

Title: The key determinants of Foreign Direct Investment Inflows to polish market after fall of the Iron Curtain

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Abstract

Foreign Direct Investment is currently a main ingredient of economic growth in economies across the world due to the worldwide integration and development. Multinational Companies' decisions on where to locate their capital are determined by many factors that put their profitability at stake. These activities nowadays are focused on emerging economies that encourage foreign investors offering a great amount of incentives and preferential conditions. Many researchers have already attempted to explain the key determinants of Foreign Direct Investment in Central Eastern European Countries; however the number of studies on Poland is very limited. Therefore, this dissertation aims at analyzing the determinants of Foreign Direct Investment and investigates their nature.

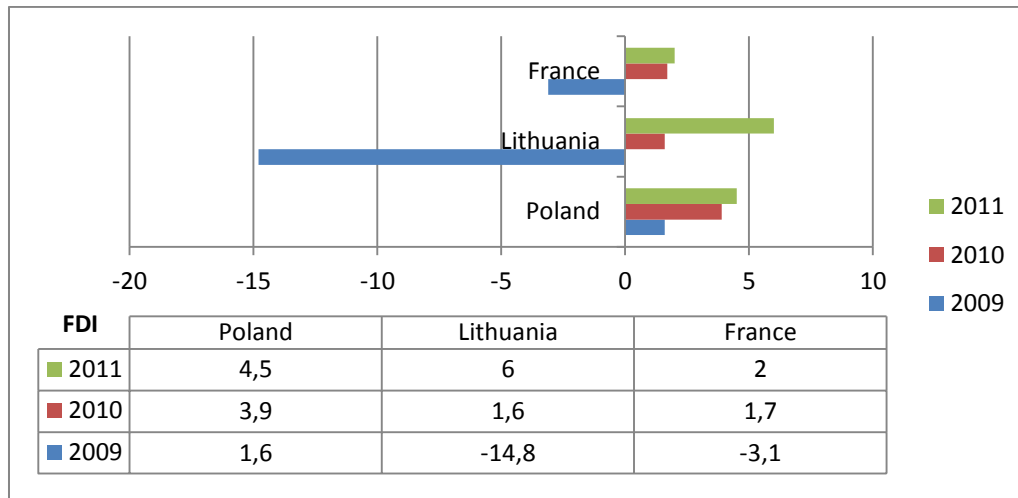
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1. Introduction

At the beginning of 90s, all the Central and Eastern European countries (CEE), after almost 50 years of dependence on the Soviet Union, have faced similar issues related to shifting political and economic systems. As a result, those countries began the conversion process from a centrally planned economy run directly by a government to a primarily market based one. A great contribution to this process has been granted to the European Union. Thereby, eight of the CEE countries have made enormous effort to follow EU's requirements on becoming a member state and adjusting their laws and rules to the EU's guidelines. During that time, the CEE had to create foundations for foreign investment inflows, such as improving infrastructure; fighting corruption; being open for trade and floating currency rates. The shifting process lasted over 10 years and led the countries to joining European Union in 2004. That gave them an access to the single European market and free movement of capital, goods and people. Thanks to association with the EU, those backward countries have grown up to join the group of the most powerful economies in the world. Therefore, Poland from a poor post-communist country in the early 90s became the fastest developing economy in the EU and the biggest one in Central Europe (World Bank, 2013). The topic is also relatively important nowadays as Poland happened to avoid the economic downturn in 2008 and remained the only one country that noted positive economic growth while every country in Europe was suffering from the crisis (Faris, 2013).

In 2004, after Poland joined the European Union, there has been observed a significant economic growth. The unemployment rate decreased and the country became a stable, well-performing economy with its Gross Domestic Product rapidly increasing. Having gained all the benefits of being a member state including an easy access to the single European market and development grants of €68.7 billion for current financial period, Poland came away completely unscathed from the global crisis. Even though its economy decelerated after 2008, Poland has kept its GDP rate at a positive level. Here's a comparison of GDP of Poland and France, as a representative of developed economy, and Lithuania, as a representative of emerging economy:



Source: Eurostat

Poland has noted a significant growth in Foreign Direct Investments inflows after the country became an EU member. Starting from 2004, foreign firms invested \$12,7 billion, then the amount grew to \$25,5 billion in 2007 (United Nations, 2014). Poland wants to strongly encourage foreign investors to acquire assets or set up their subsidiary in the country. Malmadier and Shanthikumar (2007) discussed that those kinds of incentives are really good way to attract investors. Therefore, quite a few foreign well-known brands have established their subsidiaries or manufactures in Poland, for instance SHARP with the value of investment at EUR 150 million and hiring 3000 people, and Dell with the value of investment at EUR 200 million and hiring 3000 people. Association of Business Services Leaders in Poland in their survey Business Services Sector in Poland (ABSL, 2013) distinguished 5 main sectors for investment in Poland: Business Process Offshoring, the aviation, the automotive, the electronics and IT industry. The survey also highlighted that Poland is an unquestioned leader in the business services sector in Central and Eastern Europe due to 400 centers with foreign capital and number of 110 000 employees hired.

In the 2000s, and especially after 2004, Poland has been characterized as economically and politically stable country. According to the European Attractiveness Survey prepared by Ernst&Young in 2013, in the next three years Poland will be the second in Europe, right after Germany, most attractive country for investments overtaking the United Kingdom, France and Russia. The report highlighted a very stable macroeconomic situation of Poland. The report also mentioned other advantages of Polish market, such as well-qualified and productive employees, business friendly climate and transparent tax and legal system. Another report by UNCTAD (2012) confirms strong Poland's

position on international investment scene and shows that Poland is the 14th most attractive investment location in the world.

1.2. Research objectives and structure

This research paper shall investigate the patterns of Foreign Direct Investment Inflows in Poland before and after the EU accession. The main focus of this dissertation is on key determinants of Foreign Direct Investment Inflows to Poland as the main power that supports foreign investors' decision on investing in Poland. Since Poland is a transition economy, this paper shall also focus on determinants that encourage multinational companies to invest in emerging economies, especially in those located in Central and Eastern Europe.

Aims and objectives stated for this dissertation are:

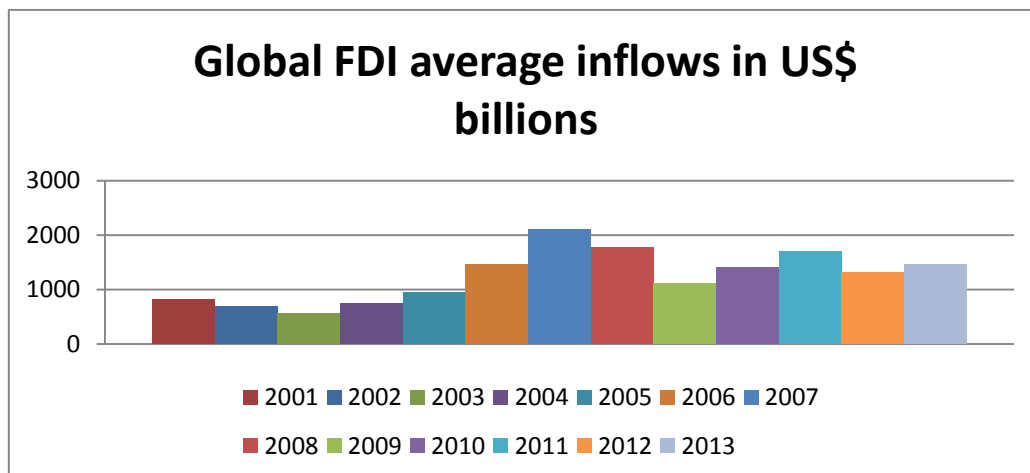
- To analyze the relationship between trends in Foreign Direct Investments in Poland and the key determinants
- To present the importance and nature of Foreign Direct Investment Inflows to Poland
- To investigate the main key determinants of FDI into Polish economy

The dissertation contains of 4 chapters. Each chapter is divided into subheadings that highlight the main idea of the following subchapter. In the second chapter the author attempts to critically review the existing literature on Poland and the key determinants in emerging countries, Central and Eastern Europe and consequently in Poland. Firstly, there is introduced the main definition and theories on Foreign Direct Investment which help to understand the idea behind Foreign Direct Investment Inflows. Secondly, the author presents a brief outlook of what happened in Poland after the collapse of Iron Curtain and the stages of transformation process which understanding is essential in order to understand the trends in FDI. In addition, the author highlights the importance of the European Integration process in Polish economy. Subsequently, the dissertation is continued by deep critical description of each key determinant based on the existing literature. The author attempts to explain the significance of the European Union accession in the current economic events. The third chapter describes how the research has been conducted and what is investigated in the next chapter. There is an explanation of each variable that is important for this research and particular approach chosen in order to conduct this research. The first part of chapter 4 deeply describes the importance of EU accession using simple descriptive statistics. In the next part of this chapter the author runs a standard multiple regressions in order to find the relationship between the key determinants and FDI. The last chapter concludes the findings and sums up the assumptions of this research paper.

2. Literature Review

2.1. Foreign Direct Investment definition

Foreign Direct Investment is a key element in international economic integration. It creates stable and long lasting links between economies and enables the diffusion of technology and sustainable development. It is also a good opportunity for firms to promote their products internationally (Glass et al., 2002). There are many definitions of FDI. OECD (2014) defines FDI as an investment by a resident entity in one economy that reflects the objective of obtaining the lasting interest in an enterprise resident in another country. The lasting interest comes out as a long term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management of the enterprise. In addition, the criterion used says that the direct investor has to have 10% ownership of the ordinary share or voting power. At the same time, the International Monetary Fund (1977) defines FDI as follows: investment that is made to acquire a lasting interest in an enterprise operating in an economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprise. Both definitions are correct and reflect the nature and intention of foreign investors. Inward stock of FDI is defined as all direct investments held by non-residents in the reporting economy, while outward stock refers to the investments of the reporting economy held abroad. Lipsey (2002) adds that FDI brings tangible assets as it consists of finance, intermediate inputs, and capital good. All those assets are important for the development of a host country.



Source: UNCTAD, World Investment Report, various years, Annex 2 Tables

Foreign Direct Investment is strictly related to Globalisation and has had a significant role in the world's economy since the Development Decade announced by United Nations in 1960s. A major change over the past decades is that governments became more favorable towards FDI and states started to compete between each other in order to pull more investments to their countries. Therefore, they have liberalized their FDI regimes accordingly to a current market condition and consider FDI as contributing to their development strategies for the technology and capital it provides. Thus nowadays, there has been a huge increase in the amount of high-tech startups, especially small ones and those founded by governmental subsidies conducting their research and development projects with universities. These companies, as well as firms whose main product is an intellectual property right such as software programs or software based technology or process, don't need huge warehouses or manufacturing plants thus it's easier for them to internationalize (Majocchi & Strange, 2008).

2.2. Foreign Direct Investment key determinants - theoretical framework

There are many factors that determine Multinational Company's decision on internationalization, especially to emerging economies. Nowadays, companies that want to internationalize use using the OLI paradigm as a criterion before they decide to invest abroad. The switch of two theories happened most recently. Wheeler and Mody (1992) emphasize that in the past, MC used factors, such as market size, labour costs, tax rates, and the overall quality of the receiving countries' investment climate. Devereux and Griffith (1998) postulated that labor cost do not play important role in determining companies decisions on going abroad. They argued that the most important are market size and tax rates. Following the previous research, Wang and Swain (1995) found that key determinants of FDI inflows were market size, capital costs, and political stability. The new way of making decision on going international is called Eclectic theory (OLI) developed by Dunning (1988, 1992). This theory assumes the existence of three motives of foreign companies on expanding their activities abroad:

- market-seeking – the purpose of the investment is to ensure access to the market of the destination country,
- resource-seeking – the investment is made to ensure more reliable supplies of natural resources,
- platform – seeking – the purpose of the investment is to provide a platform for production and/or sales activities in a regional market.

The theory stands for three potential sources that support a firm's decision on going abroad, and those are: ownership advantages, location advantages and internationalization advantages (Dunning, 2001). Dunning defines the ownership advantage (FSA – Firm Specific Advantage) as an advantage that foreign company has to have in order to lower operating costs when investing abroad and earn higher revenues for the same cost. Therefore, there are three basic types of ownership advantages:

- Monopolistic advantage that a foreign firm receives in the form of privileged access to output and input markets through ownership of scarce natural resources, patent rights, etc.
- Innovation advantage, such as technology
- Economies of large size, for instance economies of scale and scope, broader access to financial capital.

The next advantage that Dunning defined is the location (CSA – Country specific advantages). Multinational companies seek stable areas in which it's relatively easy to settle down (Buckley et al., 2007). This must be conducted in accordance with FSA in order to make profit. These can be divided into three groups:

- Economic advantages – scope and size of the market, transport of telecommunication costs etc.
- Political advantages – specific government policies that influence inward of FDI
- Social and cultural advantages – psychic distance between home and host country, language and cultural differences and attitude towards foreigners.

The last factor that determines FDI inflows in the view of multinational companies is internationalization. This consists of several routes of entry modes, ranking from the market by arm's length transaction to the hierarchy such as a wholly owned subsidiary. MNs rather choose places where market doesn't exist or function really poorly so that transactions expenses of the external route are high.

Traditionally, the motives of foreign investors were defined clearly economically, such as attractiveness of the market (Caves, 1971), productive efficiency (Brainard, 1997) or behavior of competitors (Graham, 1978). At some point researchers started to think of social factors that lead FDI to a host country. Therefore, another important theory on internalization of foreign investors is the institutional theory. Scott (1995) put forward three institutional pillars – cognitive, normative and

regulative. At a later stage, Kostova (1997) expanded those and developed these three dimensional country's institutional profile:

- Governmental policies – regulative dimension,
- Widely shared social knowledge – cognitive dimension
- Value systems – normative dimension.

The institutional theory is currently one of the main determinants of MN to internationalize. It is understandable because the theory gathers together various factors of social life. Accordingly, Wei (2000) found that elimination of corruption reflects significantly on MNs' decision on coming to a host economy. In addition, Globerman and Shapiro (2003) found that good governance had a positive and significant impact on FDI inflows and outflows. The institutional theory is really important for emerging economies and explains MC's behavior. Traditional theory on internationalization takes into account only economic factors and has been used to analyze factors on internationalization in developed host economy. Some factors from the institutional theory are seen as a background conditions in developed country, which means that they are less important in those countries (Peng et al., 2008). To summarize, the quality of institutions matters, especially in emerging economies, because poorly managed institutions, bad governance or ineffective legal systems result in additional cost to the firm (Bevan & Estrin, 2004).

2.3. A brief economic and political overview of Poland

Poland's modern political and economic history as a fully free country is really short and starts in 1989. As soon as the Iron Curtain collapsed, Poland from one of the Soviet satellite states became a fully independent country. Subsequently, in 1989 the state pursued a policy of liberalizing the economy and transition from centrally planned to primarily market based one following the pattern of other Eastern European countries. Poland as a very first of CEE post-communist countries signed the association agreement with the EU in 1991. The nation, however, wasn't fully satisfied of the Association Agreement and therefore during the Copenhagen Summit in 1993 the old member states agreed on the access of CEE into the EU under some circumstances (Konings & Faucompret, 2001).

The Copenhagen criteria imposed by the EU were as follows:

1. Stability of institutions guaranteeing democracy, the rule of law, human rights, and respect for minorities.
2. The existence of a functioning market economy with the ability to compete with the single market.

3. The ability to take on the obligations of membership, including support for the aims of the European Monetary Union.

In addition, Marktler (2006) adds that Poland had to adopt the *acquis communautaire*, which is a community law that doesn't have to only be adopted, but also implemented and enforced. In May 1995 Poland officially decided to apply for the EU membership. That fact formally started the whole process of accessing the EU. Therefore, Poland had to prove its commitment to the case and challenge itself by implementing a number of laws to create fundamentals not only for free economy, but also for FDI.

Over that time, Polish government started introducing essential laws and regulations in order to adjust the country's economic system to the international and EU standards. Therefore, in 1990 there has been launched the Balcerowicz Plan that opted to change the whole economy from the central planned to the capitalistic one. Faucompret and Konings (2001) concluded all the reforms and listed only those that are essential for FDI:

- strong price and trade liberalisation
- low entry barriers for foreign firms
- rapid privatisation of smaller firms (but slower rates of privatisation for larger firms)
- the establishment of a legal system capable of enforcing contracts
- the establishment of a strongly regulated financial system capable of inducing the privatisation process
- the establishment of a system of state welfare offering low unemployment benefit but a higher level of pension support
- low budget deficit and a restrictive monetary policy
- rapid introduction of a modern tax system and a shift from profit taxes towards other taxes including Value Added Tax
- the elimination of foreign debt
- the establishment of a crawling peg exchange rate system
- rapid expansion of business schools to create an entrepreneurial culture.

