

Causes of Corruption in European Countries: History, Law, and Political Stability

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Abstract

This study asks why corruption is increasing in European countries and what are the most important factors that explain such corruption? Although corruption scandals, speeches and reports indicate that corruption persists in European countries no one has tested the causes of corruption in European countries and this study is, to the best of our knowledge, the first to empirically examine the causes of corruption for European countries. Cross-country data for European countries is used to examine the role of legal influences, historical factors and the effect of political stability on corruption. Five key findings are: (1) the effects of the legal strengths on the incidence of corruption are significant with a negative sign - a one-standard-deviation increase in the legal strengths is associated with a decrease in corruption of 0.26 points, 26% of a standard deviation in the corruption index; (2) political stability is a significant determinant of corruption; (3) the interactive effects of history and law are important in reducing corruption levels; (4) the size of government matters in affecting corruption levels; (5) finally, this study shows that an interdisciplinary approach is the most appropriate way to explain corruption.

Key Words: History; Law; Political Instability; Corruption; European Countries

JEL Classification: K0, O52, P37, C33, H0

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1. Introduction

Although, corruption, i.e., ‘misuse of public power for private gain’, is disliked in its essence because of its detrimental effects on the development of a country, it is pervasive and exists, with varying degrees, in every country in the world. In recent years, international organizations such as the United Nations and the World Bank have made corruption a significant focus of their agendas and have made significant attempts to curb corruption in the world but, corruption perhaps, like the poor, will always be with us. According to the Global Corruption Barometer (2010) “corruption has increased over the last three years say six out of 10 people around the world, and one in four people report paying bribes in the last year”¹.

It is widely accepted by economists, development practitioners and policy makers that corruption is a problem of developing countries. However, recently a number of scandals over corruption have shown that rich nations, supposedly free from corruption, are also suffering from its effects. In Norway and Sweden (regarded as the cleanest nations), for example, state owned companies have been shown to be involved in bribe taking. In Germany, former Chancellor Helmut Kohl and his Christian Democratic party, the CDU, were found to be involved in malpractices and they were penalized for receiving illegal campaign funding. Recently, a number of corruption scandals have being reported in Italy: for example, “A report from the state auditor shows that cases of corruption in Italy have increased by more than 200% since 2008².” Similarly, in France “Forty-nine businessmen and public housing officials have gone on trial, accused of taking bribes when President Jacques Chirac was mayor of Paris”.³ Recently, Austria's former chancellor, Wolfgang Schüssel, has ended his political career as a corruption scandal continues to unfold around him⁴. In fact, recent emerging major corruption scandals have shaken a striking and variety of countries all over the world: the United States, Japan, Italy, France, Germany, South Korea, Mexico and the Kenya.

The World Bank’s director for Governance, Daniel Kaufmann states that: "It is important to emphasize that this is not simply a developing country problem, fighting corruption is a global challenge." Recently, Kaufmann notes that: “some of

¹ http://www.transparency.org/policy_research/surveys_indices/gcb/2010

² <http://news.bbc.co.uk/1/hi/world/europe/8527593.stm>

³ <http://news.bbc.co.uk/1/hi/world/europe/4641372.stm>

⁴ <http://www.dw-world.de/dw/article/0,,15365554,00.html>

my research tends to challenge orthodoxy, such as taking issue with the claim that the developing ‘world’ is corrupt (contrasting wealthy nations); that corruption is largely about blatant bribery, and that corruption and macro-economic stability should be viewed separately from each other by different types of ‘experts’. I am committing the heresy of focusing on the link between corruption and budget deficits in industrialized countries. After all, even if politically incorrect to admit it, there are a number of rich countries where corruption is widespread, in a variety of forms, illegal and ‘legal’, political and financial”⁵.

This study shows that the average level of corruption in European⁶ countries during 1984 was a 0.78 unit of the corruption index. Given that the corruption index ranges from 0 to 6, where 0 indicates an absence of corruption and 6 indicates the highest corruption, such a low value of a corruption index implies that European countries were initially close to zero level of corruption. However, the average level of corruption in European countries has increased, up to 2.12 in 2007. Although corruption levels in Europe are still comparatively low, in fact the cleanest countries in the world, such as Sweden, Finland and Denmark, are located in Europe, but nonetheless the corruption levels have increased by 1.34 unit of the corruption index over the period 1984-2007. Such an increase of 1.34 units implies that corruption in European countries, on average, has increased by 22% of the corruption index. This is an alarming figure and surely needs to be rapidly addressed.

Research on the causes of corruption has proliferated in recent years. Cross-country empirical studies of the determinants of corruption have explored and tested a wide range of factors, such as economic, political, historical, cultural and institutional dimensions (see, for example, Treisman, 2000; Paldam, 2002; Serra, 2006). Recently, Majeed and Macdonald (2010, 2011) provide new insights on the causes of corruption by exploring the institutional, political and economic aspects of corruption. Their studies specifically explore the role and importance of military elites and financial market reforms in determining the cross-country variations in corruption levels. Their findings suggest that the presence of military elites in politics fosters corruption while financial reforms significantly control the incidence of corruption. In the wake of the

⁵ <http://thekaufmannpost.net/corruption-and-fiscal-deficits-in-rich-countries/>

⁶ The terms European and EU countries have been used interchangeably. Our sample includes 26 countries from Europe where 22 countries are EU member states while two out of remaining four, Iceland and Croatia, are candidate for EU. The other two countries Norway and Switzerland are not part of EU but they share borders with EU countries and are likely to share corruption norms with neighbours.

proliferation of a large number of studies our understanding about the incidence of corruption is improving and there is also a slowly emerging consensus on some of the causes of corruption. However, some causes are still inconclusive, such as the role and importance of government spending.

Although it is true that the cleanest economies are located in Europe the question nonetheless arises as to why corruption still exists in European countries, or why corruption is increasing over time in this region? The main motivation of this is to provide an answer to these questions and we do so using an empirical analysis of the causes of corruption in European countries. Recently a number of studies (such as Treisman, 2000; Serra 2006; Majeed and MacDonald, 2010, 2011) have identified a number of causes of corruption but surprisingly no one, to the best of our knowledge, has investigated the causes of corruption in European countries. Perhaps this is due to the general perception that corruption is only a problem in developing countries.

Another reason that European countries have been ignored hitherto in the corruption literature could reflect the empirical consensus that economic development reduces corruption. For example, almost every study on the causes of corruption identifies economic development as a crucial variable, with higher levels of economic development reducing corruption. A high level of economic development reduces the discount rates of both bribe-givers and bribe-takers, thereby making them less eager to jump the queue via illegal ways. On the other hand, less developed economies generate minimal wealth for average citizens, which creates structural incentives for bribery.

Although corruption is increasing in European countries over time it is still lower in comparison to developing economies, and the cleanest economies are developed ones. In contrast it is also a fact that some of the relatively more developed European countries are also relatively more corrupt. For example, although, Switzerland and Norway are more developed than Finland they are also relatively more corrupt than Finland. The basic point of this study is that development is not the sole criterion for generating a corruption free economy, although it matters a lot. This study raises a noteworthy question as to why developed/ rich⁷ countries are unable to eradicate corruption completely or what is missing in these countries, other than

⁷ The terms developed or rich countries for EU countries have been used as a matter of convenience. According to World Bank, except Latvia all countries in sample are high income countries (http://www.iqla.org/joining/World-Bank_Classification-List_2009.pdf).

development, that is generating the incidence of corruption. An answer to this question will not only help us to halt the rising trends of corruption in developed countries but it should also serve as a timely anti-corruption tool for developing countries where the incidence of corruption is a more serious issue.

Another motivation for this study relates to the cultural and contagious nature of corruption. For example, the literature on the causes of corruption identifies corruption as a cultural phenomenon (Paldam, 2002) and also identifies corruption as contagious, implying that corruption norms shift from one country to another (Majeed and MacDonald, 2011). For this reason it is important to ask why some countries in the same region, in our case Europe, are clean while some of them are plagued with corruption and why anti-corruption norms do not spread from a clean EU country to a neighbouring country. For example, France shares a border with Switzerland and Germany, but the incidence of corruption is relatively lower in France. So the natural question to ask is why clean economies are unable to transfer anti-corruption norms into neighbouring countries over time or, put differently, why clean economies are consistently clean when their neighbouring countries have corruption prone elements. What is it in these (clean) economies that prevents a shift of corrupt activities from neighbouring countries?

