

Kardesler, Elif; Yetkiner, I. Hakan

Working Paper

The Impact of Corruption on FDI: An Application of Efficient Grease Hypothesis to EU Countries

Working Papers in Economics, No. 09/02

Provided in Cooperation with:

Department of Economics, Izmir University of Economics

Suggested Citation: Kardesler, Elif; Yetkiner, I. Hakan (2009) : The Impact of Corruption on FDI: An Application of Efficient Grease Hypothesis to EU Countries, Working Papers in Economics, No. 09/02, Izmir University of Economics, Department of Economics, Izmir

This Version is available at:

<https://hdl.handle.net/10419/175903>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Working Papers in Economics

**The Impact of Corruption on FDI:
An Application of Efficient Grease Hypothesis to EU Countries**

Elif Kardeşler[†]

Department of Economics, Izmir University of Economics, Izmir, Turkey

I. Hakan Yetkiner

Department of Economics, Izmir University of Economics, Izmir, Turkey

Working Paper no: 09 / 02

January 2009
Izmir University of Economics
Department of Economics
Sakarya Cad. No: 156
35330 Balçova/ Izmir
TURKEY

[†] Corresponding Author. E-mail: elifkardesler@gmail.com. Elif Kardeşler is a Master's student (without thesis) at IUE. This work is out of Elif Kardeşler's term project. Contact info for I. Hakan Yetkiner: Hakan.Yetkiner@ieu.edu.tr

Abstract

This paper empirically examines the impact of corruption on FDI in European Union countries, including candidate countries. Our aim is to verify whether Efficient Grease Hypothesis does hold in the case of the EU. Contrary to the Hypothesis, we find that corruption has a negative impact on FDI.

Keywords: FDI, Corruption, Efficient Grease Hypothesis, OLS

JEL Classification: C31, D73, F21.

1 INTRODUCTION

In the globalized world, the free movement of factors of production, and especially of physical capital, is welcomed by both developing and developed countries as it, in principle, improves welfare. On the one hand, FDI receiving countries welcome FDI because as their domestic resources are not enough to meet the increasing demand for capital. On the other hand, FDI sending countries realize higher returns for their investments in capital-scarce countries. Gaining new markets and marketing channels, cheaper production facilities, better access to new technologies and products, reduction of barriers of foreign trade, and innovations in technology are perhaps just a few of the many other benefits that FDI-sending and/or FDI-receiving countries gain.

Statistics show that advanced economies in general, and EU countries in particular, are not an exception to this movement. In particular, data show that EU member and candidate countries are both FDI-receiving and FDI sending countries. For example, FDI received by the EU reached nearly 920 billion dollars in 2007, while FDI outflows amounted to nearly 1 trillion dollars. Figure 1 below illustrates the FDI attracted by EU countries, including candidate countries, between 1995-2007.¹