The breakdown on how those laws and regulations that have been introduced to Polish market to be seen in the Appdx. 1.

In 1994 Poland stabilized its external debt and this fact gave a rise towards Foreign Direct Investment inflows and Multinational Companies' activities that started to expand the Polish market. After this, the FDI inflows have increased rapidly, from \$88 million in 1990, to \$3.7 billion in 1995, to \$10.6 billion in 2000 and finally to \$25,5 billion in 2007. Overall stock of FDI in Poland has expanded from \$3 billion in 1992 to \$62 billion in 2002. Meanwhile, the economy has been gradually growing, constantly subjected to the transition process' spillover effects, such as hyperinflation, closure and privatization of loss-making state-owned enterprises. A majority of FDI in the mid-90s was therefore strictly related to the privatization process as the government sold off state-owned assets to foreign investors. At that time, the process of privatization and restructuring had a significant effect on the labor market consuming a lot of capital causing big lay-offs and was a remnant of the old system (Newell & Pastore, 2006).

Poland has become really attractive for foreign investors. Eurostat (2014) statistics show Poland's minimum wage at EUR 400, which is far less than the old member states. What is more, according to OECD statistics (2012) the percentage of population that has attained at least upper secondary education is at approx. 90%, which is above OECD's average. The country is also the most populous amongst the CEE and its population reaches approximately 38 million citizens, so it's the 6th largest market in the whole EU and the largest amongst CEE (World Bank, 2012).

2.4. Key determinants of FDI inflows to Poland

There is a very large amount of literature that aims to explain and examine the key determinants of FDI inflows to particular countries. UNCTAD (1998) investigated in depth the key determinants of Inflows and classified them into three subgroups, such as economic factors, politic factors and business facilitation. These key determinants are mainly macro economically investigated by many researchers in order to find matching variables that create a relationship with Foreign Direct Investment Inflows. Dunning (2002) postulate that FDI in emerging economies has shifted from market-seeking and resource-seeking FDI to more efficiency-seeking FDI, which is more vertical. Most recently, the region of CEE countries and the case of Poland have been particularly interesting for researchers to investigate as those countries in merely two decades become one of the most competitive economies in the world.

One of the main key determinants that accelerate FDI Inflows identified in Poland is market potential. Indicator (1995) and Resmini (1999) found that market size is the key determinant, while

Lankes and Venebles (1997) confirmed that hypothesis and added that market size and growth potential was key determinants in FDI in the region. Pye (1998) investigated investments to CEE coming from the European Union and North America and found that the factors that determined inflows were market growth and potential. Altzinger (1999) and Meyer (1996) also examined the motives of companies investing in Central and Eastern European countries and made a conclusion that the main determinant in that region was market size and growth. What is more, Savary (1997) examined motives of internationalization to CEE countries in French industrial sector and the results show that market size plays vital role, especially in Poland it was a major factor. Furthermore, Indicator (1995) highlights that Poland is attractive for foreign investors due to its rapid growth level. In contrary to that research, Holland and Pain (1998) postulated that market size and growth is not a significant factor and do not encourage FDI. Their research presented a comparison of small CEE countries such as Estonia and Latvia that managed to attract more foreign investors than Romania. The research paper also argues that the level of FDI in Poland does not stand out taking into consideration the market size and gives an example of Hungary whose the share of FDI in GDP in 1996 reached 30%, which is really close to well-established economies such as the United Kingdom or Belgium. Nigh (1985) also found that there is a weak positive correlation of growth for the less developed economies and a weak negative correlation for the developed countries. Nevertheless, Artige and Nicolini (2005) argues that market growth and size, indicated by GDP or GDP per capita, is the strongest measurement of vertical FDI Inflows in econometrics.

Another key determinant of FDI to Poland is labour cost. Savary (1997) and Gronicki (1997) postulated that wages is a primary determinant of FDI inflows to polish market. Whereas, Altzinger (1999) found it a secondary factor. In contrary, Merlevede and Schoors (2004) researched that wages as a FDI determinant are only important if they are likely to increase in the near future. Charkrabarti (2001) claims, however, that wage as an indicator of labour costs has been at issue. Although, it is agreed that cheap labour is a factor that attracts FDI inflows. Many researchers, such as Shamsuddin (1994), Schneider and Frey (1985) and Goldsbrough (1979) demonstrate that high wage discourage FDI. Lansbury et al. (1996) examined Visegrad economies in terms of labour cost and found that relative labour cost influenced FDI Inflows distribution in those countries. Overseas Development Institute (1997) also found in its empirical studies that wages are particularly important for foreign investment in labor-intensive industries and for export-oriented subsidiaries, such as manufacturing. According to the report made by three consulting companies, such as Ernes&Young, Jones Yang

LaSalle and Hays (Duckworth et al., 2012) Poland stands a chance to become the manufacturing hub of Europe. The authors investigated that manufacturing itself in Poland is cheaper for almost 30%, the cost of labour is 4 to 10 times cheaper than the average and this difference will not disappear in the near future. What is more, Polish manufacturing industry is much more competitive than the Chinese one in many sectors, for instance electric house appliances, metal products, automotive, furniture. The report also mentions that the competitive advantage for Poland lies in its location and therefore closeness to the other EU members, which lowers the cost of transportation.

A great number of researchers suggest that FDI Inflows in developing economies is favorably related to openness to trade (Balasubramanyam et al, 1996). Countries that promote export instead of implementing import policies attract more FDI (Co, 1997). What is more, Singh and Jun (1995) indicate export as the strongest factor attracting FDI. Addison and Heshmati (2003) examined the impact of FDI in almost 50 developing country using exports and imports as a percentage share of GDP. Their findings indicate there is a positive and significant relationship between both. Bos and De Laar (2004) and Bevan and Estrin (2000) postulate that trade quotas negatively influence FDI inflows, because they increase operational costs for foreign investors. Furthermore, Indicator (1995) also found that high customs tariffs were a discouragement for FDI inflows to Poland. Blonigen (2002) examined tariffs and found that they have positive and significant correlation with FDI. Witkowska (2007) highlights the fact that once foreign investors locate their capital in a member state of the EU, this gives them the access to the single European Market in which there is a possibility to move capital, goods and people freely. Nevertheless, by investigating manufacturing investments made by U.S. multinationals in the 1980s, Wheeler and Moody (1992) postulate that there is no significant response from investors in regards to trade openness.

The risk that comes with an investment deters foreign investors. Barrell and Holland (1999) argued that risk is a locational factor in FDI inflows to CEE countries. Benacek (2000) added that investors are less concerned about the risk level of a country, yet Multinational Companies rather compare risk level throughout countries at a given point in time before making a decision. This follows that as long as a foreign company is positive of being able to make profit without exaggerated risk, it will continue investing. There is also a problem to find an empirical relationship between political situation and FDI inflows. Hausmann and Fernandez-Arias (2000) do not find any relationship between FDI flows and political risk, however Schneider and Frey (1985) postulated that there is a

strong relationship between them two. Overseas Development Institute (1997) finds that once a country is rich with natural resources, and then there is no need for further incentives. Nigeria and Angola are perfect examples of the countries where the profit from mining industry is high enough to compensate the risk associated with the investments. The Republic of Poland, in its early years in 90s, was characterized a politically unstable country, even though the system of reforms was being implemented smoothly. The government in the country was changed 9 times since 1989 until 2001. That carried a risk for foreign investors (Weressa, 2004).

Incentives offered by the state might also be one of key determinants for FDI inflows. These usually appear in the form of grants and tax exemptions. As much as grants have positive impact on FDI inflows, yet corporate tax negatively influences FDI (Cassou, 1997). In addition, Kemsley (1998) and Hartman (1994) also found that corporate income taxes discourage FDI inflows. In contrary, Wheeler and Mody (1992) as well as Yulin and Reed (1995) postulated that taxes have no important impact on attracting FDI. Studies also say that transparent tax system may have an effect on inflowing FDI. Bénassy-Quéré et al. (2004) investigate 11 OECD countries from 1984 until 2000 and find that lower tax rates fail to attract foreign investments and at the same time, higher taxes tend to discourage foreign investors. Agostini and Tulayasathien (2003) postulate that corporate taxes have a negative impact on foreign investments unless they come with a special incentives including a greater amount of public goods and services. If this benefits the investment, then the impact is rather positive. Many other researchers such as Grubert and Mutti (1991), Kemsley (1998) and Loree and Guisinger (1995) confirm the thesis that corporate taxes have a significant negative relationship with FDI Inflows. In contrary to that, Wheeler and Moody (1992), Jackson and Markowski (1995) and Lim (1983) indicate that the relationship between corporate taxes and FDI Inflows does not exist at all.

Strong currency is also an encouragement for FDI. Merlevede and Schoors (2004) argued that once currency peg is established then this reduced the perceived exchange rate risk and increase the FDI inflows to Poland. Udomkerdmongkol et al. (2006) sample a few emerging countries using local currency unit against US dollar and find a positive significant relationship between local currency devaluation and FDI Inflows. Their research paper also indicates that expectations of local currency devaluation postpone FDI and currency rate volatility discourages FDI Inflows. What is more, Goldberg and Kolstad (1995) present that exchange rate fluctuation have an impact on FDI flows.

They depend on the relationship between shocks to demand and costs and exchange rates. In contrary, Tamlin (2000) fails to find a significant relationship between FDI Inflows and exchange rate. The last huge key determinant of FDI inflows as well as the main point of this research paper is the European Union and its enlargement in 2004 including Poland. The fact that Poland was tied to political and economic union had a significant impact on FDI and influenced all key determinants previously mentioned.

2.5. The European Union accession as a main key determinant of Foreign Direct Investment

The fifth enlargement of the EU happened in 2004 and involved eight of the Central and Eastern European Countries (CEEC). Those countries, considered transition economies, had been implementing trade liberalization policies and privatization processes in order to open up for foreign capital. They also adjusted their law and regulations to the standards prevailing internationally and made enormous effort in order to improve their macroeconomic performance (Alguacil et al., 2008). Being a member state of the EU requires not only stick to the domestic regulations, but also to solid laws of the solid and economically integrated EU. This brings about a lot of advantages for investors that eagerly start to invest in integrated countries. First of all, the accession lowers the risk perceived by the investor and improves the country's business zone (Kaminski, 2000). The best example on how Eurozone lowers the risk is the case of Greece. The country was in deep financial troubles after the global downturn in 2008. The European Union, as an organization economically connected to Greece bailout the country and rescued it from sinking (Spiegel, 2014). Poland is also committed and deeply connected to the European Union, thus investors find it risk free and invest their capital in Poland. Witkowska (2007) argued that once foreign investor invests its capital in one member state, then it has access to the single European market. This is really important from investor's point of view as then they are able to freely move goods, people, services and capital without any customs duties and tariffs (Mustilli & Pelkmans, 2012). In addition, Hubert and Pain (2002) presented the data of FDI inflows old member states and it showed that the EU accession has helped in FDI inflows increase in those countries. Bevan, Estrin and Grabbe (2001) investigated the forecast of FDI inflows before the EU expansion in 2004. Their results presented those only countries whose EU accession was more certain and expected to happen sooner have a better FDI inflows forecast. Bevan and Estrin (2004) also add that countries that introduced transition policies successfully are promised relatively fast EU membership, which further accelerates FDI inflows. In contrary to that, countries that are less

successful in implementing transition policies and their process of accession lasts longer may discourage FDI inflows. Also, the study on factors that determine foreign capital investment in the EU conducted by Clausing and Dorobantu (2005) showed a positive correlation between FDI inflows and openness to trade. They also prove one essential issue for this research paper. After investigation of the period of 1992-2001 they found that even EU announcements had a significant role in increasing the amount of FDI inflows in Poland.

There are also studies confirming that regional economic integration boosts FDI inflows to a country. Motta and Norman (1996) investigated a relation between regional economic integration and FDI inflows. Their results confirmed that economic integration brings more FDI inflows because this increases the accessibility to the region. The research conducted by Molle (1990) and Pelkmans (1997) also demonstrated that there is strong relationship between regional integration and capital mobility, especially in developed economies. Silva and Lagoa (2013) also confirm that economic and monetary integration reduce the negative impact of taxes on FDI and that accelerates FDI Inflows, as researched before. On the other hand, the research conducted by Kumar, Sen and Sirvastava (2014) showed that regional economic integration doesn't work as good on developing countries as it does on advanced economies.

Taking into consideration all the literature on key determinants presented the following null hypothesis has been stated:

H_0 : The key determinants of FDI Inflows to Poland have a really strong relationship with FDI Inflows rate

As an alternative for the null hypothesis the author states the alternative hypothesis:

H_A : The key determinants of FDI Inflows to Poland have no relationship with FDI Inflows rate

3. Methodology

This dissertation focuses on key determinants of Foreign Direct Investment Inflows to Poland from International Business point of view. Therefore, the author conducts a secondary research from macroeconomics sources using quantitative methods and deductive research approach. The quantitative analysis is strictly associated with the positivist approach and involves collecting data and converting it into figures in order to draw statistical calculations and make a conclusion.

Researchers are meant to create hypotheses that address the research questions and call a realistic relationship which occurs between variables. The data is collected in many different ways following a strict pattern and subsequently prepared for statistical analysis. These statistics allow the researcher to determine to what extent and if there is any relationship between two variables. The whole process needs to be really consistent and must acknowledge all external factors that may affect the research result. Quantitative research puts a great emphasis on deductive approach. This research method aims at collecting variety of data and information in order to confirm the hypothesis to resolve the issue. This approach requires the author to set hypotheses in the research project and follow and examine them in order to get desirable results. It therefore aims at investigating from the broad to the specific, and it's often described as top to down approach (Gill and Johnson 2010). Beiske (2007) develops the definition of deductive approach further and adds that it explores a well-known theory and checks if the theory is valid at given circumstances. Snieder and Larner (2009) postulate that hypothesis must be tested by facing it with observations that may lead to the confirmation or rejection. In other words, the author makes a hypothesis or theory that need to be supported by analyzed data and the whole process has to answer the question whether the hypothesis is supported or not. The deductive approach is strictly related to quantitative analysis and this is associated with the positivist approach. It involves collecting data and converting it into figures in order to draw statistical calculations and make a conclusion.

This study is conducted in macro scale investigating key determinants of Foreign Direct Investment Inflows to Poland's economy and also examining how the European Union accession in 2004 changed the Inflows. Therefore, the author obtains the data from macroeconomic data banks, such as: The World Bank, Investing Across Borders database, United Nations Conference on Trade and Development, Organisation for Economic Co-Operation and Development and Political Risk Services International Country Risk Guide. The data regarding the region of European Union countries is obtained from Eurostat and European Central Bank. The national statistics are acquired from Polish Agency for Foreign Investments, The Central Statistical Office of Poland (GUS) and The Polish National Bank (NBP). The research analyses in depth the key determinants as factors that made polish economy grow and the accession fact as a main point of the inflows acceleration.

First part of the data analysis chapter investigates the accession fact as a main key determinants influencing and positively impacting other key determinants. This part presents the graph on FDI Inflows, relative change in FDI, and the table showing the share of FDI Inflows in Poland's GDP before and after accession. Due to inequality in data the cumulative and average number of FDI Inflows is provided for 7 years before and after accession. In order to present further relationship between FDI Inflows into Polish economy, the author presents 'Table 4' in which the information on what is. The second part of the data analysis chapter presents relationships between FDI Inflows and following key determinants:

- Market Size and Growth Potential

It is measured by relative GDP changes over a certain period of time. Since growth potential is measured by people's income, the author takes into consideration GDP per capita and its relative change over the period of time. Due to data constraints the measurement shall be conducted from 1993 to 2011. Many researchers such as Janicki and Wunnava (2004), Wheeler and Moody (1992) and Torrisi et al. (2008) have already undertook the topic before, measured the relative correlation between GDP per capita and FDI Inflows and found it significant. The data is obtained from the World Bank.

- Corporate Income Tax change

Corporate Income Tax rate, as a representative of incentives offered by the government, has been found a really important key determinant on location of Foreign Direct Investment (Devereux and Griffith, 1998). However, Silva and Lagoa (2013) found that countries economically or monetary integrated are able to set relatively high corporate income tax without any effect on FDI Inflows. The data on CIT is collected and the relative change over years of 1993 until 2013 is investigated. This percentage change is compared to relative change in FDI Inflows over the same period of time. The data is obtained from Polish National Bank (NBP).