The existing literature on the causes of corruption focuses on countries outside Europe, while in this study we focus exclusively on corruption in European countries. Although there are many potential determinants of corruption, in this paper we focus on the role of historical factors, legal influences and political stability. Four key questions addressed are: (1) what are the effects of how politically stable a country is on the incidence of corruption?; (2) how important are historical and legal influences in affecting corruption?; (3) what are the interactive effects of history, law and political instability?; (4) do interdisciplinary approaches explain corruption in a more appropriate way?

The rest of the discussion is structured as follow. Section 2 provides a review of the related literature, while section 3 provides a theory on the selected predictors of corruption. Section 4 presents a simple model and discusses the data used in this study. Section 5 presents our results and provides a discussion of these results. Finally, section 6 provides a conclusion.

2. Survey of the Literature: Corruption in Europe

In this section we systematically review the literature on the incidence of corruption in European countries using a number of research sources such as surveys, reports, academic articles, stylized facts, and scandals. Using extant literature we support our main proposition that corruption is a growing threat in European countries. In EU member states some nations suffer relatively high levels of corruption while others are relatively clean. Rapid economic transactions, labour mobility, uniform trade policies, and the widespread availability of information are among the potential sources that shift cultural and political norms across borders within the member states. Since corruption by its nature is contagious, it is highly likely that it will spread across European countries that are members of the EU.

According to the 2004 constitutional treaty of the European Union Member States, one core objective of the European Union is to offer its citizens an area of freedom, security and justice without internal borders. The existing corruption and its growing threat would seem to present a major obstacle to meeting this goal. The Eurobarometer surveys conducted in 2005, 2007, and 2009 show that the majority of Europeans believe that corruption is a major problem for EU member states. In the intervening years of the surveys, a number of corruption scandals emerged in member states, including Finland, Malta, Austria, Spain and UK. In the same period global financial crises have hit the European countries and the negative effects are still being felt which has put an additional burden on the government of member states in the EU.

The euro barometer (2009) reports that the main reasons for corruption in Europe are the lack of a real deterrent for corruption and a lack of transparency in public spending. In addition, the majority of Europeans agree that corruption exists within European Union institutions. For example, according to the Euro barometer (2009), 94% of the respondents in Cyprus believe that corruption is widespread in the police and wider public sector. Two reasons for the perceived high corruption is that appointments in the public sectors are not based on merit and that there is a poor rule of law. The Global Corruption Barometer (2010) has revealed that corruption in Portugal has increased during the past three years and that 83% of the Portuguese consider corruption has risen since 2007.

In June 2011, Transparency International UK (TI-UK)⁸ issued a research report that examines the levels of corruption in 23 sectors and institutions in the UK. The report shows that corruption is a much greater problem than recognized and there is an inadequate response to its growing threat and the report identifies the following sectors and institutions where corruption is particularly prevalent: the prison system, political parties, parliament and sport. The report highlights the corruption risks related to government policy. For example, cuts in government spending in specific areas and rapid institutional changes may create an environment that largely increases the risk of corruption. The report shows that organized crime is the root cause of graft in Britain. The organized criminals have targeted staff of the UK Border Agency, prison service and police force.

According to a survey (Capacent-Gallup, 2009), 78% of the respondents in Iceland believe that corruption in the private sector is rather high. A similar trend has been observed in the public opinion of corruption among the members of the ruling party, where the number of respondents who believe corruption has increased from 12% in 2007 to 71% in 2009. In addition, 40% of Icelanders consider that public officials are corrupt. According to Global Integrity Report (2004)⁹ corruption in Germany is spreading like a cancer and it has become part of today's German reality. The report says that public officials are involved in bribery, managers misdirect money into their own pockets and politicians misuse resources for their personal gains.

Norway is considered amongst the cleanest economies, although in recent years, according to the Global Integrity Report (2009)¹⁰, corruption is increasing in this country as well. In four different cases, the rehabilitation of public buildings has been exposed to corruption as civil servants, responsible for the rehabilitation, received bribes. The CEO of two public companies in Norway has misused his position for private gain and is alleged to have transferred more than 100 million Norwegian kroners (US\$ 17.7 million) from the two public companies into his private accounts.

According to the Global Integrity Report (2009)¹¹ corruption is a major issue in Slovakia. Political corruption is widespread, contracts are awarded to party

⁸ <http://www.transparency.org.uk/ti-uk-programmes/corruption-in-the-uk>

⁹ <http://globalintegrity.org/reports/2004/2004/country65a8.html?cc=de&act=notebook>

¹⁰ <http://report.globalintegrity.org/Norway/2009/notebook>

¹¹ <http://report.globalintegrity.org/Slovakia/2009/notebook>

supporters, tenders are over priced and questionably managed. Slovaks pay bribes of expensive alcohol to professors to secure admission to prestigious universities and to doctors in exchange for special medical treatment. Experts refer to such a widespread corruption in Slovakia to an historical heritage that existed under communist rule (1948-89).

In Hungary, according to the Global Integrity Report (2008)¹², evidence on corruption ranges from small payments to high profile corrupt activities. Recently, it was discovered that many Budapest drivers pay lower parking fees to parking control companies instead of higher official parking prices. Tax evasion is also part of the culture. Overall, corruption contaminates many parts of Hungarian society. It persists in the departments issuing permits and licenses, in the distribution of EU subsidies, local government procurement, local government and commercial bribery.

Although, it takes four days by train to reach Moscow from the central station of Bishkek in the Kyrgyz Republic, trains are always full on this route and since travel by train is relatively cheap, local businesses transport goods to Russia. However, according to Global Integrity Report (2008)¹³, Kyrgyz customs officials demand bribes from the passengers irrespective of whether they are transporting legal or illegal goods. In 2007, Kyrgyz customs reported US\$100 millions imported from China while Chinese customs reported US\$200 million exported. The customs staff in Kyrgyz is known as the second most corrupt government agency where as the first most corrupt agency is law enforcement.

According to a report of the Centre for the Study of Democracy¹⁴, corruption in the Netherlands is more prevalent in the public sector than in the political sphere. In the public sector corruption is more common at local levels than in central administrative bodies. These are the construction companies that pay bribes to local officials in relation to access to public contracts and making the contracts profitable. One other type of local level corruption is related to red-light districts. Individuals linked to organized crimes buy residential places in or near red-light areas and then give bribes to officials in the municipality for changing the classification of the place from 'residential' to 'brothel'. De Graaf et al. (2008) have analyzed corruption cases in the Netherlands. They note that civil servants who are found to be susceptible to

¹² <http://report.globalintegrity.org/Hungary/2008/notebook>

¹³ <http://report.globalintegrity.org/Kyrgyz%20Republic/2008/notebook>

¹⁴ http://www.europarl.europa.eu/meetdocs/2009_2014/documents/libe/dv/report_csd/_report_csd_en.pdf

corruption are rather high profile officials in the civil service organization. They note that every second working day a new corruption investigation begins somewhere in the government apparatus in the Netherlands.

Costas-Pérez et al. (2011) provides evidence on corruption for Spain using a data set based upon press reports published over the period 1996-2009. Their data show that corruption scandals emerged during 1999-2003 and peaked just before the 2007 elections and these scandals caused adverse effects on the election outcome. Del Monte and Papagni (2007) examine the causes of corruption in Italy and found that economic variables affect corruption but that the explanatory power of the economic variables is low, and that political and cultural influences significantly affect corruption. The authors argue that corruption has plagued other sectors, such as the judiciary, which were free from corruption in the past. Since it is believed that known offenders can continue corrupt practices with little risk of punishment corruption goes on and on in Italy. McCarthy (2003) evaluates the corruption incidence for the economy of Ireland and argues that political corruption has increased sharply in recent times. The author emphasizes a review of the policy structure to curb corruption, particularly in two areas: the zoning of land and the allocation of licences by beauty contests.