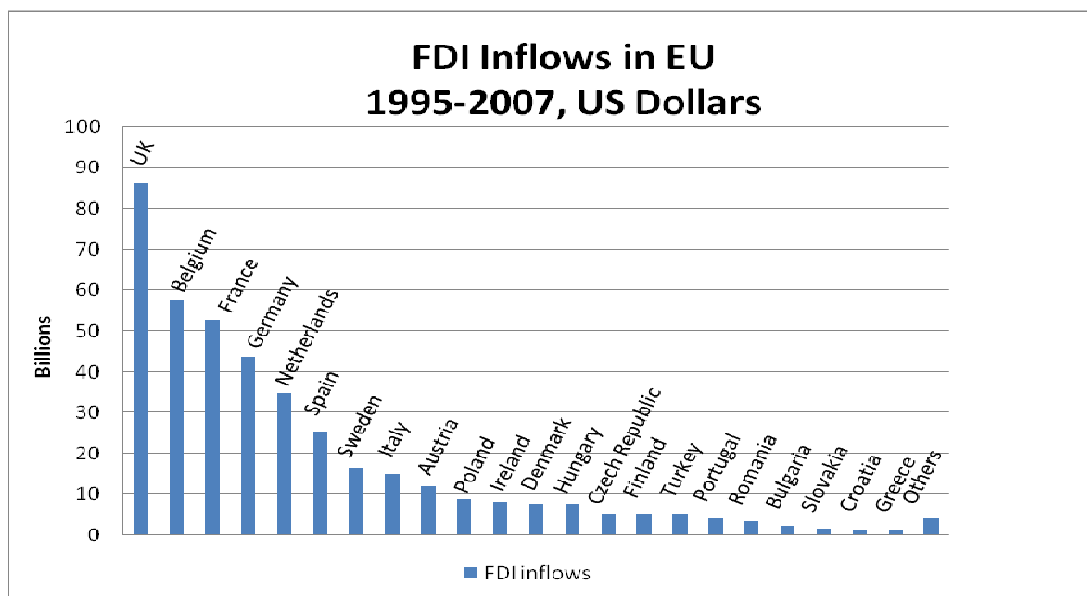


Figure 1 FDI received by EU countries, 1995-2007

¹ Others are Cyprus, Lithuania, Estonia, Latvia, Slovenia, Malta, FYR Macedonia. All numbers are in nominal dollars.

As our short discussion indicates, FDI is not only an issue for developing countries, but also for developed economies. One important problem with FDI is the asymmetric information between FDI sending and FDI receiving countries. The FDI source ('foreigners') generally has less information on the bureaucracy and the decision mechanism of the FDI receiving country. This can be a preferred situation, as the bureaucracy and other power holders of the FDI receiving country may then easily attempt to abuse this asymmetric information. The exploitation and misuse of this public power is usually known as corruption (e.g., the World Bank (1997)). A more general definition of corruption is given by the Asian Development Bank (ADB, 1998):

“Corruption involves behavior on the part of officials in the public and private sectors, in which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed”

As the definition reveals, corruption is as much of a problem for the private sector as for the public sector.

An unusual question is whether corruption is good or bad for attracting FDI? In particular, does the level of FDI increase or decrease with corruption? Some studies argue that corruption may have a positive impact on the economy: corruption attracts FDI by reducing the amount of red tape, and thus the reducing tax burden and irrational capital controls. Studies conducted on the idea underlining the positive impact of corruption call this the Efficient Grease Hypothesis (EGH). Several studies found evidence in support of the EGH. For example, Leff (1964) claimed that misleading and wrong decisions, which are enforced in public administration, could be compensated for by corruption's grease effects. In this context, Leys (1965:222) states, “it is natural but wrong to assume that the results of corruption are always both bad and important”, and goes on to emphasize corruption's positive effects on bureaucracy. One of the pioneers of EGH, Huntington (1968), believes that “in terms of economic growth, the only thing worse than a society with a rigid, over-centralized, dishonest bureaucracy is one with a rigid, over-centralized and honest bureaucracy” (Huntington, 1968:386). In explanation, he indicates that corruption helps to reduce excessive bureaucracy and so quickens the achievement of economic wealth. Bardhan (1997) suggests that fast money, which quickens the steps of bureaucracy, is beneficial

for public services because of the speed of investment projects. Acemoglu and Verdier (1998) worked on bureaucratic corruption and its effects on investments, property rights and allocation of talents. They found “less developed economies may choose lower levels of property right enforcement and more corruption”. They suggest that it may be an optimal policy to allow some form of corruption and suppress strict enforcement of property rights. In the same way, Braguinsky (1996) showed that corruption is conducive to economic growth in competitive capitalist environments.

There are also many studies which discount the Efficient Grease Hypothesis (e.g., Tanzi (1998), Mauro (1995), Habib and Zurawicki (2002), Monte and Papagni (2001), and Wei (2000)). These studies argue that corruption has a negative impact on FDI and results in investors unwilling to spend their money on risky business. For example, Tanzi (1998) argues that “Corruption's random nature creates high excess burdens because the cost of searching for those to whom the bribe must be paid must be added to the cost of negotiating and paying the bribe” (Tanzi, 1998:584). Tanzi emphasizes that corruption affects the legitimacy of the market economy negatively. Correspondingly, Mauro (1995), via cross sectional country analysis, found that corruption causes lower investment and thus lower economic growth. Habib and Zurawicki (2002) also support the negative impacts of corruption. Their analysis shows that foreign investors generally avoid corruption because it is considered wrong and can create operational inefficiencies. Monte and Papagni (2001) investigated the determinants of corruption in Italy during the period of 1963-2000. Their econometric model showed that economic variables (e.g., public expenditure and income per capita) have low explanatory value, while political and cultural variables (e.g., presence of voluntary organizations, absenteeism at national elections) are the most important factors affecting corruption in Italy. Wei (2000) studied the effect of corruption on foreign direct investment with a sample of bilateral investment from twelve source countries to 45 host countries. He found that the corruption level in a host country reduces FDI receipts.