- Openness to Trade

Openness to Trade is a really important factor of incoming FDI. Janicki and Wunnava (2004) investigated the relationship in CEE countries and found it positive. In order to calculate the relationship in this research paper the author uses sample of Jannicki and Wunnava's research by calculating the ratio which consists of the share of Imports in Poland's GDP and subsequently the relative change over the period starting from 1992 until 2011. Finally the comparison of FDI Inflows and the relative change of the ratio shall be conducted. The data is obtained from the World Bank.

- Currency exchange fluctuations

This variable has been divided into two separate ones. Firstly, the author presents the relative change between USD and PLN and finds the relationship between it and Foreign Direct Investment Inflows relative change. Subsequently, the author presents the relative change between EUR and PLN and follows the same pattern. Due to data constraints the author investigates the period from 1999 until 2011. The data is obtained from OANDA (2014).

- Political Risk

This key determinant is measured by using Political Risk Indicator from Political Risk Services International Country Risk Guide. Subsequently, the author compares the relative change between the indicator and the relative change in FDI Inflows over period of 1999 to 2011. The risk factor has been previously investigated by Janicki and Wunnava (2004), Sakali (2004), Bevan and Estrin (2000) and many other researchers.

- Labour cost

The data is obtained from Eurostat. The average annual salary in Poland has been calculated as a percent share of Luxembourg's average annual salary. Then the author calculates the relative change and compares it to FDI Inflows.

- Control of corruption

The data is obtained from World Economic Forum Global Competitiveness Survey. Then the author attempts to calculate the relative change annually.

The full list of variables to be found in Appendix 5.

In addition, the author runs a regression analysis by creating three models of above variables. The first one includes only social variables, the second one only economic variables and the third one all of them. The reason of this is that the author presents a clear relationship between particular variables in the models and attempt to find a relationship between those three models. The author considers a large relationship in models if $R < 0.5$ (Pallant, 2010).

Quantitative research supported by the deductive approach, which has been carried out in this research paper, is the only one research methods that can be conducted for examining this research topic. The topic is investigated from macro perspective of Foreign Direct Investment Inflows and subsequently it goes to the specific analysis of particular data. Therefore, according to what Beiske (2007) said this dissertation's topic developed a well-known theory and checked if it's valid at given circumstances. In this case, the data collection methods have a lot advantages. It provides precise,

quantitative, numerical data which is relatively less time consuming to analyze, unlike primary data. The statistical investigation derives important and detailed facts from research data including trends and even small differences, essential in this kind of research topic. Due to in depth statistics use, the author is able to investigate dependent and independent variable and find the relationship between them two, which results in confirming or rejecting the hypothesis. This approach is also really helpful when studying large numbers. On the other hand, knowledge produced by this method might be too abstract and general to apply it into specific context. What is more, by increasing the sample size and therefore the findings statistical power, researchers make the findings less meaningful and manipulate the research.

This research paper is limited by many reasons. Due to data constraints and therefore inability to find essential information regarding either historical or most recent events the author cannot investigate the whole period of 1990 to 2013 in each case. For this reason, the author is only able to conduct simple regression analysis and make descriptive statistics as the investigated sample is too small for more sophisticated statistical tools. Furthermore, the dissertation is limited by 10 000 words only and this follows that the author cannot provide in depth analysis of every key determinants influencing the economy. Therefore, only determinants that have been found important by the author are examined. What is more, the author is unable to present comparison analysis between Poland and another country with similar background, which would give a better understanding of the topic. Finally, this thesis is presented from the perspective of international business; hence sophisticated economic statistics tools are undesirable in this case. This research paper follows the ethical procedures imposed. The data collection and writing process are conducted with respect to other people and are not sensitive nor cause harm to other people. The research is consistent with any form of guidelines which have been indicated by the subject of the research. The dissertation doesn't contain of any confidential record or sources. Also any third party has not impacted this research project.

4. Data analysis

4.1. FDI Inflows to Poland after the collapse of Iron Curtain until 2011

Figure 1:

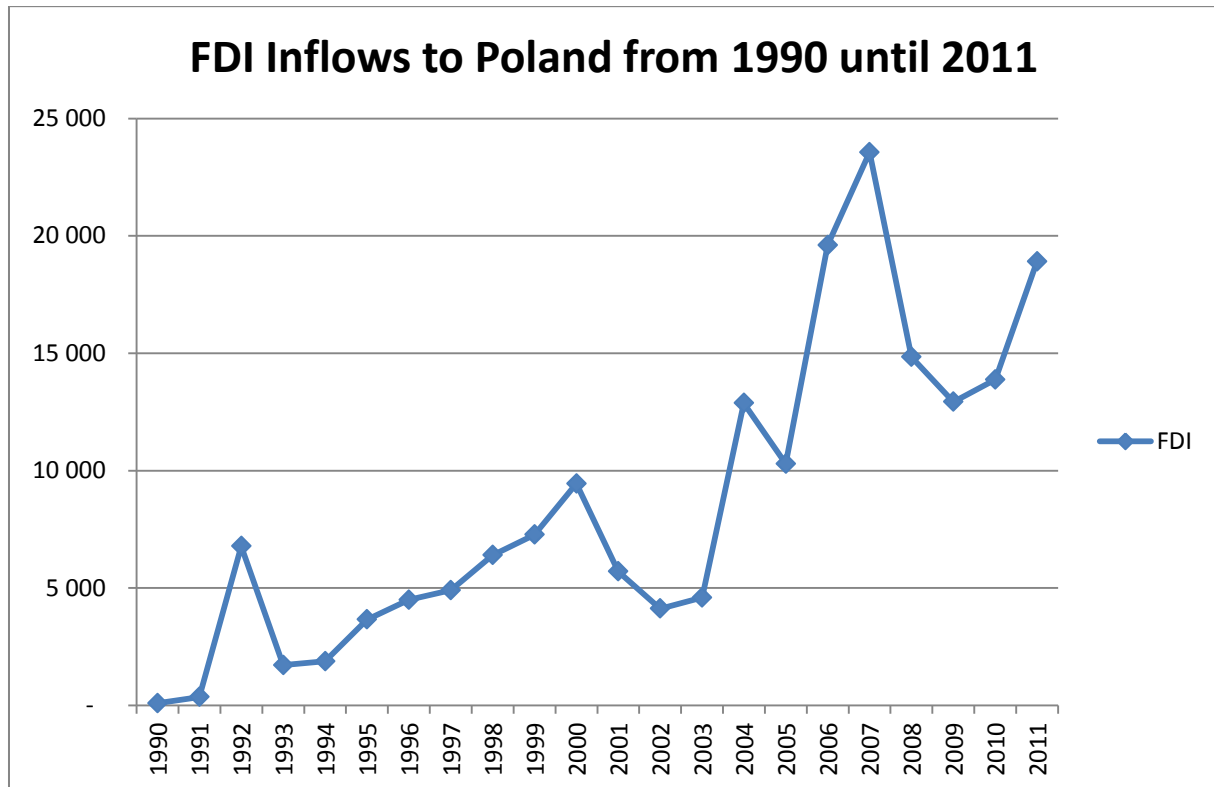


Table 1:

FDI Inflows to Poland from 1990 until 2011

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
FDI Inflows in million \$	88	359	6,780	1,715	1,875	3,659	4,498	4,908	6,398	7,271

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
9,445	5,701	4,123	4,588	12,874	10,293	19,603	23,561	14,839	12,932	13,876	18,911

Source: The World Bank Data

Table 2:

The annual percentage change in FDI from 1991 until 2011:

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
% Change	308.	1788.	-74.	9.	95.	22.	9.	30.	13.	29.

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
-39.	-27.	11.	181.	-20.	90.	20.	-37.	-12.	7.	36.

Source: Calculated by the author

Table 3:

Cumulative and Average FDI before and after the EU accession in 2004 and the percentage change:

Period	Cumulative FDI	Average FDI
1997-2003	42,434	6062
2004-2011	126,889	18127

<u>Percentage change</u>	199%
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Table 4: FDI Inflows as a part of GDP

Year	Value
1991	0.347877
1992	0.734601
1993	1.825163
1994	1.729622
1995	2.631205
1996	2.870744
1997	3.123055
1998	3.681286
1999	4.332494
2000	5.454934
2001	3.000722
2002	2.084475
2003	2.116689
2004	5.03068
2005	3.636247

2006	6.297891
2007	6.012628
2008	2.839079
2009	3.338924
2010	3.634801
2011	3.365933

	Average
before	3.33305
after	4.269523

The FDI Inflows to Poland show growing tendency. In 1990 the rate was at a really low level of \$88 million and it grew up to \$6,780 (1788% relative change) due to the recent collapse of Irona Curtin and implementation of Trade Liberalization reforms. Then again it decreased and started a steady increase to \$9,445 million in 2000. Subsequently, the rate went down, which happened in 2001, and went up again in 2004 when Poland joined the EU. Afterwards, the rate decreased in 2005 and continued growing from 2006. In 2007 it reached a record level of \$23,561 million of Foreign Direct Investment Inflows. Then due to the global financial crisis the rate decreased again in 2008, but it started to increase in 2010 to reach a really high level of \$18,911 million in 2011. As mentioned before, the EU accession had a significant impact on FDI inflows. The cumulative FDI rate amounted at \$42.434 million and \$60627 million 7 years before the accession happened. In turn, cumulative rate and the average 7 years after the accession amounted at \$126,889 million and \$18127 million. This gives 199% change between two periods.

The biggest percentage change in FDI inflows to Poland happened in 1992 when the percentage rate increased as of 1788% compared to the previous year. This was due to the switch of political and economic systems in Poland. Foreign Companies started to acquire former state-owned companies and invest their capital into newly free economy in Europe (Qin & Vanags, 1996).

The share of FDI Inflows in the total amount of Polish GDP also demonstrates the dynamics of investments made in Poland over the period. The share grew accordingly to the previous graph. All data presented shows two decreases in the amount of FDI Inflows. The first decrease reached Polish economy in 2002 and was a consequence of first mild economic recession in this century called the dot-com bubble. It was powered by the rise of Internet sites and the tech industry in general and

popped to near devastating effects. Another decrease, this time quite a big one, happened in 2008. It was due to the global economic downturn and its role in decreasing FDI Inflows into economies in the world has been investigated by researchers such as Dornea et al. (2012), Filippov and Kalotay (2009) and many others.

Table 5:

		FDI	EUIntegr
FDI	Pearson Correlation	1	.827**
	Sig. (2-tailed)		.000
	N	21	20
EUIntegr	Pearson Correlation	.827**	1
	Sig. (2-tailed)	.000	
	N	20	20

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5 presents a strong positive relationship between FDI Inflows and EU Integration. This means that the greater the EU integration, the more FDI inflows increase. The correlation coefficient (0.827) is significant at the 10% level. This follows that the EU enlargement in 2004 and Poland's accession accelerated FDI Inflows to the country. The coefficient of determination (R^2) amounted at 68%. Therefore, it is seen that European Integration explains nearly 68% of the variance in the amount of FDI Inflows to Poland. These findings are significant at the $p < 0.01$ level.

4.2. Regression analysis on key determinants

Regression Model 1

Key determinants including only social factors

R=0.580		PFDI
Pearson Correlation	PFDI	1.000
	Controlofcorrupt	-.577
	PolitRiskPer	.215
Sig. (1-tailed)	PFDI	.025
	Controlofcorrupt	.240
	PolitRiskPer	.240
N	PFDI	19
	Controlofcorrupt	12
	PolitRiskPer	13
R Square	0.336	
F Value	2.276	
P Value	0.158	

Regression Model 2

Key determinants including only economic factors

R=0.875		PFDI
Pearson Correlation	PFDI	1.000
	PGDP	.517
	Labour	-.130
	TradeOpRelative	.583
	CITchange	-.652
	DOLPLNchange	.039
	EURPLNchange	.560
Sig. (1-tailed)	PFDI	
	PGDP	.012
	Labour	.360
	TradeOpRelative	.004
	CITchange	.002
	DOLPLNchange	.443
	EURPLNchange	.023
N	PFDI	19
	PGDP	19
	Labour	10
	TradeOpRelative	19
	CITchange	18
	DOLPLNchange	16
	EURPLNchange	13
R-Square	0.766	
F-Value	1.640	
P-Value	0.367	

Regression Model 3

Key determinants including all the factors

R=0.942		PFDI
Pearson Correlation	PFDI	1.000
	Controlofcorrupt	-.577
	PolitRiskPer	.215
	PGDP	.517
	CITchange	-.652
	TradeOpRelative	.583
	DOLPLNchange	.039
	EURPLNchange	.560
	Labour	-.130
Sig. (1-tailed)	PFDI	
	Controlofcorrupt	.025
	PolitRiskPer	.240
	PGDP	.012
	CITchange	.002
	TradeOpRelative	.004
	DOLPLNchange	.443
	EURPLNchange	.023
	Labour	.360
N	PFDI	19
	Controlofcorrupt	12
	PolitRiskPer	13
	PGDP	19
	CITchange	18
	TradeOpRelative	19
	DOLPLNchange	16
	EURPLNchange	13
	Labour	10
R Square	0.887	
F Value	0.981	
P Value	0.658	

Model 1 presents a large relationship (0.580) between the dependent variable and independent variables. It includes only social independent variables according to Institutional Theory (Scott, 1995). The R² is quite low and it reaches 33.6% which means that the model explains almost 34% of the variance in the observed values of the dependent variable is explained by the model, the rest 66% remains unexplained. The P Value is also quite high and it represents the significance of the model. In this case Model 1 shows that there is 15.8% chance that the relationship emerged randomly and therefore the explanatory power of this model is quite high. The strongest unique contribution to this model is made by *Controlofcorrupt* variable and what is more the same variable is the closest to indicate a statistically significant unique contribution of 7.9% to the explanation of variance in FDI Inflows. The variables contained in the model measure the level of controlling corruption by the government and also alternative political risk that comes along with the internationalization process. Figure 12 and Table 16 present Political Risk Indicator relative change. The rate changes in small degree and remains rather steady. In 1999 it grew about 3%, the following year showed a -16% decrease, which was the biggest one in the investigated period, and then it increased again by 10%. The following two years show a decrease by 11% and 3%, then again it is seen a small increase (4%) and decrease (-7%). Next three years present a small positive increase in the indicator; subsequently it goes down in 2009, grows by 1% in 2010 and again decreases in 2011 by 6%. The data presented in Figure 13 and Table 17 shows no significance between political risk rate and FDI rate for this research. The rate indicates Poland as a politically stable country with no violence acts. The reason of this correlation being not significant may be the fact that Foreign Direct Investors making the decision on investing in Poland do not consider this issue anymore as the country is located in Europe, belongs to many international alliances such as NATO and United Nations, all the transition reforms have been implemented smoothly, and what is more, it belongs to the European Union. Figure 14 presents the good governance indicator. It remains rather steady. The biggest drop happened in 2002 and the biggest increase in 2010. The indicator stood at the biggest level in 2000 and the lowest in 2007. Table 18 presents the relationship between FDI Inflows and Governance Indicator's relative change. It is rather weak and not significant. The shared variance amounted at only 11.2% and thus Good Governance Indicator relative change explains nearly 11% of the variance in FDI Inflows rate. Poland has implemented the transition reforms really smoothly as confirmed by Faucompret and Konings (2001). Even though, the government of Poland changed so many times in 90s, the EU accession guarantee foreign investors stability and violence free environment.

Figure 15 and Table 19 show the control of corruption indicator. The control of corruption indicator relative change rate goes to a completely opposite direction than FDI Inflows rate. The rate of corruption is variable and changes year by year from 1999 until 2004. The biggest positive change happened in 2005 and compared to 2004 the rate increased for 103%. This is a result of Poland's joining the EU in 2004 and improving the general governance conditions before the accession. From 2005 onwards the rate tends to grow and shows 0.48 in 2011. The data on Figure 16 and Table 20 shows a large negative correlation between the relative change of Foreign Direct Investment Inflows and Control of Corruption Index. This means that the greater control of corruption index, the less inflowing FDI to the country. The correlation coefficient (-.577) is significant at the 5% level. The shared variance is 33% thus remaining 67% is unexplained. This confirms Wei (2000) hypothesis on preventing corruption in order to encourage FDI.

