can make a wide range, such as: taxes, opening new jobs for domestic people, transfer of knowledge, technology and management skills. MNCs make a profit which is then taxed and in that way they provide substantial inflows into the state budget. On the other hand, one of the usual fiscal measures for attracting FDI is the exemption from paying taxes in the long run. Furthermore, there is a possibility for opening new jobs and in a connection with this the transfer of knowledge, technology and management skills. Also, the entry of foreign companies in the manufacturing sector may lead to greater competition, which increases the pressure on the rest of the sector for operating in the more efficient manner.

The social costs that may be caused by FDI are decrease in employment due to the rationalization of the workforce in the company which has been taken, or because of pushing out unsuccessful domestic companies at the micro level. At the macro level, it can
lead to the worsening of the current account of payments’ balance in the host country if these companies create more imports than exports from its headquarters abroad.

FDI’s opponents often point out the fear of increasing the influence of MNCs on economic policy and the stability of the country as well as achieving the monopolistic relationship between the MNC and host country. In contrast, the host countries prefer social benefits which have been created by FDI mostly because of transfer of technology, knowledge and skills, their spillover on the rest of the economy, positive influence on the international trade, growth of employment, investment and protection of environment in the domestic economy. The list of benefits and costs of FDI for host countries are listed in the Table 2 and Table 3.

Table 2. Benefits of FDI to the Host Countries

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Transfer Effects</td>
<td>Capital</td>
</tr>
<tr>
<td></td>
<td>MNC invests capital in foreign markets</td>
</tr>
<tr>
<td></td>
<td>Technology</td>
</tr>
<tr>
<td></td>
<td>Research supports that MNCs do transfer technology when they invest in a foreign country</td>
</tr>
<tr>
<td></td>
<td>Management</td>
</tr>
<tr>
<td></td>
<td>When MNCs invest and manage in a foreign country, they often transfer management skills to the host country’s workforce</td>
</tr>
<tr>
<td>Employment Effects</td>
<td>MNCs, by investing in foreign countries, can create employment opportunities for the local workforce</td>
</tr>
<tr>
<td>Balance of Payment Effects</td>
<td>A country’s balance of payment is the difference between the payments to and receipts from other countries. FDI can have beneficial and negative effects on a country’s balance of payment.</td>
</tr>
<tr>
<td>Effect on Competition</td>
<td>Efficient functioning of markets require adequate level of competition between producers</td>
</tr>
<tr>
<td>Initial Capital Inflow</td>
<td>When a company invests in a foreign country, it brings capital into that country</td>
</tr>
</tbody>
</table>

Table continues
### Benefits

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substitute for Imports</td>
<td>To the extent that the good/services produced by the FDI substitute for imported goods/services, there is a positive effect on Balance of Payment</td>
</tr>
<tr>
<td>Inflow of payment from export of goods and services</td>
<td>To the extent that the good/services produced by the FDI are exported to another country, there is a positive effect on the host country’s Balance of Payment</td>
</tr>
</tbody>
</table>


#### Table 3. Costs of FDI for the Host Countries

<table>
<thead>
<tr>
<th>Costs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse Effects on Competition</td>
<td>If the foreign MNC draws on funds generated elsewhere to subsidize its costs in the host market, it could drive indigenous companies out of business and let the firm to monopolize the market.</td>
</tr>
<tr>
<td>Adverse Effects on the Balance of Payments</td>
<td>FDI with its initial capital inflow must generate the subsequent outflow of earnings from the foreign subsidiary to its parent company; The current account of the host country’s balance of payments is debited if a foreign subsidiary imports its inputs from abroad significantly.</td>
</tr>
<tr>
<td>National Sovereignty and Autonomy</td>
<td>The host country’s government has no real control over the key decisions made by the foreign partners although they can affect the host country’s economy.</td>
</tr>
</tbody>
</table>


### 1.1.4 Types of FDI: Horizontal, Vertical and Conglomerate

According to the role of FDI in the global production strategy of the home company and the way of creating FDI, in these two subsections will be explained the types and forms of
FDI in order to introduce more the nature of FDI and its effects. Specifically, there are three main types of FDI: horizontal, vertical and conglomerate FDI. This division is based on the role of FDI in the home company’s global production strategy.

**Horizontal FDI** is also called market-seeking FDI and this type of FDI arises when a company applies the same or similar operations and activities in the home and host country or when almost the same goods are produced in both of these countries. Therefore this kind of FDI refers to producing the same goods or offering the same services in a host country as companies do at home country. The purpose of horizontal FDI is strengthening the company’s global competitive position and this kind of FDI usually happens in the service sector. Two main reasons why does horizontal FDI occur are as follows:

- Exporting from the home country to the host country is too costly due to transportation costs or trade barriers,
- Better access to the local market because companies in the host country have better local market information.

**Vertical FDI** is called resource-seeking FDI and arises when MNC divides the production process geographically and locates each production's fragment in the country where it can be done at the least cost. Term “vertical” stems from the fact that MNC fragments the production chain vertically by outsourcing some production stages abroad. Furthermore, vertical FDI consists of two groups: forward and backward vertical FDI. Forward vertical FDI is reflected in the firm’s investment in facilities that will consume the output of the parent company in the home country. In contrast, the backward vertical FDI is the kind of FDI where a company invests in facilities for providing of inputs or raw materials to the parent company.

**Conglomerate FDI** happens when FDI abroad is to manufacture products not manufactured by the parent company at home. This is an unusual form of FDI due to its needs of overcoming simultaneously two barriers - entering a foreign country and a new industry which results in the conclusion that internationalization and diversification are not only complements, but rather alternative strategies.

**1.1.5 Forms of FDI: Greenfield Investments, Cross-Border Mergers and Acquisitions (M&As) and Joint Ventures**

Furthermore, FDI can be divided according to the way of its creating into the greenfield investments, cross-border mergers and acquisitions (M&As) and joint ventures. The short explanation of these FDI forms is as follows:
Greenfield investments present such investments which create completely a new production, distribution or other property in the host country. This kind of investments brings benefits to the host country such as creating and opening new jobs for domestic people, thus decreasing the level of unemployment and value-added output. The more greenfield investments, the better is the economic situation for the host country. So, this form of FDI is very well welcomed for the host governments.

Cross-border mergers and acquisitions (M&As) present those investments which are used for investing into existing property for taking over foreign company and increase of efficiency or presents fusion of partners. This type of FDI has two more benefits then greenfield investments: it is cheaper and investor has a better and faster access to the market.

Joint ventures are a type of FDI where separate companies combine complementary assets. These assets can be tangible, such as the equipment, or intangible, such as the technological know-how, production or marketing skills, brand names or market-specific information and so on. In FDI of this type, according to Moosa (2002), one side is responsible for providing technical expertise and its ability to raise finance, while the other side provides valuable input knowing the local bureaucracy, laws and regulations.

1.1.6 The Importance of FDI in Transition Economy Context

In the literature, there are two main streams of thought about the issue what effects FDI has on economic development. One is the finance-for-development theory and the other is the dependency theory. The first one is a modern theory and places an importance on an economy's ability to attract FDI. This theory refers on the FDI benefits and puts the great importance of these benefits for the host countries, such as improvements in technology, efficiency and productivity. Contrary to this theory, the dependency theory is skeptical about FDI benefits for the host countries. Haddad and Harrison (1993) are the followers of this stream of thoughts and they believe that FDI could affect domestic companies negatively in the short run by taking away market share, which in turn, leads to reduced capacity utilization for companies. But they also believe that it does not mean that benefits of FDI will not occur in the long run. Also, Kokko (1994) in his study shows that FDI does not always lead to positive spillovers for local companies. According to him, it leads only when the technology gap between the foreign company and the domestic one is not too large, and when a minimum threshold of human capital exists in the host country.

FDI is particularly important for economic development in transition countries. As it has been mentioned before, these countries have undergone through drastic period of changes such as changes from command to free markets, from communism to democracy, from closed to open economies and so on. Given that this process presented a great challenge for
these countries, FDI has proved to be a significant factor in their process of transition. According to Pournarakis and Varsakelis (2004), FDI inflows in case of transition countries are viewed as a measure of the extent to which a country or a region is integrated into the world economy. In this sense, Bevan and Estrin (2004) pointed out that crucial to the transition process is forming the basis for more effective corporate governance and promoting enterprise restructuring which can be accelerated by FDI.

Given the emergence of the market economy, the governments of these countries had been forced to introduce new rules and legislation, what implies that there exist the new conditions and opportunities for foreign investors. So, governments try to encourage foreign investors investing because of two reasons:

- First, the privatization process in transition countries was faced with a lot of difficulties generated by state sector collapse and lack of the private sector as well as its slow growth. One of the reasons for this is that these countries were lacking a model of corporate governance. According to this model, managers, owners and outside financial institutions operate and monitor over the companies. This way of doing businesses is contrary with those in communism where governments were dictating how companies would operate. Given that governments of these countries did not have enough knowledge and experiences in a new way of doing and thinking, the old model was applied during the privatization process. In this case, foreign investors and foreign companies can show how companies ought to operate in a new way.
- And second reason is that governments of the host countries believe that FDI can be helpful in the context of integration into the European Union (EU).

Furthermore, FDI inflows are very important element for transition countries because it brings them more benefits. First of all, FDI inflows are very important determinant for restructuring transition countries’ economies and they are often seen as a way out of the economic crises for these countries. Then, FDI may have an influence to stimulate domestic competition, improve quality standards, etc. It can also bring new capital and technology, know-how management and create new opportunities for employment of domestic people as well as access to new markets.

On the other hand, from the standpoint of the home countries, transition countries are attractive for FDI because these countries have some economic advantages. The main advantages are highly educated workforce, natural resources, large markets and little competition, but at the same time here is very important the role of local governments in terms of developing policies for encouraging inward FDI.
1.2 Corruption

On corruption had been discussed since the period of ancient Greek philosophers and until recently this term has been understood only as bribery. But over time, the other types of corruption and their consequences on country’s development have been recognized. By referring to this, Bardham (1997) notes that corruption is a broad concept and it has always existed, but in different forms and to different extents followed by a variety of consequences. There are also beliefs that corruption probably will never completely disappear in the future, although governments will try to find out effective ways for reducing and combating it. Also, it has been noticed that corruption changes and evolves over time, so it becomes very difficult and expensive for detecting. This pessimistic assumption of the existence of corruption along with the knowledge that cost of doing nothing regarding the level of corruption is very high – is one of the very few issues over which most of the scholars has the same opinion.

1.2.1 The Definition and Classification of Corruption

Corruption is a complex phenomenon with different causes and effects. Each of these disciplines that devote their studies to the corruption has its own basis and starting point of view on this issue. So, we can say that this issue is multi- and inter-disciplinary. For example, sociologists have their own point of view on definition of corruption and they classify corruption into white, black and grey depending on the degree of consistency what corruption is. White corruption includes some type of careless behavior and can be tolerated by mass opinion. Black corruption is illegal and criminal. This kind of corruption cannot be tolerated and must be clearly condemned. Between them is a grey corruption which boundaries are often unclear. According to this type of corruption some type of careless behavior can be tolerated by elites and mass opinion, while others not. Sociologists also hold that corruption has its roots in social and culture dimension of the society and that prevents public, social and community development. Legal scientists have their focus on the type of legal system and its effectiveness and enforcement. Political scientists believe that the non-transparent institutions, low wages in the public sector and the lack of independent and well organized market mechanism are the basis for corruption’s development. Economists focus on weak, non-transparent economic institutions as the roots of the issue and mostly define corruption in a short as „the abuse of public power for personal gain‟, but they also give the other definitions. So, Friedman, Johnson, Kaufmann and Zoido-Lobaton (2000, p. 462) characterize corruption as “illegal activities that represent costs imposed on business by bureaucrats from which the government obtains no revenue and which do not generate any positive benefits for society”.
The three main lines definitions of corruption have been identified by Heidenheimer, Johnston and LeVine (1990). The largest, most common group of definitions relates to the duties of the public offices. This group of definitions considers corruption as a general term covering misuse of public offices for earning personal gain, which need not be only monetary. In this meaning, they define corruption as a behavior which includes bribery (giving or receiving any kind of reward to or by the person in a position of trust), nepotism (appointing relatives, friends or followers to positions for which some others might be better qualified and providing them a patronage due to the family or close relationship) and misappropriation (dishonest and illegal use of public funds or property for private uses).

The second group of definitions is market-centered definitions which are related to demand, supply and exchange concepts derived from economic theory. Under this meaning of corruption's definitions, authors believe that a corrupt public officer regards his public office as a business from which he is able to extract extra-legal income. This group of definitions describes corruption in the same way as the first one, with the only difference in emphasizing that corruption can exists in any field where principal-agent relationship exists, including private business.