In this study, we examine whether corruption has a positive or negative impact on FDI in the case of the European Union (EU). There are two reasons that led us to choose the EU case. Firstly, the EU has the highest share in the world (as a region) in attracting FDI (see Figure 2 below). Secondly, there is a common misconception that corruption is a problem in developing countries rather than in developed ones. It is true that advanced economies are more successful in removing asymmetric

information and in establishing proper institutional mechanisms and it is natural to expect that these economies are less subject to corruption or, at least, that such problems are dealt with more relentlessly in these countries.² In that sense, the hypothesis can be considered a robust one, if it yields similar for developed countries. If the hypothesis is rejected in the case of developed economies, its plausibility is reduced. We, therefore, have purposefully chosen the EU case to test whether the hypothesis has any validity for an advanced regional economy.

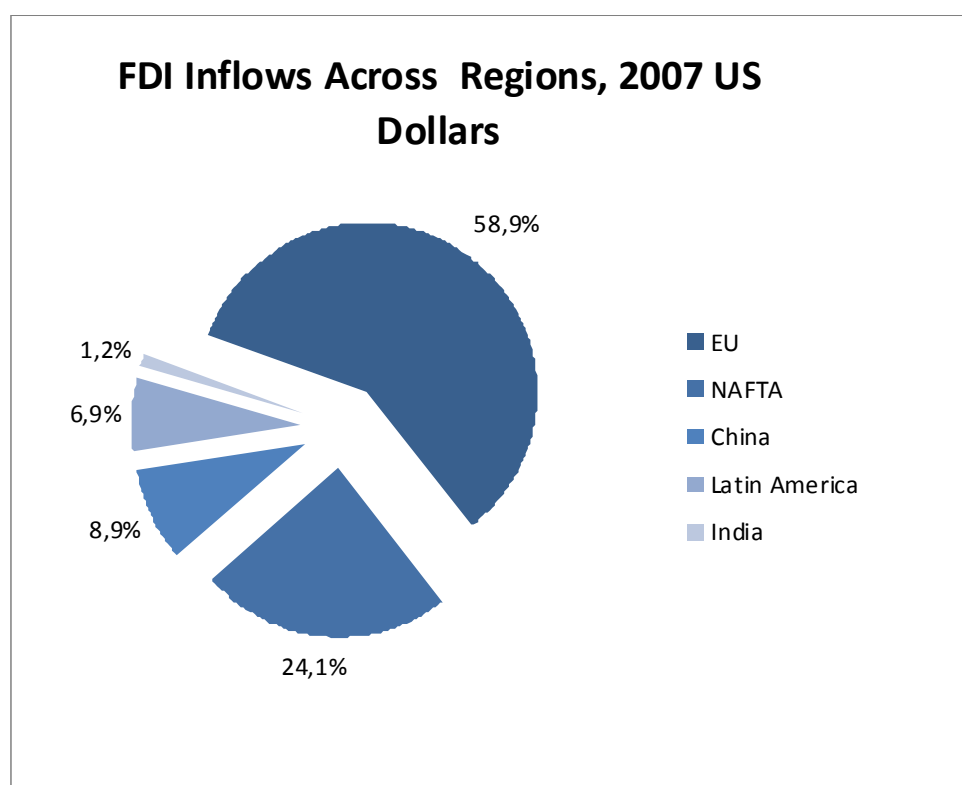


Figure 2 Leading Region's FDI inflows in US dollars 2007³

Our study is based on the works of Leff (1964), Leys (1965) and Bardhan (1997) who developed the Efficient Grease Hypothesis. In the second section, we discuss the measurement of corruption. The third section presents the model, tests the impact of corruption on FDI for the EU region and presents results. We show that corruption has

². For example, European Anti-Fraud Office (OLAF) Director General Franz-Hermann Brüner stated in the OLAF Activity Report 2007 that "the figures and the cases in the report show clearly how seriously irregularities, fraud and corruption are being taken by OLAF and by the European Institutions in general".