Model 2 presents a strong relationship (0.875) between the dependent variable and independent variables. It includes only economic independent variables according to economies theories (Wheeler and Mody, 1992). The R² is quite high and it reaches 76.6% which means that the model explains almost 77% of the variance, which is quite high. The P Value is quite low and it represents the significance of the model. In this case Model 1 shows that there is 36.7% chance that the relationship emerged randomly and 63.3% that it did not. The strongest unique contribution to this model is made by *PGDP* variable, which is the market potential represented by GDP per capita. In addition, *CITchange*, which is the change in Corporate Income Tax, is the closest to indicate a statistically significant unique contribution of 31.6% to the explanation of variance in FDI Inflows. This model supports the Eclectic theory and especially the location advantages (CSA). It includes economic advantages such as scope and size of the market as well as political advantages, such as specific policies that influence inward of FDI. The list of the policies to be found in Appendix 4. Poland, as a European country is really close culturally and socially to other European countries and its main investors (see Appendix 2).

In GDP per capita in Figure 4, from 2004 the growing and similar tendency in both variables is noticeable until 2008 when the global downturn happened. Subsequently, after 2008 GDP per capita and FDI Inflows rates have been increasing. The biggest increase in GDP per capita happened in 1997 and this may be a consequence of the announcements issued by the EU in 1995 and 1997 that accelerated economic growth (Marktler, 2006). Table 4 also presents a significant increase in FDI share of GDP in the given period. The data presented on Figure 3 and Table 7 shows a large

significant (5%) and positive relationship (0.517) between FDI Inflows and GDP per capita. This follows that the greater GDP per capita and therefore market potential, the more FDI Inflows increase. Figure 3 presents the relationship in a graph form. It is clearly seen that the points go into upward direction and form a cigar, therefore the positive relationship exists. The shared variance amounted at 26.7% and thus nearly 27% of the variance is explained by this correlation and the rest remains unexplained. This thesis agrees with Lankes and Venebles (1997) and Pye (1998) who also say that market potential was one of the main key determinants to developing economies.

Figure 4 and Table 8 show that the corporate tax income rate does not change a lot during the presented period of time. Although it is clearly seen that the government put the effort in order to attract foreign investors to Poland because the rate was being systematically decreased. In 1998 it decreased to 36%, which is -10% change compared to the previous year, subsequently the rate was decreased again to 34% (-5,6% change) and in 2000 it was yet again decreased to 28% (-17,6% change). In the same year the government finished its plan on implementing the tax reforms at later stages (Appendix 1). The income tax remained at the same level for three years and in 2003 it was decreased to 27% (-3.6% change) and finally the government decreased it to 19% in 2004 (-29,6 change). The rate hasn't been changed since then. Both variables fluctuate into completely different directions. The Foreign Direct Investment Inflows rate is rather unsteady and changeable; whereas the CIT rate is rather constant, only minor deviations occur. The CIT rate is usually characterized as being steady because countries around the world rather don't usually change it annually. The data shown in Figure 5 and Table 9 presents a strong negative correlation between the relative change of Foreign Direct Investment Inflows and Corporate Income Tax. This means that the greater corporate income tax, the less inflowing FDI to the country. The correlation coefficient (-.652) is significant at the 1% level. The shared variance amounted at 42.5% and thus Corporate Income Tax relative change explains nearly 43% of the variance in FDI Inflows rate. Also, MNCs do not pay corporate taxes in most cases because they are using sophisticated tax avoidance methods (Desai and Dharmapala, 2006). Cassou (1997) and Kemsley (1998) and Hartman (1994) also discussed that the greater the corporate tax rate the less inflowing FDI.

Figure 6 and Table 10 present the trade openness ratio rate. The most significant relative change in the ratio happened in 2003 when it changed for 14% compared to the previous year. The biggest decrease happened in 1998. The graph shows a similar trend between FDI Inflows and Trade Openness Ratio. The lines show comparable moments of increases and decreases. The data on Figure 7 and Table 11 shows a large positive correlation between the relative change of Foreign Direct

Investment Inflows and Trade Openness Ratio. The correlation coefficient (.583) is significant at the 10% level. Trade Openness Ratio explains nearly 33% of the variance in the data. This agrees with Addison and Heshmati (2003) who also conducted a research on import and export share in GDP and came to the same conclusion.

The data on Figure 8 and Table 12 presents USD-PLN rate that has an upward pattern until 2000. Subsequently the rate decreases affected by many events in the world such as: the first crisis in 2001, war in Iraq in 2003 that weakened purchasing power of American currency, and the Global Crisis in 2008. The rate gradually started to increase after 2008 and then it slowed down again in 2009 and turned into downward pattern. Polish currency is obviously weaker than USD and is subjected to devaluation process towards USD. The correlation is really weak. Figure 10 and Table 14 present EUR-PLN exchange rate. It is rather stable compared to USD-PLN rate. It decreased from the beginning of investigated period until 2001. That means that EUR became more powerful towards PLN.

Subsequently, the rate increased which gave PLN more purchasing power than EUR, and from 2004 the rate steadily decreased to 3.5 in 2008. The graph shows quite a big increase in 2009 when the rate reached 4.31. In the following year it decreased yet again and made an increase in 2011. The biggest negative change for EUR currency happened in 2008 when a customer could buy 1 EUR for 3.50 PLN which is relatively cheap. EUR was the most expensive for Polish customers in 2009 and it reached 4.31 PLN for 1 EUR. Figure 11 and Table 15 shows a large positive correlation between the relative change of Foreign Direct Investment Inflows and the exchange rate of EUR-PLN. This follows that the more stable the exchange rate and the more devaluated the Polish currency is, the more foreign investors want to invest in Poland. The correlation coefficient (0.560) is significant at the 5% level. The shared variance amounted at 31.4% and thus EUR-PLN exchange rate fluctuation explains nearly 31% of the variance in FDI Inflows rate. The reason why the correlation between USD-PLN and FDI does not exist, yet it exists between EUR-PLN rate and FDI Inflows is that the majority of foreign investors in Poland coming from within the European Union. Therefore, the currency exchange is important for them regarding trade between member states, operations costs and the domestic costs. The biggest three foreign investors in Poland in 2010 were Luxembourg, Germany and Italy. The full list is included in Appendix 2. This has been confirmed before by Udomkerdmongkol et al. (2006) who say that local currency devaluation encourages FDI.

Figure 17 and Table 21 present the ratio on share of Poland's average annual salary in Luxembourg's. From the beginning of the investigated period it was decreasing until 2004. Then it increased, mainly because Poland's average annual salary increased after the accession in 2004. From 2005 the ratio

was steadily increasing until 2008. In 2009 due to the global crisis the ratio decreased again, since Poland's average salary decreased as well. However it started to increase again from 2010 onwards. The biggest increase happened right after the EU accession and the biggest drop in 2009 when the global crisis took effect. The data on Figure 18 and Table 22 presents a weak negative correlation between FDI Inflows and Labour cost ratio. This means that the greater the change in labour cost, the more FDI Inflows decrease. The result is similar to Merlevede and Schoors (2004) who confirmed that increase in wages discourage FDI Inflows.

Model 3 presents a really strong relationship (0.942) between FDI Inflows and independent variables. It includes all the variables investigated in previous models. The R2 is high and it reaches 88.7% which means that the model explains almost 89% of the variance in the observed values of the dependent variable is explained by the model, the rest 11% remains unexplained. Therefore, the model has strong explanatory power. This model is not significant because $p < 0.658$. Model 3 shows that there is 65.5% chance that the relationship emerged randomly and 34.5% that it did not. The power and significance of this model is influenced by many factors.

Those three models aim to explain the relevance and nature of the key determinants to polish economy. The first model on institutional factor shows a weaker relationship with the independent variable but stronger significance than Model 2. That means that economic key determinants are the main driving force to polish economy. Model 3 gathers together all the key determinants and show that there is a really strong relationship between them and FDI Inflows to Poland. It explains most of the variance in the data and therefore it's really relevant for this research due to its explanatory and testing power.

5. Concluding remarks

This dissertation investigated the main key determinants of Foreign Direct Investment Inflows both economic and social into polish market. The topic is incredibly important in order to understand the nowadays business flows, especially in Europe. The study is contemporary due to its international context and recent events. Poland became a fully free country after the collapse of Iron Curtain and started to rapidly develop its market into the western pattern. The transition process heavily put a sign on polish citizens; however the country's economic condition is improving rapidly. For this reason, the European Integration was a really favorable moment in polish history as it gave Poland a lot of new opportunities as well as challenges. In 90s Poland managed to implement all the transition

process reforms, including really overwhelming economic regulations for such a young country. Moreover, Poland adopted the *acquis communautaire* which is a collection of European laws and regulations that is a requirement for every member states in the EU. Therefore, Poland transformed from a weak post-communist country into a well-performing economy and surprised the international audience during the global crisis in 2008 by having an economic growth instead of loss. The study provides the reader with theories on FDI flows, outlook on polish economy, trends in FDI Inflows and the analysis of each key determinant of Foreign Direct Investment. This study also presents three relationships between dependent variable, which is FDI Inflows rate, and other independent variables and those are the key determinants.

Regression analysis conducted shows from a large to a strong relationship between the models and FDI Inflows. Model 1 includes only social key determinants. It shows a large positive relationship between the control of corruption indicator and political risk indicator, and FDI Inflows. Nevertheless, these factors are really difficult to determine and it is really difficult to indicate their significance for this research. This model typically refers to the Institutional Theory of Foreign Direct Investment. This theory is really important when investors wish to move their activities abroad; especially this refers to emerging economies. Institutional theory appears in industrialized countries only as a background that already exists, but it needs to be investigated when it comes to investing in emerging countries. Model 2 involves only economic key determinants that indicate a strong relationship to FDI Inflows. These key determinants are extremely important as there real figures and values involved. Unlike the social key determinants, economic key determinants do not need complicated methods of measuring as it is based on statistical data collected by every single country. This model shows how particular independent variables correlate with the amount of inflowing FDI. This is the main model that would be used by MNCs in order to consider the decision of going international due to clear methods of calculation and clearly seen profit. Model 3 concludes all the key determinants and shows a really strong relationship between the independent variables and FDI Inflows relative change. This shows the relevance of the research conducted. Particular variables are also analyzed in order to present a clear explanation of the research. Each of them relate to FDI Inflows to some extent. Those three models cover the Null Hypothesis (H_0) stated as they indicate a large relationship with FDI Inflows rate. According to Pallant (2010) the relationship in this case is more important than the significant therefore the hypotheses have been formulated with regards to relationship, and not with the significance.

The study has certain limitations that did not let the author to fully investigate the whole relationship. First of all, the author attempted to investigate a dummy variable that measures European Integration. The dummy variable was indicated as 0 unless there was an EU announcement or an important event occurred from the European Integration's point of view. Unfortunately, the dummy variable due to extensive nature of the research did not fit into any model. The variable caused exclusion or deletion of itself or other essential variables. Another thing is the significance of each model. None of them has been found statistically significant for this research; nevertheless they present strong relationship between variables. Therefore, the author considers the relationship important for indication of the influence on the FDI Inflows.

For the future research, the author recommends to make a comparison analysis with other country that has a similar background to Poland. This would give a better understanding of the topic. It is also recommended to deeply analyze other key determinants of FDI in the region, especially with regards to the institutional theory or the Uppsala model. The further economic key determinants also shall be investigated. These key determinants are: the distance to the market of destination, population of the country of destination, labour productivity, and the influence of European integration. In order to get the full picture of MNCs activities and the country background it is also worth investigating the spillover effect, its influence and impact on the economy.

The research gave the author a better understanding of Foreign Direct Investment's mechanism. The decision process of internationalization is really complicated and therefore analyzing the motives of MNCs provide a better understanding of the business world. Since this dissertation has been conducted on the author's country of origin, this gives the author huge knowledge of his country of origin from international perspective. The knowledge the author has gained will be most certainly implemented and the research continued at the further stage of his educational path. During the process of preparation, data collection and writing the dissertation the author has gained more practical research skills and the ability to deeply analyze and present particular subject of study.

6. References

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Graphs:

UNCTAD (2014) Figure 1. Global FDI inflows, average 2005–2007, 2007–2013. *Global Investment Trends Monitor* 34, pp2.

Appendices

Appendix 1: Transition reforms in Poland

<i>1990</i>	
January	Most prices liberalised
January	Most foreign trade controls removed
January	Small-scale privatisation begins
January	Fixed exchange rate introduced
January	Competition law adopted
January	Competition agency established
April	Privatisation law adopted
December	Insurance law adopted
<i>1991</i>	
January	Telecommunications law enacted
March	Securities law adopted
April	Stock exchange begins trading
May	Treasury bills market initiated
May	Crawling exchange rate regime introduced
September	Banking law enacted
<i>1992</i>	
January	Corporate and personal income taxes reformed
March	EU Association Agreement
December	Banking law amended
<i>1993</i>	
February	Financial restructuring law adopted

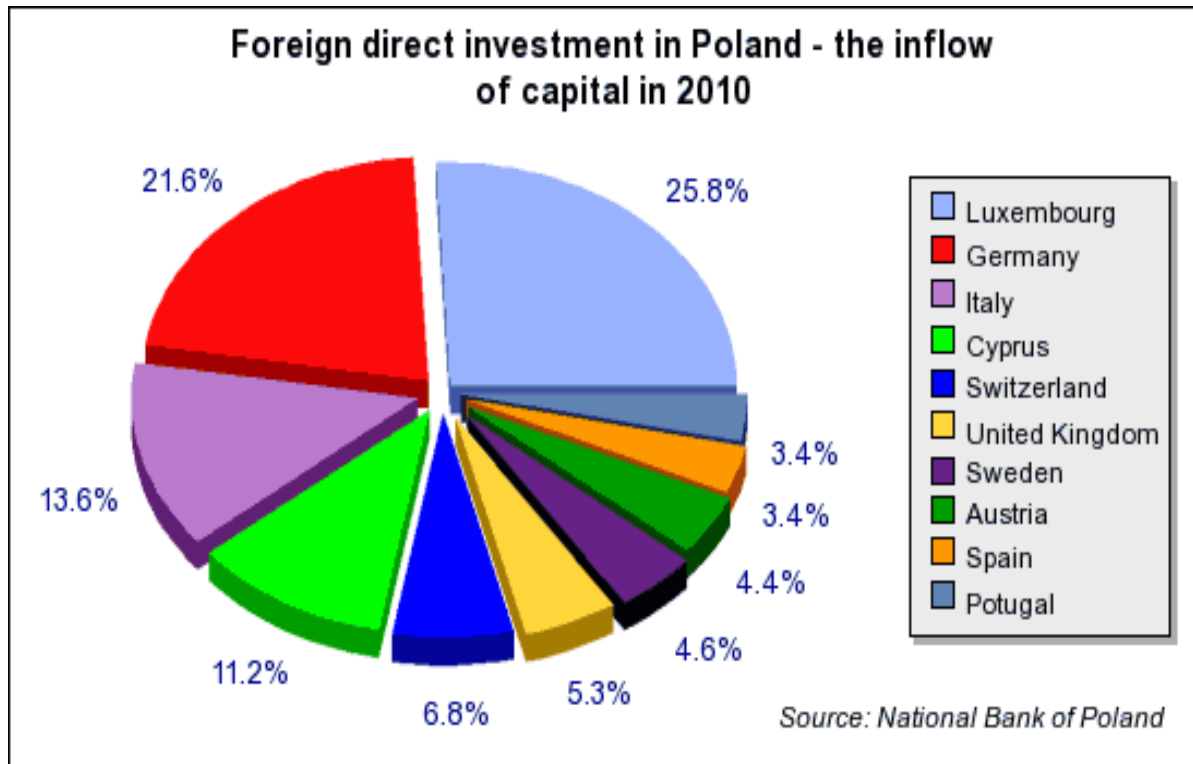
March	Central European Free Trade Agreement
April	membership
April	Mass privatisation programme begins
May	First bank privatised
July	Bank of International Settlements capital adequacy
November	adopted
	VAT introduced
	EFTA agreement
1994	
October	Major external debt restructuring
December	National Investment Funds established
1995	
January	Wage restrictions redefined
May	Agricultural import restrictions changed
May	Managed float with fluctuation band introduced
May	Telecommunications law amended
June	First sovereign Eurobond
June	Full current account convertibility introduced
July	WTO membership
July	State enterprises allocated to National Investment
July	Funds
October	Railway law adopted
	Insurance law amended