We can infer following points from the above short survey: (1) corruption is a reality in today's Europe and EU member states and it is a growing threat; (2) at the time of writing, socioeconomic conditions and the ongoing financial crises, are increasing corruption perceptions and actual corruption; (3) the strength of a country's judiciary are important in the fight against corruption; (4) in some countries corruption exists among high level officials and this is likely to spill over to lower levels in due course; (5) some sectors and institutions in Europe are plagued with corruption while some are free from it; however, corruption is likely to spread to clean sectors and institutions as well eventually; (6) perceptions about the lack of punishment or lenient punishment also cause more corruption.

Surprisingly, no one has tested for the causes of corruption in European or EU countries, despite overwhelming evidence on the existence of corruption in European countries. Although case studies are there and country based evidence available, such evidence is often anecdotal and limited to a specific country's experience. Nevertheless, unfortunately, corruption is not just a country specific issue and corruption by its nature it is not bound to stay within the boundaries of a country.

Particularly due to its boundary free nature, corruption is likely to flourish in EU states as these countries provide a border free environment for their citizens. We believe that this is the first study of its kind that systematically quantifies the causes of corruption in European countries.

3. Theory: Law, political stability and history

Law

Corruption flourishes in an environment of unrestrained bureaucracy, but it can be contained when the laws of the land are vigorously enforced. Moreover, when the administration or the political order is considered as illegitimate, the social pressures against acts of corruption become less important. Corruption can therefore be effectively curtailed by an administration that enjoys an enduring legitimacy.

The level of corruption depends on the extent to which the laws of the land are binding and enforced. Corrupt officials are rational welfare maximizers, they weigh the pecuniary benefits from corruption against its cost. The personal cost of corruption is the loss of a job and the jail-time if caught and persecuted. Individuals will act corruptly so long as the perceived gains from corruption outweigh the costs. The probability of detection is lower the more lackadaisical the judicial system is. Judicial laxity reduces the opportunity cost of being corrupt. Hence, countries with strict laws and efficient judicial systems tend to be less corrupt and vice versa (Ali and Isse, 2003).

In a nutshell, the legal strengths of a country play an important role in reducing corruption levels. If nobody is above the law then the incidence of corrupt activities are least likely. This study uses a rule of law index as a proxy for the legal strength of a country. This index has been used by a number of studies such as (Ali and Isse, 2003 and Herzfeld and Weiss, 2003). This index shows the extent to which the citizens of a country are willing to accept the established institutions to make and implement laws and adjudicate disputes. This index also reflects the degree to which countries have a strong court system and an orderly succession of power. The expected sign for this variable is negative because both theory and empirical studies show that a strong rule of law curbs corruption-prone activities.

Political stability

Political stability is another important variable that affects corruption levels. It is widely accepted in the literature that corruption is rooted in political deficiencies. An

established democracy promotes political competition, transparency and accountability (to the voter), thereby reducing corruption. If we look at democracy, from a dynamic, rather than a procedural point of view, it leads us to political stability. On the one hand, politically stable administrations create productive incentives for bureaucrats because they face less chance of dismissal and find more opportunities for long-term development of their official careers. It means political stability motivates bureaucrats to build an open and honest reputation for career advancement. On the other hand, a secure position in bureaucracy may help maintain 'patronage and corruption' reputation and relations (Treisman, 2000). These two conflicting hypotheses require an empirical test and this study provides one.

One of the important elements that determines the pervasiveness of corruption in the public sector is defined as 'public morale' that reflects faith in a country's administrators (such as politicians and policy makers). In economies where policies are unanticipated or policy makers renege on their commitments or policy changes are not purely democratic, the economy suffers from economic chaos that, in turn, negatively affects public morale. This study proxies economic chaos using high inflation rates since high inflation rates reflect macroeconomic imbalances. Another outcome of high inflation rates is the redistribution of national wealth that may lead to a further drop in the public morale (Paldam, 2002; Majeed and Macdonald, 2010). In the literature high inflation rates are also used as a proxy for political instability.

History

The linkages between history and corruption are not simple and remain to be fully studied in the literature (see Lambsdorff, 2006, p. 22). However, one of the proposed links between history and corruption is the role of historical precedents and customs that might shape institutions and cultural norms in a country (Knack and Keefer, 1995; Lambsdorff, 2006; and Paldam 2002). This link implies that established practises and norms in old countries might be difficult to abandon and it also implies that many of these established practises might be viewed as corrupt over time by outsiders. Corruption in these economies might be considered a norm of doing business and thus might have become socially acceptable. This all means that over time potential bribe-givers become familiar with the mechanism of offering bribes (see Lambsdorff and Teksoz, 2004). On the other hand, it is also possible that enforcement mechanisms and institutional strengths might be well established in old

countries, thereby making corruption less likely. In this study countries have been divided into two groups, namely those with a long history (more than one century) and those with a relatively short history.

4. Model and Data

The theoretical formation of a model for this study relies on Becker (1968)'s seminal work, where individuals make rational choices by giving weights to relative costs and benefits of an illegal (corrupt) activity. These costs and benefits depend on exogenous factors that, in turn, depend on the role of law and the socio-cultural environment. The socio-cultural environment is developed by historical, legal, political and country-specific factors. This study takes into account all these factors for an empirical analysis. The specified equation is given as follows:

$$C_{it} = \alpha_{it} + \beta_1 PCY_{it} + \beta_2 Law_{it} + \beta_3 Pol_{it} + \beta_4 H_{it} + \beta_5 X_{it} + \mu_{it} + v_t + \varepsilon_{it} \dots \dots \dots (1)$$

Where ($i = 1 \dots \dots \dots N; t = 1 \dots \dots \dots T$)

Where C_{it} is a perceived corruption index, Law_{it} represents degree of rule of law, Pol_{it} denotes political stability, H_{it} is a dummy variable for a country with a long history, X_{it} represents a set of control variables based on those used in the existing corruption literature, u_i is a country specific unobservable effect, v_t is a time specific factor and ε_{it} is an i.i.d. disturbance term. The expected sign for the parameters on our key variables of interest - β_2 , β_3 and β_4 - are all negative.

$$C_{it} = \alpha_{it} + \beta_1 PCY_{it} + \beta_2 H_{it} + \beta_3 Law_{it} + \beta_4 Law_{it} * H_{it} + \beta_5 X_{it} + \mu_{it} + v_t + \varepsilon_{it} \dots \dots \dots (2)$$

Equation 2 includes an interactive term - law*history - to assess the combined effect of historical and legal influences in reducing corruption levels. The expected sign for β_4 is negative.

$$C_{it} = \alpha_{it} + \beta_1 PCY_{it} + \beta_2 H_{it} + \beta_3 Pol_{it} + \beta_4 Pol_{it} * H_{it} + \beta_5 X_{it} + \mu_{it} + v_t + \varepsilon_{it} \dots \dots \dots (3)$$

Equation 3 excludes law and law*history and includes political stability and an interactive term history*political stability to assess the combined effect of historical

and political influences in reducing corruption levels. The expected sign for β_4 is negative.

4.1 Data Description

Empirical studies on corruption mainly use two indexes of corruption provided by the ICRG (International Country Risk Guide) and Transparency International. In this study the corruption perception index of the ICRG has been used for two reasons. First, it spans a long period of time and covers a large number of countries and the comprehensive nature of the index gives it an edge over other available indices for corruption. Second, this index is highly correlated with other available corruption indices (see Treisman, 2000).

Recently, Majeed and MacDonald (2010) demonstrate a high correlation between these alternative corruption indices over the period 1996-2007, with the correlation between the ICRG and TI corruption indices at 0.87 and the correlation between ICRG and World Bank (WB)'s corruption indices being 0.88. Finally their study shows a very high correlation between TI and WB of 0.98. These high correlations indicate that the alternative corruption indices are consistent even though they are based on a subjective rating. The other variables used in this study are reported in Table 1 (appendix). The data for this study has been averaged over 5-year non overlapping periods, using the overall period 1984-2007. Thus data series contain 5 observations for each country in the sample. The year average periods are: 1984-88, 1989-93, 1994-98, 1999-03, and 2004-07.

Table1 shows that Finland, Denmark, Sweden, Iceland and the Netherlands are the cleanest countries in Europe, while Latvia, Croatia, Slovakia, Slovenia and Italy are the bottom five cleanest countries. This simple ranking of the economies is based on an average over the total sample period, 1984-07, and demonstrates that Finland is the cleanest country while Latvia is the most corrupt country.

