

Corruption, Democracy, and Growth: An Empirical Analysis

M. A. Thesis

by

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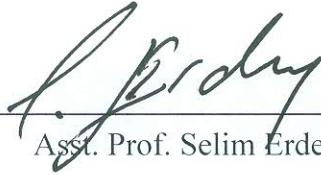
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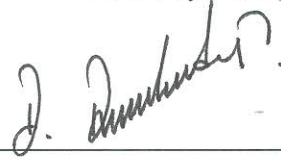
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Thesis Abstract

Corruption is widely considered to have a negative impact on economic growth as well as on democratic governance. The present study revisits the relationship between corruption, economic growth, and democracy by addressing the following questions: *(i)* What is the effect of corruption on a country's economic growth? *(ii)* What kind of an effect does corruption have on a country's democracy? *(iii)* Which types of democratic institutional mechanisms can pose constraints on corruption? By employing data from Corruption Perception Index of the Transparency International and Varieties of Democracy datasets, I present a quantitative analysis of corruption, democracy, and growth among 170 countries for the period of 1995-2015. The evidence suggests that corruption does not have a negative effect on economic growth while it affects democracy negatively in middle-income countries. In addition, I find that high court independence and transparency of rule-making process and predictable enforcement of these rules appear as the two democratic institutional features that can restrict corruption most in a given country.

Keywords: corruption, democracy, economic growth, democratic institutions, transparency, high court independence.

Tez Özeti

Genel kanı yolsuzluğun ekonomik kalkınma ve demokratik yönetim üzerinde olumsuz bir etkiye sahip olduğu yönündedir. Mevcut çalışma yolsuzluk, ekonomik kalkınma ve demokrasi arasındaki ilişkiyi tekrardan ele alarak şu soruları sormaktadır: (i) Yolsuzluğun bir ülkenin ekonomik kalkınması üzerindeki etkisi nedir? (ii) Yolsuzluğun bir ülkenin demokrasisi üzerinde ne tür bir etkisi vardır? (iii) Ne tür demokratik kurumsal mekanizmalar yolsuzluğu sınırlandırıcı bir etkiye sahip olabilir? Uluslararası Şeffaflık Derneği'ne ait "Yolsuzluk Algı Endeksi" ve "Demokrasi Çeşitleri" veri setlerinden faydalanarak, mevcut çalışmada 1995-2015 yılları arasında 170 ülke için yolsuzluk, demokrasi ve ekonomik kalkınma arasındaki ilişkiye yönelik nicel bir analiz sunmaktayım. Çalışmadan elde edilen bulgular göstermektedir ki yolsuzluğun ekonomik kalkınma üzerinde negatif bir etkisi bulunmazken, orta-gelir düzeyindeki ülkelerde demokrasi üzerinde negatif bir etkiye sahiptir. Ayrıca bu çalışmada, yüksek mahkeme bağımsızlığı ve şeffaf yasa yapım süreci ve bu yasaların öngörülebilir uygulanması yolsuzluğu en çok sınırlandıran iki farklı demokratik kurumsal özellik olarak ön plana çıkmaktadırlar.

Anahtar Sözcükler: Yolsuzluk, demokrasi, ekonomik kalkınma, demokratik kurumlar, şeffaflık, yüksek mahkeme bağımsızlığı.

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To my family...

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CHAPTER I: INTRODUCTION

1.1. Research Question

Corruption is defined as the misappropriate use of public office for personal gain (Jain, 2001). However, exploitation of public status for private gain is not always a small-scale issue because of the spill-over nature of corruption which have macro implications. These macro implications can be observed in economic and political realms since corruption influences economic growth and democracy. Therefore, the relationship between corruption, economic growth, and democracy presents puzzles for the social scientists. The spreading nature of corruption creates non-negligible effects on political and economic spheres, thus attracts attention from scholars of various branches of social sciences. As an interdisciplinary area of research, political economy presents useful tools to investigate the relationship between corruption, economic growth, and democracy. Therefore, a large body of academic works in political economy investigate the mutual interaction between corruption and democracy, in addition to analyzing the effect of corruption on economic growth, by mostly relying on case studies and large-N methodology. While there is no consensus about the effects of corruption on economic growth and democratization, a significant portion of academic literature illustrates that corruption has malign effects on both of these phenomena.

The literature on corruption lists several spillover effects of corruption on a country's economic well-being, democracy, and institutional structure. Countries with strong institutions, higher state capacities and efficient democracies suffer less from graft (Hollyer & Wantchekon, 2014), while in a corrupt government, state's legitimacy and institutions are undermined, trust towards these institutions and political participation in the form of voter turnout declines (Stockemer, LaMontagne & Scruggsand, 2013), moral values and development of civic behavior are damaged, and inequality of opportunities is created (Manzetti & Wilson, 2007).

This chain of unpleasant consequences show that corruption is a deeply entrenched political problem that spreads through economic institutions as well.

In addition, the literature also concerns itself with the relationship between corruption and economic growth since the former is claimed to have adverse effects on domestic and foreign direct investment (FDI), innovation, and entrepreneurial activities. Several scholars argue that corruption leads to a decrease in income level (GDP per capita) (Ugur & Dasgupta, 2011), negatively affects banking and financial sectors, and quality of investment projects (Park, 2011), has an indirect negative effect on financial development and trade openness (Farooq, Shahbaz, Arouri & Teulon, 2013), decreases the amount of the FDI that countries receive (Podobnik, Shao, Njavro, Ivanov & Stanley, 2008), perpetrates poverty and income inequality (Blackburn & Forgues-Puccio, 2010, Mo, 2000), spoils entrepreneurial skills (Svensson, 2005), and attitude towards entrepreneurial activities (Roman & Miller, 2013).

However, recent developments present cases that are puzzling when one takes the premises of theoretical literature into account. First, the existence of several countries that continue to grow economically in spite of having a salient level of corruption is intriguing. The second puzzling point is that some of these countries are long-time democracies but perhaps of the illiberal type. For example, in Turkey, the Justice and Development Party (*Adalet ve Kalkınma Partisi* AKP or AK Party) government has been accused of crony capitalism, although it was this government itself that managed to secure a relatively stable economic growth, reduced the inflation and improved living conditions of Turkish people since 2002, the party first came to power. In Brazil as well, the impeached Roussef government uplifted the welfare of Brazilian people, and made the country a significant regional power.¹

¹ Although it has been occupying Brazilian political agenda for a significant amount of time, the reason for Roussef's impeachment is because she was claimed to window-dressed government accounts ahead of the last presidential election. The charge is that her government filled holes in its accounts by taking loans from state

In terms of economic growth, a brief analysis would show that while a significant level of corruption is observed in emerging economies like China, India, Indonesia, and Russia, the economic growth is still not undermined drastically. Although these countries show notable differences in terms of their demography, geographical locations, and political regimes, they demonstrate similar trajectories in terms of their economic growth experiences where long-term institutional arrangements are absent, sustainable growth is achieved, and corruption continues to stay as an urgent problem to be resolved.

In addition to its ambiguous effects on economic growth, the relationship between corruption, democratization and democratic institutions is challenging as well. Although the theoretical literature claims the incompatibility of corruption with democracy, today's world has witnessed several examples of prominent corruption scandals in democratic countries. Apart from democratic countries like Turkey, Brazil, and India that suffer from a substantial amount of corruption, the last decade further complicated the relationship between democracy and corruption by adding a couple of democratic countries with the burning problem of corruption to the list. For example, corruption allegations that were directed towards South African President Jacob Zuma, and recent impeachment of South Korean President Park Geun-Hye in addition to arrestment of the country's giant technology industry, Samsung's chief of executive office for bribery show that the picture is not neat but rather a highly complicated one.² Another example could be an EU country, Romania, where thousands of people gathered in the capital city of Bucharest to protest against the law that was identified as "*Corruption Amnesty*".³ As more and more democratic countries continue to face notorious corruption

banks without congressional approval. (<https://www.theguardian.com/news/2016/aug/31/dilma-rousseff-impeachment-brazil-what-you-need-to-know>).

² While President Park was accused of enrichment of a close friend, the head of Samsung, Jay Y. Lee, was imprisoned for paying \$36 million bribe to that very friend of the President to secure his business interests. (<http://www.reuters.com/article/us-southkorea-politics-samsung-group-idUSKBN15V2RD>)

³ <https://www.theguardian.com/world/2017/feb/01/romanians-protests-emergency-law-prisoner-pardons-corruption>

scandals, the need for unveiling the relationship between democracy, democratization, and corruption becomes even more crucial. The state of affairs that countries with growing economies and long-term democracies have is the main dynamic behind the formation of this study's research question. This thesis seeks to find answers for the following questions: what is the effect of corruption on a country's economic growth process? What kind of an effect does corruption have on a country's democracy? Which types of democratic institutional mechanisms can pose constraints on corruption?

In this study, I revisit the relationship between corruption, economic growth and democratization. By utilizing the time series cross sectional (panel) data from the Corruption Perception Index (CPI) of Transparency International for the period of 1995-2015 and employing statistical regression models, this thesis builds three different analytical models to measure (i) the effect of corruption on countries' economic growth processes, (ii) the effect of corruption on democracy, and (iii) effects of certain democratic institutions derived from Varieties of Democracy (V-DEM) data set on corruption.

The results illustrate that corruption does not have a significant negative effect on a country's economic growth. Analysis also shows that prevalence of transparent law making process and predictable enforcement of these rules and high court independence can have a restrictive effect on corruption. In other words, democracies which are transparent and have judicial independence might suffer less from corruption. In addition, corruption appears to be negatively associated with democracy for the overall period of 1995-2015 for the countries with middle income level. In other words, in contrast to low and high income countries, it is the middle income countries that suffer from corruption in a more significant way. To sum up, although it is difficult to claim a causal mechanism in the light of current findings since there could be several issues of endogeneity, this study finds no significant effect of corruption on

economic growth, a conditional negative effect on democracy, and defines the two important democratic institutional mechanisms that can restrict graft most.

All in all, this study does not only attempt to reveal the effects of corruption on economic growth, but also aims to investigate its relation with democracy. On the one hand, the countries that experience a relatively good level of growth with a significant degree of corruption indicates a puzzle for the recent theoretical literature which evaluates graft as an obstacle for economic growth. Therefore, the relationship between corruption and economic growth requires a close scrutiny. On the other hand, existence of democratic countries with a salient level of corruption is another puzzle that remains to be untangled. In order to answer the three outstanding questions that current study possesses, this thesis utilizes the means of quantitative methodology by relying on regression analysis. The regression techniques that are employed by the current analysis do not only strengthen the current study's ability to assess the plausibility of observed statistical relations, but also provide opportunity of making more valid causal interpretations, and generating significant theoretical insights.

1.2. Purpose

This study aims to unveil the correlates of corruption, and its mutual interaction with democracy, democratic institutions, and economic growth. Firstly, the study attempts to find out the effect of corruption on economic growth. In order to provide a better understanding, the study begins with a detailed theoretical literature review of corruption and a related concept; crony capitalism. In addition, prior research regarding the relationship between corruption, economic growth, and democratization is discussed to illuminate theoretical premises with academic researches that utilize small and large-N methodological tools.

Following the premises of theoretical framework and prior research sections, the study uses the time series cross sectional (panel) data of the Corruption Perception Index which covers the period of 1995-2016, and utilizes the Ordinary Least Square (OLS) and Fixed Effect regression analyses to present empirical results. By deriving crucial dependent and independent variables from the theoretical literature over corruption, in addition to measuring the effects of corruption on economic growth, the statistical results documented the effects of some other significant determinants of economic growth such as foreign direct investment, government consumption, entrepreneurial activities, political stability, judicial independence, and state's role in economic affairs. Analyzing a specific set of factors that determine economic growth does not only provided a robust analysis of theoretical literature over corruption but also identified the some important dynamics that shape modern global economies.

In addition, the regression analysis aims to unfold institutional determinants of corruption. The study shows which institutional practices are inimical to a corrupt environment with empirical evidence. As it is mentioned above, the study inquires the nature of relationship between corruption and democracy in order to understand whether these two cannot coexist or tolerate each other to some certain extent. The analysis includes democracy scores of countries (*Polity IV*), and some specific democratic institutional practices like transparency, inclusiveness, court independence, freedom of media and speech, executive constraints and risk for expropriation (*Varieties of Democracy – V-DEM*) in order to find out which specific set of institutional arrangements can restrict corrupt activities. In other words, regression analysis will provide insights for the specific institutional structures that can decrease level of corruption. Lastly, the study measures the effects of corruption, income level, religion, natural resource dependence, political stability, and British colonial history on democracy as well during the era of 1995-2015. Inclusion of democracy levels of countries as the third dependent variable of the

study will be helpful in explaining the mutual effects of democracy and corruption, in addition to relationship between economy, democracy, and institutions.

1.3. Justification

Corruption is defined as inappropriate use of political power which mainly results from inefficient functioning of state institutions (Jain, 2001). Jain claims that corruption results from the failure of political institutions since these very institutions failed to correct or discipline the temptations of misuse of power by those who hold it. In addition, Svensson (2005) agrees with Jain in that he defines corruption as misuse of power for personal and private gain. Bribery, embezzlement of state funds or sale of governmental properties are some examples of corrupt acts that mainly result from bad policies designed by weak institutions. In order to delineate the issue of misuse of power, it should be emphasized that such a misuse does not only related to financial gain or monetary interests which are pecuniary in essence. However, a benefit sought by a public official in the form of a nonmonetary personal reward such as benefits provided to a private clique or family members can also be regarded as misuse of power (Roman & Miller, 2013). A corrupt public official therefore is one who regards his office as business where he would seek income maximization, to be helpful to his informal network and sometimes family, and even pursue for higher status through his acts (Johnston, 2001a). The emphasis over the role of “public official” is mainly because of the nature of studies over corruption which mostly focused *“exclusively on transactions in which at least one party is in government.”* (pp.45, Azfar, Lee & Swamy, 2001). Therefore, corrupt behavior of a public official is a deviance from good governance, threatening for sustainable economic growth and democratization, and perpetrates social and political injustice within the society (Adaman, 2011).

There is a disagreement among scholars on the other hand regarding the effects of corruption on economic growth. Scholars like Samuel Huntington (1968) and Nathan Leff (1964) for instance were the outstanding proponents of the idea that corruption is not deleterious for the economic growth but rather can compensate losses caused by weak state institutions, indifference of state elites toward developmentalist policies, and inefficiencies stem from bureaucratic mazes in underdeveloped modernizing countries. However, especially with the end of the Cold War and decreasing appeal of functionalist and modernist theories in social sciences, scholars became more able to direct their attention towards harmful effects of corruption both in industrialized and in countries with weak economies. In addition, one may witness ramification of studies over corruption during the recent decades as political scientists also started to focus more on relatively related concepts to corruption such as lobbying and crony capitalism (Krueger, 2006). Accretion of the studies over corruption does not only indicate that there has been a surge of corrupt activities of state officials around the world but it is also a token for increased nuanced approach among scholars towards the issue.