1996	
April	New privatisation law adopted
August	First corporate Eurobond
August	Gdansk Shipyard declared bankrupt
November	OECD membership
1997	
March	First toll motorway concession awarded
May	Energy law adopted
June	Securities law amended
June	National Investment Funds shares listed on
December	Warsaw Stock Exchange
	Electricity law adopted
1998	
January	Banking act amended
January	Independent banking regulator established
January	Bankruptcy law amended
February	Investment funds law enacted
February	Independent Monetary Policy Council established
November	EU accession negotiations started
November	Telecommunications privatisation begins
November	Mine restructuring law adopted
1999	
January	New foreign exchange law enacted
January	Pension reforms implemented
January	Health care system reformed
January	Insurance law amended
December	Import tariffs on agricultural products increased
2000	
January	Corporate tax reform implemented
April	Exchange rate floated
May	New telecommunications law adopted

Source: EBRD (2000), Transition Report. Update

Drawn by: Konings, J. & Faucompret, E. (2001) The integration of Poland into the European Union. University of Antwerp, Faculty of Applied Economics, Working Papers no. 2001023

Appendix 2: Main foreign investors in Poland



Country	Value in EUR mn	Share
Luxembourg	1945	25.88%
Germany	1627	21.65%
Italy	1020	13.57%
Cyprus	843	11.22%
Switzerland	510	6.79%
United Kingdom	396	5.27%
Sweden	343	4.56%
Austria	327	4.35%
Spain	252	3.35%
Portugal	252	3.35%

Source: Polish Agency for Foreign Direct Investments
http://www.paiz.gov.pl/poland_in_figures/foreign_direct_investment

Appendix 3: Correlations of particular variables

Individual correlations output

Market Size

Figure 2: GDP per capita and FDI Inflows in Poland



Table 6: GDP per capita and its relative change

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP p/c \$	2187	2406	2443	2813	3603	4057	4066	4472	4340	4454	4979
% Change	-7.3	2.2	3.5	5.1	6.8	6.2	7.0	4.9	4.5	4.8	1.7

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
5184	5675	6620	7963	8958	11157	13886	11295	12302	13382
1.5	3.9	5.4	3.7	6.3	6.8	5.1	1.5	4.0	3.5

Source: The World Bank Data

Figure 3: Scatter diagram on the correlation between market potential and FDI Inflows

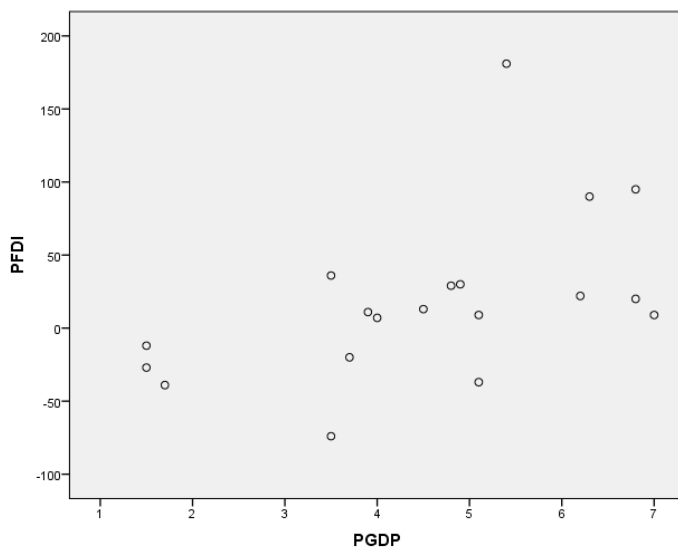


Table 7: The correlation between GDP per capita and FDI Inflows

	PFDI	PGDP
Pearson Correlation	1	.517*
PFDI Sig. (2-tailed)		.024
N	19	19
Pearson Correlation	.517*	1
PGDP Sig. (2-tailed)	.024	
N	19	19

*. Correlation is significant at the 0.05 level (2-tailed).

Corporate Income Tax

Figure 4: Corporate Income Tax and Foreign Direct Investment Inflows' relative change

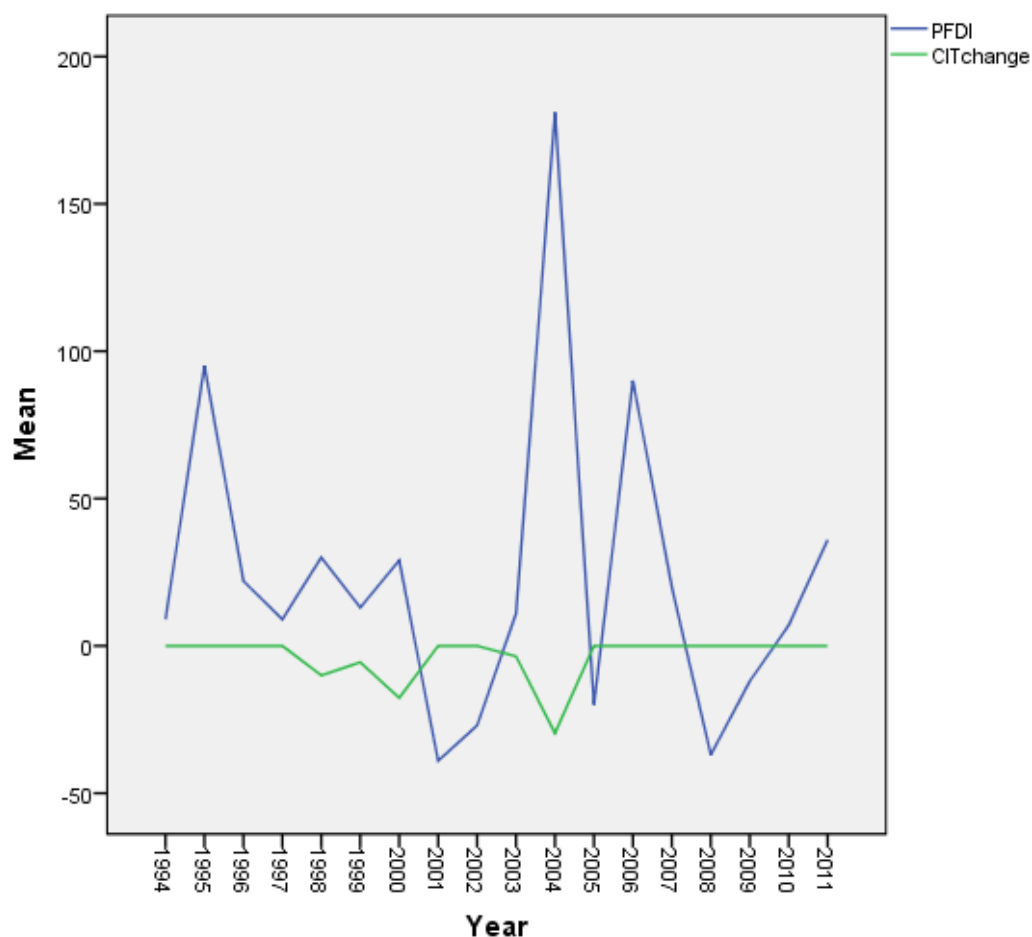


Table 8: Corporate Income Tax and its relative change

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
CIT in Poland	40	40	40	40	40	36	34	28	28	28
% Change	-	0	0	0	0	-10	-5.6	-17.6	0	0
	2003	2004	2005	2006	2007	2008	2009	2010	2011	
	27	19	19	19	19	19	19	19	19	
	-3.6	-29.6	0	0	0	0	0	0	0	

Source: OECD and the author's calculations

Figure 5: Scatter diagram on the correlation between Corporate Income Tax and FDI Inflows

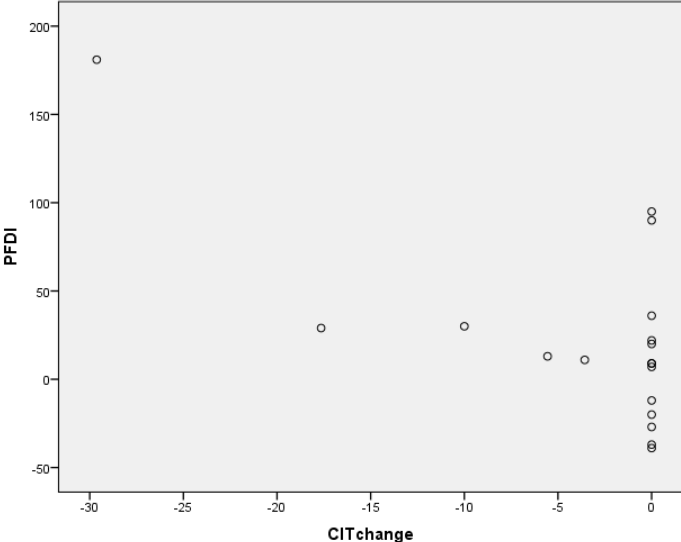


Table9: The correlation between Corporate Income Tax change and FDI Inflows

		PFDI	CITchange
PFDI	Pearson Correlation	1	-.652**
	Sig. (2-tailed)		.003
	N	19	18
CITchange	Pearson Correlation	-.652**	1
	Sig. (2-tailed)	.003	
	N	18	18

** . Correlation is significant at the 0.01 level (2-tailed).

Openness to trade

Figure 6: Relationship between FDI Inflows and Trade Openness

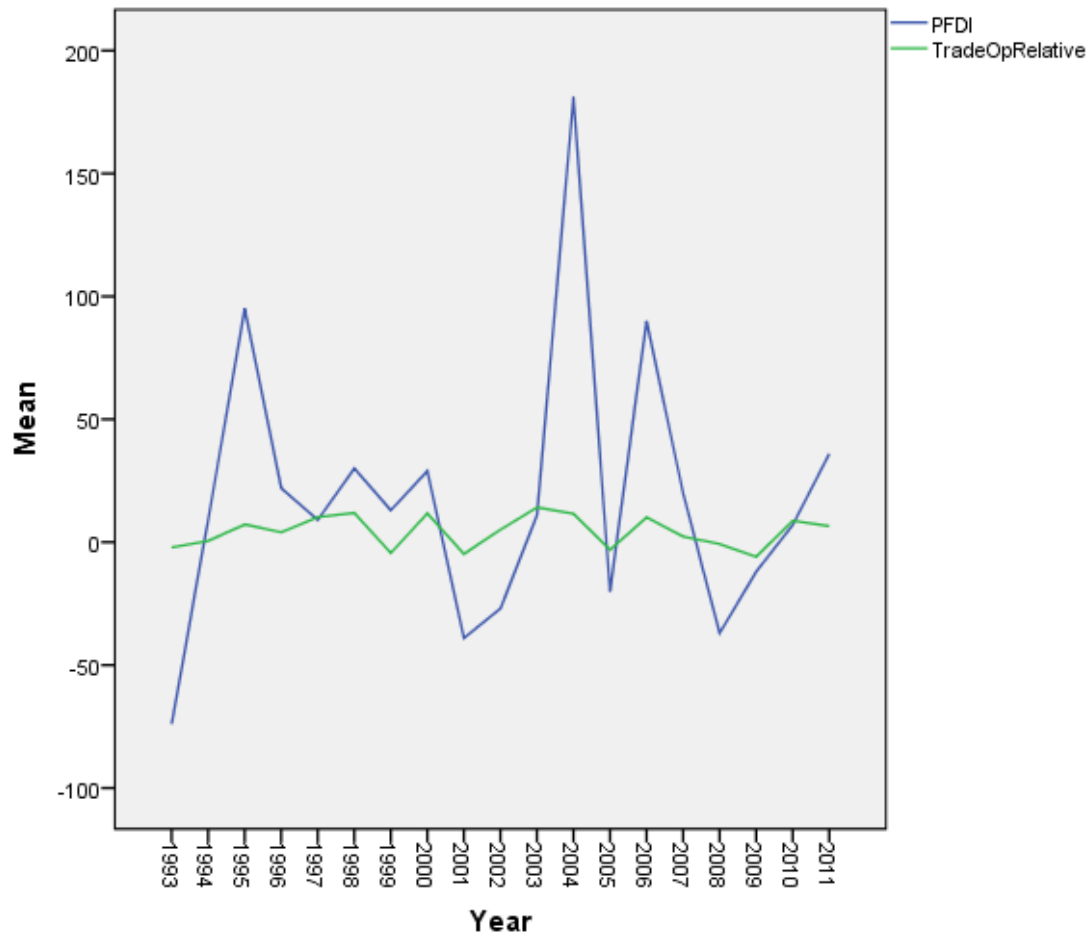


Table 10: Trade Openness Ratio and its relative change

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Trade Openness Ratio	22	21	21	21	22	23	25	28	27	30	
% Change	-	-6.33	-2.10	0.53	7.21	4.07	10.2	-11.93	-4.40	11.74	
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Trade Openness Ratio	29	30	35	39	37	41	42	42	39	43	46
% Change	-4.77	-5.12	14.14	11.57	-3.13	10.15	2.27	-0.74	-5.92	8.73	6.54

Source: The World Bank Data

Figure 7: Scatter diagram on the correlation between Trade Openness Ratio and FDI Inflows

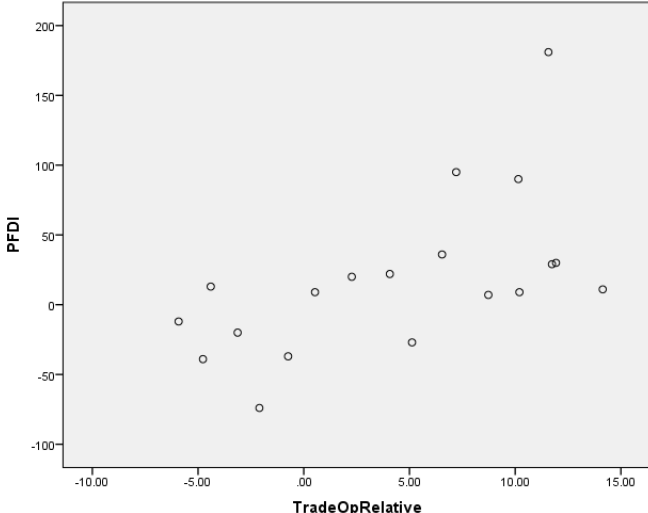


Table 11: The correlation between FDI Inflows and Trade Openness

		PFDI	TradeOpRelative
PFDI	Pearson Correlation	1	.583**
	Sig. (2-tailed)		.009
	N	19	19
TradeOpRelative	Pearson Correlation	.583**	1
	Sig. (2-tailed)	.009	
	N	19	20

** . Correlation is significant at the 0.01 level (2-tailed).

Currency exchange

Figure 8: Relationship between FDI Inflows and Dollar-Polish Zloty currency fluctuations

Dollar:

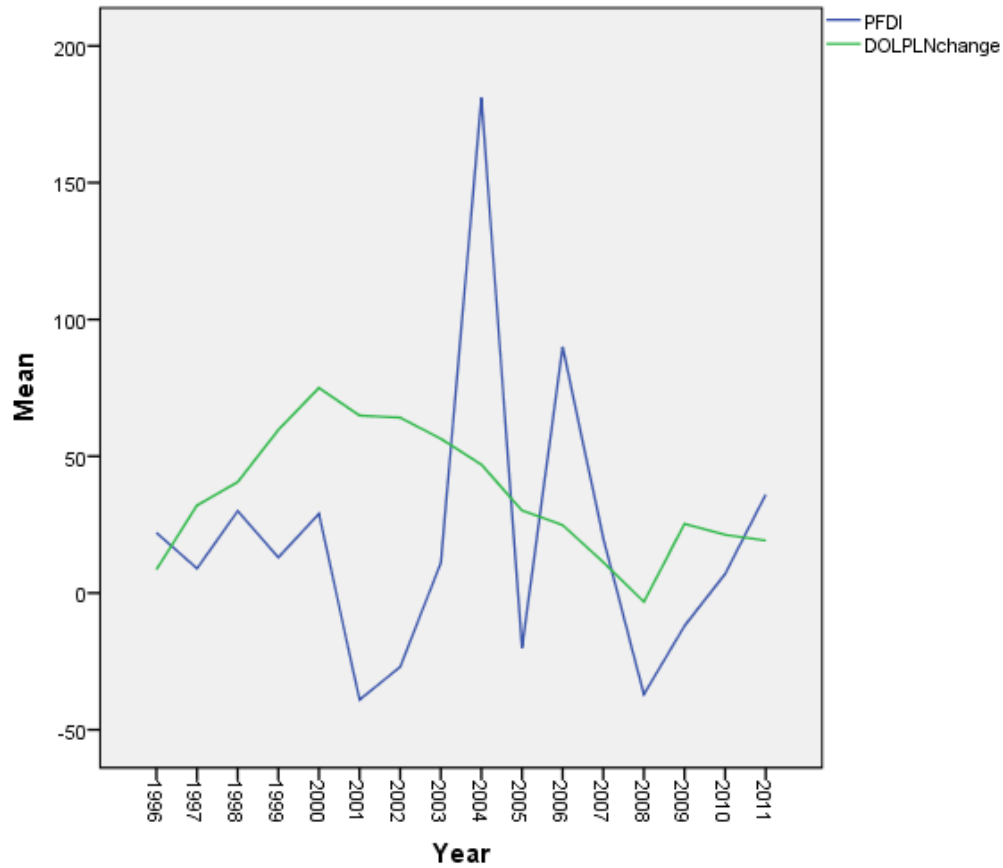


Table 12: DOL-PLN currency fluctuations and its relative change

DOL-PLN	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Exchange rate	2.48	2.7	3.28	3.49	3.96	4.34	4.09	4.07	3.88	3.64
% Change	-	8.59	32.06	40.56	59.67	75.02	64.87	64.13	56.39	46.93
Source:	2005	2006	2007	2008	2009	2010	2011			
OANDA	3.23	3.1	2.76	2.40	3.11	3.04	2.96			
	30.15	24.84	11.27	-3.2	25.32	21.27	19.17			