Figure 3 shows the results from regressing the corruption index onto a constant and a time trend. It is evident from the figure that the relationship between corruption and time is akin to an inverted U-shape over the period 1984-92. However, from 1992 to onwards corruption is increasing. In fact, the figure clearly shows a rising trend in corruption over the period. Corruption in European countries, on average, has increased by 22% of the corruption scale over the period 1984-2007. This is an alarming figure for European countries and surely needs to be addressed in

order to avoid the adverse socio-economic and political consequences of an increasing rate of corruption.

In Figures 4 and 5 we present a number of scatter plots to illustrate the bivariate relationships between corruption and a number of variables often cited in the literature as determinants of corruption. As the figures show, inflation is the only variable to have a positive relationship with corruption levels while all the other scatter plots - for government spending, law, socioeconomic conditions, democracy and economic freedom - show a negative relationship with corruption. For example, the negative relationship between corruption and government spending implies that larger governments might control corruption effectively by spending more resources on law enforcement machinery. It is noteworthy that the cleanest economies, such as Denmark and Sweden, also have the highest levels of government spending; the ratio of government spending to GDP for these economies is greater than 25%.

It is noteworthy that countries with the full scale of law and order such as Finland, Denmark, Norway and Sweden are also the cleanest countries. Law and order reflect legal and enforcement strengths of a country that can effectively curb corruption. Interpreting both government spending and law in relation to corruption, it can be argued that the economies with larger shares of government spending combined with a fully developed legal structure devote a major share of resources to upholding the law. In figure 5 scatter plots for economic prosperity, bureaucracy quality, and information/communication related variables show a negative relationship with the corruption incidence. Information that is symmetric, or information available on a larger scale, implies tight monitoring of bureaucrats. A society with more information and communication facilities tends to be less corrupt.

5. Results and Discussion.

The above scatter plots are indicative of the drivers of corruption. In this section we present our multivariate results where we condition corruption jointly on the variables noted above. Specifically, we use a panel data set for 26 European countries over the longest period of time that has hitherto been estimated. Initially, we condition on key variables in the corruption literature, such as law and political stability. Secondly, as a sensitivity analysis some further control variables are introduced. Thirdly, and finally, alternative econometric techniques have been used to address the possible problem of endogeneity.

Table 3 reports the results for a benchmark model. Column (1) of the table shows the control variables while column (2) shows the relationship between corruption and economic development. The coefficient on the level of economic development turns out to be significant with the expected sign and remains consistently significant in all other regressions. The level of economic development plays an important role in reducing corruption in rich economies. This suggests that a high level of economic development is also important for high-income countries just like low-income countries.

Economic development is seen to affect corruption in a number of ways. A high level of economic development reduces the discount rates of both bribe-givers and bribe-takers, thereby making them less eager to jump the queue via illegal means. The opportunity cost of punishment for a wealthy individual is much higher and also acts as a deterrent. Citizens of rich societies do not tolerate corruption due to the awareness of their rights and they react forcefully to corruption-prone activities. On the other hand, countries where incomes are relatively low, the average citizen receives minimal wealth. Such low levels of income create structural incentives for corrupt ways of increasing income. In these economies the marginal utility of money is higher than in wealthier nations. The high utility of money even for a marginal supplement to income affects both the bribe-giver and bribe-taker. This finding is consistent with Treisman 2000, Serra 2006, Majeed and MacDonald 2010.

Column (3) shows that the coefficient on the rule of law is significant with the correct sign - a nation with a strong legal set up has a high opportunity cost of corruption activity and thus serves as a deterrent to corruption.

The role of government spending term in reducing corruption can be signed in either direction: larger governments may increase corruption because of a greater bureaucracy and red tape and also more opportunities to seek bribery (La Porta et al 1999; Rose-Ackerman 1999). On the other hand, larger governments can spend more resources on law enforcement and can also spend more resources on checks and balances, implying larger governments might effectively control corruption. Columns (4-5) indicate that the influence of a large government on corruption levels is negative, although the influence is not significant once additional control variables, particularly time dummies, are introduced; its influence turns out to be significant in all remaining columns of Table 3. Columns (6-8) of Table 3 suggest that larger governments are effective in controlling corruption in European countries. The

coefficient on government spending is consistently significant in all regressions. The R squared statistic is reasonably high and the F stat supports the overall significance of the model.

Economic freedom is used as an indicator of political stability (see Serra, 2006). The coefficient on economic freedom turns out to be significant with a negative sign, as expected, because a higher level of economic freedom reduces rent seeking opportunities, thereby reducing corruption. The sign for this variable is stable and always negative in all other regressions; however, in some cases its level of significance varies.

The relationship between trade and corruption is ambiguous in the theoretical literature. Ades and DiTella, (1999) provide insights on the relationship between corruption, market structure and rents. They argue that market structure determines rents and, in turn, the rents determine corruption. More generally, lower competition in markets generates rents for entrepreneurs that motivate bureaucrats to ask for bribery. It implies that the relationship between competition and corruption is negative. The higher the degree of competition yields lower levels of corruption. Since openness to trade increases competition, it can be expected that a higher degree of economic openness yields lower corruption. Alternatively, lower levels of competition increase the value of corruption avoidance for a society and increase the accountability and monitoring of bureaucracy. Theoretically, therefore the net impact of competition on corruption is uncertain and it is interesting to note that we find that foreign competition (measured by openness to trade) has a positive influence on corruption in European countries. The sign for openness to trade is stable and always negative, although the level of significance changes.

Table 4 replicates the benchmark findings using the Random Effects econometric technique. The coefficient on law fluctuates between 0.3 and 0.5. A one-standard-deviation increase in legal strength is associated with a decrease in corruption of 0.26 (or 0.43) points, 26% (or 40%) of a standard deviation in the corruption index. The role of government in reducing corruption is consistently negative while the role of foreign competition is consistently positive. The effect of a higher degree of economic freedom is significant with the expected sign. Finally, inflation does not reflect a significant effect on corruption.

Table 5 reports results for another key variable of interest, namely political stability. The empirical strategy remains the same except the variable 'law' is replaced

with political stability. Both variables can be used together, however in this study their effects have been examined individually for two reasons. First, both variables are highly correlated and may bias the results if they are used together. Second, this study's focus is to identify individual effects of both variables. In the literature political stability is measured using a number of indicators. In this study we focus on two indicators, namely democracy and economic freedom.

The effect of democracy has been frequently used in the literature (see Treisman, 2000; Serra, 2006; Majeed and MacDonald, 2010) as it measures the degree of political competition and this is taken to be closely related to political deficiencies in a country. The coefficient on this variable turns out to be significant with a negative sign. Indeed all of the regressions in this study show that the effect of democracy is always negative and significant. The coefficient on democracy is around 0.3 in most of the regressions, which implies that a one-standard-deviation increase in democracy is associated with a decrease in corruption of 0.21 points, 20% of a standard deviation in the corruption index. The other findings are similar to the benchmark findings. However, economic freedom drops its level of significance while the sign remains negative. This might be due to the fact that influence of this variable has been explained by the democracy variable because economic freedom and democracy are closely related.

Table 6 replicates the results of Table 5 using the Random Effects econometrics method. The effect of democracy remains stable and always negative. Its effect turns out to be significant in the last 3 columns of the table where time dummies have been controlled for and also some additional control variables have been introduced. The role of government in curbing corruption is negative and significant in all of the regressions of this table. Other findings are similar to the results above.

Table 7 provides results for the influence of history on corruption. The relationship between history and corruption is complex and theoretically ambiguous. The history of a country has usually been measured using a dummy variable for old countries which have a long history of independence. In this study countries which have more than one century of independence history, have been considered as 'old' countries. Columns (3-6) indicate that the relationship between the history of a country and corruption is negative, although insignificant.

Considering the importance of legal strengths of a country in reducing corruption, an interactive variable 'history and law' has been introduced in column 6 and the results show that the combined effect of law and history significantly reduces corruption while just old countries are positively associated with corruption. Overall this finding implies that nations with a long history may not be able to control corruption because of entrenched norms and practises about business practice that foreigners may consider as corrupt. However, nations which have a long history and also have developed legal strengths may successfully combat corruption.

