DO POLITICAL RISKS AFFECT THE FOREIGN DIRECT INVESTMENT INFLOWS TO HOST COUNTRIES?

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ABSTRACT

When the investors decide to make a foreign direct investment, they take various factors into consideration such as political risk. In the study that covers the years 2002-2012 and data from 91 countries, the impact of political risk on foreign direct investment has been demonstrated by conducting panel data analysis. Political risk and control variables have been used. An increase in "*political stability and absence of violence*" and *"management effectiveness"* has reduced the foreign direct investment. Moreover, a rise in the variables of the "*exportation of goods and services", "population", "GDP growth", "regulatory quality"* has increased the foreign direct investment.

Keywords: foreign direct investment, political risk, panel data analysis, political risk index, multinational companies.
JEL Classification: F21, F23

1. INTRODUCTION

There are several factors that determine foreign direct investment which is defined as the foundation of a manufacturing plant by a company in the countries out of its headquarters or its taking over the existing manufacturing plants with the aim of expanding its manufacture to the cross border of the country in which it has been founded. When multinational companies (MNC), which makes foreign, direct investment (FDI), decide to invest in the host country, they take a lot of factors related to the country into consideration. Political risk is one of these factors. Political risk is the possibility that a government will change its policies in some way that is detrimental to a firm's profits (Shotts 2015, 1). Political risk refers to the risk that arises as a result of the potential actions of governments and other political forces within and across nations; this type of risk implies uncertainty about potential changes in government policies and the impact of such policies on the future economic environment (Huang et al. 2015, 393). Multinational corporations consider the political risk of the host country as one of the most important factors in investment decision making. The quality of a host country's investment environment especially the political situation is very important in attracting Foreign Direct Investment (Mawanza 2013, 78). By conducting political risk analyses, investors can reduce uncertainties about the future and will be in a better position to make rational choices about their operations in the foreign country. Political instability may expose business firms to the risk of decisions made by new governments or new factions within the government, which might impact the firm's ability to continue its operations or influence its profitability (Toit 2013, 7-10).

When political risk is determined, firstly factors that affect this risk need to be assessed. Risk assessment includes a lot of factors such as the relationships of the various groups in the country, the government's decision-making process and the country's history (Meldrum 2000, 5).

Among the factors that affect the political risk, regime of the country, political parties, effectiveness of the government in the management of the country, government crises, foreign policy of the country, economic policy, social, demographical, ethnical and religious structure of the country, effectiveness of the labor unions, laws related to the foreign capital, embargoes applied against the country and wars may be regarded as some instances (Acar, 2012). Also wars, revolution, coup d'etat, terrorism, strikes, extortion, kidnappings, the case of externally induced financial constraints, externally imposed limits on imports or exports, expropriation, confiscation, domestication, arms conflicts, insurrection factors can also be added to these factors (Andoh 2007).

The rise of the political risk can cause many adverse situations (Türkay 2013). Some of them are given as:

- Foreign investors may leave the country.

- Speculators may take a position that can increase the level of chaos (in foreign and domestic currency, on the

  stock exchange).

- Decrease in the investments in the country because of the uncertainty.

- Some local investors in the country may miss their capital abroad.

Several studies have been conducted to investigate the relationship between political risk and foreign direct investment (FDI) and different results have been obtained. Although there are some studies which put forward that foreign direct investment decreases as the political risk increases (Gastanaga et al. 1998, Wei 2000, Grosse and Trevino 2005, Demirhan and Masca 2008, Wyk and Lal 2008, Erramilli and Rao 1993) there are also some studies which claim that political risk has no effect on foreign direct investment (Wheeler and Moody 1992, Noorbakhsh et al. 2001). Some studies suggest that more entries into the risky countries would occur (Albuquerque 2000, Kolstad and Tondel 2002, Al-Khouri and Khalik 2013). In another group of studies, (Pan and Li 2000, Holburn 2001) it has been suggested that the effects of political risk in the country may vary from company to company. Pan and Li (2000) conclude that large companies are affected less when they are compared to small companies by the political risk conditions in the host country.

According to Baek and Qian (2011), with each political risk component different results are obtained in the studies that use 12 Categories Political Risk Index, which was compiled by International Country Risk Guide (ICRG). Both in the industrialized and developing countries a good level of "accountability" and "investment profile" shows that these countries attract more foreign direct investment.

On the other hand, in developing countries, markets with better "law and order", low level of "religious tension" and a more stable "government" tend to attract more foreign direct investment. However, in other studies (Tallman (1988), Grosse and Trevino (1996), Zhoa (2003), Aguiar et al., (2012)) it was concluded that the political risk in the home country may affect and reduce the investment in the host country.

According to Holburn (2001), political risks may have different effects on companies because of the differences in the out-of-marketing characteristics of the companies and companies with high level of political risk management have a more tendency to invest in the countries which have high political risk.

In this study, by presenting the literature review related to the relationship between the political risk, which is one of the effective factors in the selection of the country for FDI, and foreign direct investment, researchers aim to contribute to the findings of the previous studies with the new results of the present study.