The third group of definitions is public-interested-centered definitions. This group of definitions points that corruption exists whenever a responsible officeholder takes illicit actions and thereby decreases public welfare and its interests.

The global coalition against the corruption, TI (2011, p. 2) defines corruption as “the abuse of entrusted power for private gain. It hurts everyone whose life, livelihood or happiness depends on the integrity of people in a position of authority.”

Once broadly defined as a behavior in any institutions that violates formally defined obligations in search of private gain, corruption can be divided further into many categories. According to where it occurs, corruption can appear within the public or within the private sector. Furthermore, corruption in the public sector can be divided into political (or grand) and bureaucratic (or administrative) corruption.

Political (or grand) corruption includes the activities and the actions of political leaders or senior public officials. It involves activities such as vote-rigging, registration of unqualified, dead, or non-existent voters, purchase and sale of votes, and the falsification of election results (Goodman, 1990). This form of corruption is usually manifested in the form of government’s manipulation for achieving results that will provide economic benefit for the political leaders, their parties, followers and family members. It can also include manipulation of passing laws that help political leaders, their followers, associates and
families to keep their power and become rich. Detecting and measuring this form of corruption is not an easy task. This form may create very serious repercussions for a society especially in situations when politicians create policy decisions which serve for their own interest.

Bureaucratic (or administrative) corruption is kind of corruption which is prevalent in many countries and happens when bureaucrats try to enrich themselves through illegal means and actions. The most common form of this corruption appears when bureaucrats seek bribes from the public for services they perform or for speeding up a bureaucratic procedure. This kind of corruption involves three parts. Public officers make a benefit to a third part, which returns the favor by paying them off. Thus, public officers violate their positions, while the second part in this relationship, the public, who is supposed to benefit from the action, is excluded. This is a very common kind of corruption due to its frequency and the impact on individuals. Some authors point out that this is a kind of „bureaucratic cholesterol“ which suppresses economic activities and countries’ development.

**Figure 1. Taxonomy of Corruption**

![Taxonomy of Corruption Diagram](source)

Another division of corruption that can be found in the literature is: pervasiveness and arbitrariness of corruption. “Pervasiveness of corruption reflects the degree to which corruption is dispersed broadly throughout the public sector in a country, while arbitrariness of corruption reflects the degree of uncertainty and capriciousness associated with public sector corruption” (Grande & Teixeira, 2011, p. 8).
Corruption also does not leave the private sector untouched. This kind of corruption appears in different forms. In its least harmful form, private sector corruption may decrease transaction costs through use of „facilitation payments“ in order to build a better relationship between private partners. These payments are made with the intention to complete some action or process more smoothly for the payer, who is in fact legally entitled even without making such a payment. In this context, these payments are made to improve commerce and as a benefit has a lower transaction costs.

On the other hand, the most harmful forms of private sector corruption include actions where private agent (or agents) makes gains without providing any benefit. This form includes the actions such as controlling shareholders’ values in the firms, diverts management and concealing of profits or hiding debt through using sophisticated accounting methods, which are legal in the most cases. All of these actions have a negative influence on corporate profits and shareholder’s value. If this way of doing of business becomes commonly used, the investors may lose confidence in equity markets what may deter them to invest there and as a consequence the overall economy may be slowed. But in general, the literature is less concerned with the private sector corruption. The more attention is devoted to the public sector corruption which presents a greater concern to both economists and policymakers.

Another classification could also be introduced, such as the coercive and collusive corruptions, which often happen between public and private sector. Specifically, coercive corruption occurs when public servant coerces private agent to pay an additional fee, just to give him an opportunity to access to the public service. Collusive corruption presents the situation when public officer and private agent collude to share rents arising from the unauthorized transactions. Which of these two kinds of corruption public officer will engage depends on the circumstances under which they operate.

According to the corruption's size (petty versus grand), Husted (1994) points out three categories: price corruption, market corruption and parochial corruption. Price corruption mainly involves a large number of small transactions, which can be defined as petty theft. Market corruption is more widespread and harmful, but it is still transparent, institutionalized and controlled by bribery competition. In parochial corruption, illegal practices become less transparent and a rather restricted competitive market is generated involving large transactions and huge benefits. This kind of corruption is very harmful for the business and the society.

Corruption can also take many forms, such as bribery, fraud, extortion and favoritism. The primary and the most frequent form of a corrupt act is bribery which is usually defined as the payment given or taken in a corrupt relationship. Fraud involves some kind of cheating
in order to obtain some advantages or benefits. Extortion involves corrupt transactions of money, property, secret and useful information or other resources of interest, which are usually carried out with some kind of the force by the persons having the power to do so. This kind of corruption is also called blackmail. Favoritism is a form of the corruption that involves friends or family relationships without taking into account their objective qualifications at the expense of public interests. Given that corruption indices which are used in analysis of corruption often do not differentiate these forms, it is very difficult and freely may be said impossible to explore differences among the effects of these different forms of corruption on the economy.

1.2.2 The Characteristics of Corruption

Corruption as a phenomenon in the society has its own specific characteristics. Luo (2005) in his work provides the specific corruption's characteristics and the following ones provide his concept's description:

- **Corruption is a matter of a perception.** Corruption is a dynamic concept which is subject to changes in social attitudes and political ideologies. Namely, perception of corruption changes over time, so what is considered as corruption today, maybe it was a normal way of doing businesses in the past or it will be in the future.

- **Corruption is a matter of the individual, culture, political environment or other context.** From the individual point of view, the perception of corruption is different to different people. In the context of culture, what is viewed as corruption differs among cultures and different parts of the world. In some part of the world, it is unimaginable to bargain with public officials, while in the other cultures this may be an ordinary practice. Cultural backgrounds have a large role here especially in actions that involve exchanges of gifts or favors. It is also important to have in mind what impact the changing of political environment may have on the corruption. Therefore, it is important to examine the attitude and performance of the political system toward corruption (relationship with the press, party in power and reaction of government).

- **Corruption is norm-deviated.** Although corruption can be understood in a different context, its essential aspect is illegal.

- **Corruption is related with power.** The corruptor must be in a position of power created by market imperfections or a certain institutional position.

- **Corruption is covert.** Having in mind the nature of the operation, the most corruption is clandestine and there are no formal written documents in operation. The whole communication is oral, so there is no evidence that can be used to prosecute involved persons.
Corruption is intentional. Namely, economists perceive corruption as an instrument of achieving personal gain and maximizing profits. According to this, each careless and illegal behavior may not be corruption if there is no personal gain.

Jain (2001) outlines his remarks relating to the characteristics of corruption and he believes that corruption's existence requires three elements to co-exist: discretionary power which relates to authority to design and administer regulations, economic rents associate with this power and a weak legal system which refers to low probability of detection and/or penalty for the wrongdoing. The combination of these three elements is enough for existing of corruption.

1.2.3 The Sources of Corruption

Nowadays, it is much more known about corruption than earlier, but at the same time it is not much clear what causes corruption. Identifying the sources of corruption can be very helpful in understanding this issue and keeping corruption under control. Tanzi (1998) points out that the most frequent sources of corruption are as follows:

- **Government:**
  - Government corruption has been defined as the abuse of public power by government officials for personal gain. According to this definition, corruption never appears alone by itself and it’s always in a strong correlation with the quality of government. In such circumstances, government's corruption is as an irregular tax on business which consequently increases costs and distorts incentives for investing. In this way is created an additional uncertainty of costs of operation in the country. This can be explained due to the fact that government has a power of influencing an economic activity in order to generate rents or transfer them to one group and/or to the detriment of some other groups.
  - Regulations and authorizations are also one of the government's instruments for performing their economic aims. Important aspects of these kinds of instruments are discretion and complexity. Discretion is the feature that contributes the most to corruption. Namely, where public officers have the less discretion, there is a less possibility that corruption appears. Also, if the regulations’ complexities are high, a higher degree of discretion is present. Another aspect of regulation is the frequency of contacts between controllers and those who have been controlled. Frequent contacts may create familiarity and this tends to promote corrupt behavior and as a consequence corruption rises.

- **Tax systems** are also the ones of the various sources contributing to a good climate for corruption. Problems with tax systems which may create fertile ground for corruption are as follows:
- Tax systems are very complex,
- Tax administrators may have excessive discretion,
- Frequent contacts between tax administrators and those who pay taxes,
- Tax administrations accept or even demand bribes.

- **Public spending:**
  - Corruption in public spending can range from the trivial to grand forms of corruption. The trivial form includes public employees who receive a salary but they do a little, nepotism, abuse of a sick leave, spending time at work on private activities, ghost workers (persons who receive a salary without showing up for work), and so on. Greater forms of corruption in this area are procurement operations and public investments. In the first case the private suppliers can raise the prices of goods because they have to pay bribes to public officers. The second case presents a very fertile ground for corruption because each public investment has a high costs and must be approved by civil servant. This opens opportunities to make corruption activities.
  - Also, the budget cycle which includes the following stages: budget formulation, budget execution, budget accounting and reporting, audits and oversight can be contaminated with corruption. In order to prevent corruption, all of these stages must create „public financial management system (hereinafter: PFMS)“. Namely, it has been noticed that a well-developed PFMS increases likelihood of corruption's detection and takes the corrective actions for decreasing of corruption.

- **Trade restriction.** If import of some goods requires specific import licenses, the importers will be willing to offer bribes to officials who work on their issue. In regard of this, DeSoto (1989) believes that probably many of these permits exist that would allow officials to complicate the provision of the required permits in order to collect bribes. Or another case, in order to protect domestic industry from foreign competition, local manufacturers may lobby for the tariff's establishment and their maintenance in the future, which effect creating a semi-monopoly in the local industry. Even some of them will try to corrupt influential politicians in order to maintain this situation in their favor. So we can conclude, where the economy is more open and government restrictions are lower, there is a less space for corruption.

- **Price controls.** Sometimes, due to some social or political reasons, the price of some good can be lowered below its market value. This could also create incentives for the officials who take bribes. The areas most affected with these actions are foreign exchange, credit, provision of electricity, provision of water, public housing, education system, health care systems and access to public land.

- **Low wages in the civil service** can also be a source of corruption. Namely, the public officials can use their positions for collecting payoffs as a way of maintaining their existence. This is especially usual, when is difficult to prove it and there are no the high consequences for their positions and jobs.
1.2.4 The Indicators of Corruption

A long time corruption was regarded as a phenomenon that can be observed, but difficult to measure due to the fact that corruption is hidden by its nature and therefore it is difficult to quantify. This myth is overridden in the early 1980s when some corruption measures started being developed. However, so far are not developed accurate measures which could quantify corruption with precision.

In general, measures of corruption that have been used in previous empirical studies can be classified into three categories: internal, external and hybrid (Asiedu & Freeman, 2009). Internal measures include surveys of the companies' perceptions of corruption activities within the country. An example of internal measures is the Global Competitiveness Report (hereinafter: GCR) index by the World Economic Forum which is based on surveys of companies per country. The average answer for each country is used as the value of corruption index for that country.

External measures are based on surveys of the risk analysts. An example of external measure is the International Country Risk Group (hereinafter: ICRG) index by the Political Risk Services Group (hereinafter: PRS). This index is based on surveys conducted by the individual “experts” in what they provide a current, a one-year and a five-year assessment. Predicting the future conditions are expressed as the "best" and the "worst" case scenarios and in that way provides managers to make judgments about risk management or insurance needs. This index includes 22 variables which are divided in three subcategories of risks: political, financial and economic. Corruption is one of the 12 variables which belong to the subcategory of political risks.

Hybrid measures combine corruption data from different sources into a composite index (Asiedu & Freeman, 2009). The most known and used index of this category is CPI compiled by TI. CPI ranks countries based on how is perceived that their public sector is corrupted. This index has minimal measurement errors in comparison to the other indices because it is based on actual perception and not on expected levels of corruption. In this index, corruption includes kickbacks, bribery and embezzlement of public funds. CPI ranks countries according to the scale 0-10 where „0“ relates for „the most corrupt country“ and „10“ for „country without corruption“. This ranking was used until 2011 and from 2012 ranking scale was changed from 0 (highly corrupt) to 100 (very clean).

Furthermore, the control of corruption by the World Bank Governance Matters is included in this category of measures. Namely, the World Bank Governance Matters reports aggregate governance indicators for 215 economies over the period of 1996–2012, for six
dimensions of governance, such as: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption. These indicators combine the views and opinions of a large number of companies, citizens and expert survey respondents in industrial and developing countries. Control of corruption includes both petty and grand forms of corruption. This index ranges form -2.5 (weak) to 2.5 (strong) governance performance.

1.2.5 The Effects of Corruption

In regard of the effects of corruption, literature mentions many aspects such as political, economic and social effects. From the standpoint of politics, corruption deters the development of democracy and the rule of law. From this point of view, corruption causes many negative consequences such as low level of democratic culture, political instability, loss of public institutions' legitimacy, political non-competitiveness, lack of transparency in making political decisions, problems of accountability to the public, etc.