Figure 9: Scatter diagram on the correlation between DOL-PLN currency exchange and FDI Inflows

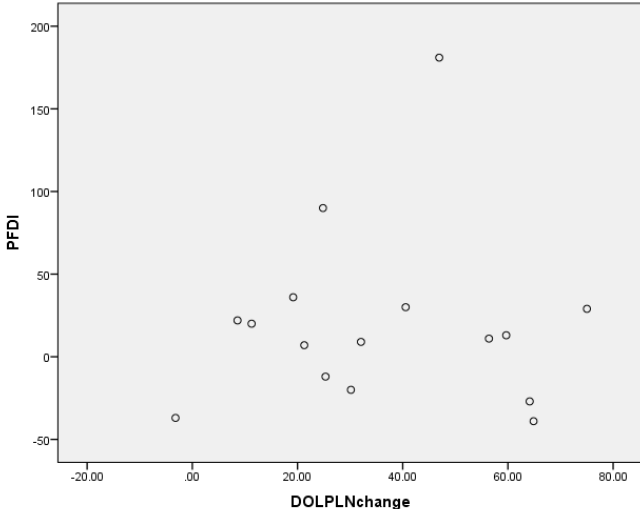


Table 13: The correlation between FDI Inflows and DOL-PLN currency exchange

		PFDI	DOLPLNchange
PFDI	Pearson Correlation	1	.039
	Sig. (2-tailed)		.886
	N	19	16
DOLPLNchange	Pearson Correlation	.039	1
	Sig. (2-tailed)	.886	
	N	16	16

Figure 10: Relationship between FDI Inflows and EUR-PLN exchange rate

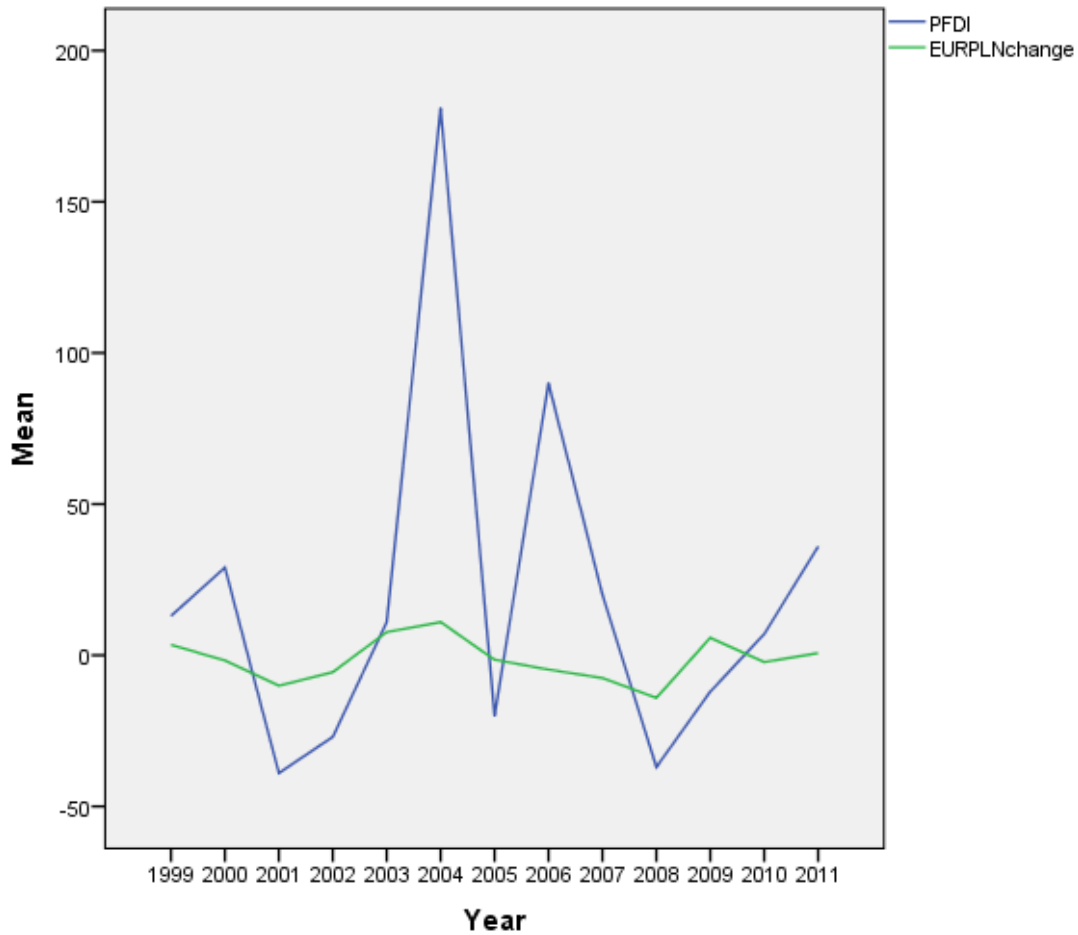


Table 14: EUR-PLN currency exchange rate and its relative change

EUR-PLN	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Exchange rate	4.22	4.01	3.67	3.85	4.39	4.53	4.02	3.89	3.77	3.50
% Change	3.48	-1.72	-10.06	-5.58	7.68	10.98	-1.49	-4.74	-7.52	-14.11
Source:	2009	2010	2011							
OANDA	4.31	3.98	4.10							
	5.79	-2.29	0.72							

Figure 11: Scatter diagram on the relationship between EUR-PLN exchange rate and FDI Inflows

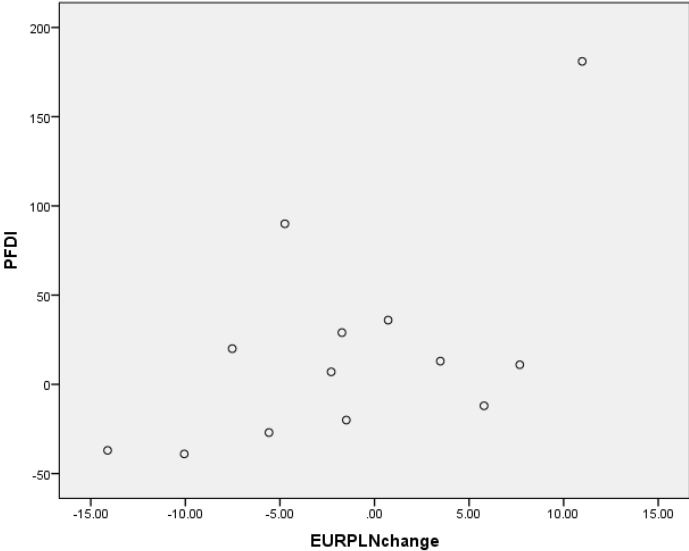


Table 15: The correlation between EUR-PLN currency exchange and FDI Inflows

		PFDI	EURPLNchange
PFDI	Pearson Correlation	1	.560*
	Sig. (2-tailed)		.046
	N	19	13
EURPLNchange	Pearson Correlation	.560*	1
	Sig. (2-tailed)	.046	
	N	13	13

*. Correlation is significant at the 0.05 level (2-tailed).

Political risk

Figure 12: Relationship between FDI Inflows and Political Risk Index

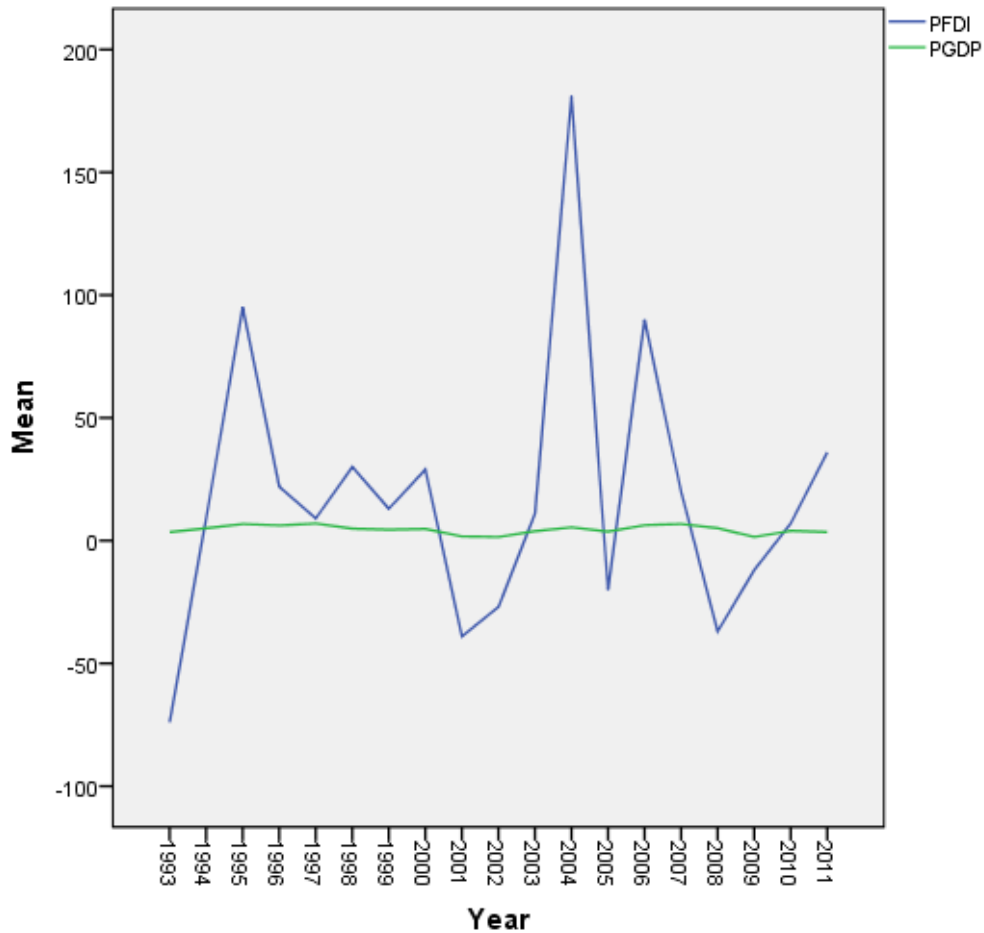


Table 16: Political Risk Indicator and its relative change

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Political Risk Indicator	.95	.98	.82	.9	.8	.78	.81	.75	.8
% change	-	3	-16	10	-11	-3	4	-7	7
	2007	2008	2009	2010	2011				
	.84	.85	.82	.83	.78				
	5	1	-4	1	-6				

Figure 13: Scatter diagram on the correlation between FDI Inflows and Political Risk Indicator

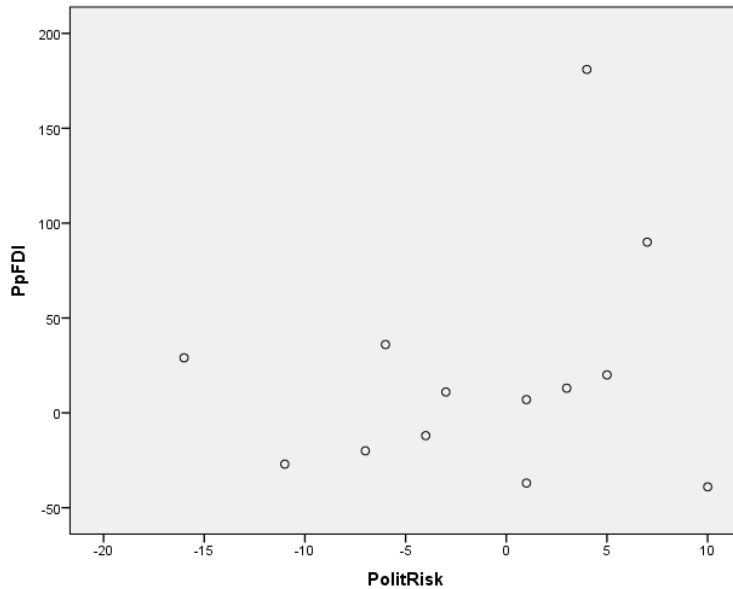


Table 17: The correlation between FDI Inflows and Political Risk Indicator

		PFDI	PolitRiskPer
PFDI	Pearson Correlation	1	.215
	Sig. (2-tailed)		.480
	N	19	13
PolitRiskPer	Pearson Correlation	.215	1
	Sig. (2-tailed)	.480	
	N	13	13

Figure 14: Good Governance Indicator and its relative change

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Good Governance	0.674	0.597	.494	.554	.490	.480	.422	.404	.479
% change	-	-	-	12.16	-	-2.01	-	-4.22	18.5
	13.38	11.43	17.23		11.51		12.20		
	2009	2010	2011						
	0.523	0.637	0.621						
	9.26	21.7	-2.38						

Table 18: The correlation between FDI Inflows and Governance

Indicator		PFDI	Governance
PFDI	Pearson Correlation	1	-.334
	Sig. (2-tailed)		.315
	N	19	11
Governance	Pearson Correlation	-.334	1
	Sig. (2-tailed)	.315	
	N	11	11

Control of Corruption

Figure 15: Relationship between FDI Inflows and Control of Corruption Indicator

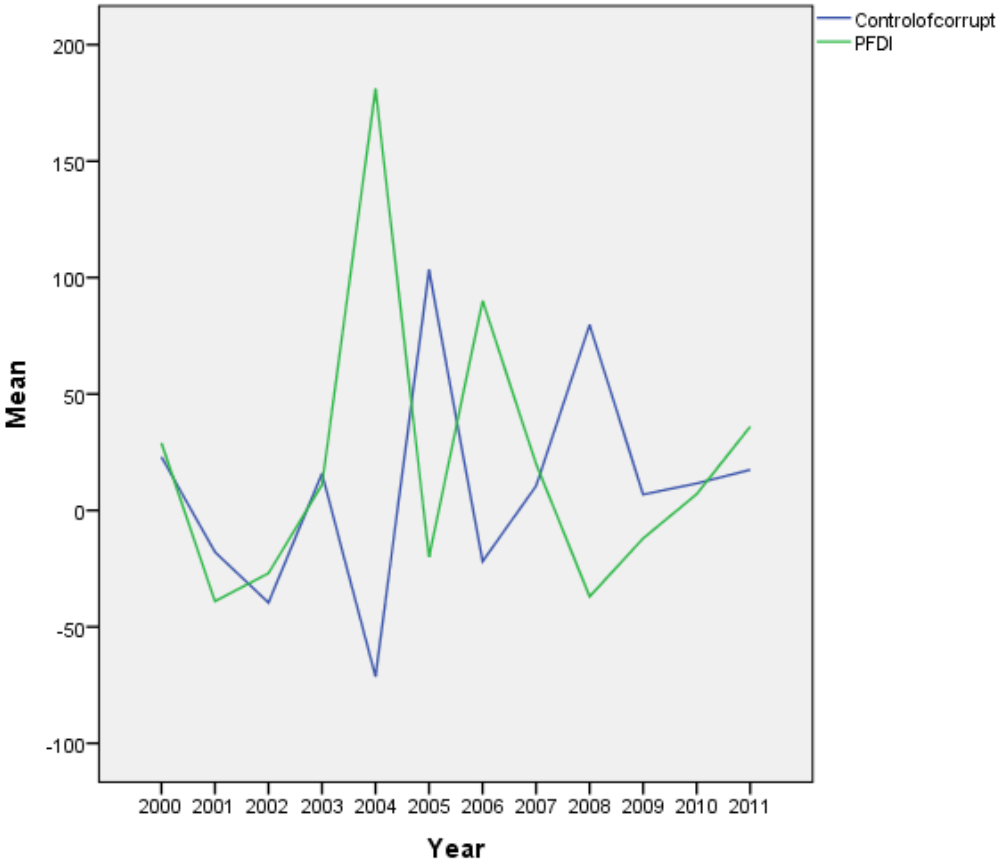


Table 19: Control of Corruption Indicator and its relative change

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Control of corruption	0.542450679	0.667055195	0.547988974	0.330770239	0.383246035	0.109869981	0.223313953	0.17440179	0.192792969
% Change	-	22.97066261	-17.8495306	-39.63925273	15.86472705	-71.33173719	103.2529282	-21.90286886	10.54529257
	2008	2009	2010	2011					
	0.346487785	0.37012486	0.413181867	0.485348796					
	79.72013486	6.821907298	11.63310323	17.46614139					

Source: PODAC

Figure 16: Scatter diagram on the correlation between FDI Inflows and Control of Corruption Indicator

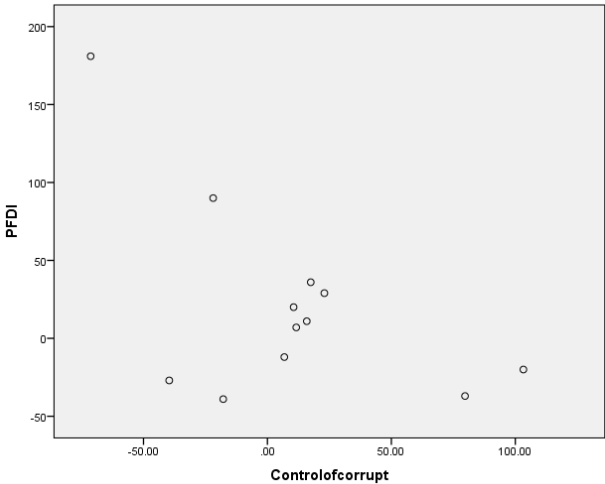


Table 20: The correlation between FDI Inflows and Control of Corruption Indicator

		PFDI	Controlofcorrupt
PFDI	Pearson Correlation	1	-.577*
	Sig. (2-tailed)		.050
	N	19	12
Controlofcorrupt	Pearson Correlation	-.577*	1
	Sig. (2-tailed)	.050	
	N	12	12

*. Correlation is significant at the 0.05 level (2-tailed).