Finally, Table 8 provides results for law, history and political stability as causes of corruption in European countries using a system-GMM method. Columns (2-3) report results for law and it is evident that the influence of law on corruption is negative and significant. The size of the coefficients and level of significance have improved relative to the results reported above. Columns (5-7) report results for democracy and here the results are similar to our earlier findings, as the coefficient on democracy is consistently negative and significant in explaining corruption.

The independent role of history turns out to be positive and significant when an interactive term law*history or democracy*history is included. However, its combined effect with law or democracy significantly reduces corruption levels. These findings again reinforce the idea that an interdisciplinary approach to understanding corruption is superior to uni-dimensional approach; i.e. the independent effect of the history is not meaningful while its combined effect with law or political stability (democracy) provides better insights in understanding corruption. Other findings are similar to our previous findings in terms of direction of the relationship while level of significance varies.

Overall our results show that law is an important factor in explaining a significant part of corruption in European countries. Political stability is another important factor that can help in controlling the incidence of corruption. The role of the history of a country shows mixed results. The independent effect of history does not significantly explain corruption while its interactive effect with law or political stability significantly explains corruption. Economic freedom, which is also an indicator of political stability, emerges as an important factor in controlling corruption while inflation, which reflects macroeconomic imbalances, does not explain corruption significantly. The role of government is also critical in combating corruption. All of the regressions provide a stable negative relationship between

government size and corruption; larger governments can spend more resources to control for corruption and increase checks and balances on corrupt activities. The cleanest economies, such as Denmark and Sweden, allocate more than 25% of their GDP to government spending.

6. Conclusion

In recent years the elimination of global corruption has become a key objective of international organizations such as the World Bank, IMF and UNDP. These organizations have advocated anti-corruption policies and transparent contracts for domestic government. In addition, governments are increasingly monitoring bureaucrats and devising appropriate punishments for corrupt bureaucrats. However, despite these initiatives, corruption has become a global challenge.

Although corruption is generally considered a problem for developing countries, recently, a number of corruption scandals in rich countries have shown that corruption is an equally important problem for developed nations. In particular, using a simple descriptive average, this study shows that corruption in European countries has increased 1.6 units, or 22% of the corruption index, over the period 1984-2007. This study asks why corruption is increasing in European countries and what are the most important factors that cause corruption in European countries?

The main purpose of this study has been to quantify that corruption exists and persists in European countries, just as in developing countries. Although the level of corruption in European countries is comparatively lower than for developing countries it is increasing over time and it would seem that a solid policy framework is required to halt its increasing trend; if corruption continues to develop in European countries then it would be much more costly and difficult to eradicate as corruption would become the norm of business and also may become socially acceptable. The recent emerging literature on the causes of corruption has largely ignored the determinants of corruption in European countries, although a number of corruption scandals, speeches and reports indicate that corruption is present in European countries. So far there has been no econometric and statistical analysis of the causes of corruption for European countries. That is the purpose of this study and we focus on the key determinants of corruption in Europe, namely history, law and political stability.

The study finds substantial support for the importance of law in reducing corruption levels. Our results show that a one-standard-deviation increase in the legal

strength is associated with a decrease in corruption of 0.26 points, 26% of a standard deviation in the corruption index. Similarly, we find a substantial support for the proposition that political stability plays an important role in combating corruption. We do not find a significant influence of history on corruption, although the combined effect of the history of a nation with law or political stability is shown to significantly explain corruption. The significant interactive influences of law, history and political stability on corruption incidence implies that we need an interdisciplinary approach, rather than, say, a solely economic story to properly explain corruption. Finally, government size also matters in affecting corruption with larger governments seeming to control corruption in a better way.