2. LITERATURE REVIEW

Tallman (1988) studied the effect of economical and political conditions of home country on outward foreign direct investment (FDI) in the case of Western developed countries and the USA from 1974 to 1980. The results have shown that the political and economic conditions of the home country are important for the process of foreign direct investment decision. The economic development level of the home country (defined as GDP per capita) is an important determiner of the direct investment level in the USA. Wheeler and Moody (1992) did analyses on company level in their study in which they used the data from the USA. They found that the corruption in the host country doesn't have any significant effect on foreign direct investment.

Erramilli and Rao (1993) conducted a survey on 114 service firms about their entrance to the foreign marketing. The preferences of the companies between full-control and shared control entry modes were investigated. Among the conclusions of the study it was also found that the sovereign risk prevents the foreign direct investment. They put forward that multinational companies avoid making investments in the host countries with high political risk profile. Singh and Jun (1995) performed an empirical analysis between 1970 and1993 within 31 countries about macroeconomic and sociopolitical variables affecting the geographical distribution of foreign direct investment. The political risk index of BERI[1]was found to have positive effect on foreign direct investment. The higher the value of the BERI political risk index is, the less the risk is.

Grosse and Trevino (1996) did a different case study of the USA which analyzes the effect of the political risk in the home country on foreign direct investment. For the period from 1980 to 1991, the study, which examines the factors that affect the foreign direct investments (FDI) between the USA and the source countries of the investment, has shown that the political risk in the home country has significant effect on the foreign direct investment in the USA. This study indicates that it is possible for the investors in the countries with political risks to invest in the USA. Gastanaga et al. (1998) conducted a research within 49 less developed countries over the period 1970-1995 to investigate the effect of political and institutional variables such as corporation tax rate, tariff rate, level of openness to the international capital flows, exchange rate bias, contracting administration, expropriation, bureaucratic delay and corruption on different types of FDI. It was concluded that the less the corruption and the risk of expropriation are and the better compliance to the contract (if it isn't violated) are, the more foreign direct investment entrance is.

Albuquerque (2000) examined the relationship between economic and political conditions of home country and foreign direct investment (FDI) with a study which was conducted within 14 host countries that invest in the USA including the years from 1974 to 1980. It was concluded that within the total entrance the share of FDI is higher in countries with more risks, there is a negative correlation between foreign direct investment and credit rating of the country and there is more foreign direct investment in the countries with high credit scores when compared to the countries with low credit scores. Pan and Li (2000) conducted a study to investigate the relationship between company size and capital attendant joint venture between the years 1981 and 1998. According to the study it was concluded that big companies brought large scaled capital attendant joint venture investments to the host countries. Furthermore, the study revealed that big companies, when compared to the small companies in the host country, were less affected by the risk conditions.

Wei (2000) suggests that corruption reduces the foreign direct investment considerably. It is also claimed that corruption affects both the capital volume and capital structure in the countries that import capital.

Holburn (2001) conducted a study to investigate the effect of political risk on internationally developing strategies of the firms in the electric power production for the years from 1990 to 1999 in 191 firms in 64 countries. For the dependent variable the decision of entrance to a country was taken. Holburn concluded that because of the differences of the firms in their out-of-market peculiarities, the effect of the risk is different on these firms and companies with a better skill of political risk management tend to enter to the countries which had high level of political risk.

Noorbakhsh et al. (2001) examined the relation between human capital level of the host country and the geographical distribution of foreign direct investment for the years from 1980 to 1994. The study covered the 36 developing countries from Africa, Asia and Latin America. Empirical findings are as follows: (a) human capital is a statistically significant determiner of foreign direct investment, (b) human capital is one of the most significant determiners of foreign direct investment, and (c) human capital is gaining more importance gradually. Furthermore it was stated in the study that the variables of democracy and political risk had no significant effect on foreign direct investment.

Kolstad and Tondel (2002) conducted a study which reveals that variables of marketing size and externality has strong positive effects on foreign direct investment within 61 developing countries covering the years between

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[1] BERI index is a risk index developed by Business Environment Risk Intelligence.

1989 and 2000. Furthermore, no significant correlation between foreign direct investment and socio-economic conditions was found. According to the study, while the corruption was not a significant variable on its own, whereas it affected the foreign direct investment when it was taken into consideration with other control variables. A negative relation was found between FDI and corruption. This means that the more the corruption is, the more foreign direct investment will be. This result contrasts with the study of Wei that used the same corruption index. Strong variables that affect the foreign direct investment (FDI) are political rights, civil freedom, democratic accountability, religious and ethnic tension and internal conflicts. Considering the results, countries providing citizens with more political and civil rights tend to draw more attention of foreign direct investors. Ethnic tension, internal conflict and democracy affect foreign direct investment entrance. However, government stability, bureaucracy, external conflicts, legal order, and political power on politics have no effect on foreign direct investment.

Zhoa (2003) built a study by using the data from 21 source countries between the years from 1983 to 1999 in order to specify the determiners of foreign direct investments to China. It was concluded that the most influential factor was the political risk. It was found that there was an inverse relationship between political risk and foreign direct investment. It was also concluded that home countries with less political risk when they are compared to China made less investment to China whereas countries with higher level of political risks tended to make more investment to China to avoid political instability in their countries.