Labour cost

Figure 17: Relationship between the Share of Polish Average Salary in the biggest investor in Poland's average salary

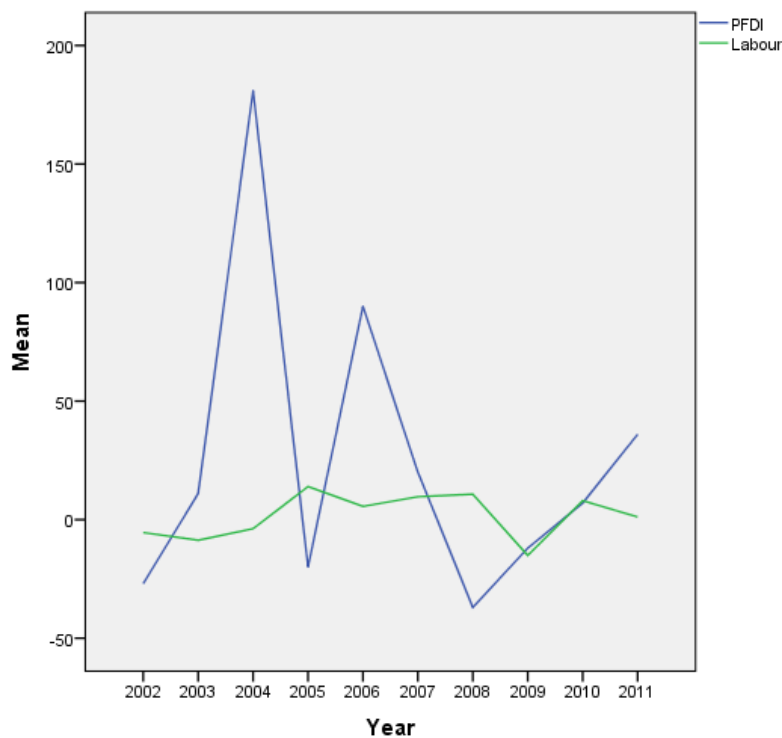


Table 21: The ratio on share of Poland's average annual salary in Luxembourg's

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Annual Salary in Luxembourg	18,206.32	18,715.85	18,800.90	19,386.62	19,771.20	20,279.22	21,012.86	20,968.19	20,744.33
Annual Salary in Poland	3,940.22	3,830.09	3,511.85	3,484.01	4,049.55	4,387.00	4,983.34	5,508.58	4,625.30
Share of Poland's annual salary in Luxembourg salary	21.64	20.46	18.68	17.97	20.48	21.63	23.72	26.27	22.3
% change	-	-5.453	-8.70	-3.801	13.968	5.615	9.6625	10.750	-15.11
	2010	2011							
	21,544.57	22,056.54							
	5,189.33	5,370.04							
	24.08	24.35							
	7.9821	1.1213							

Figure 18: Scatter diagram on the correlation between Labour cost ratio and FDI Inflows

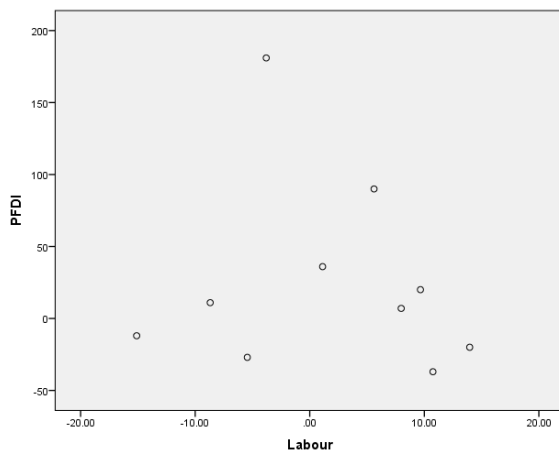


Table 22: The correlation between FDI Inflows and Labour cost ratio

		PFDI	Labour
PFDI	Pearson Correlation	1	-.130
	Sig. (2-tailed)		.721
	N	19	10
Labour	Pearson Correlation	-.130	1
	Sig. (2-tailed)	.721	
	N	10	10

Appendix 4: Full regression output

Model 1

Descriptive Statistics			
	Mean	Std. Deviation	N
PFDI	18.05	56.645	19
Controlofcorrupt	9.7975	47.38408	12
PolitRiskPer	-1.2308	7.46273	13

Correlations				
		PFDI	Controlofcorrupt	PolitRiskPer
Pearson Correlation	PFDI	1.000	-.577	.215
	Controlofcorrupt	-.577	1.000	-.280
	PolitRiskPer	.215	-.280	1.000
Sig. (1-tailed)	PFDI		.025	.240
	Controlofcorrupt	.025		.189
	PolitRiskPer	.240	.189	
N	PFDI	19	12	13
	Controlofcorrupt	12	12	12
	PolitRiskPer	13	12	13

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580 ^a	.336	.188	51.033

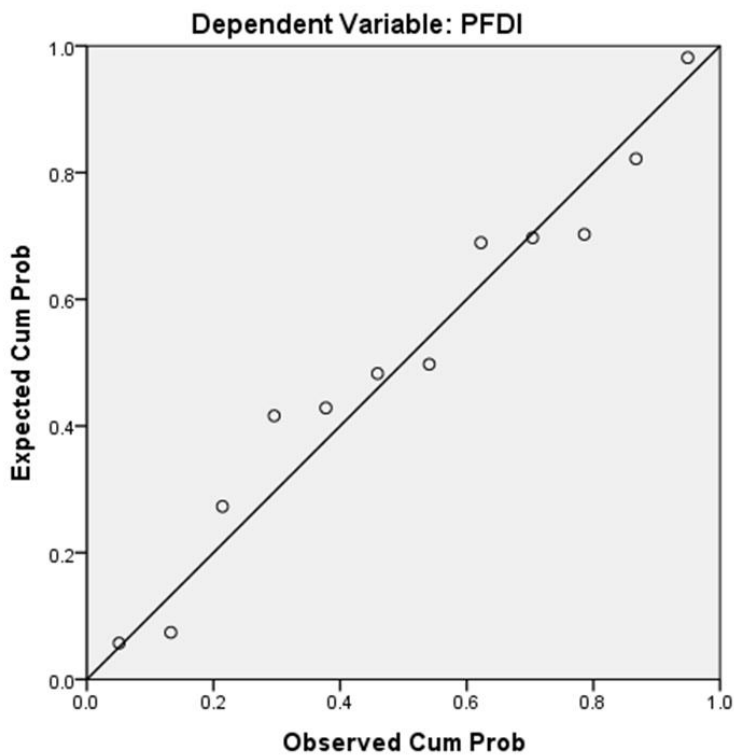
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11855.819	2	5927.910	2.276	.158 ^b
	Residual	23438.871	9	2604.319		
	Total	35294.690	11			

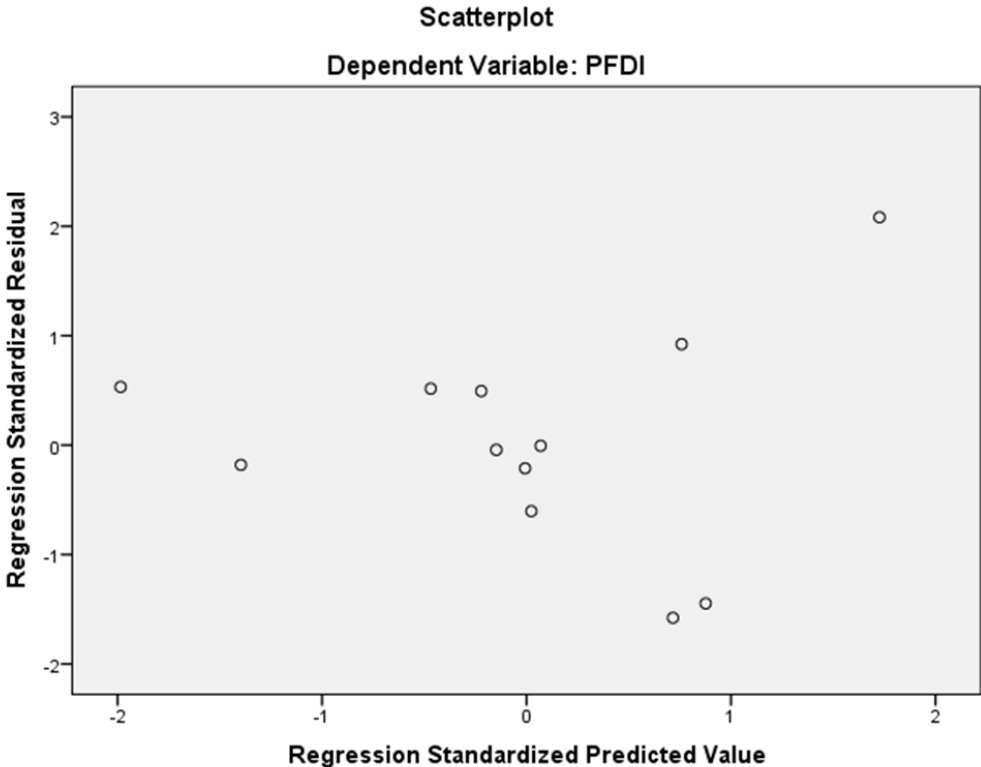
Coefficients ^a													
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	95.0% Confidence Interval for B			Correlations		Collinearity Statistics	
	B	Std. Error	Beta				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	25.764	15.169		1.659	.132	-9.150	59.478					
	Controlofcorrupt	-.670	.338	-.560	-1.981	.079	-1.435	.095	-.577	-.551	-.538	.922	1.085
	PolitRiskPer	.444	2.148	.059	.207	.841	-4.414	5.303	.215	.069	.066	.922	1.085

Collinearity Diagnostics ^a				
Model	Eigenvalue	Condition Index	Variance Proportions	
			(Constant)	Controlofcorrupt PolitRiskPer
1	1.463	1.000	.16	.23
2	.847	1.314	.81	.06
3	.690	1.456	.03	.71

Residuals Statistics ^a						
	Minimum	Maximum	Mean	Std. Deviation	N	
Predicted Value	-47.12	74.73	17.90	32.866	12	
Std. Predicted Value	-1.985	1.726	-.005	1.001	12	
Standard Error of Predicted Value	15.209	34.116	24.724	7.622	12	
Adjusted Predicted Value	-68.59	103.70	16.44	44.104	12	
Residual	-80.560	106.269	2.021	51.007	12	
Std. Residual	-1.579	2.082	.040	1.000	12	
Stud. Residual	-1.925	2.592	.052	1.234	12	
Deleted Residual	-130.696	164.672	3.478	78.316	12	
Stud. Deleted Residual	-2.366	4.855	.171	1.826	12	
Mahal. Distance	.060	3.999	1.890	1.592	12	
Cook's Distance	.000	1.231	.255	.418	12	
Centered Leverage Value	.005	.364	.172	.145	12	

Normal P-P Plot of Regression Standardized Residual





Model 2

Descriptive Statistics			
	Mean	Std. Deviation	N
PFDI	18.05	56.645	19
PGDP	4.5368	1.72891	19
Labour	1.6030	9.55941	10
TradeOpRelative	3.8405	6.79472	20
CITchange	-3.69	8.000	18
DOLPLNchange	36.0650	23.02411	16
EURPLNchange	-1.4508	7.18335	13

Correlations								
		PFDI	PGDP	Labour	TradeOpRelative	CITchange	DOLPLNchange	EURPLNchange
Pearson Correlation	PFDI	1.000	.517	-.130	.583	-.652	.039	.560
	PGDP	.517	1.000	.592	.438	-.115	-.409	-.059
	Labour	-.130	.592	1.000	-.139	.246	-.590	-.670
	TradeOpRelative	.583	.438	-.139	1.000	-.429	.159	.316
	CITchange	-.652	-.115	.246	-.429	1.000	-.434	-.541
	DOLPLNchange	.039	-.409	-.590	.159	-.434	1.000	.308
	EURPLNchange	.560	-.059	-.670	.316	-.541	.308	1.000
Sig. (1-tailed)	PFDI		.012		.004	.002	.443	.023
	PGDP		.012		.036	.030	.058	.423
	Labour		.360	.036		.351	.247	.036
	TradeOpRelative		.004	.030	.351		.038	.278
	CITchange		.002	.325	.247	.038		.047
	DOLPLNchange		.443	.058	.036	.278	.047	
	EURPLNchange		.023	.423	.017	.146	.028	.153
N	PFDI	19	19	10	19	18	16	13
	PGDP	19	19	10	19	18	16	13
	Labour	10	10	10	10	10	10	10
	TradeOpRelative	19	19	10	20	18	16	13
	CITchange	18	18	10	18	18	16	13
	DOLPLNchange	16	16	10	16	16	16	13
	EURPLNchange	13	13	10	13	13	13	13

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.875 ^a	.766	.299	47.421

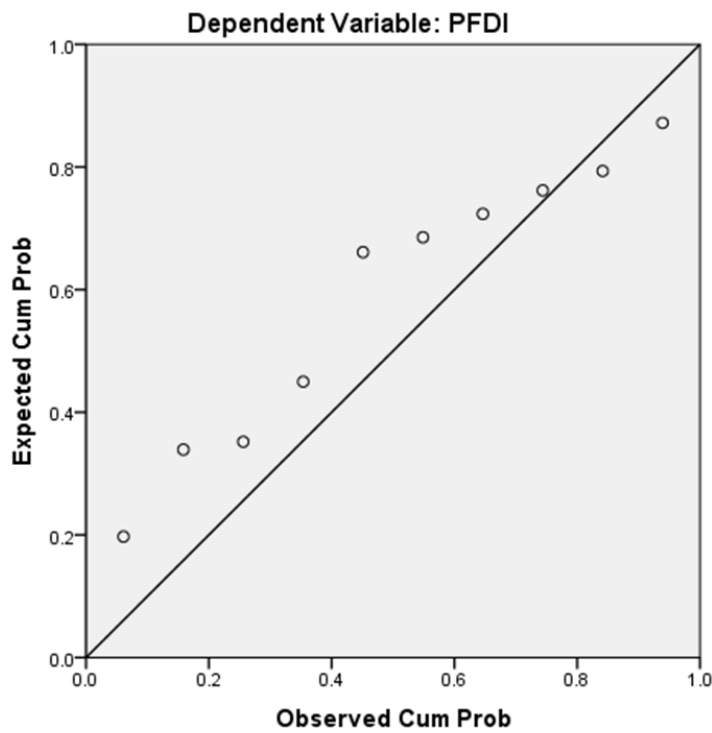
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22131.324	6	3688.554	1.640	.367 ^b
	Residual	6746.150	3	2248.717		
	Total	28877.474	9			