Relatively Clean Countries

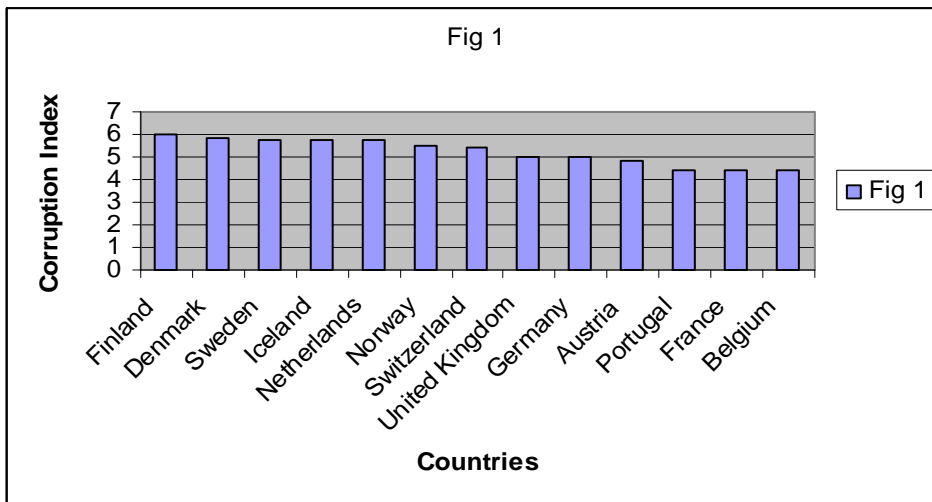


Figure 1

Relatively Corrupt Countries

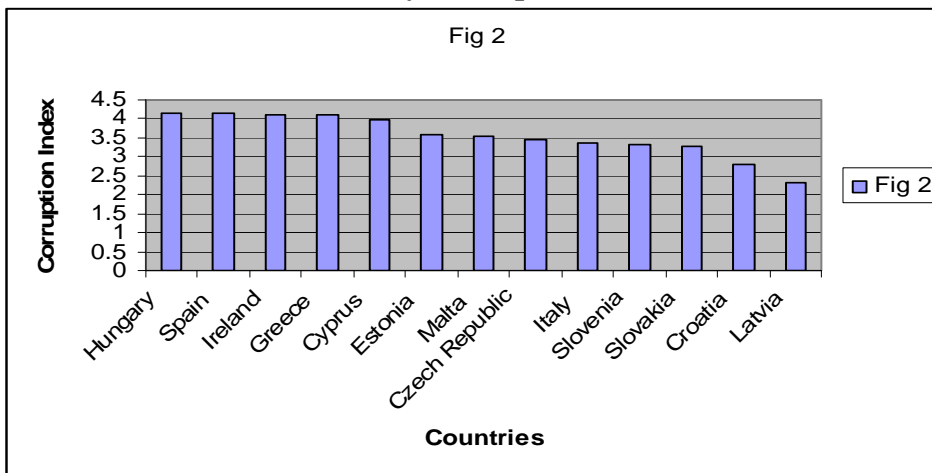


Figure 2

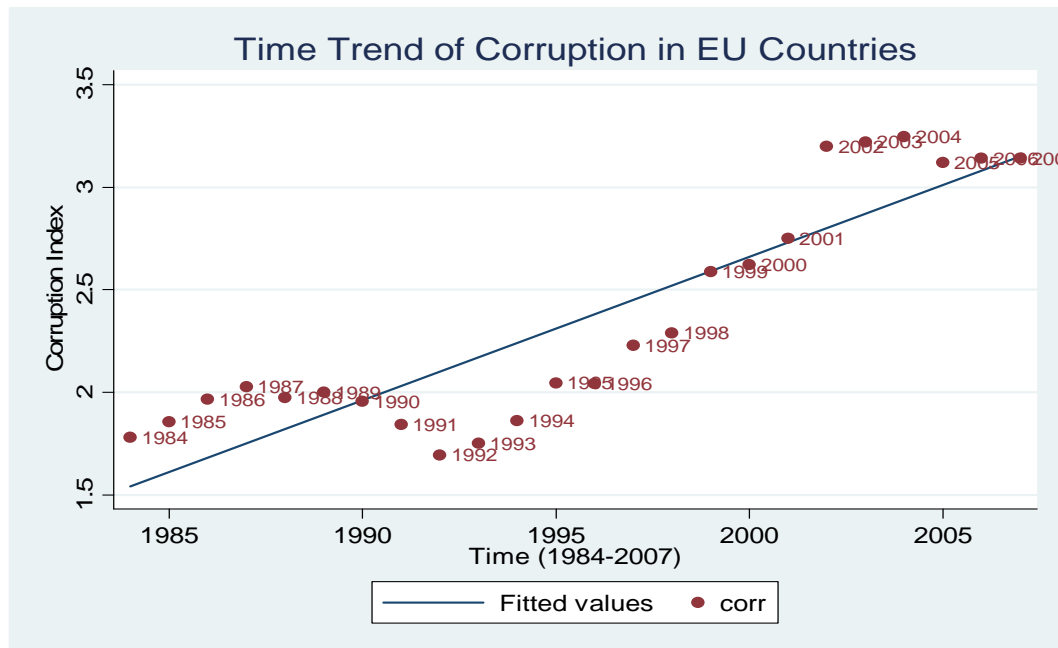


Figure 3

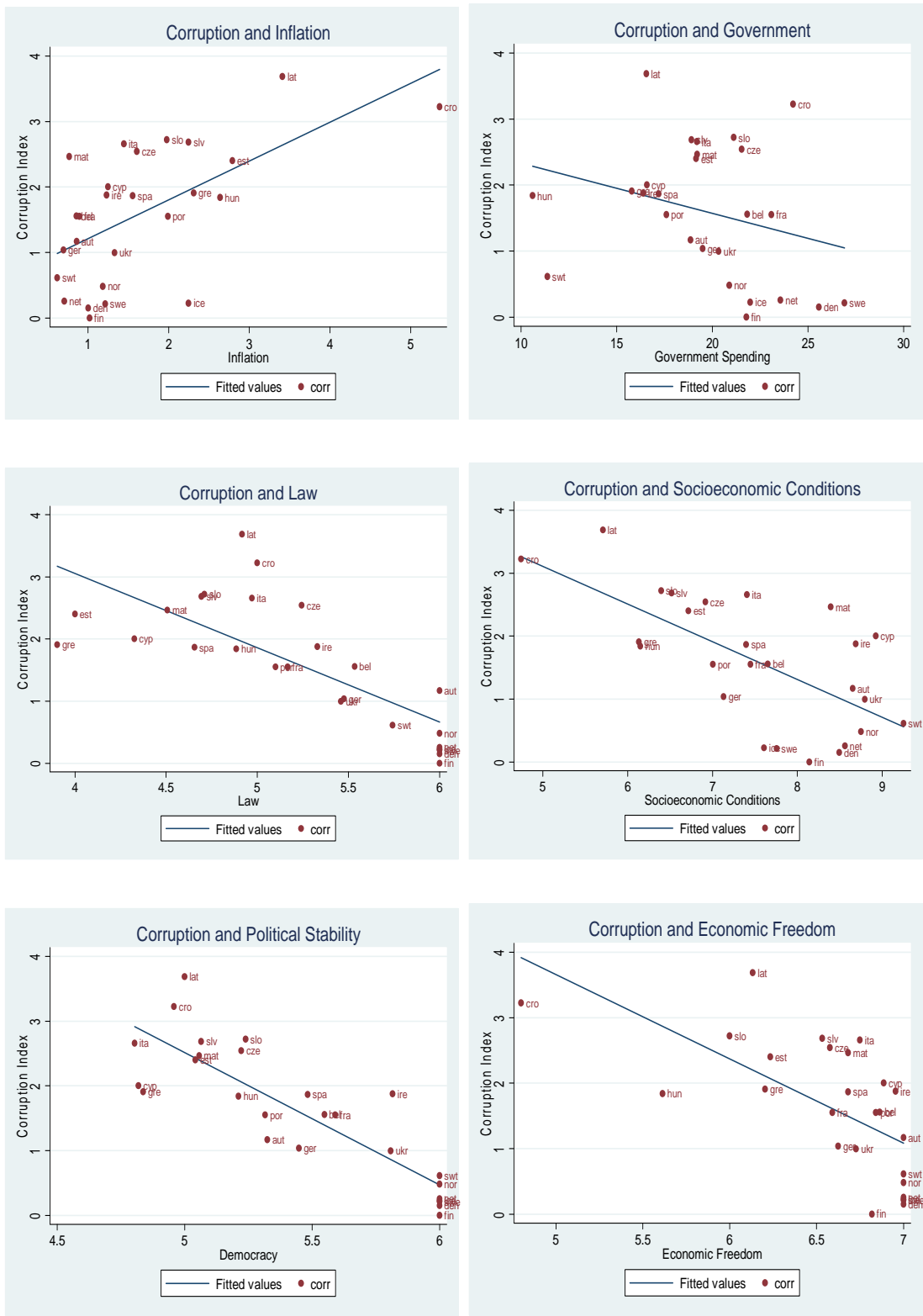


Figure 4

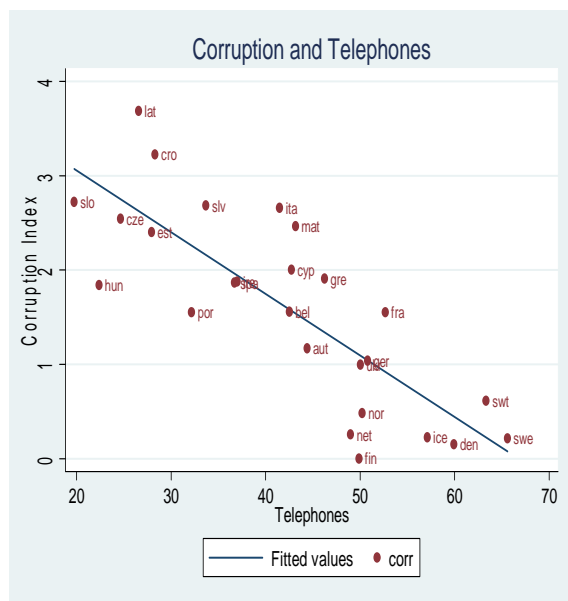
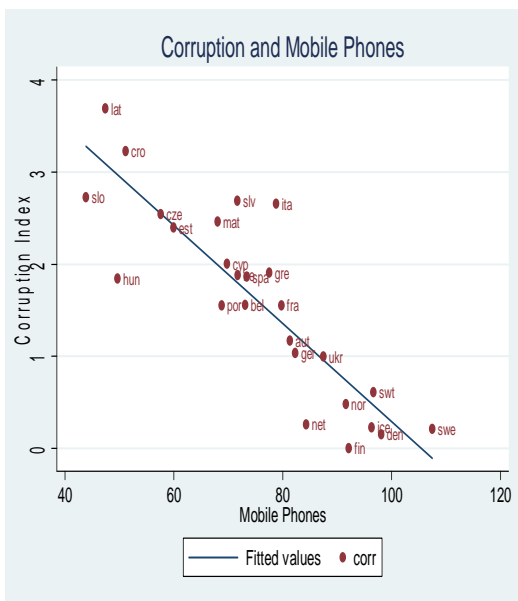
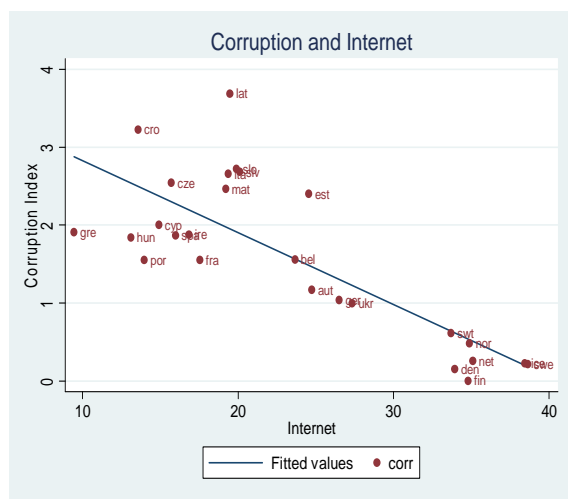
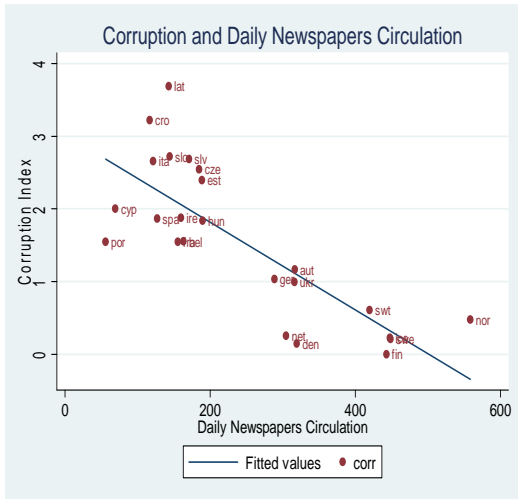
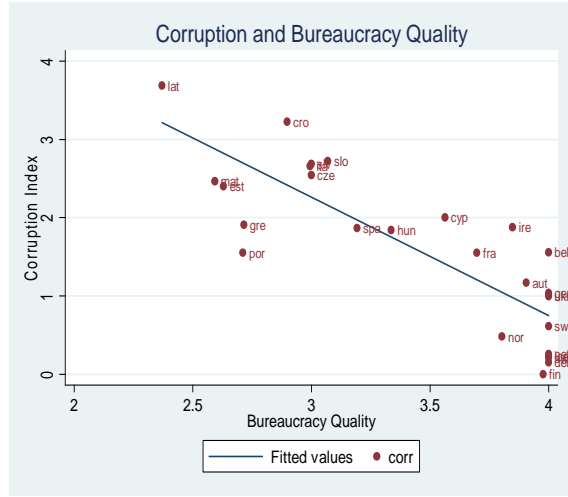
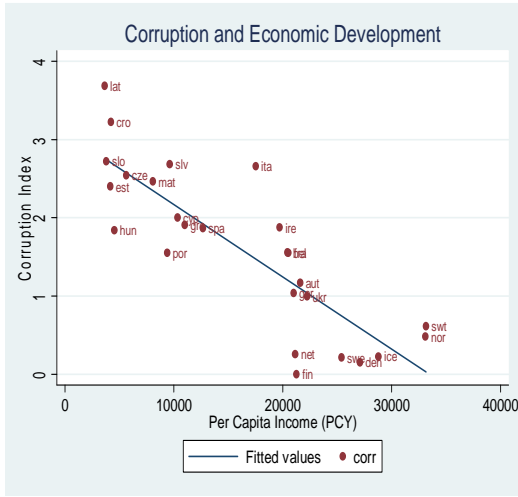