³ Latin American countries exclude Cuba, French Guiana, Guadeloupe, Martinique, Puerto Rico, Saint Martin, Saint Pierre and Miquelon.

a negative impact on FDI in the case of EU, rather than a positive one. That is, our results contradict with the EGH is the case of EU countries. The last section concludes the paper.

2 MEASURING CORRUPTION

Measuring corruption is not easy for a very obvious reason: it is unrecorded. However, there are some indirect ways of getting information about countries' and firms' corruption levels. For example, the media is a good source of information because a fraction of corruption becomes public via newspapers and televisions. Another way of collecting data about corruption is with a field study, which can be conducted locally and internationally. Non-profit organizations conduct comprehensive surveys among international associations and enterprises and the results are converted into indices. The Corruption Perception Index (CPI) is one important index, which is very popular and is published yearly by International Transparency. The index ranks countries with scores ranging from 0 highly corrupted, to 10, highly uncorrupted. Another important corruption index is the International Country Risk Guide (ICRG), published by a profit making organization, Political Risk Services (PRS), which analyzes countries and assesses their risk level, including corruption. The ICRG ranks countries with scores ranging from 0 to 6, (0, less corrupted and 6, more corrupted countries). A further index on corruption is part of the World Bank Country Governance Indicators Project (WGI). The WGI project reports aggregate and individual governance indicators for 212 countries and territories for the period 1996–2007. Kaufmann *et al.* (1999a, 1999b and 2002) and Kaufmann *et al.* (2003) constructed the Kaufmann-Kraay-Zoido Index (KKZ) index as an indicator of corruption from the WGI project. The KKZ Index ranks countries with scores ranging from –2.5 to +2.5 (–2.5 more corrupted, +2.5 less corrupted). Table 1 below exemplifies the CPI and KKZ corruption indices of member and candidate countries of EU.

Table: 1 Corruption in Member and Candidate Countries within EU, 2007⁴

CPI Index			KKZ Index		
Rank	Country	Score	Rank	Country	Score
6	Austria	8.1	5	Austria	+2.02
10	Belgium	7.1	9	Belgium	+1.45
25	Bulgaria	4.1	28	Bulgaria	-0.22
26	Croatia	4.1	26	Croatia	+0.01
16	Cyprus	5.3	16	Cyprus	+0.78
18	Czech Republic	5.2	22	Czech Republic	+0.26
1	Denmark	9.4	2	Denmark	+2.42
13	Estonia	6.5	14	Estonia	+0.94
2	Finland	9.4	1	Finland	+2.59
9	France	7.3	10	France	+1.32
29	FYR Macedonia	3.3	29	FYR Macedonia	-0.28
7	Germany	7.8	7	Germany	+1.80
23	Greece	4.6	21	Greece	+0.28
17	Hungary	5.3	18	Hungary	+0.44
8	Ireland	7.5	8	Ireland	+1.75
19	Italy	5.2	17	Italy	+0.45
21	Latvia	4.8	19	Latvia	+0.31
22	Lithuania	4.8	23	Lithuania	+0.17
15	Malta	5.8	11	Malta	+1.20
4	Netherlands	9.0	4	Netherlands	+2.25
24	Poland	4.2	24	Poland	+0.14
14	Portugal	6.5	13	Portugal	+1.13
28	Romania	3.7	27	Romania	-0.19
20	Slovakia	4.9	20	Slovakia	+0.28
12	Slovenia	6.6	15	Slovenia	+0.90
11	Spain	6.7	12	Spain	+1.16
3	Sweden	9.3	3	Sweden	+2.37
27	Turkey	4.1	25	Turkey	+0.04
5	United Kingdom	8.4	6	United Kingdom	+1.89

Source: Transparency International, Global Corruption Report 2007, Kaufmann *et al.*, (2008) and Governance Matters VII: Aggregate and Individual Governance Indicators, 1996-2007.