In terms of the relationship between democracy and corruption, at first, corruption is conceived by the literature as a phenomenon that is mainly observed among unmodern, non-democratic, and economically underdeveloped countries. Such countries claimed to be suffering from graft mainly because they lacked requisite regulatory and administrative institutions. Therefore some scholars emphasized the incompatibility of corruption with democracy (Haber, 2006), while some others took a more critical position and indicated that corrupt activities exist in industrialized democracies as well (Ackermann, 1997 & 2001). Although the recent studies illustrate that transparency, accountability, lively civil society, and free media and press are the type of the institutions in democratic countries that restrict corruption, increasing number of democratic countries with significant amount of corruption scandals have been complicating the picture. Hence, a novel analysis would be valuable in terms

of updating the current body of knowledge over the relationship between corruption, economic growth, and democratization.

Current study presents an updated and rich analysis of the determinants of corruption, economic growth, and democracy, and interactions of these three dependent variables by measuring their respective influence on each other. The study is valuable in terms of updating the current theoretical and analytical knowledge, and including both economic growth, democracy, and certain democratic institutions into analysis which was mostly taken into consideration separately by prior researches. In addition, the study investigates the relationship between economic growth and corruption by including annual percentage of GDP growth rate. In terms of the relationship between democratization, democratic institutions, and corruption, this study unveils the specific set of institutions that can restrict graft. While it can be argued that the mutual interaction between corruption and democracy has been much studied, this study unfolds the effects of specific institutional dynamics on corruption which is mostly absent in the literature. In other words, in contrast to a significant amount of academic works that take democracy only in electoral level while measuring its interaction with corruption, current study goes beyond that and delineates on specific democratic institutions and their effects on corruption. Last but not least, the study covers data from 170 countries across the world which is a significant novelty for the literature in terms of the large scope of the countries that are included.

Another point of justification would be the methodological approach that current study embraces. The study utilizes the tools of quantitative research methodology. While there are not many quantitative studies, especially after 2011, that investigate the effect of corruption on economic growth, existing studies mostly look at corruption's influence mostly on income level. As mentioned above, this study has a comprehensive understanding of economic growth by incorporating annual percentage of GDP growth which provides a better measuring the effect

of corruption on economic growth. In terms of corruption's relations with democracy, not only one can observe the absence of large-N studies in the literature, but also see that existing studies mostly rely on single or comparative case analysis by illustrating the effect of corruption on different countries. However, these small-N analyses mostly concentrate on non-democracies with poor economies or newly established young democracies. In addition, although current theoretical background emphasize that countries with weak institutions suffer more from corruption, the democratic institutions that can limit graft largely remain uncharted. Considering all of these premises, the current study is important in terms of presenting a large-N analysis over the relationship between democracy and corruption which includes both industrialized and underdeveloped countries, and defining the democratic institutional dynamics that can affect the level of corruption in a country.

1.4. Organization of the Thesis

This thesis is composed of six chapters. The second chapter will focus more on the basic concepts related to corruption, and crony capitalism, in addition to presenting prior research over the relationship between corruption, economic growth, and democratization. This chapter will be helpful in understanding the concept of corruption from a broader perspective by using interdisciplinary tools. The prior research section on the other hand, will elaborate on the methodological approach that is embraced in corruption research. In this section, the thesis provides the examples from both small and large-N studies, and discuss various results that are acquired through diverse methodological tools.

In the third chapter, the thesis first introduces the hypotheses that are generated through the insights presented from the theoretical perspective in the second chapter. After clarifying the hypotheses of the study, this chapter provides explanations for the data set and methodology

that are used to test hypotheses. In this chapter, the reasons for selecting specific sets of data and the statistical models such as OLS and Fixed Effect regression techniques to measure the relationship between corruption, economic growth, and democratization in 170 countries during the period of 1995-2015 will be presented. In other words, in addition to explaining data content that is utilized in the study, this chapter will also explain the motives behind selecting specific sets of indexes and datasets.

In the following fifth chapter, the results obtained from regression analysis will be discussed in depth. The questions such as which hypotheses are confirmed/rejected, is there any correlation between the premises of theoretical literature and regression results, what does the level of significance imply, and what are the future and policy implications of the results obtained by regression analysis will be answered systematically. The last conclusion chapter on the other hand, will present a review of the overall study, and discuss the main weaknesses and limitations in addition to methodological and theoretical implications for the future studies.

CHAPTER II: THE LITERATURE ON CORRUPTION

In this second chapter, the study presents various insights from the theoretical literature over corruption, and its mutual interaction with economic growth and democracy and democratization. This chapter first elaborates on the conflicting opinions over the effect of corruption on economic growth in which the discussion is centered on whether corruption affects a country's well-being negatively or it is a necessary condition for economic growth especially for the countries with weak institutions. In addition, the chapter aggregates findings from the researches over another related subject; crony capitalism, lists its similarities and differences with the concept of corruption, and intends to provide a deeper understanding of both of the phenomena. After presenting theoretical insights over corruption and crony capitalism, this chapter focuses on the researches that provide empirical evidence over the relationship between corruption and economic growth.

Immediately afterwards, the literature over the relationship between corruption and democracy is unveiled. This chapter is important in terms of delineating on the specific democratic institutional dynamics that are claimed to restrict corruption. The study compiles main findings from various empirical studies, and present them in a systematic way. Therefore, this chapter provides answers for the questions such as what is corruption, what are the harmful effects of corruption on economic growth, and what is the relationship between corruption, democracy, and democratic institutions. In addition, the empirical research that investigates the relationship between corruption and democracy is included in this chapter as well. All in all, while there are a minor group of scholars who advocate the benign effects of corruption on economic growth, and also a group of scholars who support the view that corruption only has a conditional negative effect on economic growth and democracy, the insights from the previous

researches mostly indicate that corruption has deleterious effects on both economic growth and democracy.

2.1. Theoretical Arguments about the Effects of Corruption on Economic Growth

While social scientists do not suffer any conflicts regarding the definition of corruption, the real cleft comes into the picture when scholars argue over the repercussions of corruption in economic sphere. Disagreement mainly results from the type of influence (either negative or positive) that corruption exerts on political and economic realms of activities. Although most of the literature focuses on the deleterious effects of corruption on economic growth, there are some who examine it from a different perspective. The functionalist theory which dominated the debate over corruption during the period from 1960 to 1980 evaluated corruption as a necessary evil for economic growth to cut the bureaucratic red tape, redistribute resources and sustain economic growth especially in countries that opposed communism (Manzetti & Wilson, 2007). Similarly, in his much debated work, Leff (1964) claimed that corruption can be a useful substitute for weak governance in which it “*greases the wheels*” of economic growth, allows for lucrative trade, and compensates losses caused by the indifference (or hostility) of traditional elites toward growth;

“The critique of bureaucratic corruption often seems to have in mind a picture in which the government and civil service of underdeveloped countries are working intelligently and actively to promote economic growth, only to be thwarted by the efforts of grafters. Once the validity of this interpretation is disputed, the effects of corruption must also be reevaluated. This is the case if the government consists of a traditional elite which is indifferent if not hostile to development, or of a revolutionary group of intellectuals and politicians, who are primarily interested in other goals. At the same time, the propensity for investment and economic innovation may be higher outside the government than within it.” (pp. 10, 1964).

Here Leff mentions a possibility of an independent space for the entrepreneurs outside the state apparatus which can provide opportunities for investment, innovation, and entrepreneurial activities which are controlled by (hostile) bureaucratic elites. In addition, Huntington argued that corruption can facilitate social modernization in countries with weak bureaucracies (Stockemer, et al., 2013), and “efficient corruption” can be helpful in allowing “*firms to get things done in an economy plagued by bureaucratic hold-ups and bad, rigid laws*” (pp.36, Svensson, 2005). In other words, there is a significant body of works which emphasize the benevolent face of the corruption that views bribery as “*speed money*” which cuts the red tape and helps to speed bureaucratic process up in an unregulated economy with a weak and unmotivated bureaucracy (Azfar, Lee & Swamy, 2001).

Osterfeld (1992) on the other hand, while acknowledging that the corruption can have a restrictive effect on some economies, also asserts that for some other economies it has an expansionary influence. According to him, businessmen and entrepreneurs evade bad law by bribing public officials which lead to an emergence of informal underground economy, and therefore, expand economic activities. Similarly, Levy, by mainly analyzing Republic of Georgia during the Soviet Era, claims that shortages, irregularities, and inefficiencies caused by centrally planned economy were overcome by an “*illegal market*” which is supported and sustained by an intense chain of bribery (Aidt, 2009). Another example where corruption plays an expansionary role is given by Houston (2007);

“...licensing restrictions on many businesses are so draconian in many central and Latin American countries that many businesses operate illegally to avoid the endless restrictions and delays placed in front of a formally legal enterprise. Bribery is essential to sustain such businesses operating in the informal economy” (pp.328, 2007).

It should be stressed that not all the examples are from the Cold War Era when there was an intense competition for world hegemony between the capitalist and socialist blocs. For example, in their study of state intervention in market failures, Acemoglu and Verdier (2000)

draw attention to the unavailability of corruption. They claim that corruption emerges as an undesirable side effect of government intervention to the market failures, and should be evaluated as lesser of two evils. They emphasize the inevitability of market failure, and therefore governmental intervention which inevitably creates opportunities for corruption. According to the two authors, it would be excessively costly to eliminate all corruption, therefore, intervention with some degree of corruption stands as the best option (2000). Last but not least, some scholars, (Houston 2007 & Aidt, 2009) by analyzing the effects of corruption on economic growth, found a conditional effect of corruption on economic growth depending on the degree to which laws and regulations protecting property rights enforced. If those laws are not enforced, then corruption might have an expansionary effect on economy. If not, then there appears highly adverse effect on economic growth which cannot be tolerated. Therefore, corruption has a significant positive effect on countries with weak governance and weak institutions. The better and more solid institutions a country possesses, the more negative effect corruption exerts on its economic growth. These findings are also consistent with the definition of corruption that is mentioned above which associates corruption with institutional failures and bad policy-making processes.

2.2. Why is Corruption Harmful for Economic Growth?

While some scholars prefer to see the benevolent face of corruption with regard to economic growth, most of the theoretical and analytical literature over corruption on the other hand, views it as highly deleterious to the economic growth for various reasons. Ackerman (1997) claims that a corrupt economy can experience growth to some significant extent until level of corruption reaches to the point where economic fundamentals are started to be undermined. Therefore, such a growth would be unsustainable and cover only a short time period. In addition, there are several scholars who disagree with the idea that corruption greases

the wheels, and criticizes those who views corruption as a necessary evil. Among them, Aidt (2009) claims that corruption “*sands*” rather than greases the wheels because of many adverse effects it exerts on an economy. Similarly, Tanzi and Davoodi (2001) view the idea that corruption greases the wheels as highly romantic but has nothing to do with reality. Corruption cannot provide a sustainable greasing which would lead an economy to experiences regulatory and financial difficulties after the wheel is broken which is expected to occur over a short period of time. Last but not least, Svensson (2005) criticizes the proponents of “*greases the wheels*” by claiming that those scholars take anomalies circumvented by corrupt activities as given, while not considering that distortions and corrupt activities mostly have the same underlying reasons.

If corruption sands rather than greases the wheels of economic productivity, then what is the reason? Pak Hung Mo presents numerous ones (2000). One of the most basic problems regarding the corruption is it favors a particular class of people over another which eventually creates inequality of opportunities, and income distribution. While a particular class of people, usually the elites, enjoy the benefits provided from greased wheels, it is the low income households that suffer most from corruption as the income gap between rich and poor widens and widens (Azfar, et al., 2001). In addition, meritocratic structure of bureaucracy is also affected negatively. Through bribery, bureaucracy loses its neutrality and rationality since governmental jobs usually end up by going to the people who paid the highest amount of bribe, rather than being end up in hands of people who can provide civil services with better quality (Stockemer, et al., 2013). This hiring practice can be one of the most notable reasons for why corrupt governments have weak governance with failed institutions. There occurs the problem of nepotism and favoritism which prevents competitive recruitment for bureaucracies.

Another negative aspect that is associated with corruption is that it hurts innovative activities (Mo, 2000). Considering the role of technological advancement in economic growth

experiences of industrialized countries, one would understand that why innovation is crucial in the age of globalization for economic productivity and growth. In countries where corruption is widespread, inefficient firms can be continued to be supported mainly because of political and social reasons. This process not only results in with restriction of allocation of talents (Svensson, 2005), but also the ability of economically most productive users to reach technology and capital is restricted as well since they are not part of the elite group that controls the state apparatus. It goes without saying that such a milieu would shake young minds' spirits to explore and invent since they would realize that their efforts are futile. This can also lead highly talented entrepreneurs to give up starting firms but rather pursue to be a public officer which can be more lucrative. Therefore, in contrast to Osterfeld who claims that corruption can have both expansionary and restrictive influence on economy depending on the strength of institutions, Houston (2007) asserts that it can only have a restrictive effect on an economy mainly because of the excessive support given to the inefficient producers. Altogether, corruption is seen highly detrimental to economic growth since it leads bright minds of a nation to follow rent-seeking activities rather than being interested in innovation which is a crucial dynamic of economic growth (Tanzi & Davoodi 2001).

What is more, corruption has a significantly negative effect on both domestic and foreign direct investment (FDI). Corruption leads a reduction in investment mainly because it increases the level of unpredictability in business transactions which can lead to a process known as disinvestment (Azfar, et al., 2001). In an economic environment where corruption is less predictable, a lower rate of investment is witnessed. In other words, if an investor does not feel assured by the institutions that are supposed to control and restrict corrupt acts, he would choose not to invest. Azfar et al. claim that priorities of public expenditures is also distorted since certain sectors in domestic economy remains underfunded like education, which in turn prevents a country's ability to raise new talents. In domestic economy, while big companies

can protect themselves from the harmful effects of corruption to some significant degree, it is the small and medium sized enterprises (SME) that suffer most from corruption. Large companies create specialized departments to deal with corrupt bureaucrats and cut bureaucratic red tape or exercise their political power to avoid certain strict regulations, tax laws to facilitate rent-seeking activities. However the SMEs lack these means which put them in a disadvantageous position;

“For large enterprises corruption is often of a cost-reducing kind as it allows them to enjoy monopoly rents and scale economies; whereas for SMEs it is often of a cost-increasing kind because they have to make payments which do not contribute to the productivity or profitability of the firm but that are necessary for their survivability.” (pp.93, Tanzi & Davoodi, 2001).

In addition, corruption leads FDI to dwindle since cost of doing business becomes unbearable for several foreign firms (Houston, 2007). With the prevalence of lack of political accountability, intense risk for expropriation and disrespect for property rights (Aidt, 2009), corruption creates inefficiencies and regularity problems in the long run, and a highly unpredictable environment for a foreign investor which eventually reduces the ratio of investment to the GDP. Foreign businessmen would choose to invest to an environment where the risk of defalcation is low and protection of properties is warranted.

All in all, several scholars assert that corruption has highly adverse effects on economic growth, and therefore it sands rather than greases the wheels of economic growth processes. In a corrupt environment, the economy would suffer losses caused by favoritism and nepotism, and its innovative character would be distorted as well. As a result, not only entrepreneurial activities would begin to decline, but also irrationality and unpredictability associated with corrupt policies would lead domestic investment to become strained, and FDI to find another fertile environment. Therefore, proponents of the idea that corruption sands the wheel claim

that there would not occur a sustainable and stable economic growth in a country which has corrupted institutional structures.