Pan (2003) examined the effects of the characteristics of home and host countries on foreign direct investment entrance within 30 home countries and China economy between 1984 and 1996. Two different variables related to risk were used. When dummy variable was used, negative but significant relation was found. In other words, political risk reduces the FDI. However, when Euromoney risk variable was used, the more favorable risk values are associated with lower FDI flows.

Trevino and Mixon (2004) conducted a study within Latin America (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) and the study covers the years between 1988 and 1999. Results of the study showed that political risk was a significant indicator of foreign direct investment to Latin America.

Smith-Hilmon and Omar (2005) accomplished a study via using a survey to examine the effect of regulation and political risk on 121 English firms' international activities between the years 1994 and 1996.The results of the study showed that underdeveloped countries, when compared to developed countries, draw less foreign direct investment. This result is considered as a reaction of multinational companies to the countries with weak government which have regional tendency to political risk and corruption.

Grosse and Trevino (2005) examined the effects of new institutional variables, which include efforts of the government to create a more favorable environment for FDI, on foreign direct investments in Central and Eastern European countries. The study showed that there was a negative and significant relation between political risk and foreign direct investment flows.

Daude and Stein (2007) examined the effect of institutional quality on foreign direct investment within 34 source country and 152 host countries between the years 1982 and 2002. The study showed that institutional quality and FDI flows have a positive and statistically significant relationship.

Busse and Hefeker (2007) examined the relationship between political risk, corporations and foreign direct investment flows. To specify the most significant determiners of the activities of multinational companies, different econometric techniques were used within 83 developing countries between the years 1984 and 2003. For the empirical analyses, the study used political risk and 12 different components of institution. The results showed that government stability, internal and external conflicts, corruptions and ethnic tensions, law and order, democratic accountability of the government and the quality of the bureaucracy are very significant determiners of foreign direct investment. In cross-section analysis, it was concluded that there was a close relation between foreign direct investment and the variables of political risk and institutions except government stability, law and order, and quality of the bureaucracy. Investment profile, internal and external conflicts, ethnic conflicts, and democratic accountability are significant determiners of FDI flows.

Wyk and Lal (2008) accomplished a study to examine the effects of institutional and macroeconomic variables on FDI within 31 developing countries covering the years between 1995 and 2003. The study showed that economic liberty made foreign direct investment easier and political risk hindered the investments. It was claimed that the lower the level of political risk is, the more the foreign direct investments are. It was concluded in the study that there is a positive relationship between market size, GDP growth rate and foreign direct investment. The results showed that low current accounts balance, the rise in the value of the currency of the host country and low level of inflation encouraged foreign direct investment.

Demirhan and Masca (2008) made a cross-section analysis within 38 developing countries covering the years between 2000 and 2004 to reveal the variables determining the foreign direct investment movements. In the model, dependent variable is the foreign direct investment. Independent variables are GPD per person, inflation, number of main phone lines for every 1000 people, labor cost per capital in manufacturing industry, external openness rate, risk and growth rate of the institutional top rate of tax. According to the results, there is a positive and significant relationship between number of phone lines per person, openness, and growth rate and foreign direct investment. The relationship between inflation rate, tax rate and foreign direct investment is negative and it is statistically significant. The relation between FDI and labor cost is positive and the relation between FDI and risk (compound) is negative. The results are not significant in both of these.

Lee and Rajan (2009) conducted a study using the data from APEC countries (60 source country and 60 target country) for the years between 2000 and 2005 and it revealed that the less the political risk is, the more foreign direct investment to the country is. It was concluded that %10 decreases in the political index of the target country would lead to %3.2 increase in the foreign direct investment movements. The results indicated that among the financial, economic and political risks, political risk is the most important one in terms of foreign direct investment entrance.

Krifa-Schneider and Matei (2010) did a research based on fixed effect model and dynamic panel model to reveal the relationship between political risk, business climate and foreign direct investment empirically and to present more supportive results within 33 developing countries and transition countries. The study concluded that the low level of political risk would lead to an increase in foreign direct investment entrance and business climate is a significant determiner for the FDI flows. Political risk affects the business climate. Low level of political risk means a better working atmosphere for foreign investors. The control variables used in the study are as follows: GDP per person to control marketing growth, GDP growth rate to check marketing potential and marketing growth, the proportion of import and export to GDP to reveal the trade openness, and GDP deflator as the indicator of macroeconomic political inadequacy.

Hayakama et al. (2011) accomplished a study that includes 93 countries (60 of which are developing countries) between the years 1985 and 2007. It is the first article to thoroughly examine the long and short term effect of the components of political and financial risk on foreign direct investment. The study showed that there was a relationship between the variables of political risk and foreign direct investment. Especially socio economic conditions, investment profile and external conflict are the strongest determiners that affect foreign direct investment (FDI). For the developing countries, among the financial risk variables, only exchange rate stability seemed to have a positive significant effect on foreign direct investment. Current account balance as the percentage of goods and service export, external debts as the percentage of GDP, net international liquidity (as the number of months of import cover) and current account balance as the percentage of GDP have negative effects on FDI. This study suggests that the financial risk in the host country is not taken seriously by the multinational companies.