According to Table 1, Finland, Denmark and Sweden are the “cleanest” countries among member and candidate countries within the European Union. As can be seen, some recent and potential members have relatively bad scores. For example, FYR

⁴ We are unable to present International Country Risk Guide (ICRG) index as we were unable to get that data.

Macedonia, Romania and Turkey have the lowest ranks in terms of both the CPI index and the KKZ index.

However, it is difficult to measure the impact of corruption because it is a behavioral rather than an economic variable. In this respect, introducing corruption into an economic model is not easy. In this paper, we will not develop an alternative way of introducing corruption into a model but follow the methods used by other researchers, such as Wei (2000), Habib and Zurawicki (2002), Egger (2006), and Basar (2004). Tanzi points out that:

“People may tend to confuse these indexes with actual measurements of corruption. It is important to keep in mind that the indexes reflect perceptions and not objective and quantitative measures of actual corruption. One good feature is that the various indexes available are highly correlated among themselves” (Tanzi, 1998: 577).

Therefore, leaving aside the fact that corruption has no measurable nature, we will use the abovementioned CPI and KKZ indices as measures of corruption.

3 THE MODEL

As stated above, corruption is an act consisting of complex affairs and relations, and is generally difficult to measure. This, however, puts obstacles on research methods. For two particular reasons, there is no way to run panel data analysis to measure the impact of corruption on economic variables. Firstly, these indexes have no fluctuations and secondly, these indexes are not long enough to construct a time series. For these reasons, the OLS method, with cross sectional data, is generally used to measure the impact of corruption on FDI. In this study, we will use the Corruption Perception Index (CPI) and the Kaufmann-Kraay-Zoido Index (KKZ). The CPI index indicates the average values of corruption in member and candidate countries within the European Union, between 1999-2007. Scores range from 0 to 10 and a higher score indicates a lower level of corruption. Hence, if the sign of corruption regressed on FDI is positive; it means that decreasing corruption (that is, CPI index increases) implies increasing FDI. The KKZ index ranges between -2.5 to $+2.5$ and our data has values of corruption for the period 1996-2007. An interpretation of the coefficient of the KKZ index is the same: lower corruption (the KKZ variable shows an increase) increases FDI and so there is positive relationship between the two in the model. Note that the two indices do not cover the same time periods due to data availability

problems. Hence, data on other variables also covers the respective time periods. The same country list is used for both indices.

In our study, the FDI data is in terms of USA dollars and obtained from the International Financial Statistics (IFS). The population data is used to capture country size and also gathered from the IFS. We used average gross national income (GNI) per capita in USA dollars (PPP) to control for the purchasing power on FDI. We collected GNI data from the World Development Indicators of the World Bank. Inflation was used to control the degree of decrease in purchasing power/ income. This data was also collected from the World Development Indicators. Finally, we used openness to measure the level of integration of the FDI receiving country with the rest of the world. We constructed openness data by calculating the share of total exports plus imports in GDP. The data is available in the World Development Indicators.

The equation that we was used in our analysis is as follows:

$$\log FDI = \log GNI + TradeOpenness + \log POP + CorruptionIndex \quad (1)$$

In the study, two versions of our OLS model were run. In the first one, we used the CPI-index as the variable of corruption for the period 1999-2007. In the second, we used the KKZ Index for the period 1996-2007. In both runs, FDI is treated as the dependent variable. Table 2 below presents the results.

Model 1.1 includes gross national income, trade openness, population and the corruption variable, CPI, as independent variables and all of these are statistically significant. This means that there is positive relationship between foreign direct investment and the independent variables. Also their explanatory power is high; that is, they can explain 90% of foreign direct investment. Hence, the analysis shows that corruption is a statistically significant variable in explaining FDI.

Model 1.2 in table 2 presents the same analysis for the same independent variables but the corruption index; the KKZ index is used this time (recall that time coverage changes). Regression results indicate that the corruption index is again positive, although gross national income has become statistically insignificant. The explanatory power of the model is again high, at 90%.