2.3. Another Related Phenomenon: Crony Capitalism

Studies over corruption has been started to include a relatively new, emerging concept; crony capitalism, to provide a thorough understanding of the formal and informal relations of modern global economy. Crony capitalism is defined as a system in which those who are close to the political authorities receive favors in the form of a provision of economic entitlements such as ownership of a business or its operation (Krueger, 2006). It is a system where closeness to political leaders or governmental officials, either by blood or by bribe, is crucial, and hence *“connection trumps competence, and money supersedes merit”* (pp.16, Wei, 2001). In such a system of intense web of informal networks, relations between the companies and government depend on personal histories rather than nature of firms (Johnson & Mitton, 2003). A negative side effect of crony capitalism is that a big part of a country’s assets are held and controlled by few families which leads those families to exert a significant degree of political and economic influence over decision-making mechanisms (Morck et al., 2005). These cronies are continued to be supported by the government or by a specific political leader, in return for the political support that they assured to provide. In other words, the economic benefits are bartered to guarantee and sustain the political office, the power.

Similar to the issue of corruption, there are disagreements among scholars over the effects of crony capitalism on economic growth. Although a large body of the literature provides evidence for the deleterious effects of cronyism on economic institutions and development processes, some authors argue that cronyism can be a panacea for underdevelopment or slow growth in countries with weak institutions, an argument that was

highly expressed by the proponents of the “*corruption sands the wheels*” argument (Aidt, 2009). Those who support the idea that cronyism is harmful for economic growth claim that it creates resource misallocation, rent-seeking, and agency problems, leads to low innovation rates and unequal income distribution, decreases competition and foreign direct investment by creating an uncertain economic environment, distorts the principles of free market economy, causes an extreme degree of dependence on personal connections which hinders long-term commitments and inception of long-term investment projects, discourages entrepreneurial activities by dictating pervasive protectionist economic policies, gives rise to the problem of overinvestment and declining returns as a result of favoring specific networks and business groups, makes countries more susceptible to currency and financial crises, and brings forth non-accountable governmental bodies, and hence intensifies non-transparency in decision-making processes (Enderwick, 2005, Haber, 2006, Johnson & Mitton, 2003, Singh & Zammit, 2006, and Wei, 2001).

While listing various negative features of such an economic system, one cannot help but ask the inevitable question; why does then the crony capitalism persist in several countries across the world? On the one hand, continuing existence of cronyism is associated with the existing global economic and political structures which force politicians, businessmen, and bureaucrats to form informal, non-transparent, and non-accountable networks in order to secure their gains, privileges, and positions. On the other hand, cronyism is praised by different groups because of its favorable economic outcomes that it has presented in the course of the time.

First of all, persistence of crony capitalism is associated with the shortcomings of global capitalism itself which discriminates among winners and losers depending on their political influence rather than their merits (CED, 2015). This creates a fierce competition among lobbyists and interest groups which is claimed to be ontologically related to the very existence of capitalist mode of production. In addition, the problem of finance of political parties in

democracies is another salient contributor to the persistence of crony capitalism. Political parties need money to finance their constant electoral campaigns which make them to be dependent more and more on interest and business groups. This does not only create the perception that politicians are owned or bought by those money providers among the electorates, but also create a type of “*gift economy*” which is an intersection of lobbying, economically invasive government, and campaign finance (pp.28, CED, 2015). For example, some respected US politicians criticized this ‘mandatory’ dependency of politicians to lobbyists and defined it as a “*legalized bribery*” (pp.28, 2015).

The problems that political parties have been facing presents counterarguments for the proponents of the idea that crony capitalism is matched with authoritarian governance (Enderwick, 2005), and it is incompatible with the high levels of democracy (Haber, 2006). However, as the report prepared by the Committee of Economic growth (2015) presented, modern day democracies like the USA also suffers from crony capitalism for a very long period of time which reduced overall competitiveness of the US economy, decreased innovation rates, and moved economic activity from small and medium sized entrepreneurs to behemoth companies, banks, and financial interest groups. In addition, crony capitalism is claimed to persist in South Korea in the form of a significant degree of favoritism to large business groups (Krueger, 2006). Another example is Sweden where almost 60 percent of industrial assets are controlled by Wallenberg family (Singh & Zammit, 2006). Last but not least, countries like Brazil, India, and Turkey are claimed to suffer from cronyism, although these countries possess long-lived and established democratic institutions (Economist, 2016).

Existence of democratic countries that experience cronyism does not only challenge the idea that crony capitalism is incompatible with democracy but also sheds light on various positive outcomes that stem from such an economic system of relations. Enderwick (2005) lists several “attractive” features of crony capitalism. First of all, relationship-based as opposed to

rule-based economic structure can provide short-term solutions instead of fulfilling the “*need for market-augmenting institutions that are extremely costly to establish and maintain*” (pp.120, 2005). Secondly, cronyism can provide economic growth even during the times of political instabilities through vertical political integration where favored elites directly participates in policy-making processes and ensure investment and growth. The third feature that Enderwick presents is that crony capitalism provides solution to the problem of credible commitment by creating flexibility via close personal relationships, and encouraging indigenous firms to invest even during the turbulent economic time periods (2005). The fourth attractive feature is that crony capitalism’s success in East Asian economies for a considerable amount of time. Increase in living standards, and the high growth rates that were achieved during the period of 1970-1990 was not only seen as a “*miracle*” but also attributed to the Asian way of doing business by several commentators, and hence to the crony capitalism. In addition, Kang (2002) too thinks that crony capitalism can produce beneficial outcomes for a country’s well-being. He claims that in countries with weak and deficient institutions, cronyism can enhance efficiency, provide lower transaction costs by settling credibility integrity, and strengthening property rights, and establish channels for a better and faster information exchange between the actors. According to him, while South Korea and Taiwan are the good/successful examples of crony capitalism, Indonesia and Philippines are the bad/failed examples where cronyism caused undesirable economic results in contrast to income increase and intense industrialization in the first two countries.

To sum up, one cannot help but notice the similarities between the theoretical literature over corruption and crony capitalism. Although there exists disagreements over the effects of the two phenomena over economic growth, a large body of literature and several respected authors are not in favor of the attractive aspects but rather emphasize the harmful and destructive influence that corruption and cronyism exert on a country. In addition, the role,

quality, and strength of the institutions are stressed and are taken into consideration by theoretical literature, similar to the corruption. Here too, cronyism is supposed to have relatively positive effects on economic growth of countries with deficient and weak institutions by undertaking the responsibility that under normal circumstances supposed to be done by institutions themselves. One striking difference is that, unlike studies over corruption, it is harder to measure and statistically analyze the concept of crony capitalism which creates difficulties in terms of making analytical judgements. With the absence of significant statistical results that indicate a negative correlation between cronyism and economic growth, it remains open to debate that whether it should be completely avoided, or be considered as a desirable option for the world's economies.

2.4. Empirical Studies on Corruption and Economic Growth

It would be an undervaluation of the existing studies to claim that there is a huge gap in the literature regarding the relationship between corruption and economic growth. The existing research over corruption is mainly tripartite; studies that analyze countries as single and comparative cases, researchers who prefer to investigate the relationship between corruption and economic growth from an analytical perspective by using large-N methodology, and studies that approach towards the phenomenon from a theoretical perspective. In literature review section, the study already unveiled the main premises of theoretical literature by discussing whether corruption is harmful for economic growth or greases the wheels of economic growth. This chapter will focus on analytical results presented by small-N and large-N studies.

Single and comparative case studies concentrate on underdeveloped or developing countries. However, not all of such studies indicate a direct negative effect of corruption over economic growth. For example, Roman and Miller's study over Moldova (2014) does not

openly claim that corruption is economically harmful on Moldovan economy but it is a socially embedded phenomenon in some certain cultural contexts. The study reveals ambiguous perception of Moldovan people towards corruption where it is disparaged because of its malign effects on the system, but also seen necessary for cutting the red tape and compensating the lower salaries that public officials receive. On the other hand, by using financial development and trade openness data over the period of 1987-2009, Farooq et al. (2013) statistically finds that corruption impeded economic growth in Pakistan. While financial development and trade openness have a significant positive effect on Pakistani economic growth, one unit increase in corruption is found to reduce growth 0.1489% , with a 1% significance.

Do the single and comparative case studies focus more on underdeveloped countries rather than investigating the effects of corruption on industrialized western economies? According to Bai et al. (2013), governmental corruption is observed more in poor countries since corruption could subside “on its own” as the economic growth continues. By analyzing the data collected from 13,000 Vietnamese firms during 2006-2010, they find that corruption and growth are negatively correlated since increase in economic growth reduces the amount of bribe extracted from the firms. In other words, the results implicate that developed economies suffer less from bribery, and hence corruption. In his analysis of African countries, Gyimah-Brempong (2002) presents a similar outcome where he finds that corruption hurt poor countries more than the rich ones. Corruption damages weak economies by increasing income inequality, and reducing GDP per capita and amount of investment in physical capital. Therefore, researchers who study the relationship between corruption and growth mostly direct their attention towards poor countries with weak economies since corruption’s significant negative effects are ubiquitous.

However, there is a significant body of literature over the corruption in emerging economies like Brazil, China, India, Turkey, and South Africa as well. Kwong (2015)

summarizes emergence and evolution of corruption in China beginning from 1949 socialist centered economy to the 2000s, formation of sui generis Chinese capitalism. Kwong asserts that pre-1976 China had lower incidence of corruption although post-1976 China has a better institutionalized criminal justice system, and a more centralized governmental bureaucracy. In other words, opening of Chinese economy increased the rate of corruption in the country. The study illustrates that although China experienced a transition from socialism to market socialism, corruption continued to exist more saliently (Kwong, 2015). However, it is not specified to what extent the existing corruption hurts Chinese economic growth. Another growing Asian economy, India is claimed to perform even worse than China in terms of corruption, even though it is a long term democracy (Sun & Johnston, 2009). India's failed attempt to minimize corruption put the country's economy in a vulnerable position although it has been achieving an unprecedented growth rate during the last two decades. Because of the increasing corruption, a huge shadow economy emerged in which businessmen and entrepreneurs mostly prefer to do their business informally rather than following bureaucratic mazes in the country (Miklian & Carney, 2013). This creates an unaccountable and non-transparent economic sphere where government has little or no influence. Salient level of corruption in these world's fastest growing economies stands puzzling for the theoretical literature.

In Brazil too one can observe a series of corruption scandals since the country's transition to democracy. Corruption scandals mainly resulted from favoritism, clientelist policies, and use of public funds for personal and political gain as it was witnessed during Collor and Rouseff governments (Geddes & Neto, 1992, Da Silva, 1999). Corruption literature in Brazil mainly focus corruption's negative influence over democratization rather than economic growth. Similarly, there is not a significant body of research over effect of corruption on Turkish economy but rather its repercussions on Turkish democratization process. Fight against

corruption in Turkey is mostly evaluated in terms of country's European Union accession, and hence democratization process (Adaman, 2011, Mousseau, 2012, Yılmaz & Soyaltın, 2014). However, one can notice the absence of remarkable research over direct and specific effects of corruption over Brazilian and Turkish economies since researchers mostly take corruption as a problem of democratization.

Large-N analyses mostly utilize the indexes like Corruption Perception Index (CPI), corruption data from the International Country Risk Guide (ICRG), World Bank data of control on corruption or some other individually designed data sets to measure the effects of corruption on GDP, GDP per capita, investment, entrepreneurial and financial sectors. One of the earliest researches done by Paolo Mauro (1995) where he found that corruption distorts bureaucratic efficiency, and hence, decreases investment and economic growth. His results indicate that one unit improvement in bureaucratic efficiency “associated with an increase in the 1960-1985 average investment rate by 4.1 (3.3) percent of GDP” (pp. 700, 1995). In his analysis of 110 countries between 1996 and 2007, Aidt ends up with a similar conclusion in which perceived and experienced corruption reduce GDP per capita (Aidt, 2010). Aidt's study is important since he also includes the experienced corruption which is measured by self-reported bribe giving. By using data from CPI of Transparency International, Podopnik et al. find that one unit decrease in the level of corruption leads 1.7% increase in GDP per capita except in European countries with transition economies in which one unit decrease in corruption is associated with a 2.4% increase for the period of 1999-2004 (Podobnik, Shao, Njavro, Ivanov, Stanley, 2008). By relying on the corruption data from International Country Risk Guide, Ahmad et al. find that corruption and bureaucratic inefficiency negatively affect GDP per worker while the bureaucratic and institutional efficiency, and political stability have a benign effect (Ahmad, Ullah, Arfeen, 2012) Their study find a hump-shaped relationship between corruption and economic growth in which corruption reduces marginal capital product “by acting as tax on

investment proceeds” (pp. 295, 2012). Uğur & Dasgupta (2011) seek to elucidate the effect of corruption in 43 low income countries and mixed countries (sample that include both low income and non-low income countries). Their results indicate that corruption has a more significant negative effect on mixed countries’ GDP (-0.86) than low income countries (-0.07). However, they also find that indirect effect of corruption on human capital is higher in low income (-0.29) than mixed countries (-0.14) which shows that corruption might have diverse effects depending on a country’s income level and institutional settings.

There are also researches that investigate the effect of corruption on specific sectors like finance and banking. Blackburn et al. for instance find that the extent the corruption affects economic growth depends on the level of openness of an economy, and the extent the openness affect growth depend on the level of corruption (Blackburn & Forgues-Puccio, 2010). In other words, corruption has a more negative effect when the financial market is liberalized, and the extent of corruption is higher within the financially liberalized markets than the closed ones. The authors claim that unless financial liberalization is governed well, corruption spreads fast. The findings can be helpful in analysis of corruption on some Latin American and Asian countries which experienced widespread corruption scandals after they opened their economies to the world. For instance, in banking sector, corruption leads allocation of bank funds from normal, up and coming projects to bad investment projects which create inefficiencies in an economy (Park, 2012). By using data from 70 countries (both low and high income) for the period of 2002-2004, the author finds that corruption significantly distorts quality of bank loans. The bank loans passes to risky loan portfolios which weaken the banking system and make the country more vulnerable to financial crises.

Vaal & Ebben’s study (2011) on the other hand claims that corruption’s effect on economic growth is conditional where corruption may be conducive to growth in some certain contexts. Conditional effects depend on the type of institutions that a country possesses which

are included as political stability, property rights, and the political system. Their study indicates that corruption negatively affects an economy only when the degree of political stability and property rights are above some threshold value, while corruption may facilitate functioning of an institutional system in the countries below the threshold. Vaal & Ebben give the example of an autocracy where the ruler “selfishly engages in rent-extraction” may have lower corruption compared to a democracy (pp. 120, 2011).

All in all, they claim that if the institutional setting is not taken into account, corruption’s actual effect on growth will continue to remain ambiguous. By taking Vaal & Ebben’s study into consideration together with the cases of emerging economies, it becomes harder to claim presence of consensus among scholars over the effect of corruption on economic growth which indicates the necessity of further analyses in the field. However, by following the premises of small and large-N studies presented in this section, it can be argued that there are more evidence for the behalf of the idea that corruption sands the wheels of economic growth rather than greases them.