Economic effects of corruption can be minor and major, but no matter what the scale of effects can be, they have serious effects and hurt both the individual and the society. Corruption can slow economic development and reduce national wealth. Under the influence of corruption the costs of goods and services increases, public resources can be used for uneconomical projects at the expense of projects that are indispensable to country, such as schools, hospitals, roads, supply of drinking water, poor work ethic and professionalism, unhealthy competition in the sense of deterring competition and so forth. Simply said in one word, corruption threatens the economy and impoverishes the entire community.

Rose-Ackerman (1997) points out that corruption can significantly affect the efficiency, fairness and legitimacy of state activities in a negative manner. Her main concerns about corruption’s consequences are as follows:

- inefficient government contracting and privatization,
- delays and red tape,
- inefficient use of corrupt payments,
- inequities,
- damaged political legitimacy,
- slowed growth.

According to her theory, corruption can produce an efficiency-decreasing effect. Actually, when corruption is present in society then government contracts, privatized firms and
concessions may not be allocated in the most efficient way. Reason for this is that corruption favors those ones with no scruples and those with close relationship with government officials and politicians. One of the corruption’s characteristics mentioned that there is no need for honesty and efficiency, there is only need to pay bribes as an entry barrier. Specifically, those who accept bribes slow down or stop the flow of individual decisions and actions that are important for economic development and in many ways they operate inefficiently (raise the costs of transactions, distort competitive markets, etc). On the other hand, those who pay bribes may ask to obtain inefficient subsidies and monopoly benefits in the future, not only to win the contract or in the privatization process. These phenomena lead to decrease in efficiency as well.

Tanzi (1998, p. 7) in his study about corruption points out that “the growth of international trade has created many situations in which the payment of bribes (often called “commissions”) may be highly beneficial to the companies, which use this kind of payment, by giving them access to profitable contracts over competitors. These large bribes can be paid to get foreign contracts, to get privileged access to markets or to particular benefits such as tax incentives”. What is interesting here is that contagion effect may appear. This can be explained in the following way: when the officials from one country begin to pay bribes, they put pressure on those from other countries with whom they operate in order to do the same.

The interesting phenomenon of corruption is one that appears in the privatization process. This phenomenon appears in the whole world, but it is especially significant in the transition countries. Specifically, these countries passed through very turbulent period of changing their political and economic system in the last 25 year. One of the many changes is the privatization process which in general presents a very fertile ground for corruption. If corruption is present in the privatization process, then the following may be happen:

- The corrupt bidder creates a good relationship with company’s officials and he may persuade them to bankrupt or badly manage so the company’s value is lowered in the sale. In this case, the worst solution of this corrupt privatization for business as well as for economic development is when the winning bidder must operate the company’s in the future. But, if the winner sells out a company to a more efficient bidder, then the state can stay without some gains of privatization, but the privatized company may operate efficiently in the future.

- Privatization process is especially significant for political corruption because political parties use public and state companies for financing their activities. Also, they use these companies for providing jobs to their members, followers or anybody close and trusted. Actually, there is a relationship between some highly positioned individuals in political parties that are entitled to make decisions and managers within companies of
interest or other insiders who have some information which are not available to the public. So these two parties can together use privatization process to benefit themselves. In this way some individuals have become a very rich through this process.

Regarding delays and red tape, officials who wish induce payoffs can introduce delays and unnecessary requirements. Furthermore, the top officials may use unauthorized funds for investing in businesses at home or abroad, or for investing into illegal businesses.

All these consequences of corruption raise costs and can result in financial losses for the state. On the other hand, a state must make up these losses in some way, and it usually can be compensated by raising taxes or cutting of spending which is in turn at the expense of the public.

Corruption also has many others consequences on the country’s economic development. These negative effects are the most indicative for small and new companies, which are the ones that provide and create employment for economy of the country. These companies often lack the strong political connections and power which large companies often have. Therefore, small companies are not protected from bureaucratic corruption and also it does not allow them to extract rents through subsidized credits, trade protection, tax incentives and other measures. In this case, corruption acts as a tax that is regressive in relation to the size of the company. Anyway, the economic damage can be very high.

The next way in which corruption may have a negative impact on economic development is through quantity and quality of investment. Economic analysts agree that if all other relevant things being equal or held constant \((\text{ceteris paribus})\), higher investment leads to higher economic development over a long time period. Mauro (1995) in his study has shown that corruption leads to a reduction in the investment rate and consequently the fall in investment leads to a fall in the growth’s rate of the country. The other standpoint is that corruption has an influence to increase public investment, but at the other side decreases their efficiency. In this situation, officials who get bribes often choose less efficient companies to carry out the investment what will be reflected in the maintenance of the country’s infrastructure in good working conditions. In short, bad investments will be carried out while country’s infrastructure will be reduced in the same time.

There are also the other ways how corruption slows and deters country's economic development. Some of those ways are as follows:
• Harmful effect on innovative activities. Corrupt public officials can create such a business environment where making investments in innovations become risky and less profitable.

• Moreover, corruption can affect the level of public and government expenditure. Officials tend to allocate their spending to sectors in which they can easily practice corrupt actions.

• Corrupt politicians and bureaucrats may introduce more and more regulations with the goal of taking bribes from private sector, in order to avoid these regulations.

• Stimulation of unequal opportunities, leads to higher income inequality and larger gaps between income levels.

• Negative effects of corruption are also reflected in public expenditure on education and health system, tax system, human capital, in the safety of property rights, in the income’s distribution and in the other variables.

It is also worthwhile to mention the channels through which corruption slows down economic development. Those channels are as follows:

• If corruption is present in some society, a businessman understands bribing as a species of tax. But, since the bribery is kept in secret, it can create uncertainty that bribe-taker maybe will not or will not be able to fulfill his part of the job. This may change businessman’s opinion and intent to invest and cause in that case a decrease of investment and economic development in general.

• If bribery is proved to be a more profitable business than productive work, it may lure and engage more talented and educated people in this kind of corruption. In this way, talent will be misallocated and that may have negative consequences for the country’s economic development rate. Namely, there is empirical evidence that in societies where corruption is present, there will be fewer engineers and more lawyers because their skills are more useful for individuals who operate in these societies.

• Corruption can also occur in the form of tax evasion or introducing inappropriate tax exemptions. This may bring losses of tax revenue.

• Corruption may lead to lower quality of infrastructure and public services through inadequate allocation of public procurement contracts.

Taking all the above mentioned into account, it can be concluded that corruption seems to have a negative influence on economic development and represents a public bad that has its consequences for the whole economy. Actually, if corruption is predominant, those countries have difficulties to sustain development and also it raises the question of the legitimacy of the entire economic system. But in practice, some examples can appear where it seems that corruption has a positive influence on country’s growth. In regard of
this, Rose-Ackerman (1997, p. 45) points out that “when corrupt countries grow, this implies that corruption has not gone so far as to undermine economic fundamentals”.

From the social aspects, corruption creates such atmosphere where people do not work together for the common good. That creates frustration and apathy among the public, social inequalities, increased poverty, lack of basic needs such as food, medicines, etc. In general, corruption leads to uncertainty in some societies.

1.2.6 Corruption in Transition Countries

In the last twenty years corruption issues have attracted the enormous attention, both academically and politically. The public community also recognizes that corruption may create obstructions for economic development, so this issue presents the important topic in the last period. Therefore, a lot of efforts have been invested to understand what impact corruption has on economic development. There are many reasons for this increase of attention, such as the end of the cold war, many countries become more open, the expanding of democratic process, increasing globalization, a growing role of nongovernmental organizations, concerns what impact corruption could have on market economies, fall of Berlin wall and so on. But the most frequently cited reasons in recent years are the growth of international trade and business and transition process in post-communist countries.

For the transition process in post-communist countries, it may be said that this process presents one among three the most significant processes which happened in the 20th century. Actually, in the literature this process, according to its significance, has been compared with the other two significant processes that the 20th century is remarkable for, such as the overcoming of the Great Depression of the 1930s and the reconstruction of Europe after the end of Second World War. Countries which passed through this process had a drastic reform of their political and economic system and still facing difficulties with social issues for the last twenty years. Among other difficulties, corruption has been recognized as one of the most serious problems because these countries are perceived as a more corrupt then developing and developed countries. Given the importance of the appearance of corruption in transition countries, Aseidu and Freeman (2009, p. 203) in their study found that corruption has a negative effect on firm investments in transition countries and they also found that “corruption is the most important determinant for investment growth in transition countries, more important than firm size, firm ownership, trade orientation, industry, GDP growth, inflation and openness to trade”.

Regarding transition process and the impact of corruption on this process, it has been noticed that corruption could be a main issue in transition process because of wide-ranging
impacts on legitimacy and credibility of governments during this period of building new political and economic systems and close association with the privatization process. Among many economic changes in transition countries, privatization process is maybe the most associated with corruption. It is not questionable that public companies may be a major source of corruption, especially of political corruption. But in general, during this period corruption appears as a transition-specific threat and represents danger for development of transition countries (Goldsmith, 1999).

If talking about corruption in transition countries, it should be noted that corruption in these countries is different than corruption in developing and developed countries. Namely, transition process by itself is specific and unique, because economies of these countries are no longer guided from one command center, but also are not yet fully market oriented. This is the reason why corruption in these countries has different causes and its various manifestations. In line with this, Papava (2012) in his study about the economic nature of corruption in transition countries, points out that is important to mention that transition process consists of two complementary sub-processes: the achievement of macroeconomic stability and the formation of the institutions appropriate to a market economy. Both of these two processes may cause corruption in these countries. The macroeconomic instability that manifests itself primarily in the form of high inflation and devaluation of the national currency creates a very fertile ground for corruption. Inflation’s control and achieving exchanges rate’s stability is possible in a short period of time, but it is more difficult to achieve an order in fiscal system. It may last more than one year. Even longer period of time is required for the formation of the institutions appropriate to a market economy. At the same time, the lack and weaknesses of these institutions create a fertile ground for corruption.

Furthermore, Iwasaki and Suzuki (2010, p. 6) in their study about determinants of corruption in transition countries found that “the progress of structural reform, comprising marketization, rule of law, and democratization have a crucial impact on the extent of corruption control in former socialist countries”. At the end of the list of their empirical evidence, they also found that “the stronger the institutional inertia (or historical path-dependency) of the communist regime is, the more serious the corruption problems are in a country”. From these empirical results, they conclude that “fundamental structural reforms are very effective in preventing corruption in transition countries”.

1.3 Conceptual Framework of Investigation

Before the empirical analysis about the impact of corruption on FDI in transition countries, in this subchapter will be presented theoretical aspects which are related with this
investigation and can explain the MNCs’ motives for investing in transition countries. Actually, the main question which appears in theory is why companies prefer to produce in foreign countries (where domestic companies have much more knowledge of their own market, consumer preferences, business practices, etc.) instead of using the export strategies and/or licensing agreements with domestic companies. There are many theories which endeavor to give an answer on this question, such as the new theories of international trade, international business, international production, theories of multinational corporations, theories of industrial organization etc. All of these theories are taking into account the reality of the contemporary world and looking for the theoretical answers to the challenges of contemporary developments and changes. Therefore, there are a number of different FDI theories and models which vary and depend on the observation of fundamental or just individual aspects of MNC activity, their starting assumptions and limitations, concepts and/or used categories.

Casson (1982) pointed out that FDI theory is based on three integrating theories: international capital market theory, theory of the firm and international trade theory. However, there is a general belief that a single FDI theory does not exist. FDI theory consists of FDI sub-theories which are not mutually exclusive and each of them requires elements of others. Some of these theories start from the micro and some of them from the macro point of view. The micro dimension includes intrinsic factors of company itself, such as ownership advantages, cost reduction and economies of scale, whereas the macro dimension concerns market specific factors such as barriers to entry, availability of resources, political stability, country risk and market size, among others (Faeth, 2009).

In general, the MNC’s decision where to invest always depends on preliminary analysis of advantages and disadvantages of a specific country. In accordance with this, there are several streams of studies which provide a different theoretical framework to explain relations between the FDI theory and the approaches applied to transition countries. Some of the studies apply classical models of FDI while some of them apply new approaches and specific proxies of FDI determinants. However, some studies argue that FDI flow does not need an explanation by any traditional factor such as location and ownership advantage. According to them, it is a natural process lead by the rational behavior of MNCs in an unpredictable environment. Although these studies use different approaches, all of them describe different aspects of the same phenomenon – a high level of uncertainty in transition countries.