Baek and Qian (2011) offered a study based on panel regression analysis within 22 industrialized and 94 developing countries between the years 1984 and 2008, to see if political risk affects foreign direct investment (FDI) and to reveal how political risk affects FDI. 12 categorized Political Risk Index which was edited by International Country Risk Guide was used for the study. The results are as follows: Firstly, political risk is a significant determiner of foreign direct investment in the industrialized and developing countries. Secondly, political risk does not affect the foreign direct investment stocks in the industrialized and developing countries in the same way. Thirdly, since the 11 September attacks, political risk has been a more significant and important determiner of foreign direct investment especially in developed countries. It was concluded that in

the developed and developing countries, foreign direct investment seems to react in a different way for different political risks.

Both in developed and developing countries, the only common political risk determiner that affects the foreign direct investment is "internal conflicts". It seems that both in developed and developing countries a high level of accountability" and "investment profile" draw more attention of foreign direct investment. "Ethnic tensions" and "military force in politics" may considerably affect the foreign direct investment in developed countries. However these variables have no significant effects on foreign direct investment in developing countries. Their effect on foreign direct investment is significant but they have no significant effect in developing countries. On the other hand, markets in developing countries which have a better "law and order", low level of "religious tensions" and more stable "government" tend to get more attention of foreign direct investment. This might be because "government stability", "law and order" and "religious harmony" are 3 most significant factors that affect the general stability of the country covering political and economic stability.

Jo Jakobsen (2011) made a study which includes 332 real political risk situations for the years between 1998 and 2005. The study applied a theoretical model which intended to reveal the relationships between the sources and effects of political risk. The study presents the analysis done with exploratory data about the effects of political risk in developing countries. %48 of the cases in the data are related to the government intervention, %39 of them related to interventionist acts against war, terror or social disturbance, and %13 of them are related to the acts performed by activists, International Private Companies or their competitors . However, in each of the given categories, the cases causing institutional losses seem to vary considerably. For instance, analyses show that governments and politicians in the host countries have various political instruments to increase their FDI incomes. The study has emphasized the importance of making distinction between political risk resources and political risk effects.

Aguiar et al. (2012) studied on the effect of political risk in the home country on foreign direct investment. The study covered 180 countries with political risks such as Brazil with the aim of analyzing the effect of political risk in the home country on investment decisions and foreign direct investment movements by using models of Probit, Tobit and Heckit multi guessing methods. The results indicated that political risk in the home country reduced the foreign direct investment to host country, namely Brazil.

Vadlamannati (2012) examined the relationship between the acts of the branch offices of American-led International Private Companies and political risk in the 101 developing countries out of OECD over the period 1997-2007. The study concluded that low level of political risk leads to an increase in the number of American-led companies whose shares are more than %51. The lower the political risk is, the higher level of the proportion of fixed asset is. Furthermore, low political risk is also related to the increase in the return on investments.

Sedik and Seoudy (2012) conducted a study within 20 MENA countries[2] between the years 1999 and 2010, to reveal the relationship between country risk and its ability to draw the attention of foreign direct investment and to explain whether the New Institutional Economics (NIE) criteria are significant in MENA region or not. The study included multi linear regression and panel data analysis. Foreign Direct Investment movement and Foreign Direct Investment stock variables were used as dependent variables. The results indicated that high level of political risk had a positive and significant effect on foreign direct investment whereas low level of economic and financial risk had a positive but not significant effect on foreign direct investment. On the other hand, New Institutional Economics criteria[3] have complicated results. Freedom of investment, financial freedom and regulatory quality seemed to have positive and significant effects on FDI whereas business freedom and accountability had negative and significant effects on FDI.

Berden et. tal (2012) have analyzed the impact of institutional quality in attracting FDI in Algeria between the years 1995 and 2011. The Heritage Foundation's economic freedom index which reflects economic institutional quality (EIQ) and two governance indicators was used. The study concluded that the inward FDI is significantly

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[2]Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunis, United Arab Emirates.

[3]The quality of business environment, both the economic freedom and the governance indicators in the world.

negatively affected by government effectiveness; also a higher level of 'voice and accountability' reduces the inward FDI.

Subaşat and Bellos (2013) investigated the link between governance and FDI in the context of selected Latin American countries using a panel gravity approach over the period 1985- 2008. The results indicated the FDI enhancing character of poor governance in target countries. With the exception of "Democratic Accountability," the governance variables have negative and significant coefficients, which imply that poor governance is associated with a high level of FDI. "Democratic Accountability," has a positive and insignificant sign. The results suggest that poor governance does encourage FDI both in transition countries and in Latin America. The "Regulatory Quality" variable also has a negative and marginally significant sign, which implies that poor regulations do not discourage FDI. For the source countries the results suggested that high corruption levels in the source countries encourage MNCs to invest more in Latin America. The study concluded that better "Bureaucratic Quality" and "Democratic Accountability" in source countries encourage more outward FDI in Latin America.