2.5. Politics, Institutions, and Corruption

Corruption can have a conditional effect on economic productivity depending on the strength of the institutions that a country possesses. If the country has weak institutions, then corruption is claimed to have a positive impact on economic growth and vice versa (Houston, 2007). Weak institutional structures that lack efficient regulation, political accountability, and respect for property rights provides an environment where corruption can burgeon (Aidt, 2009). Corruption is also claimed to have an inverse relationship with state capacity (Hollyer & Wantchekon, 2014). In addition, there occurs a salient relationship between quality and efficiency of the legal system and intensity of corruption (Azfar, et al., 2001 & Roman & Miller,

2013). Absence of a solid and independent legal organization that can relentlessly pursue the prosecution of corrupt officials stands as a significant indicator of increased level of graft in several countries. One would expect then the corrupt countries to have similar characteristics.

According to Svensson, they do;

“All of the countries with the highest levels of corruption are developing or transition countries. Strikingly, many are governed, or have recently been governed, by socialist governments. With few exceptions, the most corrupt countries have low income levels... all of the most corrupt economies are considered closed economies, except Indonesia.” (pp.24, 2005).

Olken & Pande (2012) too observes a negative correlation between corruption and GDP per capita income. In addition, they claim that corruption is systematically used as a means of motivation for bureaucratic agents and ruling members in autocratic regimes. In such an environment therefore, while the most corrupt official becomes the most loyal one, it also continues to become extremely difficult to combat the corruption since it would be highly costly for the autocratic regime. Although it can be argued that whether corruption can be considered as the engine of state machine or not, there seems a widespread tendency which claim its incompatibility with democracy (Jain, 2009 & Kurer, 2001). The idea simply based on the argument that the more democratic a country becomes the less corruption it has.

However, Susan Rose-Ackerman takes a more critical step and claims that corruption can occur both in industrial world and in developing countries (Ackerman, 1997). She elaborates on which forms of democratic governance is inimical to corruption (Ackerman, 2001). Ackerman claims that level of corruption in a democratic country will be determined by the relative distribution of power of the president and legislature branches. In evaluating the graft in presidential democracies, she makes a distinction between presidential systems with weak, intermediate, and strong parties;

“...there are five presidential systems with weak parties (Peru, Brazil, Colombia, Taiwan, and Uruguay); five intermediate cases (Georgia, Russia, South Korea, and Philippines), and twelve with strong parties. In the latter category it seems important to distinguish between states that he judges as having strong presidents (Argentina, Chile) and the rest (Guatemala, Bolivia, Dominican Republic, Costa Rica, El Salvador, Honduras, Mexico, Nicaragua, Paraguay, and Venezuela)... My argument predicts that, holding other factors constant, the most corrupt presidents will be in Shugart’s “intermediate” cases, followed by the weak-party and the strong-party states.” (pp.44, 2001).

Boerner & Hainz (2006) analyze the problems of bribery, embezzlement, and disrespect for property rights in democracies, and claim that proportional electoral systems are likely to lead more corruption than majoritarian ones since they provide weaker protection for investors. However, it is still contested that whether the electoral system is the real culprit or not. Studies over clientelism analyze the relationship between corruption and patronage. Manzetti & Wilson (2007) assert that strength of the patron-client relationship determines the support for a corrupt government in a country with weak and deficient institutions. If the relationship between the two is strong, then a high level of corruption can be observed. They present three main reasons for voters’ support for corrupt governments; economic satisfaction resulted from benefits received, low level of education, and norms and cultural values that show a certain degree of tolerance toward corrupt behaviors. This vicious cycle continues until a certain point where the corrupt government loses its control over the state apparatus which was mostly used for personal enrichment, and rewarding political loyalties (2007). Kurer, on the other hand, while admitting that corrupt governments are supported because of the benefits sought by voters, also directs attention towards another issue; absence of an alternative in the political arena (Kurer, 2001). Corrupt governments usually secure their status by creating high barriers which are difficult surpass to enter the political market. At the end, such a political medium would lead people to lose their trust to the system –even though they continue to receive benefits–, reduce

citizens' participation in politics, damage moral values and eventually the good governance (Stockemer, LaMontagne & Scruggsand, 2013).

To sum up, there is a notable consensus among the scholars over the relationship between institutional strength and level of corruption. The countries that have strong governments, efficient and independent legal and financial institutions, respect for property rights, and equal distribution of political power suffer less from graft. On the other hand, in a corrupt government, state's legitimacy and institutions are undermined, trust towards these institutions and political participation in the form of voter turnout declines, moral values and development of civic behavior are damaged, and inequality of opportunities is created.

2.6. Empirical Studies on Corruption and Democracy

Theoretical literature illustrated that corruption is significantly related to the institutional weakness or absence of proper institutional setting. What about the role of democracy and democratic institutions? What kind of an institutional weakness may open avenues for corruption to spread? The interaction between corruption and democracy is intriguing for the researchers as it is the case in the relationship between corruption and economic growth. Here too, researchers utilize means of both qualitative and quantitative methodologies by analyzing the phenomenon in terms of single and comparative case analyses and regression techniques.

In analyzing the relationship between corruption and economic growth, single and comparative case analyses mostly focus on poor, underdeveloped countries, and consider corruption as one of the significant reasons for underdevelopment in these countries. However, studies over corruption and democracy investigate causes and consequences of corruption in young and long-term democracies as well. For instance, Hill finds that as democratization

consolidates transparency and accountability increases, and hence, level of corruption in American (USA) states decreases (Hill, 2003). His results indicate that crucial components of democracy like transparency and probity of public officials are more effective in reducing corruption than regulatory laws that intended to fight against corruption.

Klasnja and Tucker's analysis (2013) is enlightening in the sense that one can comprehend better the reasons for low level of corruption in democratic countries. Their results illustrate that in Sweden, an established democracy with low level of corruption, voters react negatively to corruption independent from the state's economic well-being while in Moldova, a young democracy with a high level of corruption, voters' reactions depends on the state's economic conditions. In other words, Swedish voters react corruption negatively even during Swedish economy is doing well while in Moldova, corruption becomes less important during times of economic prosperity, and politically problematic when economy performs poorly (Klasnja & Tucker, 2013). Conditional reaction of Moldovan voters is a good example for why some countries are more prone to corruption while some others' level of immunity is higher. In a similar study, Klasnja et al. measured the channels that corruption may effect voting behavior in another young democracy, Slovakia, by looking at "pocketbook corruption voting" (effect of personal experiences with corruption on voting behavior) and "sociotropic corruption voting" (effect of perceptions about corruption in one's society on voting behavior) (pp. 88, Klasnja, Tucker & Deegan-Krause, 2014). The study finds significant evidence for the pocketbook corruption voting while finds consistent evidence for the sociotropic corruption voting only after emergence of a new anti-corruption party that increases media coverage of graft (pp. 88). The results support the hypothesis that significance of each channel is mainly determined by the salience of each source of corruption. Both of these studies (Klasnja & Tucker, 2013 and Klasnja et al., 2014), illustrate conditional reactions of voters toward corruption in young East European democracies.

Similar to Moldova and Slovakia, various other studies concern over the problem of corruption in young democracies. An empirical study indicates that increase in perception of corruption decreases the popular support for existing rule in Nicaragua, while an informative campaign in fight against corruption can decrease the incidents of corrupt behavior, and increase public demand for further democratization (Seligson, 2001). The study finds a statistically significant evidence for the positive impact of public awareness campaign in newly emerging Nicaraguan democracy. In this respect, Seligson's study is a good example for the argument that democracies present effective tools for the fight against corruption like media coverage of corruption that is absent in authoritarian regimes. Similarly, high incidence of corruption is viewed as one of the most important reasons for democratic transitions in today's struggling young democracies of Georgia and Ukraine (Spirova, 2008). Increasing corruption and rent-seeking behavior in these ex semi-authoritarian regimes brought their own falls, and became a vital cause in people's fight for democratization. Corruption became Shevardnadze and Kuchma governments' "grave-digger", and triggered regime transitions in 2003 and 2004 respectively, and added countries to the list of examples that illustrate incompatibility of democracy and rising corruption (pp. 89, 2008). While Georgia and Ukraine paved the way for further democratization by first protesting against corruption and then decreasing it by regime transition, corruption might hinder the way for democratic consolidation in several other countries. For example, Aleyomi (2013) claims that the failed attempts to decrease the corruption prevents Nigeria to consolidate and sustain its democracy. As it is the case in several other countries that suffer from corruption, in Nigeria too, wasteful spending, mismanagement of resources (both human and natural), and use of fight against corruption as a political weapon by rulers are some of the main obstacles for democratic consolidation.

In addition to young democracies with a modest level of population, the world's biggest (India), third (Indonesia) and fourth (Brazil), fifth (Pakistan), and seventh (Mexico) largest

democracies in terms of their population also suffer from corruption as they perform poorly in various corruption indexes. For example, among 176 countries in 2016, India and Brazil ranked 79th, Indonesia ranked 90th, Pakistan ranked 116th, while Mexico performed the worst by ranking at 123rd. Are these countries relatively more corrupt than other democracies because they are cursed by their demographics? Or is it simply matter of poor institutional design that failed to consolidate a salient level of accountability, transparency, property rights, and rule of law? Most of the researchers prefer the latter.

Since its transition to democracy from authoritarian military rule, Brazil experienced several corruption scandals (Ferrovia Norte-Sul, CPI de Corrupção, P.C./Collorgate, Budget “Dwarves”, Sao Paulo Regional Labor Court/TRT-Lalau, SUDAM, Operation Anaconda and Sanguessuga, Mensalao, and Petrobras) which generated suspicions regarding the country’s democratic consolidation (pp. 3, Power & Taylor, 2011). While the country has been trying to increase institutional transparency and accountability, and the civil society organizations have become more and more active in fight against corruption by spreading public awareness against corrupt acts, the perceived level of corruption in the country continues to rise in recent years. In addition, Brazil suffers from regional disparities in its struggle for eradicating corruption where South Eastern region perform better than Northern and North Eastern sections of the country (Abramo, 2007). In Pakistan, absence of an active civil society, independent judiciary, governmental accountability are considered as the causes of widespread bribery, nepotism, and political patronage (Javaid, 2010). Although the country established a National Accountability Bureau to fight against corruption in 2002, its efforts are not proved to be fruitful because of arbitrary legal proceedings, co-optation of judiciary, and absence of a sufficient level of political will (Chene, 2008).

In the world’s largest democracy in terms of population, increasing corruption is mainly associated with the beginning of economic liberalization of 1991 (Sridharan, 2014). While the

author praises Indian civil society for its efforts in fight against corruption, he criticizes Indian politicians for not enacting laws that would settle transparent and accountable party funding and limit government's continuing discretionary power over resource allocation which creates several opportunities for personal gain for the politicians (2014). Therefore, inability of judicial institutions in India stands as a significant obstacle for eradicating corruption in the country. Similarly, Indonesia's own legal institutions proved to be insufficient and a high level of corruption is observed among lawyers, judges and police which led government to establish an independent institution in late 2003, The Corruption Eradication Commission (KPK), to fight against graft in the country (Schütte, 2007). All in all, Brazil, Pakistan, Indonesia, and India are remarkable examples that challenge the assumption that democracy and corruption are incompatible. Rather than making deterministic generalizations, it should be more beneficial to focus on why some democracies became more successful in minimizing corruption but some others continue to suffer from it. The examples of these populous countries in addition to young democracies illustrate that the countries that lack transparency and accountability in their political decision-making processes, and an independent judiciary would probably fail in their attempts at eradicating corruption even though they would have free and fair elections and a functioning parliamentary/presidential democracy. Therefore, rather than making deterministic claims like democracy is incompatible with corruption, a more analytical and thorough approach would be detecting the types of democracy and specific democratic institutions that can minimize corruption.

Last but not least, studies that utilize quantitative tools to investigate the relationship between corruption and democracy present analyses that cover a long time span. By analyzing the period of 1982-1997 in 100 different countries, Drury et al. find that democracy indirectly mitigates harmful effects of corruption on economic growth (Drury, Kriekhaus & Lusztig, 2006). In other words, corruption is found to have no significant effect on economic growth in

democracies while it has on non-democratic countries. According to the authors, fewer incidents of corruption occur in democracies than authoritarian regimes because of existence of electoral mechanism that prevents politicians in democratic regimes to engage in less corrupt activities in order to politically survive (2006). Rock (2008) also analyzes the period of 1982-1997 by utilizing a panel data from several countries and finds an inverted-U shaped relationship between democracy and corruption which means corruption rises with democracy up to certain point but then starts to decline as long as democratic regime proved to be durable. Rock claims that it takes time for newly established democracies to build transparent institutions, check and balances, independent judiciary, and high quality public sector bureaucracy that can control and restrict corruption (pp. 70, 2006). The expected time of turning point is defined as either tenth or twelfth years in these new democracies. In other words, after the tenth or twelfth years of a newly established democracy, rate of corruption is expected to decline.

In another comparison of corruption in democratic and non-democratic countries, Nurtegin and Czap (2012) finds that democracy and political stability are the two important factors that can decrease level of corruption in a country. However, by analyzing data for the period of 2000-2009, the study finds a low level of corruption in unstable democracies than stable dictatorships. In other words, democracy is found to be a more important determinant of fight against corruption compared to political stability in which even an unstable democracy perform better than a long-term stable dictatorship in terms of level of graft. There are also scholars who delineate more on the type of democracy that can diminish corruption by using regression analysis. For instance, Saha and Campbell (2007) find that electoral democracy does not simply reduce the level of corruption itself but some sound democratic institutions such as independently operating judiciary, security forces, media, and active political participation.

They claim that probability of getting caught with a corrupt act is higher in well-functioning democracies which is more than democratically elected government.

All in all, both small and large-N studies in the literature present important findings for our understanding of the relationship between corruption and democracy. Both types of studies find strong evidence for the importance of democratic consolidation, transparent and accountable democratic institutions, independent judiciary, free media, active political participation and civil society activism in decreasing level of corruption in various countries. The prior research that is presented in this section is in line with the premises of theoretical section of this study in terms of emphasizing importance of institutional strength in a country's fight against corruption.

2.7. Conclusion

The theoretical literature over corruption illustrates that corruption has deleterious effects on certain propelling dynamics of economy such as investment, entrepreneurial activities, finance and banking sector, innovative performance of a country, and it is also significantly associated with crony capitalism which is a non-transparent and unaccountable body of economic relations. However, it would be difficult to claim that there is a consensus among scholars over the relationship between corruption and economic growth since some studies which are also included in this chapter do not find evidence for a negative effect of corruption on economic growth. Similarly, there are still disagreements regarding the effect that corruption exerts on democratic well-being of a country. Therefore, in this thesis, I aim to (i) revisit the relationship between corruption and economic growth in order to update current body of knowledge and also contribute to the existing literature, (ii) describe the relationship between corruption and democracy by determining democratic institutional dynamics that can restrict

graft, and (iii) include a case-analysis to investigate the threefold interaction between corruption, economic growth, and democratization on a micro scale.



CHAPTER III: HYPOTHESES, DATA, AND METHODOLOGY

This chapter introduces the hypotheses that are generated through the findings and arguments from empirical and theoretical literature on corruption, and its relation with economic growth and democracy. After presenting the hypotheses and the logic behind their formation, the chapter then continues to discuss the three models that are built to empirically test these hypotheses. The first model is related to corruption and its effect on economic growth. In this model, economic growth is the dependent variable of the study while corruption is the main independent variable. The second model seeks to measure the effect of certain institutional dynamics on corruption which makes corruption the dependent variable of this model. In the last model which aims to investigate the relationship between corruption and democracy, the main dependent variable is democracy scores of countries while corruption is the main independent variable. In all these three models, this chapter discusses the nature of dependent variables and independent variables that are employed, and presents a detailed overview of the data content.