As a conceptual framework of this investigation, the institutional theory and Dunning’s ownership, location and internalization advantages theory (OLI paradigm) will be explained. Both of these theories are related to this investigation.
1.3.1 Corruption in the Framework of the Institutional theory

Institutional theory belongs to the stream of macroeconomic theories. Although this theory is not a direct theoretical framework for FDI, institutions and their comparative effectiveness and impact on economic behavior, represents an essential element for a better understanding of factors that may affect the foreign investors to invest abroad. This institutional approach includes variables such as corruption, political instability, institutional quality, financial and fiscal incentives.

Institutional economics has been developed between the 19th and 20th centuries. Furthermore, in response to the prevailing neoclassical and liberal economic thought, the New institutional economics (NIE) has been developed in the mid of seventies of the 20th century. North and Williamson are the main representatives of NIE. NIE theorists believe that the neoclassical theory is inappropriate tool to analyze and determine the policies that would encourage development, because the neoclassical theory usually assumes that the transactions do not cost anything, that information is freely available and that the states are well-intentioned (Budak & Sumpor, 2009). NIE is important for the holders of economic policy, and thus for attracting FDI, because institutions of some countries may affect the trade costs and also the success of the economy in the form of law, political system, culture and educational system (Coase, 1998). Institutions reduce risks by lowering information’s costs, encouraging the creation and mobility of capital and providing assessment and risk-sharing as well as facilitating cooperation (Budak & Sumpor, 2009). North (1991) points out that the institutions have an essential role in setting the “rules of game” by which individuals interact in a market economy, especially by ensuring the competitiveness of markets. Namely, in this sense NIE theorists believe that good institutional framework which provides strong political, social and legal institutions decrease transactions costs, protect property rights and reduce the uncertainty of doing business in foreign country.

The most important issues which related to the importance of institutions are organizations and regulations of transactions. Institutional theory deals with these issues and Douglas North, the author who made the greatest contribution to this theory, is the most cited one in the literature. North (1991) defines institutions as humanly devised constraints that structure political, economic and social interactions. He observes institutions in the broad and narrow sense. According to his theory, institutions in a broad sense represent formal and informal rules of the game in a society, which determines the relationship between people. In a narrow sense, institutions represent organizational units, procedures and regulatory framework. North (1989, p. 238) also believes that institutions “provide the basic structures by which human beings create order and attempt to reduce uncertainty in exchange.” He identifies two types of institutions – formal (rules, laws, regulations, property rights, social infrastructure) which are normally put in place and enforced by
political entities, e.g. governments or supranational agencies; and informal - forms and codes of conduct that are established as a result of social relations (e.g. social norms of behavior, self-imposed codes of conduct, customs and traditions) which may be either imposed on a lower level of governance by a higher level of governance, or spontaneously initiated. According to him, an institutional system is complete only when both formal and informal institutions are taken into account. On the other hand, where the gap between formal laws and informal practices exists the incidence of corruption may appear, which all reflecting the efficiency of the institutions (Williamson, 1999).

Given that institutions present a result of human interaction, they are subject of changes. However, so far-reaching changes occur rarely, mostly through revolution, but even then, great changes take place only in formal institutions, because the informal constraints are usually relatively stable and change very difficult.

In regard what happened in transition countries, it can also be explained with institutional theory, as one point of view among others. Actually, economic reforms in transition countries, along with the political changes, should have been ensuring faster economic growth and development in a relatively short period of time. However, this process lasted longer than it was expected. The scientists found that inadequate institutional frameworks are one among the other reasons for this. As a matter of fact, institutions of the former systems were abolished with political and economic reforms and were replaced with flawed and inadequate institutions (Budak & Sumpor, 2009). Furthermore, the successful implementation of economic policies in the market economies implies the following:

- the existence of political stability and institutional framework which regulates property rights,
- the entry and exit of companies to the market and other conditions for the market’s smooth functioning.

What kind of relationship exists between institutions, FDI and corruption is described in the following: “Institutional quality is a likely determinant of FDI, particularly for less-developed countries, for a variety of reasons. First, good governance is associated with higher economic growth, which should attract more FDI inflows. Second, poor institutions that enable corruption tend to add to investment costs and reduce profits. Third, the high sunk cost of FDI makes investors highly sensitive to uncertainty, including the political uncertainty that arises from poor institutions (Walsh & Yu, 2010, p. 6).“
1.3.2 Corruption in the Context of Ownership, Location and Internalization Advantages Theory (OLI paradigm)

One of the most accepted theories of FDI is the OLI paradigm evolved by John Dunning who tried to integrate several different theoretical approaches and models into one theory, such as theory of companies, theory of organization, theory of costs, trade theory and theory of location. Given that OLI paradigm integrates these different theories, this paradigm also can be found in the literature under the name an eclectic paradigm. This paradigm is simple, but it also presents a profound synthesis which points out that geographical and industrial composition of foreign production undertaken by MNCs depends on the interaction of three sets of interrelated variables, which includes the following three sub paradigm:

- Ownership advantage – O (or FSA – Firm Specific Advantages),
- Location advantage – L (or CSA – Country Specific Advantages),
- Internalization advantage – I.

The contribution of the OLI paradigm is double. First, it provides a framework for discussion of the motives for FDI and second depends on the MNC’s choice between licensing, exports and FDI in order to serve a foreign market.

1.3.2.1 Ownership advantage – O (or FSA – Firm Specific Advantages)

At the starting point, it can be assumed that companies can operate in foreign countries only with higher production costs and risks than the costs compared with the local companies. The reason for this assumption is that these companies operate with elements of foreign. These additional costs could be specified as:

- poor understanding and knowledge about local market conditions,
- many differences among the countries. The most evident differences exist in legal, institutional, cultural and language context,
- increased costs of communication and operating at a distance.

For instance, if a foreign company does not have some specific advantage that reduces or nullifies these additional costs, it will not operate successfully in another country. These advantages also may include the property that can be transferred within a company and between different countries. For this reason, foreign company must have some advantages in order to earn higher revenues for the same costs, or have lower costs for the same
revenues compared with the local company. Also, foreign companies have to deal with costs of operating at a distance. So, if the company wants to be able to stay in business, then has to behave according to the following equation:

\[
\text{Profit} = \text{Total revenue} - \text{Total costs} - \text{Costs of operating at a distance}
\]  

These advantages are called ownership or core competencies or firm specific advantages. Three basic types of ownership advantages that MNC needs to possess in order to be able to offset the disadvantages are:

- technology and knowledge which includes all forms of innovation activities,
- economies of large size – economies of learning, economies of scale and scope, easier access to financial capital and diversification of assets and risks in the international level,
- monopolistic advantages in the form of privileged access to inputs, outputs or markets through ownership of rarely natural resources.

Summarizing this, these ownership-specific advantages (O) present certain assets, which are unique to companies of a particular ownership. Also, these assets should not be available to other users but instead should be transferable to a foreign country and possibly used simultaneously in more than one of the locations, in order to create conditions for FDI. In that way, company has capability and willingness to supply foreign markets. These O advantages are the first determinant of the level and structure of company's FDI.

1.3.2.2 Location advantage – L (or CSA – Country Specific Advantages)

The company must mix some foreign factors with its native ownership advantages in order to earn full profit on these advantages. Therefore, the location advantages (L) of different countries are the key factor that determines which host country will become destination for MNC. A strong L advantages reduces a company’s production costs in that location. In contrast to the O advantages, these L advantages can never be transferred to another location but can be used by more than one company simultaneously. These advantages are dynamic, so they change over time and can be divided into three types:

- Economic advantages include the transport costs, size and potential of markets, the quantities and qualities of the production's factors, infrastructure, telecommunication, etc.
- Political advantages include the common and specific FDI policies that have been determined by the government of specific country, then attitude towards international production, intercompany trade, etc.
• Social, cultural advantages include language and cultural diversities, physical distance between the countries, general attitude towards foreigners, etc.

1.3.2.3 Internalization advantage – I

While O advantages give an answer „why“ companies invest abroad, L advantages explain „where“ companies will invest, then I advantages explain „how“ does the company enter on the international market. Actually, the existence or non-existence of an I advantages determines how the MNC chooses to use its O advantage among export, licensing or FDI. This „I“ sub paradigm also explains why MNCs present integrated business systems which have production in many countries and use intercompany trade for the transfer of goods and services among their affiliates. I advantages usually have been used by the MNC where the market does not exist or functions poorly. Internationalization within corporation is usually created to reduce the market imperfections and/or replace defective or non-existent foreign market with hierarchy of multinational organization.

It should also be noticed that there are certain costs related to the integration of business activities. One of the most important is management's costs which are related to the administration with complicated internal market of goods and services. Furthermore, in order to be competitive on a global level, MNC needs enormous financial resources. Also, new line of business may require a type of competence which the company does not possess and that may incur additional costs. All of this suggests that the choice of entry's method into the foreign markets is not so easy for the MNC.

These three components of the OLI paradigm present conditions that determine whether or not a company would engage in FDI. The selection criteria amongst the options of engaging in FDI, exporting and licensing within the OLI framework are presented in Table 4.

Table 4. OLI Advantages and MNC Channels for Serving a Foreign Market

<table>
<thead>
<tr>
<th>Channel for serving foreign market</th>
<th>Ownership advantage</th>
<th>Internalization advantage</th>
<th>Location advantage in foreign country</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exports</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Licensing</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>


So, as we can see FDI is attractive if all three OLI components are met. Namely, successful MNC combines the benefits of ownership, location and internalization in order to
maximize its own market share and profits. In the sense of the determination the pattern and form of FDI, Dunning (1979) claims that the combination of OLI advantages should be in the following order:

1. A company needs to have ownership advantages in order to compete successfully with local companies in foreign countries. This may refer on some specific technological or organizational knowledge of MNC, but could also refer to tax issues.
2. Internalization advantages must be apparent in the sense that the company has an interest in transferring ownership advantages across borders but still within the organization of the company itself rather than licensing for use by others. Otherwise, the MNC would rather chose buying or leasing them from other companies (Aidt, Dutta & Senna, 2008).
3. If these two points above are satisfied, locational advantages determine whether the company should export the product from the home country or undertake local production in the host country.

According to above-mentioned, we can assume that MNCs which possess certain ownership-specific advantage (O) and are able to internalize transaction costs (internalization - I), the main remaining determinant which foreign investors will take into consideration for investing abroad is location-specific advantages (L) of the host country. Although these L factors are mostly economic by nature (such as: lower wages of labor, cheaper raw materials, land etc.), political determinants, particularly institutional determinants, have become increasingly important in contemporary conditions of global economy. Actually, the institutional environment has an influence on FDI inflows in sense of attracting or deterring it. In line with this, Pournarakis and Varsakelis (2004) found out that institutional factors related to investment decisions strengthen the location advantages of the country and help to become an attractive location for such investment. Actually, FDI can be regarded as a “game” in which players are the MNC and the government of the host country, or as a contest between governments to attract FDI (Faeth, 2009). Good government with its incentives, such as financial and fiscal, lower corporate tax rates and low levels of corruption can influence positively attracting FDI. So, the good-quality institutions are required by the host country to attract FDI (and to benefit from it), it also may be the case that bad government would be repelling.

The one among the institutional determinants is level of corruption. So, Stoian and Filippaios (2008, p. 16) pointed out that “corruption affects negatively the decision to expand abroad. Higher levels of corruption do imply higher transaction costs when entering a new economy and thus reduce the probability of investment”. So, it can be concluded that level of corruption as an institutional variable presents one of the L factors
of the host country, which foreign investors will take into consideration when making a decision of investing abroad.

Dunning and Lundan (2008, p. 138) also believe „that institutions and the values and belief systems underpinning them are playing an increasingly important role in the location attractions of countries in a world.” So according to their beliefs and thoughts, they incorporated institutional assets into the eclectic paradigm what is shown in Table 5. They included corruption into institutional dysfunction, as a variable which may have an influence on location advantages within OLI paradigm. So, they present corruption as a location-specific factor on the institutional level which has an influence on company’s choice where to invest.