Table 2. The Impact of Corruption on FDI

Independent Variable; Foreign Direct Investment (logFDI)		
	Model 1.1	Model 1.2
logGNI	0.948 (0.094)*	0.585 (0.256)
Trade openness	0.489 (0.022)**	0.521 (0.011)**
logPOP	0.959 (0.00)***	0.942 (0.00)***
Corruption _{CPI}	0.102 (0.098)*	
Corruption _{KKZ}		0.314 (0.014)**
Intercept	-1.873 (0.266)	-0.033 (0.985)
R - squared	0.907	0.917
Adjusted R - squared	0.892	0.904
F- statistic	59.10	67.11
Prob.F statistic	0.00	0.00
N	29	29

Note: The p values are in parentheses. * Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level Note 2: The heteroscedasticity-consistent covariance matrix estimator is used in Model 1.1 and Model 1.2

Our results are parallel to Wei (2000), Basar (2004) and Habib and Zurawicki (2002). These studies have also found a positive relationship between corruption and FDI. Hence, we conclude that EGH does not apply in the case of EU.

4 CONCLUSION

Our results show that corruption has a negative effect on FDI, contrary to the Efficient Grease Hypothesis, in the case of the EU region. This finding implies that (i) investors are not eager to make FDI in economies that experience high levels of corruption in the EU region. The policy implication of this finding is that removing corruption is more effective than EGH for attracting FDI in the EU region. Consequently, a country that wishes to attract more FDI should take measures to decrease its corruption level via anti-corruption laws and programs. Our result may not apply for all developing countries. We believe, however, that not the developing but the developed economies must be taken as a referent for policy suggestions. In this respect, our results suggest

that the application of anti-corruption laws to decrease bribes, special treatments and all other forms of corruption is a prerequisite for attracting high levels of FDI.

References

- Acemoglu, Daron and Verdier, Thierry, (1998), “Property Rights, Corruption and the Allocation of Talent: A General Equilibrium Approach”, *The Economic Journal*, 108(450), pp.1381-1403
- Asian Development Bank (1998), *Anticorruption: Policies and Strategies*, Retrieved from: <http://www.adb.org/documents/policies/anticorruption/>
- Ayalp, T., Sözeri, T., Baykaler, Ö, D., Alsan, A., Özgünel, Y., (2004), “FDI Attractiveness of Turkey: A Comparative Analysis by TÜSİAD and YASED”, Retrieved from: <http://www.tusiad.us/Content/uploaded/TURKEY-FOREIGN-DIRECT-INVESTMENT-ATTRACTIVENESS.PDF>
- Bardhan, P. (1997), “Corruption and Development: A Review of Issues”, *Journal of Economic Literature*, 35 (3), pp.1320-1346.
- Başar, S. (2004), “Yolsuzlukların Doğrudan Yabancı Yatırımlar (DYY) Üzerindeki Etkileri” *İktisat İşletme ve Finans*, 19 (222), pp.66-76.
- Braguinsky, S. (1996), “Corruption and Schumpeterian Growth in Different Economic Environments”, *Contemporary Economic Policy*, 14 (3), pp.14-25.
- Coupet, E. (2003), “Investment and Corruption: A look at causality” *Journal of the Academy of Business and Economics*, Retrieved from: http://findarticles.com/p/articles/mi_m0OGT/is_2_1/ai_113563602/
- Delios, A., Mudambi, R., Navarra, P., (2005), “Corruption and FDI: Japanese FDI Inflows into EU: 1996-2002”, Chapter 14, *Corporate and Institutional Transparency for Economic Growth in Europe*, Oxford
- Dahlström, T. and Johnson, A. (2007), “Bureaucratic Corruption, MNEs and FDI”, Royal Institute of Technology, Working Paper Series in Economics and Institutions of Innovation 82,

Egger, Peter and Winner, Hannes (2006), "How Corruption Influences Foreign Direct Investment: A Panel Data Study", *Economic Development and Cultural Change*, 54(2), pp.459-486.

European Anti-Fraud Office-OLAF Activity Report 2007, July 2008, Brussels
Retrieved from: http://ec.europa.eu/anti_fraud/press_room/pr/2008/7/en.html

Habib, Mohsin and Zurawicki, Leon, (2002), "Corruption and Foreign Direct Investment", *Journal of International Business Studies*, 2 (33), pp.291-307.