3.1. Hypotheses

The theoretical background presented here is helpful in generating various hypotheses regarding the relationship between corruption, economic growth, and democratization. One of the prominent features derived from the literature discussion is that corruption is thought as detrimental both for economic growth and democratization, although there also exists a minor group of scholars who have different approaches in which they evaluated corruption as a necessary evil for countries with weak institutions and underdeveloped economies. Most of these scholars who do not hold majority's views constructed their theoretical perspectives under

the conditions of Cold War period when the functionalist modernization theory was predominant. Therefore, contemporary body of literature does not view corruption as a necessary evil but rather as an evil that should be evaded.

Is corruption really harmful for a country's economic well-being, and if so, what are the reasons? The findings from prior research illustrate that corruption hobbles economic growth mainly because it distorts some major economic activities that are the propelling dynamics of economic growth itself such as foreign direct investment (FDI), and entrepreneurial activities. In addition to these certain propelling dynamics, by relying on Barro's influential study over determinants of economic growth (1996), certain factors such as rule of law (judicial independence) and government consumption that have an influence on income level and economic growth are incorporated into the current analysis. The hypotheses that are utilized in this study first and foremost are generated to test whether these propelling dynamics have an actual effect on economic growth itself or not as it is put forward by the prior research. All in all, the major hypotheses that can be drawn from theoretical discussion regarding the relationship between corruption and economic growth are following;

H1: Corruption has a negative effect on economic growth;

H1a: An increase in Foreign Direct Investment and Government Consumption (as % of GDP) can also increase economic growth.

H1b: A decrease in the number of calendar days required for starting a business and decrease in the amount of start-up costs have a positive effect on economic growth

H1c: Effectively and independently functioning judiciary has a positive effect on economic growth.

What is more, the corruption literature deems an act as corrupt only when it is executed by a public official. By following this premise, another hypothesis is formed to investigate

whether a decrease in a state's role in economic affairs would have a benign effect on a country's prosperity or not. The following hypothesis is formed to measure the effect of state's role in economic affairs on economic growth;

H1d: *A decrease in state's role on economic affairs has a positive effect on economic growth.*

What about the relationship between corruption and democracy? In order to unveil the correlation between these two phenomena, both democracy and corruption are taken as dependent variables respectively. First of all, this study follows the mainstream logic and sides with the idea that democracy is incompatible with corruption. In this respect, the first hypothesis aims to test effect of corruption on democracy;

H2: *Corruption has a negative effect on democracy.*

However, current study also takes a step further from the previous researches and tries to find out the specific democratic institutional dynamics that can restrict graft rather than simply repeating the past. Therefore, by bringing together the findings and theoretical assumptions from prior research, a specific set of institutions such as transparency and accountability, independent judiciary, free press, inclusive power distribution, risk for expropriation, and executive constraints which all are vital to democracies are chosen to present a thorough analysis of the relationship between democracy and corruption. In other words, this study investigates the differences between the types of democracies in terms of democratic institutional structures that they possess. To sum up, major hypotheses that are generated to investigate the mutual interaction between corruption and democracy are following;

H3a: *Transparency of law/rule-making process and predictable enforcement of these laws can decrease the level of corruption,*

H3b: *Independence of High Court can decrease the level of corruption,*

H3c: Respect for Property Rights can limit corrupt activities,

H3d: Equal distribution of political power can have a restrictive effect on corrupt activities,

H3e: Respect for freedom of expression and decrease in censorship towards media can decrease the level of corruption,

H3f: An increase in level of executive restraints on a given government can decrease the level of corruption.

Last but not least, while delving into the literature over corruption, one may encounter the emphasis on the influence that strength of institutions exerts on corruption. In other words, it is asserted that countries with strong institutions with a stable political environment suffer less from corruption, enjoy higher rates of economic growth, and become able to consolidate their democracies in contrast to unstable ones. Therefore, the last hypothesis of the study intends to measure the relationship between institutional durability and corruption is following;

H4a: Political stability has a positive effect on economic growth,

H4b: Political stability has a restrictive effect on corruption,

H4c: Political stability has a positive effect on democracy.

3.2. Data and Research Design

Three different models were built to determine the effect of corruption on economic growth, the relationship between corruption and democracy, and also the institutional dynamics that can have an effect on corruption. In the first model, corruption is the independent variable while the economic growth is the dependent variable. In the second model, corruption is the dependent variable while some certain democratic institutional dynamics are taken as

independent variables to measure the type of institutions that can limit corrupt acts. In the last model, democracy (democracy scores of countries) is the dependent variable of the study and various independent variables in addition to corruption (the main independent variable) are gathered in order to find outstanding determinants of democratization. The study uses the Fixed Effect and Ordinary Least Squares (OLS) regression techniques. In the first model, the Fixed Effect method is utilized to include the set of country dummies which are helpful in capturing “*any time-invariant country characteristics*” which will create estimates that are less biased than OLS regression (pp. 425, Aslaksen, 2010). In the second and third models, the study employs OLS regression. The first reason for this preference is related to the nature of fixed effect analysis that excludes binary variables in its analysis, and secondly, since the main dependent variable in the second model (corruption) is continuous, the use of OLS is more helpful (Dinar, Dinar & Kurukulasuriya, 2011). The aim is to find a linear model which minimizes the sum of the squared errors. Since the data presented here is comparable in nature the use of OLS is practical.

3.3. Model I: Corruption and Economic Growth

3.3.1. Dependent Variable

In order to measure the effect of corruption on economic growth, the first model utilizes a key dependent variable: the economic growth rate of countries. GDP growth rate (annual percentage) of countries is also incorporated into the analysis. GDP is taken as the “*sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products*”, and growth rate is calculated by relying on

2010 constant US dollars.⁴ In other words, annual GDP growth rate (as %) is included into the analysis rather than the actual amount of GDPs that countries have.

3.3.2. Independent Variables

The main independent variable analyzed here is the corruption level of countries. This study utilizes the time series cross sectional (panel) data from the Corruption Perception Index (CPI) of the Transparency International to measure the worldwide corruption. The CPI aims to assess the perceived level of corruption by the people who serve under multinational firms and institutions (CPI Report, 1996). It should be emphasized that the measure of corruption is based on perception but not the actual, observed corruption itself. As a matter of fact, because of its clandestine nature, measurement of corruption is a difficult task. Although the best way of determining the presence of it is to observe the corrupt act directly, the perception based measurement is seen more feasible and practical (Olken & Pande, 2012). However, by taking the dataset's significant degree of validity and reliability, and for practical reasons, the independent variable here is taken as corruption but not as corruption perception. The CPI is a reliable measure in terms of perception since the index reflects the views of thousands of different people from various countries, rather than relying on a few indicators (Johnston, 2001). The Index started to collect its data in 1995, and ranges on a scale from 0 (*highly corrupt*) to 100 (*very clean*). However, the range of the data is reversed for the purpose of presenting a pellucid interpretation, and preventing even a slightest level of misinterpretation. Therefore, according to reversed data, while "0" became the very clean, a country that gets "100" is classified as highly corrupt.

⁴ World Bank national accounts data (<http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&Type=METADATA&preview=on#>)

Another corruption data set is accumulated by the International Country Risk Guide (ICRG) which provides data for political and economic risk components for investment by looking variables like government stability, socioeconomic conditions, investment profile, internal and external conflicts, corruption, military in politics, religious and ethnic tensions, law and order, democratic accountability, and bureaucratic quality.⁵ One of the reasons for why ICRG's data for corruption is not used is related to the data set's emphasis on corruption's negative effects on business and investment sectors which presents a relatively narrow cover of corruption.⁶ In addition, ICRG claims that their data set intends to measure the actual and potential corruption by looking at dynamics like secret party funding, nepotism, "suspiciously close ties" between business and state, and excessive patronage. However, unlike the CPI, ICRG data set do not clarify enough the methods used to detect and measures the forms of actual and potential corruption which is one of the most important reasons for why this study preferred Transparency International's corruption index over the ICRG data set. Last but not least, while the Transparency International provides its data for free of any charges, utilizing the ICRG data accompanies monetary costs. This can be shown as the last reason for not employing ICRG data in the current study.

The proponents of the corruption sands rather than greases the wheels of economic growth base their arguments upon the idea that corruption leads to a decrease in foreign direct investment (FDI) which distorts capital inflow to a country and presents various obstacles to innovative and entrepreneurial activities. Therefore, the study intends to test whether FDI and entrepreneurial activities have an effect on income level and economic growth as it is assumed. FDI is the net inflows which is taken as percentage of the GDP and it is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in

⁵ <http://www.prsgroup.com/>

⁶ <https://www.prsgroup.com/wp-content/uploads/2012/11/icrgmethodology.pdf>

the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.⁷ However, this variable neither discusses firm behaviors during the investment processes nor illustrates the type of firms (big or small scale) that make the investment but rather presents data for the sum of investments made to a given country within a year. Absent data for firm scale and firms' behavioral tendencies during an investment process can be viewed as a weakness for the current study.

In addition, two other determinants of income level and economic growth are included as well by relying on the premises and findings of Barro's influential study over determinants of economic growth: government consumption and rule of law (1996). In his study, Barro finds that increase in government consumption and presence of rule of law have benign effects on economic growth. General government consumption is taken as percentage of GDP, and includes "*all government current expenditures for purchases of goods and services (including compensation of employees)... most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation*".⁸ In order to measure the rule of law, current study investigates whether a country has an effectively functioning independent legal structure or not. The data related to "High Court Independence" from the Varieties of Democracy data set is utilized to understand the degree of rule of law that countries possess (Pemstein, Daniel et al, 2015). "*High Court Independence*" investigates the autonomy of a legal decision-making process from the government, and has an ordinal scale from "0" (the legal decision always reflects the government's wishes) to "4" (the legal decision never reflects the government's wishes).

⁷ World Bank, International Debt Statistics, <http://databank.worldbank.org/data/reports.aspx?source=world-developmentindicators&Type=METADATA&preview=on#>

⁸ World Bank national accounts data (<http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators&Type=METADATA&preview=on#>)

In order to measure the entrepreneurial activities in a given country two different indicators are utilized; the cost of business start-up procedures (% of GNI per capita) which gauges the cost of registering a business in a given country, and it is normalized and presented as a percentage of gross national income. A small amount of percentage is convenient for entrepreneurs. The second indicator is the time required to start a business in a given country which is the number of calendar days needed to complete the procedures to legally operate a business. For this indicator too, the fewer days is associated with better and economical entrepreneurial activity. However, there are some other prominent indicators too that can be used to measure entrepreneurial activities such as the amount of time required to import and export, register a property, prepare and pay taxes, and burden of custom procedures but not included by this study. There are two important reasons for exclusion of these data sets from the study; the first is related to significant amount of missing data and short amount of time that they covered which devaluated the usefulness of these indicators. Secondly, the study avoided from the “kitchen sink” problem and tries to keep a feasible number of independent variables in its attempt to explain variation in the dependent variable (Barreto & Howland, 2005).

What is more, the studies over corruption consider an act as corrupt when at least one party is a public official. In other words, acts like bribery, embezzlement of state funds, money laundering and smuggling, and misuse of public office should include at least one actor that work on behalf of the government like bureaucrats, government officials, or even cabinet members to be conceived as corrupt. Therefore, role of the state in economic affairs and its effect on economic growth and income level will be measured to investigate whether state’s interference in economic affairs reduces a country’s economic well-being or not. The role of state as a political entity in economic decision-making processes is measured by state ownership of economy from V-DEM data set which concerns itself with the degree of state ownership or control on capital (including land), industrial, agricultural, and service sectors (Pemstein,

Daniel et al, 2015). It ranges from “0” (Virtually all valuable capital belongs to the state or is directly controlled by the state. Private property may be officially prohibited) which indicates complete state control over economy to “4” (Very little valuable capital belongs to the state or is directly controlled by the state) that shows an intense presence of free market principles.

The theoretical literature claims that countries with weak institutions and an instable political milieu suffer more from corruption and experience less economic growth. Therefore, the relationship between the corruption and political stability is measured as well. The Political Stability and Absence of Violence/Terrorism data from the worldwide governance indicators of the World Bank (Kaufmann, Kraay & Mastruzzi, 2010) is employed to determine whether more stable and secure countries are also the ones that have low level of corruption and high levels of economic growth. The Political Stability variable will be used in all of the three models employed in this study. Last but not least, the income level which is measured by GDP per capita is also used as an independent variable in the measurement where economic growth is the dependent variable. Income level is calculated in current US dollars, and it is a useful indicator in capturing the quality of people’s material and social lives. Since industrialized countries with higher levels of GDP per capita experience smaller growth rates, the study expects a negative influence of income level on GDP annual growth rate.

3.4. Model II: Democratic Institutions and the Corruption

3.4.1. Dependent Variable

The first model seeks to determine the effect of corruption on economic growth in addition to find out main propelling dynamics of economic growth itself. However, the second model focuses more on the relationship between corruption and political dynamics. In this second model, the study takes corruption as its sole dependent variable, and certain democratic

institutional dynamics that can have restrictive effect on corrupt behavior are tried to be found out. Similar to the first model, the corruption is measured by the data generated by CPI of Transparency International. In this model too, corruption data covers the period of 1995-2015, it is reversed similar to the first model, and the score of “0” determines absence of corruption while the score of “100” means highly corrupt.

3.4.2. Independent Variables

Most of the independent variables utilized in this second model derived from the Varieties of Democracy (V-DEM) data set (Pemstein, Daniel et al, 2015) except one, the “Executive Constraints”, which is taken from the *Polity IV* data (Marshall, Gurr, & Jaggers, 2014). The independent variables in this model aims to measure effect of certain outstanding characteristics of democracies on corruption such as inclusiveness (equal distribution of political power), transparency and accountability, judicial independence, freedom of media, executive restraints (checks and balances), and the degree of risk for expropriation, and all these variables are chosen accordingly. In addition, in order to see the relationship between institutional stability and strength and corruption, political stability variable is included as well as it is in the first model.

The data for “*Executive Constraints*” ranges from “1” (*Unlimited Authority*: There are no regular limitations on the executive's actions (as distinct from irregular limitations such as the threat or actuality of coups and assassinations)) to “7” (*Executive Parity or Subordination*: Accountability groups have effective authority equal to or greater than the executive in most areas of activity). This data illustrates the checks, balances, and institutional restraints over the ruling body of government, and it is expected to be “7” or close to that number in democratic countries. In the prior research section, by investigating the relationship between corruption and

democracy with the examples of previous studies the study illustrated that transparency is one of the most significant components of democratic governance that can restrict graft.