Benacek et al. (2013), examined the effect of political and economic risk on foreign direct investment movements in 35 host countries in Europe, covering the years between 1995 and 2008, by using a cross comparative approach. The countries were analyzed within 4 groups. First group includes all European countries, second group includes 15 developed countries[4], third group includes 9 Accession countries[5] and the fourth group includes 11 candidate countries[6] for EU. The results showed that the relation between foreign direct investment decision making and risk isn't always negative. Also the results revealed that factors which are out of economy are important but their contribution to economic decision making process isn't easy to measure.

The quality of business environment, both the economic freedom and the governance indicators in the world. Australia, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Holland, Norway, Portuguese, Spain, Switzerland, Swedish, United Kingdom, Cyprus, The Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia, Slovenia Albania, Belorussia, Bosnia, Bulgaria, Croatia, Macedonia, Moldova, Romania, Serbia, Turkey, Ukraine.

Al-Khouri and Khalik (2013) offered a study to examine the effect of various variables of political risk and other risks (financial and economic) in North Africa (MENA) region on foreign direct investment. The study also aimed to reveal that whether there was a difference between the factors affecting foreign direct investment among rich and poor countries or not. The analyses were done by using fixed effect and random model in the case of 16 MENA countries for the years between 1984 and 2011.The results showed that there was a positive relationship between deferred values of FDI, market size, and political risk and foreign direct investment. Furthermore among 12 political risk variables, there was a close relationship between corruption level, external conflict (tension) and FDI movements. It was also found that there was a difference between rich and poor countries in terms of drawing attention of foreign direct investment.

Demirtaş (2013) examined the effect of institutional factors on foreign direct investment, by using cross-section data from 71 developed and developing countries between the years 1995 and 2002. The results indicated that there was a positive relationship between institutional factors such as political stability, rule of law, fighting against corruption and FDI.

3. DATA AND METHODOLOGY

Data covers the years between 2002 and 2012. The analyses were applied for 91 countries. The countries used in the analysis have been presented in the attachment table. As for choosing the countries to get data, accessibility of the complete data of the significant variables to the study has been taken in account. The data of Political Risk Services has been used in the analysis. The equation used in the study is as follows:

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[4]Australia, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Holland, Norway, Portugal, Spain, Switzerland, Swedish, United Kingdom.
[5]Cyprus, The Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia, Slovenia
[6]Albania, Byelorussia, Bosnia, Bulgaria, Croatia, Macedonia, Moldavia, Romania, Serbia, Turkey, Ukraine.

$$fdi_{it}=\alpha_{it}+\beta_1exp_{it}+\beta_2lnpop_{it}+\beta_3gdp_{it}+\beta_4inf_{it}+\beta_5prsva_{it}+\beta_6prspv_{it}+\beta_7prsge_{it}+\beta_8prsrq_{it}+\beta_9prsrl_{it}+\beta_{10}prscc_{it}+u_{it} \quad (1)$$

As seen in the Equation 1, six political variables have been used in the study. They are; prsva, *Voice* and *Accountability;* prspv *Political Stability* and *Absence of Violence;* prsge, *Government Effectiveness;* prsrq, *Regulatory Quality;* prsrl, *Rule of Law; and* prscc, *Prevention of Corruption.* Moreover, 4 control variables have been used for the analysis. Control variables were taken from World Development Indicators (WDI). These variables were determined according to literature and accessibility of the data. The variables are; Infdi, The logarithm of Foreign Direct Investment Net Inflow (BOP, Current USA$); inf, consumer price and inflation (% per year); Ingdp, the logarithm of GDP (as current Dollar); exp, *Exportation of Goods and Services (as percent of GDP);* and Inpop is the logarithmic explanation for *Population.*

Short information about political risk variables are presented below (Çelen 2007, 88; Özcan and Arı 2010, 71; Thomas 2010, 31-54);

i. Voice and Accountability (VA), refers to the right of the citizens of a country to participate in the elections of government, their freedom of speech, organization and freedom of the media. This criterion has been used to measure the functionality of political, civil and human rights. Here people's participation in the election, their power of determining the government and the power of people and media to supervise the political authority have been analyzed.

ii. Political Stability and Absence of Violence (PV), refers to violence acts that include political violence and terrorism and destabilization of the government by unconstitutional acts. Many reasons from unfair distribution of income to ethnic and religious tensions in the country may be the source of political violence and instability. The final stage of political violence is civil war. Therefore viability and survival of a political system based on constitutional order and rule of law is crucial.