Figure 5

Table 1: Ranking of Corruption Levels in European Countries, 1984-2007

Comparatively Clean Economies			Comparatively Corrupt Economies		
NO	Country	Corruption Index	NO	Country	Corruption Index
1	Finland	6.00	1	Hungary	4.16
2	Denmark	5.85	2	Spain	4.14
3	Sweden	5.79	3	Ireland	4.12
4	Iceland	5.77	4	Greece	4.09
5	Netherlands	5.74	5	Cyprus	4.00
6	Norway	5.52	6	Estonia	3.60
7	Switzerland	5.39	7	Malta	3.54
8	United Kingdom	5.01	8	Czech Republic	3.46
9	Germany	4.97	9	Italy	3.35
10	Austria	4.83	10	Slovenia	3.31
11	Portugal	4.45	11	Slovakia	3.28
12	France	4.45	12	Croatia	2.78
13	Belgium	4.45	13	Latvia	2.31

Note: corruption Index ranges from 0-6 where 0 indicates most corrupt and 6 indicates corruption free.

Table 2: Descriptive Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
Corruption	112	4.61	1.05	2.29	6.03
PCY	121	17149	9575	3190	41029
Economic Freedom	118	1.35	0.64	1.00	4.90
Law	112	5.27	0.86	2.00	6.00
Democracy	112	5.51	0.69	3.00	6.00
Government Spending	120	19.69	4.01	9.94	27.69
Exports	119	44.85	19.60	16.82	93.07
Imports	119	44.91	19.61	18.55	100.40
Trade Openness	119	89.76	38.76	36.21	190.45
Bureaucracy Quality	112	3.53	0.57	1.98	4.00
Inflation	117	13.89	77.43	0.54	829.44

Table 3: Corruption and Law in European Countries: Panel Estimation

Variables	Dependent Variable: Corruption Index						
PCY	-0.000 (-6.25)*	-0.000 (-2.33)**	-0.000 (-2.41)*	-0.000 (-1.78)***	-0.000 (-5.16)*	-0.000 (-2.40)*	-0.000 (-1.6)***
Law		-0.62 (-5.62)*	-0.581 (-4.95)*	-0.57 (-4.22)*	-0.5 (-5.04)*	-0.32 (-3.24)*	-0.33 (-3.28)*
Government			-0.025 (-1.22)	-0.027 (-1.47)	-0.031 (-1.99)**	-0.031 (-2.11)**	-0.03 (-1.95)**
Trade				0.01 (3.26)*	0.002 (1.14)	0.003 (1.51)	0.003 (1.74)***
Bureaucracy Quality						-0.55 (-4.02)*	-0.54 (-3.97)*
Economic Freedom							-0.19 (-2.31)*
1994					0.11 (0.77)	0.1 (0.69)	0.12 (0.87)
1999					0.58 (3.03)*	0.55 (3.13)*	0.58 (3.24)*
2004					1.03 (5.46)*	1.02 (6.14)*	1.03 (6.14)*
2007					1.32 (7.36)*	1.21 (7.31)*	1.24 (7.31)*
R2	0.26	0.43	0.44	0.50	0.69	0.72	0.72
F Stat	39.12 (0.000)	40.80 (0.000)	36.40 (0.000)	232.63 (0.000)	42.62 (0.000)	41.84 (0.000)	39.10 (0.000)
Observations	112	112	111	111	111		111

* denotes statistically significant at the 1% level.

** denotes statistically significant at the 5% level.

*** denotes statistically significant at the 10% level.

Table 4: Corruption and Law in European Countries: Random Effects

Variables	Dependent Variable: Corruption Index					
PCY	-0.000 (-1.67)***	0.000 (2.05)**	0.000 (2.00)**	-0.000 (-2.35)*	-0.000 (-1.83)***	-0.000 (-1.96)**
Law	-0.53 (-5.24)*	-0.42 (-4.99)*	-0.42 (-4.58)*	-0.33 (-3.92)*	-0.33 (-4.07)*	-0.31 (-3.67)*
Government		-0.025 (-1.49)	-0.036 (-1.47)	-0.05 (-2.25)**	-0.05 (-2.24)**	-0.04 (-1.92)**
Trade			0.01 (3.26)*	0.003 (1.28)	0.005 (1.95)**	0.005 (1.90)**
Economic Freedom						-0.37 (-3.15)*
Inflation						-0.001 (-0.10)
1994				0.06 (0.41)	0.11 (0.85)	0.15 (1.09)
1999				0.44 (2.82)*	0.48 (3.19)*	0.47 (2.90)*
2004				0.93 (5.79)*	0.95 (6.12)*	0.96 (5.86)*
2007				1.20 (6.58)*	1.26 (7.06)*	1.29 (6.92)*
With in R	0.20	0.24	0.45	0.58	0.62	0.60
Between R	0.27	0.15	0.25	0.73	0.72	0.74
Overall R	0.24	0.23	0.30	0.67	0.67	0.67
Wald	27.52 (0.000)	30.21 (0.000)	67.10 (0.000)	160.60 (0.000)	180.01 (0.000)	172.02 (0.000)
Observations	112	111	111	111	111	111

* denotes statistically significant at the 1% level.

** denotes statistically significant at the 5% level.

*** denotes statistically significant at the 10% level.

**Table 5: Corruption and Political Stability (Democracy) in European Countries:
Panel Estimation**

Variables	Dependent Variable: Corruption Index						
PCY	-0.000 (-6.25)*	-0.000 (-4.50)**	-0.000 (-3.96)*	-0.000 (-3.12)***	-0.000 (-6.06)*	-0.000 (-3.26)*	-0.000 (-2.9)***
Democracy		-0.25 (-1.81)***	-0.22 (-1.6)	-0.29 (-2.06)**	-0.5 (-4.97)*	-0.33 (-2.85)*	-0.30 (-2.55)*
Government			-0.048 (-2.13)**	-0.049 (-2.40)*	-0.04 (-3.01)*	-0.039 (-2.89)*	-0.04 (-2.81)**
Trade				0.01 (3.60)*	0.002 (1.10)	0.003 (1.48)	0.003 (1.6)
Bureaucracy Quality EF						-0.54 (-3.55)*	-0.55 (-3.63)* -0.08 (-0.89)
1994					-0.03 (-0.21)	-0.002 (-0.02)	0.01 (0.06)
1999					0.39 (2.20)*	0.42 (2.55)*	0.42 (2.56)*
2004					1.14 (6.63)*	1.09 (6.89)*	1.09 (6.85)*
2007					1.58 (7.27)*	1.39 (7.06)*	1.39 (7.06)*
R2	0.26	0.28	0.31	0.39	0.69	0.71	0.71
F	39.12 (0.000)	40.80 (0.000)	20.15 (0.000)	24.91 (0.000)	50.80 (0.000)	44.17 (0.000)	40.42 (0.000)
Observations	112	112	111	111	111	111	111

* denotes statistically significant at the 1% level.