Table 5. Incorporating Institutional Assets into the Eclectic Paradigm

<table>
<thead>
<tr>
<th>INSTITUTIONS</th>
<th>O</th>
<th>L</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corporate governance</td>
<td>Social Capital</td>
<td>Organizational / relational</td>
</tr>
</tbody>
</table>
| FORMAL       | - External legislation/ regulations  
- Discipline of economic markets  
- Corporate goals, internal command systems and incentive structures | - Laws/regulations  
- Discipline of political markets  
- Rules-based incentives/ standards  
- Cross-border investment agreements | - Contracts  
(e.g. inter-firm)  
- Contracts  
(e.g. intra-firm) |
| INFORMAL     | - Codes/ norms/ conventions  
- Country/ corporate cultures  
- Moral ecology/ mindsets (particularly of decision takers)  
- Pressures from competitors and special interest groups | - Inherited social customs, traditions  
- Foreign organizations as institution reshapes  
- Motivating institutions (e.g. reinnovation, entrepreneurship), competitiveness  
- Attitudes toward change and uncertainty | - Covenants, codes, trust-based relations (both inter and intra firm)  
- Institution-building through networks/ clusters of firms  
- Extent/ form of institutional/ cultural distance |
| ENFORCEMENT MECHANISMS | | | |
| FORMAL       | - Sanctions/ penalties (both external & internal to firms)  
- Stakeholder action (consumers, investors, labor unions, civil society) | - Sanctions, penalties, policies  
- Quality of public organizations (e.g. reparation of property rights; rule setting, legal system)  
- Collective learning (in shaping and implementing | - Penalties for breaking contracts  
- Strikes, lock-outs, high labor turnover  
- Education/ training |
| institutions |  | table continues |
In summary, we can say that the level of corruption is typically treated as a location „L“ factor into the eclectic paradigm. On the other hand, higher transaction costs caused by corruption can also affect the internalization „I“ factor (Habib & Zurawicki, 2002; Voyer & Beamish, 2004).

### 1.3.3 Relationship between Corruption and FDI

The main question about relationship between corruption and FDI in the academic literature is whether corruption has positive or negative effects on FDI, because it does not always seem that corruption deters FDI inflows as it may be supposed at the first sight. The opinions and conclusions regarding this discussion are generally inconclusive and divided into two strands. The first one point out that corruption has positive effects and creates “grease the wheels” hypothesis, and the second one argue that corruption has negative effects on FDI inflows and creates “sand the wheels” hypothesis. Which of these two strands could dominate presents an empirical question.

---

**INSTITUTIONS**

<table>
<thead>
<tr>
<th>INFORMAL</th>
<th>Corporate governance</th>
<th>Social Capital</th>
<th>Organizational / relational</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Moral suasion&lt;br&gt;- Loss, or gain, of status/ recognition&lt;br&gt;- Retaliatory options&lt;br&gt;- Build up/ decline of relational assets (e.g. trust, reciprocity, etc)&lt;br&gt;- Blackballing</td>
<td>- Belief systems&lt;br&gt;- Tradition (e.g. pride/ shame)&lt;br&gt;- Demonstrations, active participation in policy making organizations (<em>Bottom-up influence</em>)&lt;br&gt;- Societal guidance/ moral suasion (<em>Top-down influence</em> on institutions, organizations and individuals)&lt;br&gt;- Social safety nets</td>
<td>- No repeat transactions&lt;br&gt;- Guilt, shame&lt;br&gt;- External economies arising from networks/ alliances, e.g. learning benefits&lt;br&gt;- Blackballing</td>
<td></td>
</tr>
</tbody>
</table>

| INSTITUTIONAL DISFUNCTION | - Dishonest accounting practices, fraud and other corporate malfeasance<br>- Lack of transparency<br>- Inadequate institutional framework | - Crime, corruption, flaws in justice system, breakdown in communities/ personal relations<br>- Inability to cope with technological or institutional change | - Lack of good or inter-corporate relations. Failure of alliances, codes, lack of transparency/ honesty etc. |

1.3.3.1 “Grease the wheels” hypothesis

“Grease the wheels” hypothesis considers that corruption might eventually have a positive influence on economic development because it could have the same effect as oil in a mechanical system. This way of thinking originates from Leff (1964), who believed that corruption can be an element of competition and can be efficiency enhancing. This point of view was supported by Leys (1965) who believed that bribes may act as incentives to speed up permitting of new companies. Afterwards similarly to Leys’ opinion, Shleifer and Vishny (1993) pointed out that in some cases officials have the opportunity to restrict the supply of the required good and in such situations it is very hard to acquire licenses and permits regarding the time and costs involved. This creates difficulties and as consequences has a stagnant business market. Then, paying bribes can serve as an incentive for officials and could help to obtain needed permits and to speed up procedures that would otherwise occur but with more time spent and with more difficulties. This was also confirmed by Lui (1985) who stated that investors who more than others value time or access to an input will pay more for it.

Other support for this hypothesis points out that corruption may act as a catalyst to FDI in circumstances when selecting investment projects depend on gaining a license. Then gaining a license through paying bribes is similar to a competitive auction. The most generous bribers will get that favors. Furthermore, Cuervo-Cazurra (2008) points out that paying a bribe may facilitate transactions and speed up procedures that would otherwise not happen or happen with more difficulties. Also, the level of corruption in the home countries has an influence on relationship between corruption and FDI. In line with this regard, Cuervo-Cazurra (2006, p. 11) showed that “investors from countries with high levels of corruption do not limit their FDI in other countries with high levels of corruption, because it presents a normal way of doing business for them”.

All of these ideas describe that corruption can be useful in the short run, but however they do not belong to the mainstream literature on this issue. But, this point of view is today largely withdrawn because of better information, more data and deeper analyses of the corruption’s impact and effects on economic development and FDI.

1.3.3.2 “Sand the wheels” hypothesis

Sand the wheels hypothesis argues that corruption has a negative effect on economy and has the potential to discourage FDI. According to this hypothesis, corruption raises costs, creates uncertainty, reduces credibility and on that way deters FDI. Furthermore, corruption reduces the productivity of public inputs (infrastructure) which, in turn, decreases a country's locational attractiveness (Bardhan, 1997).
In the literature may be found that corruption acts as “grabbing hand” what is the synonym with “sand the wheels” hypothesis. Actually, Jain (2001) and Aidt (2003) point out when corruption acts as a “grabbing hand”, then it can increase the costs that foreign investors have to make for investing abroad which can be unprofitable for them. There are several ways of doing this, such as bribes which increase the costs and state has been involved in this. Also, some artificial obstacles can be created in order to cause delays to those that refuse to pay. So, it can be expected that high levels of corruption as a consequence has a small volumes of FDI.

Costs which appear with corruption may be direct and indirect costs. Direct costs are related to the bribes that need to be paid or due to the illegality in the concealment of the transactions. The indirect costs are related to the time's value and the operational structure of MNC. In fact, operations can be done more quickly and efficiently when corruption is not present, so time can be interpreted as an indirect cost. Regarding operational structure of MNC, whenever MNC wants to invest in foreign country, there is always the possibility of clashes with the external legitimacy which leads to an increase of corruption. From this can be concluded that corruption brings some risks on the country's status. Foreign investors try to avoid these risks when investing abroad and as a consequence, countries with high level of risks have often low level of investment (Davis & Ruhe, 2003).

As a support to this hypothesis, Habib and Zurawicki (2002) point out that understanding the pernicious role of corruption in FDI is important since it produces bottlenecks, heightens uncertainty and raises costs. Furthermore they point out that the difference in the exposure to corruption between the host and home countries can also be a concern for investors. The more differences are present between two countries, the lower possibility for them how to deal together. Between the choices among a familiar and a less familiar environment, companies will prefer more familiar (Davidson, 1980). In line with this, foreign investors may understand corruption as a morally wrong and do not want to invest in countries with high level of corruption. They simply believe that it can be risky, costly and difficult for managing. Furthermore, corruption creates the perception of instability for investing and foreign investors may believe this as an impediment for doing business. In this case, they see corruption as a problem in financial returns.

2 REVIEW OF EMPIRICAL STUDIES ABOUT RELATIONSHIP
BETWEEN CORRUPTION AND FDI

A long time corruption was regarded as a phenomenon that can be observed, but difficult to measure given the fact that corruption is hidden by its nature and therefore it is difficult to quantify. In the late 1970s and early 1980s some corruption indices started being
published but for relatively small number of countries. First databases covered no more than 40 countries, so the number of observations was limited and also the included number of variables in the econometric model was small. Among the first studies in this area, the often cited study of US companies by Wheeler and Mody (1992) did not find a significant relationship between FDI and the risk factor of the host country. Wei (2000a) believes that the reason why they did not find a significant relationship between corruption and FDI is that they used in their analysis the country risk variable, which included corruption among twelve other indicators where some of them may be marginally important for FDI. Similarly, a later study by Hines (1995) showed no significant negative impact of corruption on incoming FDI in a host country. However, at the same time Hines found that a negative impact of corruption on the FDI appearing after 1977 when the US Foreign Corrupt Practice Act (FCPA) entered into force, respectively when criminal penalties were introduced. Henisz (2000) also did not find a significant relationship between corruption and the investments of US multinational enterprises. However, in some of the specifications, he pointed out that corruption had a positive impact on the probability of investing abroad, but this point of view was not explained enough.

Since these first studies, subsequent empirical studies about this kind of relationship used more extensive data. In fact, after 1995 the CPI has been compiled by TI and each year the number of observed countries was increasing. On the other hand, both the aggregate FDI flows to the host countries and the bilateral FDI flows as well were examined. A great deal of these studies showed that increase of corruption really effect on FDI in sense of deterring its inflows, but also there have been a few of empirical studies which proved that increase of corruption effects on FDI in a positive manner in sense of encouraging its inflows. The one of the explanations why these studies came to the different results is that different methods, data or corruption indicators have been used in a different period of time for a different sample of countries. The second explanation for these contradictory results is the fact that corruption is difficult to measure in a cross-country setting. Table 6 gives an overview of empirical studies dealing with the impact of corruption on FDI inflows.

Wei (2000a) in his research studied the effect of corruption on FDI and the sample covers bilateral investment from 14 home countries to 45 host countries for the years 1990 and 1991. He used a log-linear model which has been estimated using the ordinary-least-squares (OLS) method. He found out two main findings. First, that a rise in the corruption level in a host country reduces inward FDI. And second, this effect of corruption on FDI does not vary according to the home country.

In a follow up paper Wei (2000b) investigated the impact of corruption on the composition of capital using bilateral capital flow data over three year (1994-1996) from 13 home
countries to 30 host countries. The results showed that there is a negative relationship between corruption and FDI and what is especially interesting that the reduction in FDI caused by corruption is greater than the negative impact of corruption on other types of capital inflows.

Smarzynska and Wei (2000) studied how a foreign investor's choice of the entry mode is affected by the extent of corruption in a host country. They used a firm-level data set on FDI in Eastern Europe and the Former Soviet Union in the 1990s. They found that corruption in a host country induces foreign investors to favor joint ventures over wholly owned companies. They also found, ceteris paribus, that U.S. investors mainly prefer in order to avoid the formation of joint ventures in countries where corruption is present to a greater extent.

Akçay's (2001) work provided one more exception to the existing evidence of a negative relationship between FDI and corruption. He analyzed 52 developing countries with two different indexes of corruption. His study failed to find a significant negative association between corruption and FDI. But in this study he found that corporate tax rate, market size, openness of the economy, and costs of labor are the most relevant economic variables that influence FDI.

Abed and Davoodi (2000) applied cross-section and panel data methods to analyze the effects that corruption has on per capita FDI inflows in transition economies. The results show that countries with a low level of corruption attract more per capita FDI. Also, authors in this study found out that structural reforms tend to dominate the corruption variables. In fact, they pointed out that structural reforms are an important factor in lowering corruption levels, among the other factors that influence corruption. This implies that structural reforms are more critical for reducing the level of corruption and attracting FDI.

Habib and Zurawicki (2002) analyzed the effects of corruption on bilateral FDI flows. They found that foreign companies tend to avoid situations where corruption is visibly present because corruption is considered immoral and might be an important cause of inefficiency.

A study which presents one of the exemptions in the existing literature about this relationship is study by Egger and Winner (2005). They applied a data set of 21 home and 59 developed and less developed host countries for the time period of 1995–1999. They used a panel data model and found a clear positive relationship between corruption and FDI. According to this finding, corruption acts as stimulus for FDI. In their later study (2006), they used the same sample of countries and the same model, but for the different
period of time between 1983 and 1999. They found out three main findings. The first finding is totally opposite with their previous research which found the positive relationship between corruption and FDI in these countries. Second, corruption is more important impediment of FDI in developed economies than in less developed economies. And third, the importance of corruption has decreased over the years.

Lambsdorff, G. J. (2005, p. 15) proved in his study that petty corruption deters investors, but also they prefer grand corruption “as the lesser of two evils because it goes along with less organizational intricacies. They might also prefer grand corruption as an opportunity for defrauding their own firm”.

Cuervo-Cazzura (2006) tested the relationship between corruption and FDI using data on bilateral FDI inflows from 183 home economies to 106 host economies. He used a double-log model with quasi-fixed-effects to analyze the data. He argued that corruption does not impact all foreign investors equally due to the cost variability of engaging in bribery abroad. In line with this, he believed that the results are not only in a reduction of FDI, but also in the changing composition of the home country of FDI. He tested the hypothesis and presented two findings. First, corruption results in relatively lower FDI in home countries with low levels of corruption. Second, corruption results in relatively higher FDI in home countries with high levels of corruption. This suggests that investors who have experienced corruption at home may not be deterred by corruption abroad and instead seek countries where corruption is prevalent.