Existence of social tensions and the inability of the political system to act as compromising may cause the political opposition to go underground and get out of the legal system. This case leads to potentiality of rebellion actions, terrorist attacks and sabotages. Therefore to prevent political violence and instability, it is crucial that the law and order are provided, political and army power must exist, political system must be open to participation and representativeness, democracy culture must be developed, ethnic, religious and social class tensions mustn't exist.

iii. Government Effectiveness *(GE)* is related to the quality of public services, the quality of civil services and its level of freedom from political pressure, its quality of policy making and its practice and the reliability of the government in these kind of practices of the policies. It is the ability of political power to make influential and stable policies and practice them. For the effectiveness of the government, the amount of public services produced and their quality, the ability of bureaucracy and public officers, the credibility of public authority commitments, freedom of public services from political effect and their fairness are taken as criteria.

iv. Regulatory Quality *(RQ)* is the ability of the government to make policies and practice them to help private sector develop and support it. It is the effectiveness of the public policies shaped out of market relations. The fields that these policies focus on are price controls, acts related to examination and inspection of banking system, restrictions introduced to the production and consumption of goods and services that cause negative externality.

v. Rule of Law (RL) is related to the adaption to the rules of society and establishing of safety. It is also related to the quality of fulfilling the agreements, police against the possibility of crime and violence, and the quality of judgment mechanism. The effectiveness of fulfilling the agreements and the quality of police and judgment mechanism has been focused on. Additionally, protection of the right of possession and consolidation of the legal framework has been emphasized.

vi. The Control of Corruption (CC) *is avoided to* abuse of public forces for the purpose of private benefits. Corruption causes the reduction of effectiveness in public sector, the increases in public expenditures, the reduction of government credibility, obstruction of competiveness and the rise of country risk.

4. FINDINGS AND DISCUSSIONS

The pooled least squares (PLS), fixed effects (FE) or random effects (RE), which is better than the others? Does the model have entity effect? If the model has entity effect, is this effect fixed or random? First of all, these are going to be determined.

F statistics test and LM test are used in order to test whether there is a linear relationship or not between the dependent variables and independent variables (Zaman 2000, 1-11). Lagrange multiplier (LM) test provided parametric limitation tests with a standard appliance for various models. Among the LM test, likelihood ratio (LR), and Wald tests, the first advantage is generally the calculation of LM statistics in likelihood based inferences.

Because LM statistics is only calculated by the usage of only the results of null hypothesis (limited model), it is easier than the calculation of alternative hypothesis (unlimited model). Moreover, it has an additional advantage of having standard dispersion feature which the Wald and LR tests don't have. While alternative model estimation has used both maximum likelihood estimation (MLE) and generalized least squares (GLS) which are based on two-step process, Breusch and Pagan's (1980) LM test (which is based on the smallest pooled squares) is used for the random effects on the linear model remainders (Greene and McKenzie 2012, 2).

Table 1: Estimators and Tests for the Selection of Suitable Model

Variables	PLS	FE	GLS	RE	MLE
Exp	0,00106**	0,00162***	0,00042	0,00106***	0,00105***
Lnpop	20,1***	20,1***	20,4***	20,1***	20,1***
Lngdp	0,0439***	0,0366***	0,0374**	0,0439***	0,044***
Inf	0,00035	0,00041	-0,00752*	0,00035	0,00035
Prsva	-0,0043	0,0154	-0,0977	-0,0043	-0,00507
Prspv	-0,157**	-0,161**	-0,13	-0,157**	-0,156**
Prsge	-0,11*	-0,292**	-0,114	-0,11*	-0,109*
Prsrq	0,161***	0,176***	-0,0123	0,161***	0,161***
Prsrl	-0,00039	-0,038	0,00768	-0,00039	1,2e-05
Prscc	0,0611	0,0354	0,194	0,0611	0,0617
_cons	-41,3***	-41***	-41,8***	-41,3***	-41,3***
sigma_u_cons			0,12***		
sigma_e_cons			0,0926***		
Statistics					
R^2		1,0	1,0		
F_f		18,1			
Score					14678,5
LM				1614,6	
chi2_c					657,1
Hausman				12,8	
P	0,0			0,0	

Note: * p<0.10; ** p<0.05; *** p<0.01

Fixed effects (accumulative) are tested with F test and random effects are tested with Lagrange multiplier (LM) test (which was developed by Breusch and Pagan). If the null hypothesis isn't rejected, pooled least squares regression is preferred. Hausman specification test is used to compare the fixed effects models and random effects model. If the null hypothesis can't be rejected in the model which includes fixed effects, random model is considered better than the fixed model (Park 2009, 4). If the null hypothesis can be rejected in F test, it is determined that fixed effects model is decided to be better than the pooled least squares model (Park 2009, 18).

F test can be used for fixed effects model, while the Breusch–Pagan LM test can be used for random effects model. When the F and LM tests are applied, using the processes (shown in the Table 1) may provide convenience.

First of all, the results of the tests that are done for the selection of estimators are going to be evaluated. Various tests have been done to test the existence of entity effects. Here F test is shown as F-f, Breusch-Pagan Lagrange Factor test is shown as LM (which is done on the random effects estimators), and Likelihood Ratio Test done through Likelihood Ratio Estimator is shown as score test and chi_2. According to results of all of these tests Ho hypothesis is rejected. In other words, the existence of entity effects isn't accepted. Moreover, In Table-2; according to Hausman test's results, Ho hypothesis is also rejected. In other words, it's determined that fixed effects model is consistent.