The second independent variable is the “*Transparent Laws with Predictable Enforcement*” from the V-DEM data set and serves for determining whether the laws of a given country is clear, coherent, stable from year to year, well-publicized, and enforced in a predictable manner (Pemstein, Daniel et al, 2015). This independent variable ranges from “0” (Transparency and predictability are almost non-existent. The laws of the land are created and/or enforced in completely arbitrary fashion) to “4” (Transparency and predictability are very strong. The laws of the land are created and enforced in a non-arbitrary fashion). This variable would be helpful in finding the effect of transparency and predictability on corruption. In addition, a state’s attitude towards freedom of press, internet and speech is crucial as well. Together with the help of free press and social media for example, a corrupt act can be uncovered, restrained, pursued, and condemned. Hence, another V-DEM variable, “*Government Censorship Effort – Media*” is used as the third independent variable incorporated into the analysis (2015). This independent variable ranges from “0” (Attempts to censor are direct and routine) to “4” (The government rarely attempts to censor major media in any way, and when such exceptional attempts are discovered, the responsible officials are usually punished). Previous research showed us that a functioning media free from all means of suppression can help governments to fight against corruption. Hence, the study expects a significant degree of association between low level of government censorship over media and low level of corruption.

The fourth independent variable utilized in the second model attempts to measure the effect of the independence of the legal institutions on corruption by “*High Court Independence*” data from V-DEM (2015). The variable investigates the autonomy of a legal decision-making process from the government, and has an ordinal scale from “0” (the legal

decision always reflects the government's wishes) to "4" (the legal decision never reflects the government's wishes). Therefore, an increase from zero to four is an indicator for decreasing level of authoritarianism in a given country, hence a consolidated democracy. In other words, a score of zero would be a sign for effective functioning of legal institutions in terms of democratic principles, and hence more restrictions on corruption.

This study also plans to examine the socio-political/economic consequences of the corruption. In this respect, the relationship between corruption and property rights is analyzed to determine the effects of the latter on the former. The theoretical literature illustrated that in corrupt countries property rights are not under full protection by the state institutions and regulations can be stretched by depending on the vagarious will of the corrupt rulers. However, in a democratic country, there are solid institutions that guarantee protection of property rights of the ordinary citizens and investors alike. In order to measure the effect of degree of private property protection on corruption V-DEM data is utilized. This fifth independent variable determines to what extent citizens enjoy "right" to private property but not the "actual" property itself.⁹ In an interval measurement model, property rights are measured in a scale from "0" (Virtually no one enjoys private property rights of any kind) to "5" (Virtually all citizens enjoy all, or almost all, property rights).

Last but not least, the literature over corruption mentions the inequality of opportunities that corruption leads which will be measured by V-DEM data over the distribution of power in a given society by socioeconomic position (Pemstein, Daniel et al., 2015). This variable is related to what extent the economic inequality converts itself to political inequality which is a widely observed among corrupt countries. Hence, the sixth independent variable in the second

⁹ Coppedge, Michael, John Gerring, Staffan I. Lindberg, Svend-Erik Skaaning, Jan Teorell, with David Altman, Michael Bernhard, M. Steven Fish, Adam Glynn, Allen Hicken, Carl Henrik Knutsen, Kelly McMann, Pamela Paxton, Daniel Pemstein, Jeffrey Staton, Brigitte Zimmerman, Rachel Sigman, Frida Andersson, Valeriya Mechkova, and Farhad Miri, 2016. "V-Dem Codebook v6." *Varieties of Democracy (V-Dem) Project*.

model investigate the effect of degree of political inclusion/exclusion on the level of corruption. The extent that wealth and income translate itself into political power is measured in an ordinal method which ranges from “0” (Wealthy people enjoy a virtual monopoly on political power. Average and poorer people have almost no influence) to “4” (Wealthy people have no more political power than those whose economic status is average or poor. Political power is more or less equally distributed across economic groups). The line of direction from zero to four indicates the degree of rights that citizens enjoy in terms of private property, and hence, a more democratic governance.

3.5. Model III: Corruption and Democracy

3.5.1. Dependent Variable

In contrast to the second model, the third model takes the democracy as its dependent variable, and investigate the effects of corruption and various dynamics on democracy level of countries. The democracy score is measured by the *Polity IV*'s combined polity score which ranges from “+10” (strongly democratic) to “-10” (strongly autocratic) (Marshall, Gurr, & Jaggers, 2014). One of the significant reasons for employing the *Polity IV* democracy score is related to high number of countries that are included in the data set (167 countries by 2014). In addition, the data set is an accumulation of a rigorous work by several scholars across the world and present democracy scores from the year of 1800. Hence, *Polity IV* is a unique democracy index in terms of the time span covered. Last but not least, the *Polity IV* dataset provides a wide scale of democracy point scoring system (21 points in total) which provides possibility of effective distinction between democracy performances of various countries.

3.5.2. Independent Variables

In this model, similar to the first one, corruption is the main independent variable. In addition, by following the premises of literature over democratization, the study employs various other independent variables such as income level, natural resource dependence, religion, and British colonial history, and measure their prospective effects over democracy within the period of 1995-2015 among 170 countries included in the study. Before introducing the content of the independent variables included in the third model, it would be helpful to briefly summarize the main findings from the literature over democratization that led the study choose these specific set of independent variables.

In terms of the relationship between democracy and income level, Papaioannou & Siourounis (2008) find that democratic transition more likely emerges in countries with higher levels of welfare which indicates the significance of income level in democracies. Therefore, income level is viewed as one of the most significant variables that drive the third wave of democratization. Positive effects of income level on democratization were also found by Barro (1999). Income level is significant not only in terms of democratization but also for democratic consolidation (Epstein et al., 2006).

In terms of effect of colonial history on democratization, Barro (1999) does not find a direct significant effect but rather indirect one which shows itself in living standards of a country depending of the colonizer's democratic tendencies. In other words, if the former colony has a democratic structure, the colonized country inherits politically free institutions and have better standards of living. On the other hand, Bollen & Jackman (1985) finds a significant positive effect of British colonial experience on a country's democratization process. In contrast, Hegre et al. (2012) reaches to contrasting outcome in which British colonial heritage has no significant effect on democratization. Therefore, the relationship between colonial history and democracy needs to be further studied as well.

What about the role of natural resources? Ross' (2001) preeminent study is helpful both in generating the necessary data and also examining the empirical findings. Ross finds statistically robust results which show negative effect of oil resources on democracy. In addition, he finds that oil resources inhibit democracy even more in poor countries (Ross, 2001). Hegre et al. (2012) also finds that abundance of natural resources reduces the possibility for democratic transition. Last but not least, this model also measure the relationship between Islam and democracy. Fish (2002) finds “dearth” of democracy in Muslim countries in which he associates the problem with treatment of women and girls in Muslim countries. Similar to Fish's findings, a large body of literature in political science asserts the incompatibility of democracy with Islam (Anderson, 2006). However, existence of democratic countries such as Turkey, Indonesia, and Malaysia with predominantly Muslim populations challenges this argument and implicate a need for further analysis.

Similar to the first model, this model also employs CPI score and GDP per capita values to measure corruption and income level respectively. In addition, the data for “*British Colonial History*” variable is binary, and provided from Paul Hensel's data set (Hensel, 2014). This study only intends to measure effect of colonial history on democracy for the countries experienced British colonialism to revisit the opposite results obtained by Bollen & Jackman (1985) and Hegre et al.'s (2012) studies. While the countries that experienced British colonization are coded as “1”, those countries which did not have such an experience are coded as “0”. Similarly, the “*Religion*” as the independent variable of this model is also binary in which countries that have Muslim population more than 50% are coded as “1” while the others are coded as “0”. The reason for dividing countries as predominantly Muslim and non-Muslim by using the 50% threshold is neatly related to simple majority rule which provided the study with a good opportunity for classification. Religious components of the world's countries' populations are

generated from the demographic data set of the CIA World Factbook.¹⁰ Two other binary variable is “*Oil and Gas Dependent States*” which is generated by the data provided by Ross’ study (2001). This study also follows Ross’ classification and marks the countries on his list as oil and gas dependent.



¹⁰ <https://www.cia.gov/library/publications/the-world-factbook/>

CHAPTER IV: RESULTS AND DISCUSSION

This chapter presents empirical results from the three models that were introduced in the previous chapter, and interprets the results by relying on statistical findings. The first model fails to find a significantly negative association between corruption and economic growth. Therefore, by relying on the results from fixed effects analysis in the first model, the first hypothesis is not confirmed. In second model, the study finds that two variables have a significant restrictive effect on corruption ($p < 0.01$); transparent laws with predictable enforcement and high court independence. This model makes a significant contribution to the literature on the relationship between corruption and democracy by pointing to specific democratic institutional mechanisms that can limit level of corruption significantly in a given country. Lastly, the third model finds a significant negative effect of corruption on democracy in middle income countries only, and for all 170 countries in the data set for the period of 2005-2015 ($p < 0.05$).

4.1. Results for the Model I: Corruption and Economic Growth

After establishing the methodological approach, defining the content of the data and the hypotheses that will be tested in the light of theoretical discussion, this chapter will provide results of the regression analyses for the each models, beginning from the first one. This section evaluates the effect of corruption on economic growth. In addition, this model includes certain propelling economic dynamics, and test their effects on the dependent variable of the study.

Results from the *Model 1.1* (Table I) show that corruption does not have a significant negative effect on economic growth which leads the study to reject the first hypothesis (*H1: Corruption has a negative effect on economic growth*). Since corruption does not have a

significant negative effect on countries' annual percentage growth rates this study cannot completely reject the premises of Leff (1964) and Huntington (1968) who theoretically claim that corruption might have a benign effect on a country's economic growth process. On the other hand, the results that this study produces do not also present evidence for the idea that that corruption might have positive influence on a country's prosperity as Huntington and Leff claimed since a significant positive effect of corruption on economic growth is not found as well.

Scholars who argue that corruption is harmful for economic growth support their arguments by claiming that presence of corruption distorts certain economic activities like investment and entrepreneurial activities, and such distortions lead inefficiencies in a given economy. In addition, Barro's study shows that investment, government consumption and presence of rule of law might have beneficial effects on a country's prosperity. As *Model 1.1* illustrates (Table I), the regression analysis does not find any significant positive association of FDI and Government Consumption (as % of GDP) on economic growth which leads the study to reject the H1a (*An increase in FDI and Government Consumption (as % of GDP) can also increase the level of economic growth.*) while increase in start-up costs affects an economy negatively ($p < 0.1$).

In terms of entrepreneurial activities the results illustrate that time lag does not have a significant negative effect on economic growth but rather a positive one (*Model 1.1*). One would expect that increase in duration of establishing a business would increase disinvestment in the sense that leading investors to find another environment to invest or even demotivate local entrepreneurs and change their minds about being a tradesmen, hence reduce the entrepreneurial activities in a country. However, the results do not confirm presence of such a relationship. Unexpectedly, the *Model 1.1* illustrates that an increase in the number of calendar days for starting a business seems to have a significant positive effect on economic growth ($p < 0.05$). In

addition, while a unit increase in start-up costs is negatively associated with 0.002 decrease in rate of economic growth (*Model 1.1*), the insignificant nature of the results lead the study to reject the H1b (*A decrease in the number of calendar days required for starting a business and decrease in the amount of start-up costs have a positive effect on economic growth*). What is more, the significant negative effect of income level ($p < 0.01$) can be explained by the lower growth numbers achieved by the industrialized developed economies which have high income level (*Model 1.1*). In other words, although some certain economies experience high growth rates in terms of annual percentage, their income levels is less than countries which already have developed economies with high GDP levels but experience annual growth rates around 1-2%.

What is the effect of rule of law on economic growth? The results from the *Model 1.1* illustrate that presence of a judicial independence is positively associated with economic growth albeit the association is an insignificant one which leads study to reject the H1c (*Effectively and independently functioning judiciary has a positive effect on economic growth*). Last but not least, the theoretical literature over corruption necessitates the presence of a public official for an act to be conceived as corrupt (pp.45, Azfar, Lee & Swamy, 2001). Therefore, this study tests the idea that an increase in state's role in economic affairs might intensify the presence of corruption, and hence would reduce economic growth. Although not significant, results from

Table 1: Regression Analysis for the effect of corruption on Economic growth

VARIABLES	(Model 1.1) Economic growth	(Model 1.2) Economic growth (1995-2005)	(Model 1.3) Economic growth (2005-2015)
Corruption	0.002 (0.033)	0.91 (0.095)	0.038 (0.038)
Foreign Direct Investment (% of GDP)	0.052 (0.036)	-0.089 (0.103)	0.057 (0.041)
Government Consumption (% of GDP)	-0.069 (0.074)	-0.188 (0.679)	-0.075 (0.083)
Time (Number of Calendar Days) Required for starting a business (Entrepreneurial Activities I)	0.011** (0.005)	-0.056** (0.028)	0.014** (0.007)
Startup Cost (Entrepreneurial Activities II)	-0.002 (0.002)	-0.008 (0.011)	-0.0009 (0.003)
High Court Independence	0.504 (0.39)	-0.565 (1.767)	0.488 (0.417)
State Ownership of Economy	0.044 (0.65)	-1.33* (0.799)	0.830 (0.771)
Political Stability	0.082*** (0.021)	0.026 (0.039)	0.083*** (0.027)
Income Level	-3.98*** (1.34)	-2.06 (6.18)	-0.095 (2.32)
Constant	38.60** (12.79)	27.82 (48.07)	-4.15 (20.96)
Observations	1536	325	1164
R-squared	0.055	0.087	0.049

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

the *Model 1.1* illustrate that an increase in a state's control over economic affairs is positively associated with economic growth. This can be interpreted as the positive effects of a state's presence on economic realm in developing countries but not for the developed ones. Therefore, the study rejects the H1d (*A decrease in state's role on economic affairs has a positive effect on economic growth*) since a significant relationship is not found.

Lastly, results from the *Model 1.1* illustrate that political stability is significantly positively associated with economic growth ($p < 0.01$). This can be interpreted as the need for a stable environment in order to achieve stable and positive annual growth rate. Therefore, under the light of current findings, the H4a (*Political stability has a positive effect on economic growth*) is confirmed. The results are in line with the theoretical literature where political stability is seen as an important determinant of economic growth (Alesina, Özler, Roubini, and Swagler, 1996, Alesina & Perotti, 1996, and Barro, 1996). These studies assert that an increase in propensity to change governments –either by constitutional or unconstitutional means– reduces economic growth mainly because of the increase in uncertainty which hamstrung investment and entrepreneurial activities. In addition, weakness of a certain government does not provide a fecund environment for growth even though executive office remains in power (Shleifer & Vishny, 1993).

What is striking however, in the light of regression analysis, this study approaches one step closer to solve the puzzle presented at the beginning of this study. The study questions that emerging economies like Turkey, Brazil, South Africa, Russia, India, and China continue to experience significantly positive growth rates with a non-negligible corruption level. However, it would still be difficult to claim that these countries managed to secure a stable growth process with a salient level of corruption by only picking the fruits of their stable political environments. The issue of economic growth is highly complex phenomenon and consists of sophisticated operations by different sectors of economy. Growth in these emerging economies may be based

on significantly high levels of return generated by a certain dominant sector in their economies like construction in Turkey, energy in Russia, Brazil, and Indonesia or advantages posed by presence of cheap labor productivity in China and Brazil. On the other hand, another reason that propelled growth in these economies might be related to the global favorable economic environment which increased FDI inflow to the countries at hand, especially after the post-2000 period. Therefore, the puzzle remains to be solved and still requires a thorough analysis.