Dahlström and Johnson (2007) analyzed the relationship between host country corruption and FDI inflows. They used a panel dataset that includes data for 99 developed and developing economies during the period of 1996 to 2002. They run the regressions on both the total dataset as well as a sub-sample for the developed economies and a subsample for the developing economies. A model which they used in analysis consists of two types of agents, bureaucrats and MNCs and describes what effects do the interactions between host country bureaucrats and MNCs have on corruption. Furthermore, model describes how corruption increases the MNC costs of operations in the host country and predicts that the costs caused by corruption reduce FDI inflows.

Regression analysis using panel data confirms model's prediction that host country corruption has a significant negative effect on FDI inflows. Interestingly enough, the analysis shows that host country corruption has a negative effect on FDI for developing economies, but not for developed economies. Authors gave a possible explanations for this results that the nature of corruption in developing countries implies a higher uncertainty. Given the fact that decentralized corruption in developing countries influences that MNC
need to pay bribes to an unknown number of bureaucrats before the business can be finished, costs of corruption in these countries are higher than in developed countries.

Cuervo-Cazurra (2008) analyzed the impact of corruption on FDI in 64 host developed and developing countries at one side and in 16 host transition countries at the other side over the period of 1998-2000. He used a double-log model with quasi-fixed-effects and his results showed that corruption has a negative influence on FDI, but has a less negative influence on FDI in transition countries. He argued that it is not the level but rather the type of corruption that affects FDI in these countries. So, he separated corruption into two different subtypes (pervasive, or corruption that is widely present and arbitrary, or corruption that is uncertain) and analyzed its impact on FDI. Results showed that pervasive corruption has a larger negative influence on FDI in transition countries, while arbitrary corruption has a lower negative influence on FDI in these countries. He concluded that investors rather deal with an unknown devil than a known one.

Al-Sadig (2009) in his study used data from 117 countries over the period of 1984–2004 and introduced two different econometric methods, different panel data sets and a much wider set of control variables. The cross-sectional regression showed that the corruption level in the host country has an adverse effect on FDI inflows. According to the results of the study he pointed out that a one-point increase in the corruption level leads to a reduction in per capita FDI inflows by about 11 percent. Furthermore, he moved to panel data methods and studied the effects of the quality of institutions on the FDI inflows and concluded that once the quality of institutions has been controlled in the host country, the negative effects of corruption disappear and surprisingly it becomes positive but statistically insignificant. In fact, the results showed that the country’s quality of institutions is more important than the level of corruption in encouraging FDI inflows into the country. According to the results, data suggested that a country with sound institutions is able to attract as much as 29 percent more per capita FDI inflows than a country with poor institutions. However, he did not interpret these results as evidence that the corruption levels in the host country do not reduce the amount of FDI. Rather, the results should be interpreted “as an indication of the importance of the quality of institutions. In other word, “if a country has good-quality institutions, it may still be able to attract more FDI inflows despite its level of corruption” (Al-Sadig, 2009, p. 289).

Asiedu and Freeman (2009) analyzed in their study the impact of corruption on firm-level investment growth in Latin America, Sub-Saharan Africa and transition countries over the period of 1996-1998. They used firm-level data on investment and employed two firm-level and four country-level measures of corruption. They found that corruption has a negative influence on investment growth in transition countries and among “the other variables included in the regressions (firm size, firm ownership, trade orientation, industry,
GDP growth, inflation and openness to trade), corruption is the most important determinant of investment growth for transition countries” (Asiedu & Freeman, 2009, p. 212). The second finding of their research is that corruption has no significant effect on investment in Latin America and Sub-Saharan Africa. They explained this, that corruption provides private rents to firms.

Javorcik and Wei (2009) studied the impact of corruption in emerging markets on the mode of entry and volume of inward foreign direct investment. They examined two effects of corruption: a reduction in the volume of foreign investment and a shift in the ownership. In fact, they conducted the empirical analysis by using the unique firm-level data set based on a survey conducted on the investment projects in transition economies of Central and Eastern Europe and the former Soviet Union in the 1990s. Empirical analysis which used regression analysis showed that the corruption variable always enters with a negative sign, and it is statistically significant in four out of the six regressions. Hence, the data suggests that host country corruption reduces inward FDI. Moreover, corruption affects taking decisions of the partners in the local joint ventures. On the other hand, technologically more advanced firms from home countries are found to be less likely engaged in joint ventures.

Alemu (2012) investigated the effects of corruption on FDI inflows for the time period of 1995 to 2009 in 16 Asian economies using a panel data model with three different estimation techniques such as the random effect model (REM), feasible general least squares method (FGLS) and regression with panels corrected standard errors (PCSE). The empirical evidence based on these three panel estimation methods shows that more freedom from corruption in a country results in an increased ability to build confidence among foreign investors and become a major destination for FDI inflows. This study confirms that corruption presents a significant problem for inward FDI in Asian economies. According to the evidence the author stated that „if a country is able to decrease the level of corruption by 1%, the inward FDI may increase by about 9.1 percentage points“.

Freckleton, Wrigth and Craigwell (2012) analyzed data of 42 developing and 28 developed countries using the panel dynamic ordinary least squares for estimating the relationship among FDI, corruption and economic growth. The findings showed that FDI has a significant influence on economic growth in both the short run and the long run for developing and developed countries. In the cases of the developing economies, lower levels of corruption enhance the impact of FDI on economic growth.

Sprinģis (2012) analyzed data for 178 countries of 2002 to 2009. Data sources for corruption were used from TI website which provided data for CPI. For the estimation of
panel regression was used the generalized least square method with cross-sectional weights. The results of regression showed that “decrease (increase) of host country corruption level which is reflected in the improvement (decline) of CPI score per one unit, on average results in increase (decrease) of inward FDI flow amount in the host country by 199.43 USD per capita” (Sprinģis, 2012, p. 149). The author also analyzed the effect of corruption on FDI taking into account the specifics of the analyzable countries. He used UNCTAD classification of host country development: developed, developing and transition countries and came up to the following results: “In the group of developed countries the improvement (decline) of CPI score by one unit on average in inward FDI amount increase (decrease) in the host country by 211.26 USD per capita” and at the other hand “the respective coefficient value indicates that in developing countries the degree of corruption impact on inward FDI flow amount is lower than in developed countries. In the developing countries the improvement (decline) of CPI score by one unit results on average in increase (decrease) of inward FDI in the host country by 154.61 USD per capita” (Sprinģis, 2012, p. 150).

In the more recent study about the impact of corruption on FDI inflows, Amarandei’s (2013) results confirmed the majority of literature and show a negative significant relationship between corruption and FDI. Her analysis used the multivariate regression technique and data were used from UNCTAD for FDI and from TI for CPI for a period of 12 years of 2000-2012 for ten Central and Eastern European countries.

Castro and Nunes (2013) analyzed the panel dataset of 73 countries, which include emerging markets, developing and developed economies, over the period of 1998-2008. They investigated whether corruption is a significant determinant of FDI inflows or not. The results of the Fixed Effects GLS regression showed that the corruption coefficients are statistically significant in all regressions and with a negative sign. Respectively, the results suggest a negative impact of corruption on FDI and show that one point increase in the corruption level causes a reduction of FDI inflows between 0.13 and 0.245 percent.

Bellos and Subasat (2013) analyzed the panel dataset which employs 31 home countries and 24 host countries in Latin America over the period of 1985 to 2008. In their analysis they used a gravity model to investigate the impact of corruption on foreign direct investment in selected Latin American countries. Their results showed that corruption has a positive impact on FDI in these countries.

A summary all of these empirical studies is presented in the Table 6. From this summary it can be seen the following:
the most of empirical evidence showed that corruption has a negative influence on FDI,
there are also some studies which failed to find significant relationship between these two variables,
and studies which found a positive relationship between corruption and FDI.

So, it may be concluded that the overall results are unclear and relationship between corruption and FDI presents an empirical issue.

Table 6. Summary of the Empirical Studies about the Impact of Corruption on FDI

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Sample of countries</th>
<th>Research Period</th>
<th>Model/Method</th>
<th>Results</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheeler and Mody (1992)</td>
<td>US companies</td>
<td>1980</td>
<td>Ordinary-least-squares method (OLS)</td>
<td>0</td>
<td>Corruption is not explicitly incorporated into their model. They combined corruption with 12 other indicators and formed one variable, where some of indicators may be not so important for FDI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>After 1977</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henisz (2000)</td>
<td>US companies</td>
<td>1980-1992</td>
<td>A two stage bivariate probit estimation model</td>
<td>0</td>
<td>In some specification, he pointed out that corruption had a positive impact on FDI, but this is not explained enough.</td>
</tr>
<tr>
<td>Wei (2000a)</td>
<td>14 home and 45 host countries</td>
<td>1990-1991</td>
<td>Ordinary-least-squares method (OLS)</td>
<td>-</td>
<td>Negative effects does not vary according to the home country</td>
</tr>
<tr>
<td>Wei (2000b)</td>
<td>13 home and 30 host countries</td>
<td>1994-1996</td>
<td>Ordinary-least-squares method (OLS)</td>
<td>-</td>
<td>Negative impact of corruption on FDI is greater than impact on the other types of capital inflows</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Sample of countries</td>
<td>Research Period</td>
<td>Model/Method</td>
<td>Results</td>
<td>Additional Comments</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-----------------------------------</td>
<td>---------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Smarzynska and Wei (2000)</td>
<td>The host countries from Eastern Europe and the Former Soviet Union</td>
<td>1990</td>
<td>Regression Analysis</td>
<td>-</td>
<td>Corruption in host countries induces foreign investors to prefer joint ventures over wholly owned companies</td>
</tr>
<tr>
<td>Akçay (2001)</td>
<td>52 host developing countries</td>
<td>1991-1997</td>
<td>Cross-section data methods</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Abed and Davoodi (2002)</td>
<td>The host countries in transition economies</td>
<td>1994-1998</td>
<td>Cross-section and panel data methods</td>
<td>-</td>
<td>Structural reforms tend to dominate the corruption variables</td>
</tr>
<tr>
<td>Habib and Zurawicki (2002)</td>
<td>7 home countries and 89 host countries</td>
<td>1996-1998</td>
<td>Regression Analysis</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Egger and Winner (2005)</td>
<td>21 home and 59 developed and less developed host countries</td>
<td>1995–1999</td>
<td>Panel data model</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Lambsdorff, G. J. (2005)</td>
<td>102 countries</td>
<td>1995-2003</td>
<td>Ordinary least square (OLS) method</td>
<td>-</td>
<td>Petty corruption deters investors more than grand corruption</td>
</tr>
<tr>
<td>Egger and Winner (2006)</td>
<td>21 home and 59 developed and less developed host countries</td>
<td>1983 -1999</td>
<td>Panel data model</td>
<td>-</td>
<td>Corruption has decreased over the years</td>
</tr>
<tr>
<td>Cuervo-Cazzura (2006)</td>
<td>183 home countries and 106 host countries</td>
<td>1997-2000</td>
<td>A double-log model with quasi-fixed-effects</td>
<td>-</td>
<td>The investors that have experienced corruption at home may not be deterred by corruption abroad</td>
</tr>
<tr>
<td>Dahlström and Johnson (2007)</td>
<td>99 developed and developing host countries</td>
<td>1996 -2002</td>
<td>Panel data model</td>
<td>-</td>
<td>The host country corruption has a negative effect on FDI to developing economies, but not for developed economies</td>
</tr>
</tbody>
</table>

Table continues
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Sample of countries</th>
<th>Research Period</th>
<th>Model/Method</th>
<th>Results</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuervo-Cazzura</td>
<td>64 host countries (developed and developing) 16 host transition countries</td>
<td>1998-2000</td>
<td>A double-log model with quasi-fixed-effects</td>
<td></td>
<td>Corruption results in less of a negative influence on FDI in transition countries</td>
</tr>
<tr>
<td>Al-Sadig (2009)</td>
<td>117 host countries</td>
<td>1984-2004</td>
<td>Panel data model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asiedu and Freeman (2009)</td>
<td>81 host countries</td>
<td>1996-1998</td>
<td>Ordinary least square (OLS) method; Iteratively reweighted least square (IRLS) method</td>
<td></td>
<td>Negative effect in transition countries; No significant effect in Latin America and Sub-Saharan Africa</td>
</tr>
<tr>
<td>Javorcik and Wei (2009)</td>
<td>The host countries -transition economies of CEEand the former Soviet Union</td>
<td>1990</td>
<td>Regression analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alemu (2012)</td>
<td>16 Asian countries as host countries</td>
<td>1995-2009</td>
<td>Panel data model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freckleton, Wrigth and Craigwell (2012)</td>
<td>42 developing and 28 developed countries</td>
<td></td>
<td>Panel dynamic ordinary least squares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprinģis (2012)</td>
<td>178 countries</td>
<td>2004-2009</td>
<td>The generalized least square method with cross - sectional weights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amarandei (2013)</td>
<td>10 CEE countries</td>
<td>2000-2012</td>
<td>Multivariate regression technique</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Castro and Nunes (2013)</td>
<td>73 developing and developed countries</td>
<td>1998-2008</td>
<td>Fixed Effects Regression</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Bellos and Subasat (2013)  
Sample of countries: 31 home countries and 24 host countries in Latin America  
Research Period: 1985-2008  
Model/Method: Panel data model  
Results: +  

Legend: + positive and statistically significant effect; - negative and statistically significant effect; 0 no statistically significant effect.