Table 2: F test, LM Test and the Selection of Suitable Model

Fixed Effect (F Test or Wald test)	Random Effect (Breusch-Pagan LM test)	Selected Model
H_0 hypothesis can't be rejected *(It is not fixed effect)*	H_0 hypothesis can't be rejected *(It's not random effect)*	The smallest pooled squares method is suitable.
H_0 hypothesis is rejected *(Fixed effect)*	H_0 hypothesis can't be rejected *(It isn't random effect)*	Fixed effect model is chosen.
H_0 hypothesis can't be rejected *(It's not fixed effect)*	H_0 hypothesis is rejected *(Random effect)*	Random effect model is chosen.
H_0 hypothesis is chosen. *(Fixed effect)*	H_0 hypothesis is rejected *(Random effect)*	1) Fixed and random effect model is suitable. 2) One of the models is chosen according to Hausman results.

Source: Park, Hun Myoung (2010) Practical Guides to Panel Data Analysis: 1-3, URL: http://www.iuj.ac.jp/faculty/kucc625/writing/panel_guidelines.pdf. Date of Access: 15.04.2014.

Although Breusch and Pagan LM test is applied under the hypothesis of fixed N and endless T, as an alternative to this Pesaran test has become valid under the condition of small T or big N hypothesis. According to this test which is developed by Pesaran in 2004, according to null hypothesis there is no correlation between interdivisional entities (Hoyos and Sarafidis 2006, 485).

In Wald Test, however, null hypothesis is that fixed variance exists. Alternative hypothesis is that the model contains heteroskedasticity. Apart from DW test and LBI test, Wooldridge test can be used in order to identify whether there is a autocorrelation problem or not. In Wooldridge test, null hypothesis expresses that there is no first degree autocorrelation (Torres-Reyna 2007, 35-6).

In Table 3; various tests that identify the existence of assignment from econometric assumptions can be seen. In unbalanced panel model, interdivisional correlation test can be looked at with Pesaran test. According to the results that are shown in the Table 3, it is clear to understand that interdivisional correlation exists. In order to test the existence of heteroskedasticity in accordance with the units, adapted Wald test is used and in order to test the autocorrelation DW test and LBI test are used. Wooldridge test also takes place in the Table 3 in addition to these tests which are used to test autocorrelation. Therefore it can be seen that there are both interdivisional correlation and autocorrelation and heteroskedasticity in the model. Because there are these three problems in the model, resistant estimators will be acquired.

Table 3: Tests for Determining of Deviations from the Econometric Assumptions

Pesaran's test of cross sectional independence = 7,841, Pr = 0,0000
Modified Wald test for group wise heteroskedasticity in fixed effect regression model
H_0: sigma(i)^2 = sigma^2 for all i
chi2 (91) = 3,2e+05
Prob>chi2 = 0,0000
Ar
**
d1   1,217
LBI   1,570
**
Wooldridge test for auto correlation in panel data
H_0: no first-order auto correlation
F(1,   90) =   10,489
Prob> F =   0,0017

In Table 4, both the resistant estimators and unresisting estimators take place. While SE gives us the usual fixed effects model in other words in group estimator, robust gives us the Huber-White heteroskedasticity standard mistakes and resistant fixed effects estimators in the existence of autocorrelation. Arl, Ar (1) gives us the resistant fixed effects estimators in autocorrelation's existence, and SSC gives us the resistant fixed effects estimators in the existence of aoutocorrelation (which is guessed with standard mistakes), interdivisional correlation and heteroskedasticity. In the model, since the existence of autocorrelation, interdivisional correlation and heteroskedasticity is identified, it is determined that SSC estimator that is guessed with Driscoll-Kraay standard mistakes may be suitable to use.

Table 4: Applied Models and Resistant Estimators

Variables	SE	Robust	ar1	Scc
exp	0,00162***	0,00162**	-0,00562***	0,00162**
lnpop	20,1***	20,1***	18,5***	20,1***
lngdp	0,0366***	0,0366*	-1,01***	0,0366**
inf	0,00041	0,00041	0,00307	0,00041
prsva	0,0154	0,0154	-0,671***	0,0154
prspv	-0,161**	-0,161	-2,02***	-0,161**
prsge	-0,292**	-0,292	-3,26***	-0,292**
prsrq	0,176***	0,176***	0,0236	0,176***
prsrl	-0,038	-0,038	-1,24***	-0,038
prscc	0,0354	0,0354	0,266	0,0354
_cons	-41***	-41***	-4,96***	-41***
r2_w	0,99	0,99	0,913	0,99
F	8799	1018	829	80205

Note: * $p<0.10$; ** $p<0.05$; *** $p<0.01$

Table 5 includes Driscoll-Kraay Fixed effects model. The value of R^2 is about %99 and F test is significant. According to this model, it was seen that other versions are statistically significant. While Exp, Inpop, Ingdp, prspv, prsge, prsq versions are statistically significant, Inf, prsva, prsvl, prscc versions are not statistically significant. The signs of prspv and prsge have been negative. Thus, it was concluded that the increase in these variables decreases the lnfdi independent variable.