** denotes statistically significant at the 5% level.

*** denotes statistically significant at the 10% level.

Table 6: Corruption and Political Stability (Democracy) in European Countries: Random Effects

Variables	Dependent Variable: Corruption Index					
PCY	-0.000 (-1.90)**	-0.000 (-1.02)	-0.000 (-0.18)	-0.000 (-4.43)*	-0.000 (-3.98)*	-0.000 (-4.19)*
Democracy	-0.13 (-0.62)	-0.05 (-0.37)	-0.13 (-1.09)	-0.33 (-3.71)*	-0.28 (-3.02)*	-0.28 (-3.05)*
Government		-0.07 (-2.05)**	-0.053 (-1.81)**	-0.05 (-2.51)**	-0.05 (-2.50)*	-0.05 (-2.41)**
Trade			0.01 (5.45)*	0.003 (1.30)	0.004 (1.60)***	0.003 (1.48)
Economic Freedom					-0.17 (-1.43)	-0.24 (-1.83)***
						-0.13 (-1.28)
1994				-.03 (-0.18)	0.002 (0.01)	0.07 (0.45)
1999				0.33 (2.17)**	0.34 (2.23)**	0.28 (1.73)***
2004				1.07 (6.47)*	1.06 (6.46)*	1.0004 (5.94)*
2007				1.47 (7.97)*	1.47 (8.01)*	1.43 (7.48)*
With in R	0.28	0.06	0.29	0.55	0.56	0.56
Between R	0.69	0.40	0.30	0.76	0.75	0.77
Overall R	0.27	0.24	0.26	0.68	0.67	0.68
Wald	5.97 (0.05)	7.58 (0.05)	37.40 (0.000)	167.31 (0.000)	168.98 (0.000)	170.92 (0.000)
Observations	112	111	111	111	111	111

* denotes statistically significant at the 1% level.

** denotes statistically significant at the 5% level.

*** denotes statistically significant at the 10% level.

Table 7: Corruption and History in European Countries: Panel Estimation

Variables	Dependent Variable: Corruption Index						
PCY	-0.000 (-6.25)*	-0.000 (-6.33)*	-0.000 (-2.46)*	-0.000 (-2.45)*	-0.000 (-2.43)*	-0.000 (-2.38)*	-0.000 (-1.7)***
History		-0.11 (-0.58)	-0.25 (-1.40)	-0.22 (-1.30)	-0.02 (-0.15)	2.5 (2.15)*	2.57 (2.13)*
RL			-0.60 (-5.29)*	-0.58 (-4.80)*	-0.58 (-4.81)*	-0.38 (-3.59)*	-0.37 (-3.41)*
G				0.02 (-0.87)			
Trade					0.01 (3.34)*	0.01 (4.46)*	0.01 (4.64)*
RLH						-0.47 (-2.19)**	-0.47 (-2.16)**
EF							-0.16 (-1.35)
R2	0.26	0.30	0.44	0.39	0.49	0.51	0.52
F	39.12 (0.000)	28.13 (0.000)	33.59 (0.000)	24.91 (0.000)	28.55 (0.000)	27.22 (0.000)	22.23 (0.000)
Observations	112	115	115	115	114	114	114

* denotes statistically significant at the 1% level.

** denotes statistically significant at the 5% level.

*** denotes statistically significant at the 10% level.

Table 8: Law, Political Stability and History as Causes of Corruption: System GMM

Variables	Dependent Variable: Corruption Index					
PCY	-0.000 (-2.15)*	-0.000 (-2.71)*	-0.000 (-1.74)***	-0.000 (-5.47)*	-0.000 (-5.11)*	-0.000 (-2.33)**
Law	-0.58 (-3.28)*	-0.53 (-2.65)*				
History		0.14 (0.55)	3.29 (1.98)**		0.22 (0.81)	1.64 (1.88)**
Democracy				-0.33 (-2.76)*	-0.33 (-2.44)*	-0.29 (-1.90)**
Government	-0.017 (-0.41)	-0.022 (-0.54)	-0.024 (-0.75)	-0.05 (-1.90)**	-0.05 (-1.84)**	-0.04 (-1.72)***
Trade	0.005 (1.6)	0.01 (1.7)***	0.01 (1.92)**	0.004 (1.29)	0.005 (1.68)***	0.006 (1.66)***
Economic Freedom	-0.68 (-2.43)*	-0.62 (-2.38)*	0.92 (1.12)			
Law*History			-0.56 (-1.81)**			-0.27 (-1.78)***
1994	-1.20 (-5.92)	-1.16 (-5.94)	-1.09 (-5.39)	-1.54 (-7.34)	-1.57 (-6.88)*	-1.41 (-5.49)*
1999	-0.83 (-3.16)*	-0.81 (-3.46)*	-0.94 (-4.63)*	-1.54 (-7.18)*	-1.53 (-7.69)*	-1.45 (-6.02)*
2004	-0.42 (-2.05)*	-0.39 (-2.11)*		-1.15 (-7.18)*	-1.15 (-7.05)*	-1.10 (-5.25)*
2007			-0.46 (-2.50)	-0.40 (-3.42)	-0.40 (-3.31)	-0.46 (-3.53)
AR (2)	0.20	0.16	0.41	0.03	0.03	0.20
Over ID	0.34	0.37	0.33	0.29	0.27	0.12
Hansen Dif	0.40	0.36	0.43	0.93	0.95	0.06
Wald	271.63 (0.000)	309.99 (0.000)	255.68 (0.000)	240.03 (0.000)	173.79 (0.000)	517.06 (0.000)
Observations	88	88	88	88	88	88

* denotes statistically significant at the 1% level.

** denotes statistically significant at the 5% level.

*** denotes statistically significant at the 10% level.

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Appendix

Table 1: Description of Variables

Variable	Definitions	Sources
Per capita real GDP	GDP per capita (constant 2000 US\$).	World Bank database World Bank (2008)
Trade Liberalization	It is the sum of exports and imports as a share of real GDP.	World Bank database World Bank (2008)
Corruption	ICRG corruption index rescaled from 0 (absence of corruption) to 6 (highest corruption).	International Country Risk Guide, PRS group.
Democracy	ICRG index 0-6 scale; where 6 indicate high degree of democracy.	International Country Risk Guide, PRS group.
Rule of Law	ICRG index 0-6 scale; where 6 indicate high degree of law and order.	International Country Risk Guide, PRS group.
Bureaucracy Quality	ICRG index 0-4 scale; where 4 indicate high degree of law and order.	International Country Risk Guide, PRS group.
Socioeconomic Conditions	ICRG index 0-12 scale; where 0 indicates very high risk and 12 indicates very low risk.	International Country Risk Guide, PRS group.
Investment Profiles	ICRG index 0-12 scale; where 0 indicates very high risk and 12 indicates very low risk.	International Country Risk Guide, PRS group.
Economic Freedom	Freedom House data. Index rescaled 0 (low economic freedom)-7 (high economic freedom)	Fraser Institute.
Inflation	Inflation, consumer prices (annual %)	World Bank database World Bank (2008)
Government Spending	General government final consumption expenditure (% of GDP)	World Bank database World Bank (2008)
Newspapers	Daily newspapers (per 1,000 people)	World Bank database World Bank (2008)
Internet users	Internet Users (per 1,000 people)	World Bank database World Bank (2008)
Mobile Telephones	Mobile cellular subscriptions (per 100 people)	World Bank database World Bank (2008)
Protestant	Telephone lines (per 100 people)	World Bank database World Bank (2008)
	Share of Protestants in 1980	Treisman (2000)