A different regression analysis was applied to the same dependent variables by using the same independent variables by dividing the period into two different timelines (*Table I, Models 1.2 and 1.3*). There are two significant reasons for pursuing this path; firstly, the CPI data provided by the Transparency International does not cover all the countries during the period of 1995-2005. The data has corruption scores for only 41 countries in 1995, for 54 countries in 1996 but goes over for 160 countries in 2006. In other words, there is a significant amount of data missing especially during the period of 1995-2000. As the *Model 1.3* shows that the number of observations included in the analyses increase almost by more than three times compared to the *Model 1.2*. Therefore, the study aims to prevent producing biased results but intent to present a robust systematic analysis. The second reason is to see the effects of other independent variables except the corruption on the study's dependent variable since global economic environment is open to fluctuations, crises, and drastic changes even in a short period of time. For instance, while the 1990s witnessed several economic and financial crises in some East Asian, Latin American, and post-communist countries by mainly resulting from mismanagement of resources and erroneous adjustment policies to global economy, countries

Table II: Regression Analysis for the effect of corruption on Economic growth for different income levels

VARIABLES	(Model 1.4) Non-OECD	(Model 1.5) Low Income	(Model 1.6) Middle Income	(Model 1.7) High Income
Corruption	0.017 (0.037)	-0.009 (0.052)	0.023 (0.056)	-0.053 (0.053)
Foreign Direct Investment (% of GDP)	0.042 (0.04)	0.103* (0.054)	0.157*** (0.044)	0.0006 (0.013)
Government Consumption (% of GDP)	-0.037 (0.069)	0.066 (0.078)	-0.191 (0.156)	-1.41*** (0.18)
Time (Number of Calendar Days) Required for starting a business (Entrepreneurial Activities I)	0.007** (0.003)	-0.008 (0.008)	0.009** (0.004)	0.025 (0.021)
Startup Cost (Entrepreneurial Activities II)	-0.001 (0.002)	-0.0003 (0.002)	-0.002 (0.003)	0.09*** (0.03)
High Court Independence	0.574 (0.403)	2.93** (1.28)	-0.162 (0.345)	0.69 (1.33)
State Ownership of Economy	-0.188 (0.772)	-0.502 (1.66)	-1.13 (0.87)	-0.071 (0.79)
Political Stability	0.066*** (0.024)	0.09*** (0.031)	0.062** (0.031)	0.056* (0.032)
Income Level	-5.03*** (1.457)	-5.85** (2.48)	-4.84*** (1.802)	3.96 (4.42)
Constant	40.02*** (12.86)	36.21* (20.06)	46.50** (17.73)	-16.89 (46.57)
Observations	1129	338	801	350
R-squared	0.054	0.142	0.086	0.36

Robust standard errors in parentheses, ***p<0.01, **p<0.05, *p<0.1

Low Income: GDP per capita≤\$1100, **Middle Income:** \$1100<GDP per capita≤\$13600, and **High Income:** GDP per capita>\$13600

across the world in the post-2000 period experienced growth under more favorable global economic trend in which investments and mobility of capital increased, and hence prosperity of several countries improved as well. Put it in a nutshell, global economic trends are significantly different in 1990s and 2000s.

The results from *Models 1.2* and *1.3* indicate that corruption still does not have a significant negative effect on economic growth. Another significant difference is that significant negative effect of state ownership of economy on economic growth ($p < 0.1$) for the period of 1995-2005 as illustrated by the *Model 1.2*. While political stability and time required to start a business do not have a significant effect during the first ten-year period (*Model 1.2*), they both have significant effects for the second ten-year periods (*Model 1.3*) which shows the importance of the increase in the number of observations for the regression analysis.

The results from the Table II illustrate the effect of corruption on economic growth for non-OECD (Organization for Economic Cooperation and Development) countries, and for the countries with different income levels. The aim is to illustrate the relationship between corruption and economic growth among the countries with different levels of economic growth. By following this logic, countries divided into three different income groups: low, middle, and high by depending on the GDP per capita levels that they possess. Countries that have income level that are below the 25th percentile (less than or equal to \$1100) are classified as low income, ones that are between 25th percentile and 75th percentile (between \$1100 and \$13600) are classified as middle income, and the countries whose income levels are above \$13600 are classified as high income countries. Although not significant, corruption has a negative effect on economic growth for the countries with low (*Model 1.5*) and high income levels (*Model 1.7*).

However, it does not have a negative effect on economic growth among non-OECD countries (*Model 1.4*) and countries with middle income (*Model 1.6*).

The foreign direct investment has a significant positive effect on economic growth for countries with low income ($p < 0.1$, *Model 1.5*) and for the countries with middle income ($p < 0.01$, *Model 1.6*). This results indicates that countries' economies with low and middle income levels are more investment dependent compared to high income level countries. In addition, the *Model 1.5* shows that high court independence is significantly positively associated with economic growth in countries with low income levels ($p < 0.05$) while the *Model 1.7* illustrates that government consumption (as % of GDP) is significantly negatively associated with economic growth in countries with high income levels ($p < 0.01$). Last but not least, political stability has a significant positive effect on economic growth for all of the models in Table II (*Model 1.4, 1.5, 1.6, and 1.7*) with varying significance levels. The smaller level of significance for high income countries can be explained by the already established efficiently functioning economic institutions in high income countries which –compared to low and middle income countries– are influenced less from changing political climate.

4.2. Results for the Model II: Democratic Institutions and the Corruption

Regression results from the Table IV show the specific democratic institutional dynamics that can have an effect on corruption. The *Model 3.1* illustrates that transparent rule making process and predictable enforcement of these rules have a highly significant negative effect on corruption where one unit increase in transparency is associated with a significant amount of decrease in corruption (6.909, $p < 0.01$). The *Models 3.2 and 3.3* show that Transparency continues to have its significant effect in both of the two decades (1995-2005 and 2005-2015). Although the level of significance does not change ($p < 0.01$), one unit increase in

transparency is associated with a decrease in corruption more in 1995-2005 period (7.956) than 2005-2015 period (6.474) as illustrated by the *Models 3.2* and *3.3*. In theoretical discussion, this study presented evidence from prior research that transparency and accountability are the two important pillars of democratic governance which can be effective tools in minimizing corruption level in a given country. Here the results show that transparent law making process and predictable enforcement of these laws and rules form an ‘inimical’ milieu to corruption. Therefore, predictability together with transparency are not only crucial for efficiency of democracies but also vital in restricting corrupt behaviors across the world.

What is more, the *Model 3.1* illustrates that high court independence appears as the other outstanding democratic institution that can limit corruption. One unit increase independence of this crucial judicial institution is associated with a notable amount of decrease in corruption (2.202, $p < 0.05$). The result is consistent with current study’s expectations since a corrupt act can efficiently be limited by legal and judicial institutions. Presence of laws and courts that pursue and persecute corrupt officials can provide beneficial consequences for a country’s fight against corruption. As it is discussed in the prior research section, one of the significant reasons for continuous problem of corruption in democratic countries like India and Pakistan is related to either absence of an independently functioning judiciary or lack of will (courage in some cases) by judicial bureaucrats to pursue and condemn a corrupt act. Therefore, the principle of state of law with its independent legal and judicial institutions can be an insurmountable obstacle for a public official in his/her journey to divert from moral principles. Similar to the

Table III: Regression Analysis for the institutional determinants of Corruption

VARIABLES	Model 3.1 Corruption	Model 3.2 Corruption (1995-2005)	Model 3.3 Corruption (2005-2015)
Executive Constraints	-0.484 (0.689)	-0.283 (1.02)	-0.548 (0.652)
Transparent Laws with Predictable Enforcement	-6.909*** (1.457)	-7.88*** (2.04)	-6.382*** (1.338)
Freedom of Press and Media	2.077** (1.003)	3.261** (1.54)	1.394 (0.932)
High Court Independence	-2.202** (0.950)	-2.78** (1.31)	-1.839** (0.862)
Power Distribution by Socioeconomic Position	-1.421 (1.084)	-1.15 (1.22)	-1.557 (1.097)
Property Rights	-1.397 (4.656)	-0.009 (5.73)	-2.349 (4.726)
Political Stability	-0.389*** (0.0444)	-0.417*** (0.058)	-0.375*** (0.046)
Constant	104.4*** (3.178)	103.87*** (3.81)	104.53*** (3.29)
Observations	1962	685	1,277
R-squared	0.703	0.692	0.710

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

transparency variable, restrictive effect of high court independence on corruption is bigger for the period of 1995-2005 (2.78) than the period of 2005-2015 (1.84) as the *Models 3.2* and *3.3* illustrate ($p < 0.1$). Since the effects of transparency and high court independence on corruption larger in the period of 1995-2005 (*Model 3.2*) but decreases in the following decade (*Model 3.3*), the results produce new dilemmas for the future research. Whether the significance of crucial democratic institutions such as transparency and high court independence diminishes in fight against corruption must be inquired. All in all, in the light of empirical findings, it can be inferred that transparent rule making process and predictable enforcement of these rules in addition to high court independence are the two outstanding democratic institutions that can significantly reduce corruption. Therefore, in the light of these findings, H3a (*Transparency of law/rule-making process and predictable enforcement of these laws can decrease the level of corruption*) and H3b (*Independence of High Court can decrease the level of corruption*) are both confirmed.

Unexpected results occurred however in terms of a government's attitude towards media, freedom of press and speech and its effects on corruption. The regression analysis found a significant positive effect of press freedom on corruption (*Model 3.1*). In other words, one unit increase in media's freedom is associated with a significant degree of increase in corruption (2.077, $p < 0.05$). While this independent variable continues to have its positive effect on corruption in the period of 1995-2005 (*Model 3.2*), it does not have a significant effect for the following decade (*Model 3.3*). These results are puzzling since one would expect that press freedom would be a crucial component in a government's fight against graft. However, results might implicate that in corrupt governments too one can observe presence of free media and little or no interference by government to media's affairs. Another reason might be the perception that a free media creates. In countries which have freedom of press and media, a corrupt act would not remain unnoticed, and corruption related crimes would be pursued by the

media. Therefore, in a country with a free press, corruption might find a significant amount of coverage by the television broadcast and newspapers which can create a misperception of intense level of corruption in the country. This might lead people to perceive the existing level of corruption more than the actual corruption. In other words, increase in media freedom might be associated with more coverage of corruption related crimes by the media, and hence, higher levels of corruption perception. In any case, these results illustrate need for further research over the relationship media freedom and corruption. In the lights of these findings, *H3c*, *H3d*, *H3e*, and *H3f* are all rejected. Lastly, political stability appears to have a significant negative effect on corruption as indicated by the *Model 3.1*, and continues to have such a significant negative effect in both of the decades as put forward by the *Models 3.2* and *3.3* ($p < 0.01$). It can be interpreted that countries that experience fewer governmental changes and suffer less from political turmoil might be more successful in minimizing graft in their political and economic environments. Therefore, in the light of these results, the *H4b* (*Political stability has a restrictive effect on corruption*) is confirmed.

4.3. Results for the Model III: Corruption and Democracy

The *Models 4.1*, *4.2* and *4.3* illustrate the regression analysis results for the third model where the democracy is the dependent variable (Table V). While corruption does not appear to have a significant negative effect on democracy for the whole period of 1995-2015, it has a negative effect for the period of 2005-2015, a time period in which this study has more observations (*Model 4.3*). In the period of 1995-2005 regression analysis observes a negative effect which is not significant (*Model 4.2*). However, only in the period of 2005-2015,

Table IV: Regression Results for the Model III

VARIABLES	(Model 4.1) Democracy	(Model 4.2) Democracy (1995-2005)	(Model 4.3) Democracy (2005-2015)
Corruption	-0.047 (0.03)	0.016 (0.03)	-0.08** (0.036)
Income Level	0.804** (0.386)	1.488*** (0.44)	0.54 (0.43)
Oil and Gas Dependence	-3.62*** (1.24)	-2.903** (1.18)	-3.93*** (1.324)
Religion (Islam)	-5.02*** (1.08)	-5.84*** (1.24)	-4.67*** (1.06)
British Colonialism	-0.71 (0.848)	-0.38 (0.93)	-0.7 (0.856)
Political Stability	-0.012 (0.02)	0.008 (0.02)	-0.027 (0.023)
Constant	3.22 (4.84)	-7.43 (4.95)	7.82 (5.62)
Observations	2215	711	1504
R-squared	0.381	0.434	0.369

Robust standard errors in parentheses,
 *** p<0.01, ** p<0.05, * p<0.1

corruption has a significant negative effect on democracy in which one unit increase in level of corruption is associated with a decrease in democracy score of a country by 0.08 ($p < 0.05$, Model 4.3). For example, a 25th percentile corresponds with a corruption score of 48 while 75th percentile corresponds with a corruption score of 78. If the corruption score of a given country increases by 30 points and the country falls to 75th percentile, it corresponds with a decrease in democracy score by 2.4 unit. In *Polity IV* dataset, countries that are above the six point (between the scale of -10 to +10) are conceived as democracies, and 2.4 point can be crucial in defining whether a country is being democratic or not. Therefore, the results illustrate that corruption might have extensive negative influence on a country's democratic state structure.

Why do we observe a significant negative effect of corruption on democracy during the period of 2005-2015 but not during 1995-2005 or in overall period of 1995-2015? One of the significant reasons might be related to a large body of missing corruption data for the period of 1995-2005. As it was mentioned before, the CPI data only covers corruption data for 41 countries in 1995 which reaches to 160 countries in 2006 and 170 in 2015. Compared to the 1995-2005 period, Transparency International has corruption scores for more countries for the decade of 2005-2015. Therefore, together with the inclusion of more countries to the corruption data set (mostly non-western countries with weak democracies) the period of 2005-2015 runs regression analysis over more observations (1504) than the period of 1995-2005 (711) which is helpful in reaching to a result consistent with theoretical assumptions. In addition, it can also be argued that democratic countries might have become more successful in their fight against corruption compared to the previous decade of 1995-2005. In other words, the empirical analysis illustrate that the level of corruption observed in democratic countries significantly decreased during the period of 2005-2015. In the lights of statistical regression results, the H2 (*Corruption has a negative effect on democracy*) is confirmed.

Another finding the regression analysis presents is that the statistically significant effect of income level on democracy (*Model 4.1*). The *Model 4.1* from Table V illustrates that one unit increase in income level is associated with a 0.804 unit increase in a democracy score of a given country for the period of 1995-2015 ($p < 0.05$). While income level has a bigger effect on democracy with a more significant p value ($p < 0.01$) during the period of 1995-2015 (*Model 4.2*), it does not have a significant positive effect on democracy for the following decade as the *Model 4.3* illustrates. One interpretation for this phenomenon would be the increasing income level in the countries that either has no democratic regimes or weak democratic institutions during the period of 2005-2015.