3 EMPIRICAL ANALYSIS: THE EFFECTS OF CORRUPTION ON FDI IN TRANSITION COUNTRIES

This chapter is divided into five subsections. Subsection 3.1 will explain the methodology which is used to test the hypotheses that has been formulated in this master thesis. Subsection 3.2 will give a theoretical foundation of gravity model which is used in this master thesis. Subsection 3.3 will describe data and sources, while subsection 3.4 gives model specification. And at the end, subsection 3.5 gives results of this investigation.

3.1 Methodology

The empirical analysis covers twelve transition countries in the period of 2008 to 2011. Each observation in dataset reveals FDI flows between home country \( i \) which belongs to EU-27 countries and host country \( j \) which belongs to transition countries (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Former Yugoslav Republic of Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia) in the period under observation depending on data available in WIIW.

The variable of interest in this empirical analysis is a corruption level in the host country. Considering that corruption is usually hidden by its nature, it is difficult to measure it precisely. There are a few of available indices which are usually used in studies related to corruption. But the mostly used index in surveys relating to corruption is CPI by TI, which will be also used in this investigation.

Econometric model which will be used in the empirical analysis of this master thesis is gravity model. By using gravity model this research tries to prove that increase of corruption has negative and significant effects on FDI inflows in transition countries. In order to understand better the gravity model and its use, the next section describes the importance and use of gravity for the purpose of different analysis.
3.2 Gravity Model

Gravity model is usually used to measure bilateral trade flows between different geographical entities. In addition to this use, gravity model has become an important model for analysis of location factors which present important determinants for attracting FDI in different countries or regions. The model measures the "natural" pattern of bilateral FDI flows between the home and host countries by using two main components: the relative market sizes of the two economies and the geographic distance between their main economic centers. Given these two main components, other variables may be added into the model and their relative impact can be assessed. In this subsection will be considered the theoretical framework of gravity model and apply in research of FDI.

The story about gravity model is based on the Newton's Universal gravity law of 1687 according to which the gravity force between two bodies \( i \) and \( j \) is represented as following equation:

\[
F_{ij} = G \frac{M_i M_j}{D_{ij}}
\]  \hspace{1cm} (2)

where

- \( F_{ij} \) is the gravity force,
- \( G \) is the gravity constant,
- \( M_i \) and \( M_j \) are the bodies' masses,
- \( D_{ij} \) is the distance between the two bodies.

According to this model, in 1962 Jan Tinbergen proposed that this model could be used in an economic context. He was the first who applied this model on international trade flows and expressed his model as the Newton's gravity equation on the following way:

\[
F_{ij} = G \frac{M_i^\alpha M_j^\beta}{D_{ij}^\gamma}
\]  \hspace{1cm} (3)

where:

- \( F_{ij} \) is expressed as the flow from destination \( i \) to destination \( j \).
- \( M_i \) and \( M_j \) are expressed as the relevant economic sizes of the observed locations. As a relevant economic size is often used GDP, gross national product, income per capita or the population size in a country.
- \( D_{ij} \) is the geographical distance between locations and usually is defined as the distance between capital towns measured in nautical or land miles. Distance is a proxy for various factors that can influence trade such as transportation, synchronization, communication and transaction costs or cultural distance and it follows that is difficult to measure these factors. From that reason, geographical distance is often used as an approximation to these costs.

- The exponents \( \alpha, \beta, \gamma \) are the elasticity coefficients and they refer to:
  - \( \alpha \) – the elasticity of the exporting country’s GDP,
  - \( \beta \) – the elasticity of the importing country’s GDP,
  - \( \gamma \) – the elasticity of distance.

This equation presents a very simplified version of gravity model which is used in international trade flows. But also this relationship can be applied wherever the modeling of flows or movements is required.

Ordinary least square (OLS) regression analysis is usually used to estimate gravity models. By converting Tinbergen's equation into a logarithmic equation and adding an error term \( \varepsilon_{ij} \), we will get a linear relationship through which coefficients can be interpreted as elasticity:

\[
\log (F_{ij}) = \log G + \alpha \log(M_i) + \beta \log(M_j) - \gamma \log(D_{ij}) + \varepsilon_{ij} \tag{4}
\]

If we apply this model on export analysis and use a GDP as control variable, then this equation can be interpreted on the following way: if the country's GDP \( (M_i) \) increases by 1%, then export will increase by \( \alpha \% \) ceteris paribus (if everything else stay constant). Also, if distance between country \( i \) and \( j \) increases by 1%, then export will decrease by \( \gamma \% \) ceteris paribus. Distance is always inversely proportional with the other variables used in the analysis. The error term \( \varepsilon_{ij} \) is independent and log-normally distributed.

After being introduced in the economic context by Tinbergen, gravity model have been considered in terms of theoretical validity by many economists. Although gravity model has shown great success in empirical application, it has been noticed that this model lacked the theoretical foundations. So, there are several approaches which study gravity model in this way such as Ricardian model which is based on differing opportunity costs, than Heckscher-Ohlin model based on relative difference in factor endowments between countries, and Helpman and Krugman model which used monopolistic competition from the New trade theory in order to give theoretical foundation for gravity modeling.

The largest contribution in the search of a theoretical foundation for gravity model is given by Anderson and van Wincoop (2003). They claim that there are two reasons for the lack
of theoretical foundation of empirical gravity equations. First, estimation results are biased due to omitted variables and second comparative statistics exercises cannot be conducted, although it is the purpose of estimating gravity equations (Anderson & van Wincoop, 2003). So, they developed a method which allows estimating gravity equations more precisely and consistently. As a starting point and motivation for developing this method they used McCallum's empirical findings which are known as „the border puzzle“. In fact, McCallum (1995) in his research of trade flows between Canadian provinces and U.S. states finds that trade among Canadian provinces is twenty times higher than trade among Canadian provinces and U.S. states. Therefore, this phenomenon is called „the border puzzle“ since the borders between these two countries seem to have a significant influence on trade, although these countries are very similar in cultural, economic and language context.

Starting with these findings, Anderson and van Wincoop (2003) carried theoretical foundation furthermore. They developed a structural gravity model with multilateral resistance terms which allows for a more efficient, precise and consistent estimation of trade costs than traditional gravity model which is mostly used in international trade.

Generally speaking, gravity model has been applied in many trade's models, including models of intra-industrial trade and models of standard trade's theory, although it is predominantly used in international trade flows. However, its contribution to the econometric techniques is not only in the field of trade, but also in a field of migration flows, FDI, international portfolio capital movement, WTO membership and other trade agreements, currency unions or even internet traffic. Its popularity can be explained with the high explanatory power, data easily available and established standard practices that facilitate the research work.

3.3 Data Description and Sources

As it has been mentioned before, the empirical part of this thesis investigates the impact of corruption on FDI inflows in transition countries and includes twelve former communist countries in a period of 2008 to 2011.

The data which are used in this investigation have been gathered from several sources and compiled in a new dataset. Table 7 lists the dependent, independent and control variables, which will be discussed in the following order.
The dependent variable

The dependent variable which is used in this empirical analysis is FDI, which is the log of stock FDI between home and host countries in USD. These data are available on the basis of surveys of companies reporting FDI stocks, published by the central banks of these countries with usually a one-year delay. Using the FDI stock data have some advantages over using data for FDI flows. First, FDI flows vary throughout the time and that is especially characteristic for transition economies. Second reason relates to the functional form of gravity equation. Actually, gravity equation may only recognize positive values. FDI stock data always have positive values what is not the case with FDI flows which may be positive, zero or negative. These different values can make a problem in log linear specification. Each observation is presented as an average value of FDI stock among twelve transition countries as host countries and EU-27 home countries over the period of 2008 to 2011. Average data are used in order to avoid fluctuations due to changes in FDI.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measure</th>
<th>Value</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>Inward FDI stock by home countries</td>
<td>USD</td>
<td>The Vienna Institute for International Economic Studies (WIIW)</td>
</tr>
<tr>
<td>CPI</td>
<td>Level of host country corruption</td>
<td>0-10</td>
<td>Transparency International (TI)</td>
</tr>
<tr>
<td>GDPHM</td>
<td>Home country GDP</td>
<td>Million USD</td>
<td>Statistical Database - United Nations Economic Commission for Europe (UNECE)</td>
</tr>
<tr>
<td>GDPHS</td>
<td>Host country GDP</td>
<td>Million USD</td>
<td>Statistical Database - United Nations Economic Commission for Europe (UNECE)</td>
</tr>
<tr>
<td>DIS</td>
<td>Distance between capital cities</td>
<td>kilometers</td>
<td>CEPII distance database</td>
</tr>
</tbody>
</table>

The dependent variable which is used in this empirical analysis is FDI, which is the log of stock FDI between home and host countries in USD. These data are available on the basis of surveys of companies reporting FDI stocks, published by the central banks of these countries with usually a one-year delay. Using the FDI stock data have some advantages over using data for FDI flows. First, FDI flows vary throughout the time and that is especially characteristic for transition economies. Second reason relates to the functional form of gravity equation. Actually, gravity equation may only recognize positive values. FDI stock data always have positive values what is not the case with FDI flows which may be positive, zero or negative. These different values can make a problem in log linear specification. Each observation is presented as an average value of FDI stock among twelve transition countries as host countries and EU-27 home countries over the period of 2008 to 2011. Average data are used in order to avoid fluctuations due to changes in FDI.
inflows for different years. The source of data for this variable is database on FDI published by the WIIW.

The independent variable

The main variable of interest in this investigation is corruption. Research is focused on public sector corruption or corruption in government. Although there are several available corruption indices which are usually used in studies related with corruption, measuring corruption in this investigation will be based on CPI. This index will be used for „capturing“ the effects of corruption on FDI inflows in twelve transition countries from the sample. This index has minimal measurement errors in comparison to the other indices because it is based on actual perception and not expected levels of corruption. In this index, corruption includes kickbacks, bribery and embezzlement of public funds. CPI ranks according to the scale 0-10 where „0“ relates for „the most corrupt country“ and „10“ for „country without corruption“. The source of data for this index is TI. Considering that high values of CPI signify low corruption levels, then when high corruption in host (home) countries decreases (increases) FDI, a positive (negative) sign on the coefficients would be expected.

According to the hypothesis which is set in this thesis, it is expected that coefficient for this variable has a positive sign. This means that increase of corruption in a home country decreases FDI inflows in that country.

Control variables

From a macroeconomic point of view, foreign investors will choose location according to the relative profitability that they would get. So, in the model will be included some host country-specific variables (macro variables) as control variables such as the gross domestic product of home and host country ($GDP_i$ and $GDP_j$) and distance ($DIS$). These variables will be discussed as follows.

Gross Domestic Product (GDP)

GDP is the measure of the country’s market size and reflects its economic power. With respect to home country it can be expected that home countries with large domestic markets will invest more abroad and establish MNCs. In relation with this is expected a positive relationship between home country GDP ($GDP_i$) and FDI.

Furthermore, the model also includes host country GDP ($GDP_j$) which serves as a proxy for the host country market. A larger market allows more ways of new product placement,
although it depends both on the market size and on the dynamics of the market (Resmini, 2000). So, the market size of the host country presents its location specific advantage and in addition to this the positive relationship between $GDP_j$ and FDI is expected. The source of data for this variable is Statistical Database by the UNECE.

Geographical Distance (DIS)

As it has been mentioned previously in the explanation of gravity model of trade, bilateral trade flows are proportional to the sizes of both countries, but they are inversely proportional with the geographical distance between them. This means that trade flows decrease with greater geographical distance between them. This can be applied on FDI inflows as well. So, this variable will be included in this research because geographical distance may effect on FDI inflows in host countries in terms of transportation and other transaction costs (such as communication costs, language and cultural differences, placing personnel abroad etc.). Data show geographical distance between capital cities of home and host countries in kilometers and presents a proxy for transportation and information costs. These data have been drawn from CEPII distance database. Due to the fact that distance between two countries has an influence on FDI flows in the sense that FDI flows will be greater when the distance between two countries is shorter, it is expected that coefficient for this variable has a negative sign.