Table 5: Driscoll-Kraay Fixed Effects Model

Regression with Driscoll-Kraay standard errors				Number of obs =980		
Method: Fixed-effects regression				Number of groups = 91		
Group variable (i): id				F(10,92)= 80205,29		
Maximum lag: 2				Prob>F=0,0000		
				Within R-squared=0,9901		

Ln fdi	Coef.	Drisc/Kraay Std. Err.	T	P>|t|	[95% Conf, Interval]	
Exp	0,0016227	0,0006185***	2,62	0,010	0,000394	0,0028514
Ln pop	20,14288	0,3774565***	53,36	0,000	19,39299	20,89276
Ln gdp	0,0366114	0,018892*	1,94	0,056	-0,000921	0,0741437
Inf	0,0004104	0,0006302	0,65	0,517	-0,0008415	0,0016623
Prsva	0,0154287	0,0442472	0,35	0,728	-0,0724762	0,1033335
Prspv	-0,1610157	0,0674305**	-2,39	0,019	-0,2949781	-0,0270533
Prsge	-0,2919063	0,1643206*	-1,78	0,079	-0,6183577	0,0345452
Prsrq	0,1762682	0,0329023***	5,36	0,000	0,1109021	0,2416344
Prsrl	-0,0380475	0,0611811	-0,62	0,536	-0,1595945	0,0834995
Prscc	0,0353538	0,0421945	0,84	0,404	-0,048473	0,1191805
_cons	-41,03022	0,6482805***	-63,29	0,000	-42,31814	-39,7423

Not: * p<0.10; ** p<0.05; *** p<0.01

The signs of Exp, Inpop, Ingdp, prsrq have become positive. Therefore it was concluded that the rise in Exp, lnpop, lngdp control variables and in prsrq political risk variable increases Infdi dependent variable. It can be said that %1 rise in the Exp variable causes the rise of about %20.14 in Infdi variable, %1 rise in Ingdp variable causes the rise of Infdi variable at about %0.04, %1 rise in prspv variable causes the decrease in Infdi variable about % 0.16, %1 rise in prsg variable causes the decrease of Infdi variable about %0.29 and %1 rise in prsrq causes the increase of Infdi variable about %0.18.

5. CONCLUSION

Foreign direct investment has an important place in the development of the countries. When the investors decide to make an investment, they take various factors into consideration. One of them is the political risk. In the study, literature that investigates the relation between political risk and foreign direct investment has been presented initially. After that, the study data covering the years between 2002 and 2012 and 91 different countries has been put forward. Six political risk variables (freedom of expression and transparency, political stability and absence of violence, management effectiveness, regulatory quality, rule of law, prevention of corruption) and four control variables (foreign direct investment, consumer price with inflation, GDP, exportation of goods and services, population size) have been used in the study. In order to test the existence of the unit root effect, F test, Breusch-Pagan Lagrange multiplier test, likelihood ratio test were done. The results of these tests showed that unit root effect exists. After that, some tests were done to identify the deviations from the econometric hypothesis. So, these tests showed that there are interdivisional correlation, autocorrelation and heteroscedasticity in the model. Because of the existences of these was identified, using Driscoll-Kraay fixed effects model was considered more suitable. In the model, in which the R^2 value and F test is statistically significant, "exportation of goods and services", "population", "logarithms of GDP", "political stability and absence of violence", "the efficacy of administration", "regulatory quality", "inflation", "freedom of expression and transparency", "rule of law", "prevention of corruption", variables are not statistically significant. Results show that the increase in the political risks; "political stability and absence of violence" and "the efficacy of administration" causes the foreign investment to decrease and the increase in the "exportation of goods and services", "population", "logarithms of GDP" cause the foreign direct investment to increase.

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Appendix 1: Countries in the Analysis

Countries in the Analysis

Albania	Dominican Republic	Japan	Philippines
Algeria	Ecuador	Jordan	Poland
Armenia	Egypt, Arab Rep.	Kazakhstan	Portugal
Australia	El Salvador	Kenya	Romania
Austria	Estonia	Korea, Republic	Russian Federation
Azerbaijan	Ethiopia	Liberia	Senegal
Bahamas	Finland	Luxembourg	Singapore
Bahrain	France	Malaysia	South Africa
Bangladesh	Gabon	Mexico	Spain
Belarus	Germany	Moldova	Sri Lanka
Belgium	Ghana	Mongolia	Sudan
Bolivia	Greece	Morocco	Sweden
Botswana	Guatemala	Mozambique	Switzerland
Brazil	Guinea-Bissau	Netherlands	Tanzania
Bulgaria	Haiti	New Zealand	Thailand
Cameroon	Honduras	Nicaragua	Tunisia
Canada	Hong Kong SAR, China	Niger	Turkey
China	Iceland	Nigeria	Ukraine
Colombia	India	Norway	United Kingdom
Costa Rica	Indonesia	Pakistan	United States
Croatia	Ireland	Panama	Uruguay
Czech Republic	Israel	Paraguay	Vietnam
Denmark	Italy	Peru	