The other independent variable that has a significant negative effect on democracy for the overall period of 1995-2005 is Religion (Islam) (*Model 4.1*). The findings illustrate that in countries with predominantly Muslim populations, democracy score decrease by 5.02 ($p < 0.01$). The Religion independent variable continues to have its significant negative effect on democracy both in during the period of 1995-2005 (5.84, *Model 4.2*), and in period of 2005-2015 (4.67, *Model 4.3*) with the same p value ($p < 0.01$). A slight decrease in the second decade of 2005-2015 can be interpreted as the positive influence of increasing democratization process in some major Muslim countries during the post-2000 era (i.e. Turkey, Malaysia, and Indonesia) and countries that experienced democratic shifts after the Arab Spring (Tunisia and Egypt for a brief period). Last but not least, the last independent variable that has a significant negative effect on democracy during the overall period of 1995-2015 is oil and gas dependence (*Model 4.1*). During this era, countries which are dependent on oil and gas resources have a decrease in their democracy scores by 3.62 unit ($p < 0.01$). The oil and gas dependence continues to have its significant negative effect in both of the decades of 1995-2005 (*Model 4.2*) and 2005-2015

Table V: Income-based Regression Results for the Model III

VARIABLES	(Model 4.4) Non-OECD	(Model 4.5) Low Income	(Model 4.6) Middle Income	(Model 4.7) High Income
Corruption	-0.008 (0.057)	-0.052 (0.093)	-0.095** (0.048)	0.024 (0.03)
Income Level	0.561 (0.491)	-0.798 (1.787)	2.26*** (0.712)	0.657 (0.785)
Oil and Gas Dependence	-3.364** (1.505)	1.135 (1.93)	-2.27* (1.31)	-1.006 (1.221)
Religion (Islam)	-4.904*** (1.102)	-0.251 (1.537)	-5.476*** (1.242)	-16.24*** (1.676)
British Colonialism	-0.063 (0.982)	0.285 (1.598)	2.23** (1.04)	-0.967 (1.254)
Political Stability	-0.022 (0.027)	0.034 (0.043)	-0.051* (0.026)	0.028** (0.014)
Constant	2.04 (6.89)	10.29 (13.32)	-4.54 (8.16)	-0.25 (8.97)
Observations	1643	467	1139	609
R-squared	0.235	0.029	0.362	0.878

Robust standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Low Income: GDP per capita≤\$1100, **Middle Income:** \$1100<GDP per capita≤\$13600, and **High Income:** GDP per capita>\$13600

(*Model 4.3*). The results regarding the oil and gas dependence is in line with the expectations of this study derived from the theoretical assumptions and in line with the results obtained by Ross' study (2001).

Since the results in Table V does not indicate a significant negative effect of corruption on democracy, the current study seeks to present a deeper analysis by investigating the effects of corruption on democracy by taking the income levels of countries in the data set as datum. As it is illustrated in Table VI, there are four different models that aim to measure effect of corruption in countries with varying income levels. The *Model 4.4* illustrates the results for countries which are not members of OECD. The OECD is mostly composed of countries with relatively well-developed economies and consolidated democracies, and hence, the *Model 4.4* aims to measure effect of corruption on countries that are not member of such a union. The results illustrate that corruption still does not have a significant negative effect on democracy in non-OECD countries as well. Similar to the results from the Table V, Religion and the Oil and Gas Dependence are the only two IVs that have significant negative effect on democracy, while income level does not have such an effect on non-OECD countries (*Model 4.4*).

In addition, the study divided the countries in the data set into three different sub groups depending on their GDP per capita as by following the same logic and methodology that was used for the first model. The results indicate that only in countries with middle income level (with a GDP per capita bigger than \$1100 and \$13600) corruption has a significant negative effect on democracy ($p < 0.05$, *Model 4.6*). For example, when a middle income country with a corruption score of 48 (25th percentile) experiences 30 point increase in its corruption score (75th percentile), it associates with a 2.85 decrease in its *Polity IV* democracy score (between the scale of -10 to +10) which is a significant decrease and illustrate the detrimental effects of corruption on democracy in middle income countries. The results that *Model 4.6* presents are robust since the low income countries have more observations than the number of observations

within the *Models 4.5* and *4.7*. However, such a significant relationship does not occur neither in low nor in high income countries (*Models 4.5* and *4.7*). Therefore, results can be interpreted in the sense that corruption's deleterious effects depend on the income level of countries in which while the low and high income countries' democracies might suffer less from corruption, countries with middle income experience harmful effects of corruption on their democracies more significantly. Except the low income countries, the Religion independent variable has a significant negative effect on democracy in all of the three models in the Table VI. ($p < 0.01$), while as illustrated by the *Model 4.4*, Oil and Gas Dependence only has a significant negative effect on non-OECD countries' democracy scores ($p < 0.1$). Both income level and British Colonial History appear to have a significant positive effect ($p < 0.05$) on democracy among the middle income countries (*Model 4.6*) while political stability appears to have a significant positive effect ($p < 0.05$) on democracy among the high income countries (*Model 4.7*).

Why the democracy in the middle income countries are affected more negatively from corruption than low and high income countries? There might be some reasons that put middle income countries in a more vulnerable position against corruption. First of all, most of the low income countries have autocratic state structures with totalitarian regimes which either prevent corruption by introducing severe penalties (such as death sentence) or these countries cover corrupt acts and hide them from public since the regime is not accountable. Therefore, it might be harder to detect the effect of corruption on low income countries. When compared to high income countries, middle income countries are mostly in a transition state in which they are either young democracies with newly established state institutions or experience authoritarian and democratic tides. On the other hand, most of the high income countries are long term democracies with relatively well functioning institutions which are less prone to the effect of corruption compared to the middle income countries.

4.4. Conclusion

Three different regression models are built to measure (i) effect of corruption on income level and economic growth, (ii) effect of corruption on democracy, and (iii) effect of certain democratic institutions on corruption itself. The results illustrate that corruption does not appear to be negatively associated with economic growth. In the second model, corruption appears to have a significant negative effect on democracy for the period of 2005-2015, a period in which this study has more observations compared to the decade of 1995-2005. In addition, among, non-OECD, low, middle, and high income countries, corruption is only negatively associated with democracy in middle income countries. Last but not least, transparency and high court independence are the two specific democratic institutional dynamics that can have a significant amount of restrictive effect on corruption.

CHAPTER V: CONCLUSION AND IMPLICATIONS

The main puzzle that guided this study is the existence of remarkable degree of corruption in countries which are still able to grow economically. In addition, one can observe that some of these countries are known for their relatively long time democratic state structures. Such an observation creates intriguing questions when one takes the dominant body of academic literature over corruption in which corruption is conceived as detrimental to both economic growth and democratization processes of countries. With reference to observations derived from current political and economic environment and by following the insights from the theoretical literature on political economy of corruption, in this thesis, I aimed to answer following questions: (i) what is the effect of corruption on a country's economic growth process? (ii) What kind of an effect does corruption have on a country's democracy? (iii) Which types of democratic institutional mechanisms can put constraints on corruption?

One of the most important functions of this thesis is to bring a comprehensive update to the relationship between corruption, economic growth, and democracy. The existing research on the relationship between corruption and economic growth oscillates between the idea of "*corruptions greases the wheels of economic growth*" which conceives corruption as a necessary evil for economic development and the idea that "*corruption sands the wheels of economic growth*" which claims the opposite. In terms of the relationship between corruption and democracy, there is a significant absence in the literature regarding the specific democratic mechanisms that are hostile to corrupt behaviors. However, it can still be argued that the issue of corruption is relatively well discussed by previous researches, and in this study, I attempt to fill some certain gaps and aim to contribute current knowledge over the relationship between corruption, economic growth, and democracy. Firstly, this thesis investigates the effect of corruption on economic growth, and democratization rather than analyzing these two

phenomena separately which provides the ability of incorporating political and economic dynamics into the same research. Secondly, the methodological approach embraced by the current study helps to develop a comprehensive point of view towards threefold interaction between corruption, economic growth, and democratization by employing the means of quantitative research methodology into its analysis. Thirdly, the thesis unveils the relationship between corruption and democracy by analyzing the effects of specific democratic institutions on corruption which is a novel approach for the literature. Last but not least, by analyzing 170 countries during the period of 1995-2015, this thesis updates the existing body of knowledge over the relationship between corruption, economic growth, and democratization.

As mentioned above, in this thesis I utilize the means of quantitative research methodology which helps to produce empirical results. By following this logic, two different regression models (OLS and Fixed Effects Analysis) are employed to measure the effect of corruption on economic growth and democratization, and also influence that certain democratic institutions exert on corruption for the period of 1995-2015 among 170 countries. By employing the time series cross sectional (panel) data from the Corruption Perception Index (CPI) of Transparency International for the period of 1995-2015, this thesis builds three different analytical models to measure (i) the effect of corruption on countries' economic growth processes, (ii) the effect of corruption on democracy itself, and (iii) effects of certain democratic institutions derived from Varieties of Democracy (V-DEM) data set on corruption. In the first model, the dependent variable of the study is "Economic Growth" of the countries which is measured by the annual GDP growth rate (as %), while in the second model "Democracy" is the dependent variable of the study, and it is measured by the polity score of countries. In the last model, corruption is taken as the dependent, and the study borrows CPI for its measurement of corruption.

The statistical analysis brings forth interesting results since it is found that corruption is not significantly negatively associated with economic growth. The study also does not reach to a significant result when the countries are divided into three different sub-groups depending on their income levels (low, middle, and high) which leads the thesis to reject the first hypothesis. Why the current study does not find a significant negative association between corruption and economic growth despite a significant body of researches that views corruption as detrimental to economic growth? First of all, the results are dependent on the nature of corruption data that the study utilizes and the issue will be unveiled in upcoming paragraphs. Secondly, existence of countries with high levels of economic growth and corruption might cloud the negative effects of corruption on countries with weak economies in the regression analysis. For example, China and India are the two countries which takes the first two ranks in terms of growth rates during the last decade but they also have a significant amount of corruption for a long period of time. Therefore, the results fail to reach a significant negative effect since some countries continue to have remarkable positive growth numbers despite having high levels of corrupt activities in their institutions. However, it should also be noted that results do not also indicate that corruption is conducive for growth as it is put forward by the proponents of “corruption greases the wheels of economic growth” argument since the current study does not find evidence to support this idea.

On the other hand, the regression analysis finds that corruption is significantly negatively associated with democracy among the countries with middle income and for all of the 170 countries during the period of 2005-2015. Therefore, differently from the first model, the study finds a significant negative effect of corruption on the second main dependent variable of the study which is democracy. The question of why corruption has a significant negative effect on the middle income countries only is intriguing. The institutions in the middle income countries are not well-established as they are in the high income countries which make them

more prone to corrupt activities. In addition, most of countries that are in the middle income category are either in democratization processes or newly established young democracies, and such a process might lead to observe more corruption compared to the high income countries. The low income countries on the other hand mostly consist of autocratic regimes and have no democratic state structures. In such regimes, autocratic leaders either do not let corruption to reach alarming levels since there might be harsh punishments like death penalties or these regimes cover the act of corruption and makes its detection and condemnation difficult. These might be the reasons behind not reaching to a significant negative effect of corruption on low income countries.

In the last third model, current study finds that transparent rule making and predictable enforcement of these rules and high court independence are the two main democratic institutional mechanisms that are significantly negatively associated with corruption. In other words, transparency in governance and rule making process in addition to judicial independence are the two democratic institutions that can restrict graft most efficiently. It should also be mentioned that the second model which analyzes the relationship between corruption and democracy and the third model that investigates the relationship between democratic institutions and corruption should not be taken as completely separate from each other but rather can be viewed as interrelated models which unfold the respective interaction between corruption and democracy. By designing these two different models which takes corruption both as independent and dependent variables, this study tries to clarify bi-directional relationship between democracy and corruption as much as possible.

In general, in this study, I aimed to satisfy two main criteria –in terms of defining research topic and the research questions– defined by the preminent study of King, Keohane, and Verba (1994);

First, a research project should pose a question that is “important” in the real world. The topic should be consequential for political, social, or economic life, for understanding something that significantly affects many people’s lives, or for understanding and predicting events that might be harmful or beneficial. Second, a research project should make a specific contribution to an identifiable scholarly literature by increasing our collective ability to construct verified scientific explanations of some aspect of the world (pp. 15, King et al., 1994).

While evaluated from the perspective of King et al., the current study satisfies the expectations of the both of the criteria. First of all, the main research questions posed by this study is important for the real world and have implications for the political and economic spheres, in addition to tackling with an important problem that influence people’s daily lives. As a phenomenon which occupies world’s political, economic, and social agendas for centuries, corruption and its effects on economic growth and democratization worth studying in order to draw implications for its detrimental effects and define specific policies to restrict its spill-over nature. Secondly, I believe that I make a relatively significant contribution to the literature over corruption (i) by updating the current body of knowledge over its effects on economic growth and democratization, (ii) defining specific democratic institutional mechanisms that can restrict corruption most, and (iii) measuring the effect of corruption on economic growth and democratization by taking different income levels into consideration.

The current study possesses some certain weaknesses and limitations as well. First of them would be related to the nature of one of the most important variables utilized by the thesis which is corruption data of the CPI. The corruption data provided by the CPI is based on perception of corruption rather than the actual corruption itself. Although it is hard to measure the actual corruption mainly because of the clandestine nature of a corrupt act, the perception of corruption may not completely reflect the actual level of corruption in a given country. Objectivity of perception is open to discussion and perception of a certain socio-political event is open to influence from media, political environment, and socio-economic class that people belong. Therefore, questions regarding the validity and reliability may arise. What is more,

there is missing corruption data especially for the period of 1995-2000 where Transparency International did not include several countries into its data collection process. This in turn decreases the number of observations in regression analysis which impacts the statistical explanatory power of the current study negatively. Last but not least, the CPI data is available for only the period of 1995-2015 which may be evaluated as a short period of time to draw general implications for the effect of corruption over economic growth and democratization. In order to present a comprehensive analysis that can be drawn generalizations over the effect of corruption on economic growth and democratization, a longer time interval would be more useful. Therefore, these issues stand as the main weaknesses and limitations for the current study.

Another weakness might be related to the variables included in the first model which aims to analyze the relationship between corruption and economic growth. This study relies on Barro's influential study on determinants of economic growth (1996) in order to define the independent variables that might have an effect on economic growth of a given country. By following the main premises of Barro's analysis, current study also incorporated variables such as political stability, government consumption, investment, and judicial independence into its analysis. However, for a more robust analysis, a different and contemporary growth model can be developed which should rely more on current techniques provided by econometrics rather than solely replicating Barro's model. Therefore, the model specification for the first model of this study (corruption and economic growth) might be insufficient and it is open to improvement.

For the future research, it would be better to develop new methods for collection of more accurate and factual data regarding the corruption rather than incorporating only the perception over corruption into the data set. This would be helpful in generating more effective and useful results, and can also help to develop effective policies in fight against the corruption. Secondly,

there is a need for additional case studies which should (i) assess political and economic outcomes of existing corruption not only in countries with weak economies and undemocratic regimes but also within the western democracies with developed economies (ii) determine specific economic and political institutional mechanisms that can detect, pursue, deter, and condemn a corrupt act, and (iii) define specific socio-political and economic contexts that are (more) open or (more) hostile to corrupt behaviors which would be helpful in differentiating the changing effects of corruption on varying political landscapes and also finding effective context-dependent solutions for the corruption.

In terms of policy implications, this study illustrates that democracy in the middle income countries are more prone to be affected negatively from corruption. Governments in the middle income countries should strengthen their institutions in terms of decreasing informal web of relations by increasing accountability and cutting the red tape. In addition, the middle income countries should put efforts to increase transparency in their law-making processes and enforce these rules in a predictable manner which can be helpful in fighting against corruption. Last but not least, independent courts are crucial in terms of detection and condemnation of corrupt activities. Therefore, the governments in the middle income countries should support independent structure of courts and not interfere with working principles of judiciary in their countries.

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