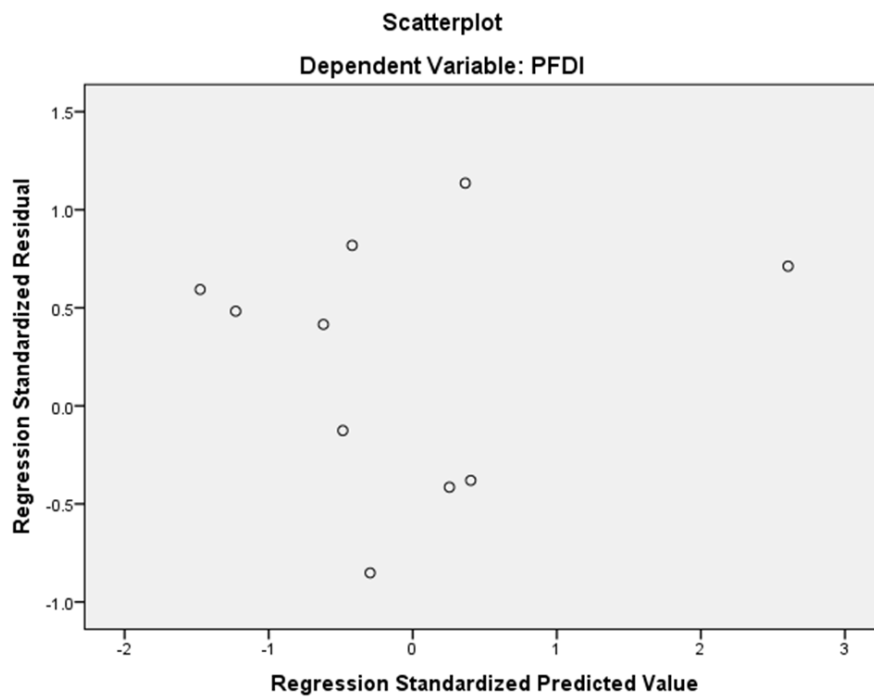
Coefficients ^a														
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VF	
1	(Constant)	-62.469	82.524		-.757	.504	-325.099	200.160						
	PGDP	19.933	17.656	.608	1.129	.341	-36.257	76.123	.517	.546	.315	.268	3.730	
	Labour	-2.551	4.247	-.431	-.601	.590	-16.066	10.964	-.130	-.328	-.168	.152	6.596	
	TradeOpRelative	.398	3.326	.048	.120	.912	-10.185	10.982	.583	.069	.033	.489	2.044	
	CITchange	-3.560	2.961	-.503	-1.202	.316	-12.983	5.864	-.652	-.570	-.335	.445	2.246	
	DOLPLNchange	-.540	1.015	-.219	-.532	.631	-3.769	2.689	.039	-.294	-.149	.458	2.184	
	EURPLNchange	.695	4.396	.088	.158	.884	-13.294	14.684	.560	.091	.044	.251	3.991	

Collinearity Diagnostics ^a										
Model		Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	PGDP	Labour	TradeOpRelative	CITchange	DOLPLNchange	EURPLNchange
1	1	3.511	1.000	.00	.00	.00	.02	.01	.01	.00
	2	1.982	1.331	.00	.00	.03	.00	.02	.00	.05
	3	.686	2.262	.00	.00	.06	.13	.07	.04	.01
	4	.444	2.812	.00	.00	.03	.39	.34	.00	.00
	5	.296	3.446	.01	.02	.02	.08	.15	.03	.35
	6	.065	7.341	.06	.02	.44	.02	.38	.88	.36
	7	.016	14.988	.92	.96	.43	.35	.01	.04	.23

Residuals Statistics ^a						
	Minimum	Maximum	Mean	Std. Deviation	N	
Predicted Value	-55.14	147.23	13.59	56.391	10	
Std. Predicted Value	-1.476	2.605	-.090	1.137	10	
Standard Error of Predicted Value	28.930	59.314	45.969	9.305	10	
Adjusted Predicted Value	-185.77	239.18	11.97	159.110	5	
Residual	-40.391	53.869	11.311	30.461	10	
Std. Residual	-.852	1.136	.239	.642	10	
Stud. Residual	-1.413	1.434	.427	1.359	5	
Deleted Residual	-228.182	158.774	14.029	156.331	5	
Stud. Deleted Residual	-1.994	2.086	.655	1.843	5	
Mahal. Distance	2.450	13.181	7.869	3.350	10	
Cook's Distance	.116	3.023	1.018	1.219	5	
Centered Leverage Value	.272	1.465	.874	.372	10	

Normal P-P Plot of Regression Standardized Residual





Model 3

Descriptive Statistics			
	Mean	Std. Deviation	N
PFDI	18.05	56.645	19
Controlofcorrupt	9.7975	47.38408	12
PolitRiskPer	-1.2308	7.46273	13
PGDP	4.5368	1.72891	19
CITchange	-3.69	8.000	18
TradeOpRelative	3.8405	6.79472	20
DOLPLNchange	36.0650	23.02411	16
EURPLNchange	-1.4508	7.18335	13
Labour	1.6030	9.55941	10

Correlations									
	PFDI	Controlofcorrupt	PolIRiskPer	PGDP	CIChange	TradeOpRelative	DOLPLNchange	EURPLNchange	Labour
Pearson Correlation	1.000	-.577	.215	.517	-.652	.583	.039	.560	-.130
		1.000	-.280	.070	.435	-.385	-.432	-.342	.556
			1.000	.301	.109	-.221	-.288	-.168	.307
				1.000	-.115	.438	-.409	-.059	.592
					1.000	-.429	-.434	-.541	.246
						1.000	.159	.316	-.139
							1.000	.308	-.590
								1.000	-.670
									1.000
Sig. (1-tailed)									
		.025	.240	.012	.002	.004	.443	.023	.360
			.189	.414	.079	.108	.080	.138	.048
				.159	.362	.234	.170	.292	.194
					.325	.030	.058	.423	.036
						.038	.047	.028	.247
					.030		.278	.146	.351
						.278		.153	.036
					.028	.146	.153		.017
					.247	.351	.036	.017	
N	19	12	13	19	18	19	16	13	10
		12	12	12	12	12	12	12	10
			13	13	13	13	13	13	10
				19	18	19	16	13	10
					18	18	16	13	10
						20	16	13	10
							16	13	10
								13	10
									10

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.942 ^a	.887	-.017	57.126

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25614.063	8	3201.758	.981	.658 ^b
	Residual	3263.411	1	3263.411		
	Total	28877.474	9			

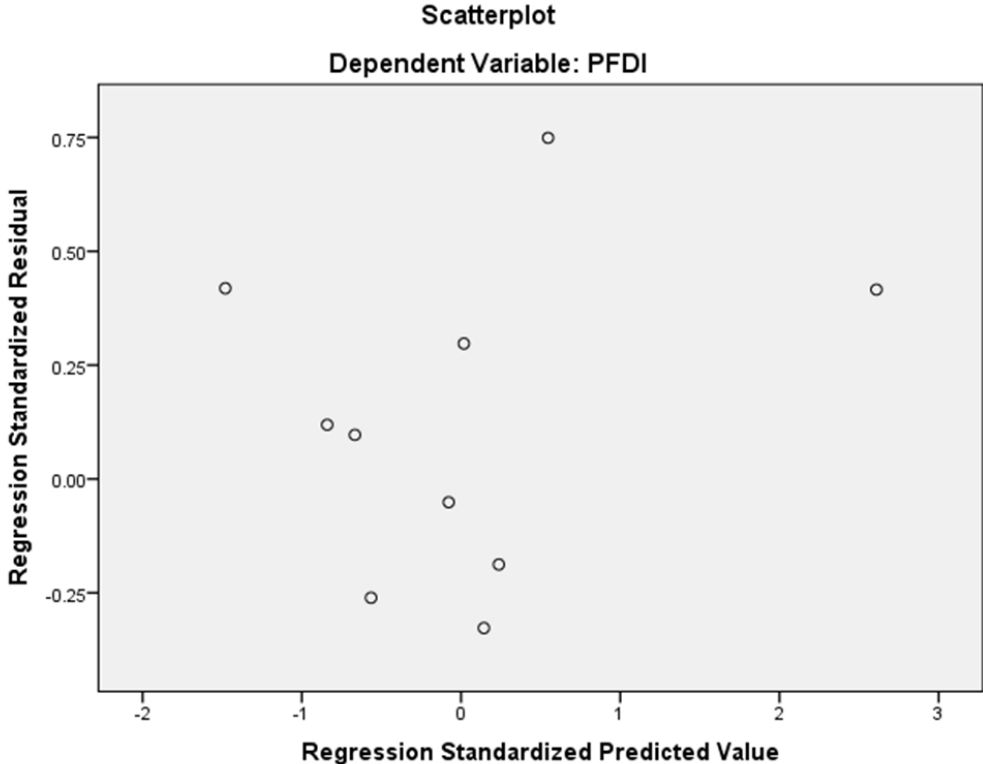
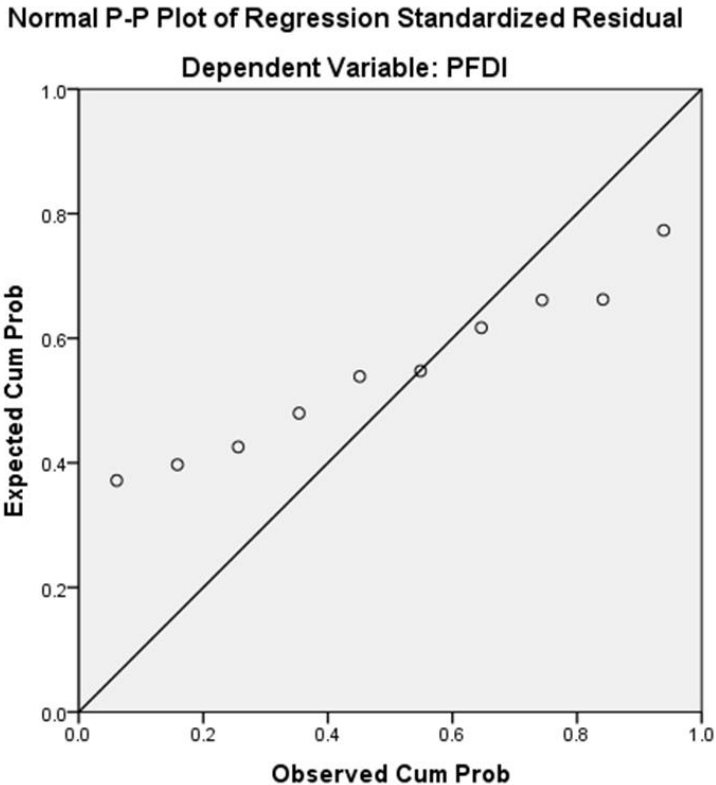
Residuals Statistics ^a						
	Minimum	Maximum	Mean	Std. Deviation	N	
Predicted Value	-60.92	157.24	17.65	58.578	10	
Std. Predicted Value	-1.480	2.609	-.008	1.098	10	
Standard Error of Predicted Value	40.924	95.006	65.731	16.002	10	
Adjusted Predicted Value	-83.65	52.92	-9.55	69.029	3	
Residual	-18.701	42.795	7.255	19.727	10	
Std. Residual	-.327	.749	.127	.345	10	
Stud. Residual	-.329	1.074	.511	.741	3	
Deleted Residual	-32.924	119.655	58.214	80.508	3	
Stud. Deleted Residual					0	
Mahal. Distance	3.719	23.993	11.651	5.934	10	
Cook's Distance	.025	.418	.193	.203	3	
Centered Leverage Value	.413	2.666	1.295	.659	10	

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-2.360	115.277		-.020	.987	-1467.090	1462.369					
	ControlCorrupt	-.846	1.033	-.708	-.819	.563	-13.971	12.278	-.577	-.634	-.275	.151	6.607
	PolriRiskPer	-1.101	4.689	-.145	-.234	.853	-60.804	58.602	.215	-.228	-.079	.295	3.391
	PGDP	8.731	23.991	.266	.364	.778	-296.101	313.562	.517	.342	.122	.211	4.745
	CIChange	-1.144	4.460	-.162	-.257	.840	-57.817	55.528	-.652	-.248	-.086	.285	3.511
	TradeOpRelative	-.050	4.736	-.006	-.011	.993	-60.230	60.130	.583	-.011	-.004	.350	2.856
	DOLPLNchange	-.391	1.232	-.159	-.317	.804	-16.046	15.264	.039	-.302	-.107	.451	2.219
	EURPLNchange	4.815	6.961	.611	.692	.615	-83.634	93.264	.560	.569	.233	.145	6.896
	Labour	2.990	8.015	.505	.373	.773	-98.853	104.833	-.130	.349	-.125	.062	16.191

Collinearity Diagnostics^a

Model	Eigenvalue	Condition Index	Variance Proportions										
			(Constant)	ControlCorrupt	PolriRiskPer	PGDP	CIChange	TradeOpRelative	DOLPLNchange	EURPLNchange	Labour		
1	3.579	1.000	.00	.00	.00	.00	.00	.01	.01	.01	.01	.00	.00
2	2.450	1.209	.00	.01	.00	.00	.00	.01	.01	.00	.00	.02	.01
3	1.218	1.714	.00	.03	.15	.00	.00	.00	.00	.00	.00	.00	.00
4	.672	2.309	.00	.01	.00	.00	.00	.05	.09	.04	.04	.02	.02
5	.550	2.552	.00	.05	.05	.00	.00	.04	.15	.00	.00	.07	.00
6	.389	3.033	.00	.01	.04	.01	.01	.26	.08	.01	.01	.07	.01
7	.085	6.470	.03	.23	.34	.05	.01	.01	.34	.52	.00	.00	.00
8	.046	8.833	.04	.41	.38	.02	.45	.23	.23	.42	.36	.00	.36
9	.011	18.116	.91	.25	.04	.92	.18	.10	.10	.00	.46	.00	.60



Appendix 5

Incentives offered by Polish government for investors:

Polish government, as entrepreneur and investment-friendly, offers the investment incentives in various forms. The first form of governmental support is grants. In accordance to the 'Program for the support of investments of considerable importance for Polish economy for years 2011-2020' approved by the Council of Ministers of Poland. The grant is available after having made an agreement between an investor and the minister of economy. It can be applied to companies planning to invest in defined priority sectors, such as: automotive sector, electronic sector, aviation sector, biotechnology sector, modern services sector, research and development (R&D). The grant is divided into two purpose grants. The first one is intended for new jobs creation and the second for new investments. Another form of government's incentives is the process of creation Special Economic Zones (SEZ). The entrepreneur that establishes a business in this zone is able to obtain many privileges, such as: tax exemption, a site fully prepared for development by the investor at a competitive price, free assistance in dealing with formalities in connection with the investment and exemption from property tax and also subsidies for hiring unemployed and for employee training. Currently, there are 14 SEZs in Poland. Another form of incentives is technology parks. A technology park is an area in which there are a few separate buildings located together with technical infrastructure with the purpose of attracting an influx of knowledge and technology for scientific bodies and businesses. These facilities are enabled to develop quickly and support science and research. Foreign and domestic entrepreneur are able to use their services, in the form of: consultancy and development of an enterprise, transfer technology, transfer of results from scientific research and development work, into technological innovation and creating favorable conditions for business. The next incentive for investors in Poland is exemption from taxes and charges. This comes in the form of the real estate tax exemption, which is fundamentally important for entrepreneurs. Foreign Investors are also able to receive EU Funds for their activities in Poland in the form of European Regional Development Fund, European Social Fund and Cohesion Fund (PIAFIA, 2014). The amount of funds reached EUR 102 billion in 2007-2013 and EUR 105,8 billion in 2014-2020 (PIAFIA, 2014).

Source: Polish Information and Foreign Investment Agency

<http://www.paiz.gov.pl/en>

Appendix 5: The list of variables

Name	Variable	Expected Result
Trade Openness Ratio	TradeOpRelative	+
Corporate Income Tax	CITchange	-
Labour cost	Labour	-
Exchange rate PLN-USD	DOLPLNchange	+
Exchange rate PLN-EUR	EURPLNchange	+
Market Potential	PGDP	+
Political Risk	PolRiskPer	+
Control of corruption	ControlOfcorrupt	-