Huntington, S. P. (1968), *Political Order in Changing Societies*, Yale University Press, New Haven

Kaufmann, D., Kraay, A., Mastruzzi, M, (2003), "Governance Matters III: Governance Indicators for 1996-2002", Policy Research Working Paper 2196 - World Bank

Kaufmann, D., Kraay, A., Mastruzzi, M, (2008), "Aggregate and Individual Governance Indicators 1996-2007", Governance Matters VII-Policy Research Working Paper 4654 –World Bank

Kaufmann, D., Kraay, A., Zoido P., (1999a), "Aggregating Governance Indicators", Policy Research Working Paper 2195-World Bank

Kaufmann, D., Kraay, A., Zoido P., (1999b), "Governance Indicators", Policy Research Working Paper 2196-World Bank

Leys, C. (1965), "What is the Problem about Corruption?", *The Journal of Modern African Studies*, 3(2) , pp.215-230.

Mauro, P. (1995), "Corruption and Growth", *The Quarterly Journal of Economics*, 110(3), pp.681-712

Meon, G-Pierre and Sekkat, Khalid, (2003), “Does corruption grease or sand the wheels of growth, *Business and Economics-Public Choice*”, 122(1-2), pp.69-97

Meon, G-Pierre and Weill, Laurent (2008), “Is Corruption an Efficient Grease?”, Working Papers of LaRGE (Laboratoire de Recherche en Gestion et Economie) no:06,

Monte, D-Alfredo and Papagni, Erasmo, “Public expenditure, corruption, and economic growth: the case of Italy”, *European Journal of Political Economy*, 17, 2000, pp.1–16.

Sayek, S. (2007), “FDI in Turkey: The Investment Climate and EU Effects”, *The Journal of International Trade and Diplomacy*, 1(2), pp.105-138.

Shleifer, Andrei and Vishny, W-Robert, (1993), “Corruption, *The Quarterly Journal of Economics*”, 108(3), pp.599-617.

Tanzi, V. “Corruption Around the World: Causes, Consequences, Scope, and Cures”, *Staff Papers - International Monetary Fund*, 45(4), 1998, pp.559-594.

Wei, S-J. (2000), “How Taxing is Corruption on International Investors?”, *The Review of Economics and Statistics*, 82(1), p.1-11.

World Bank (1997), *World Development Report 1997: The State in a Changing World*, Washington D.C

Appendix 1: Correlation Coefficients of variable

	logFDI	corr.CPI	corr.KKZ	logGNI	logPOP	Trade openness
logFDI	1.00	0.57	0.64	0.65	0.77	-0.22
corr.CPI	0.57	1.00	0.98	0.84	0.08	-0.05
corr.KKZ	0.64	0.98	1.00	0.90	0.15	-0.13
logGNI	0.65	0.84	0.90	1.00	0.21	-0.17
logPOP	0.77	0.08	0.15	0.21	1.00	-0.49
trade op.	-0.22	-0.05	-0.13	-0.17	-0.49	1.00

Appendix 2: Descriptive Statistics of Variables

	logFDI	corr.CPI	corr.KKZ	logGNI	logPOP	Trade openness
Mean	9.67	6.06	0.95	4.23	6.94	0.78
Median	9.72	6.28	0.90	4.27	6.95	0.68
Maximum	10.94	9.58	2.42	4.48	7.92	1.57
Minimum	8.17	2.85	-0.54	3.80	5.59	0.26
Std. Dev.	0.72	2.05	0.88	0.22	0.60	0.34
Skewness	-0.06	0.21	0.15	-0.48	-0.16	0.48
Kurtosis	2.16	1.80	1.80	1.83	2.48	2.29
Jarque-Bera	0.88	1.95	1.84	2.77	0.46	1.73
Probability	0.64	0.38	0.40	0.25	0.80	0.42
Sum	280.46	175.88	27.57	122.60	201.18	22.48
Sum Sq. Dev.	14.53	117.70	21.65	1.34	10.22	3.21
Observations	29	29	29	29	29	29

Appendix 3: List of countries

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Macedonia, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, United Kingdom.