In the Table 8 are shown expected signs of variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPHM (GDP for home country)</td>
<td>+</td>
</tr>
<tr>
<td>GDPHS (GDP for host country)</td>
<td>+</td>
</tr>
<tr>
<td>DIS (distance)</td>
<td>-</td>
</tr>
<tr>
<td>CPI (corruption perception index)</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 8. Expected Signs of Variables

Descriptive statistics for each variable is presented in Table 9.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Value</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDIaverage</td>
<td>196</td>
<td>million USD</td>
<td>2874,12</td>
<td>5358,09</td>
<td>3,13</td>
<td>36991,02</td>
</tr>
<tr>
<td>GDPHSaverage</td>
<td>196</td>
<td>million USD</td>
<td>180107,80</td>
<td>196154,40</td>
<td>22762,67</td>
<td>723065,00</td>
</tr>
</tbody>
</table>

Table 9. Descriptive Statistics
### Table 1. Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>FDIaveLn</th>
<th>GDPHSaveLn</th>
<th>GDPHMaVeln</th>
<th>Distaveln</th>
<th>CPIaveLn</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDIaveLn</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDPHSaveLn</td>
<td>0.5642</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDPHMaVeln</td>
<td>0.1694</td>
<td>0.0416</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distaveln</td>
<td>-0.2847</td>
<td>0.0619</td>
<td>0.0679</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>CPIaveLn</td>
<td>0.0349</td>
<td>-0.1135</td>
<td>-0.0246</td>
<td>-0.0426</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

### 3.3 Model Specification

The main objective of this research is to determine whether high level of corruption in a host country has negative and significant impact on FDI inflows in transition countries. The sample covers twelve transition countries. Gravity model is developed to estimate this relationship using the Ordinary Least Square (OLS) method of estimation and it can be presented in the following form:

\[
\ln \text{FDI}_{ij} = \beta_0 + \beta_1 \ln \text{GDP}_i + \beta_2 \ln \text{GDP}_j + \beta_3 \text{CPI}_j + \beta_4 \ln \text{DIS}_{ij} + \epsilon_i
\]  

(5)

where:

- \( \text{FDI}_{ij} \) – value of FDI stocks between home country \( i \) and host country \( j \)
- \( \text{GDP}_i \) – GDP of home country \( i \)
$GDP_j$ – GDP of host country $j$

$CPI_j$ – corruption perception index of the host country $j$

$DIS_{ij}$ – distance between capital cities of home country $i$ and host country $j$

$\varepsilon_i$ – error term

It also should be mentioned that all variables are expressed as the average values in given period of time excepting distance. The hypothesis of this thesis says that the increase of corruption has negative and significant effects on FDI inflows in transition countries. This hypothesis would be confirmed if it turns out that the coefficient $\beta_3$ on CPI is positive and significant. So, according to this it is expected that $\beta_3$ has positive sign, which would indicate that increase of corruption in host country results in decrease of FDI inflows in that country, ceteris paribus (if everything else stay constant). This situation can be explained by a fact that MNCs from the home countries will prefer investing in host countries with low level of corruption. On the other hand, a negative value of this coefficient would indicate that high level of corruption in host country affect positively MNCs from the home countries to invest there.

3.4 Results

Table 11 reports the results of the econometric analysis of the model specification presented above. The diagnostic test suggests that we can proceed with the interpretation of the results; the assumption of normality, homoscedasticity and correct functional form cannot be rejected at conventional level of significance.

<table>
<thead>
<tr>
<th>Dependent variable: FDI</th>
<th>Coefficient</th>
<th>(t-stat.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host GDP</td>
<td>.978823***</td>
<td>(10.93)</td>
</tr>
<tr>
<td>Home GDP</td>
<td>.1804064***</td>
<td>(3.17)</td>
</tr>
<tr>
<td>Distance</td>
<td>-.7848163***</td>
<td>(-6.14)</td>
</tr>
<tr>
<td>Corruption</td>
<td>.1896607*</td>
<td>(1.71)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.46</td>
<td></td>
</tr>
<tr>
<td>F test stat. (4, 191)</td>
<td>40.23</td>
<td></td>
</tr>
<tr>
<td>Prob&gt;F</td>
<td>0.0000</td>
<td></td>
</tr>
</tbody>
</table>

Table continues
continued

<table>
<thead>
<tr>
<th>Diagnostic tests:</th>
<th>Coefficient(^1)</th>
<th>(t-stat.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skewness/Kurtosis tests for Normality</td>
<td>0,1481</td>
<td></td>
</tr>
<tr>
<td>Ramsey RESET test for correct functional form</td>
<td>0,5143</td>
<td></td>
</tr>
<tr>
<td>Breusch-Pagan test for heteroskedasticity</td>
<td>0,9022</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Dependent variable: bilateral FDI stock between home and host country
\(^1\)*** Significance level at 1%; ** Significance level at 5%; * Significance level at 10%
1) All variables in logs except CPI.

Results of the t-test show that all variables are significant in the model. Furthermore, all variables included in the model are of the expected sign and significance. So, we can interpret the results as follows:

- Variables \( GDP_i \) and \( GDP_j \) have the expected positive sign and they are significant at the level of 1%. This results find that both home and host country market size proxies by GDP levels increase FDI flows across transition countries.
- Distance has a negative sign and is statistically significant at the 1% level. In line with the obtained result, the model confirms that the amount of FDI is lower among more distant countries.
- Corruption variable has a positive sign and is significant at the level of 10%. The obtained results confirm that a high level of corruption has a negative impact on the FDI inflows.

CONCLUSION

This investigation analyzes the impact of corruption on FDI inflows of 2008 to 2011 in twelve transition countries. With this analysis, it has been attempted to give a contribution to the existing literature in regard of relationship between corruption and FDI in transition countries, in order to examine this kind of relationship, to estimate the impact of corruption on FDI inflows in these countries by using a gravity model and to provide policy recommendations for these countries in the context of the corruption’s effects on FDI.

Results of the gravity model show that variables of host countries’ GDP, distance and corruption have a significant effect on FDI in the transition countries. The obtained results for host countries’ GDP show that larger markets attract more FDI due to economy of scale...
in production and sales of products or services in the local markets. This leads to the conclusion that FDI in transition countries probably are mainly market-oriented. Furthermore, results for home countries’ GDP lead to the conclusion that those companies from larger economies invest more than those from smaller economies. Furthermore, coefficient for distance variable is negative and statistically significant, what implies that MNCs highlight efficiency as a motive in making decisions on the choice of location for their activities. MNCs investment strategies also include a relative significance of transport costs, public infrastructure and operations such as staff's transfer abroad, their stay outside the local environment, communication costs, etc.

In general, the obtained results show that corruption deters FDI. In fact, the results show that the perceived level of corruption presents a problem for transition countries and according to CPI index, the level of corruption in these countries is extremely high comparing with developed countries in Western Europe. Using the CPI in this investigation, the empirical analysis shows that coefficient for variable corruption is positive and statistically significant, what implies that corruption has negative effects on FDI inflows in transition countries in sense that an increase of corruption leads to decrease in FDI inflows in these countries. Therefore, corruption presents an institutional element that increases uncertainty, insecurity and costs related to long-term flows of FDI into transition countries.

Regarding the level of corruption in these countries and bearing in mind the importance of FDI in transition countries, this analysis shows that great reforms in transition countries are required. Actually, these countries need to work harder and faster to create a good institutional environment which is an important location factor for attracting more FDI inflows and which will ensure long-term flows of FDI. Therefore, to develop a good institutional framework, which needs to operate on just, accurate and transparent laws, these countries need a deep and marginally more decisive reforms in the fields of public sector, public finance, the legal system and what is maybe the most importantly a strong fight against corruption. This fight requires removing means, motives and opportunities for corruption. Actually, it is necessary to eliminate opportunities for corruption which have been created by unnecessary government laws and regulations. If opportunities for corruption are eliminated, corruption will not happen or will happen but in its mildest form. Furthermore, once established, a good institutional framework which implies lower transaction costs, risks and uncertainty, in turn will lower the level of corruption and thus will provide better conditions to attract FDI.

So, policy implications of this investigation are as follows:
• Implementation of anti-corruption strategies and action plans in order to combat corruption. However, implementation of strategies and plans will not be successful without the political will and strong monitoring and evaluation of the process;
• Strong monitoring of procurement cases and regular training of public officials in the public procurement institutions;
• Strong sanctions for the corrupt officials;
• Implementation and institutionalization of a regular mechanism in charge of the consultancy services, policy development, implementation and monitoring in all these countries;
• Considering that the fight against corruption is not an easy job, the role and help of international organizations such as The World Bank and TI is very well welcomed.

The contribution of this investigation to knowledge is that these findings may provide a source of relevant and reliable information for government bodies in these countries, in order to evaluate the effects of corruption on FDI inflows. They should take action for reducing and combating corruption in order to attract FDI as an important component of economic development in their countries. The findings of this investigation are also important for policy makers in these countries as it shows that fighting and trying to combat corruption is appreciated and rewarded by foreign investors, what at the end contributes to the economic growth of these countries.

This study has several limitations that need further investigation. The relevant information should be collected for the extended period of time which includes the years of 2000 to 2011. This first step of collecting the relevant information is time consuming and therefore challenging work. In this case, it ought to be used panel data model. As a second step would be necessary to include much wider set of control variables that are related to the efficiency seeking motives by foreign investors such as the labor costs, openness, inflation, etc.

Recommendation for further research is that it would be interesting to do a more detailed research on one single country among these twelve transition countries. This would allow evaluating the effects of corruption on FDI in different systems of public sectors given that corruption might be differently harmful among systems (for example: education system, health care system, legal system, etc.). Also, including more corruption indices from different sources (International Country Risk Group index by the Political Risk Services Group, The Worldwide Governance Indicators by World Bank, etc.) and larger time dimension of the data would contribute to more reliable estimates of the effects of corruption on FDI.
And finally at the end, I am personally convinced that governments of these countries will recognize the importance of decreasing corruption and focusing on attracting more FDI in order to create a good business environment and therefore increase economic development and growth of their countries.
REFERENCE LIST


APPENDIXES
### TABLE OF APPENDICES

Appendix A: The Results of OLS Regression Estimation ........................................... 1  
Appendix B: Diagnostic Tests .................................................................................... 2
Appendix A: The Results of OLS Regression Estimation

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 196</th>
</tr>
</thead>
<tbody>
<tr>
<td>F(4, 191)</td>
<td>40.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>245.939309</td>
<td>4</td>
<td>61.4848272</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>291.93886</td>
<td>191</td>
<td>1.52847571</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>537.878169</td>
<td>195</td>
<td>2.75834958</td>
<td></td>
</tr>
</tbody>
</table>

F(4, 191) = 40.23
Prob > F = 0.0000
R-squared = 0.4572
Adj R-squared = 0.4459
Root MSE = 1.2363

| Coef.     | Std. Err. | t    | P>|t|     | [95% Conf. Interval] |
|-----------|-----------|------|---------|---------------------|
| GPHSAverageln | .978823   | .0895304 | 10.93   | 0.000               | .8022278 1.155418 |
| GPHMaverageln | .1804064  | .0569094 | 3.17    | 0.002               | .0681548  .2926579 |
| Distance    | -.7848163 | .1278716 | -6.14   | 0.000               | -1.037038 -.5325944 |
| CPIaverage  | .1896607  | .1109784 | 1.71    | 0.089               | -.02924  .4085613 |
| _cons       | -2.337842 | 1.601578 | -1.46   | 0.146               | -5.496893 .8212087 |
Appendix B: Diagnostic Tests

Skewness/Kurtosis tests for Normality

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Pr(Skewness)</th>
<th>Pr(Kurtosis)</th>
<th>adj chi2(2)</th>
<th>Prob&gt;chi2</th>
</tr>
</thead>
<tbody>
<tr>
<td>res</td>
<td>196</td>
<td>0.0531</td>
<td>0.8511</td>
<td>3.82</td>
<td>0.1481</td>
</tr>
</tbody>
</table>

Ramsey RESET test using powers of the fitted values of FDIaverage

Ho: model has no omitted variables

\[ F(3, 188) = 0.77 \]

Prob > F = 0.5143

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of FDIaverage

\[ \text{chi2(1)} = 0.02 \]

Prob > chi2 = 0.9022

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPHSAvera~n</td>
<td>1.02</td>
<td>0.982621</td>
</tr>
<tr>
<td>CPIaverage</td>
<td>1.01</td>
<td>0.985526</td>
</tr>
<tr>
<td>Distanceln</td>
<td>1.01</td>
<td>0.990700</td>
</tr>
<tr>
<td>GDPHMavera~n</td>
<td>1.01</td>
<td>0.993669</td>
</tr>
</tbody>
</table>

Mean VIF | 1.01