



UNIVERSITI PUTRA MALAYSIA

***GOVERNMENT EFFICIENCY AND ECONOMIC DEVELOPMENT IN
SELECTED COUNTRIES***

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**GOVERNMENT EFFICIENCY AND ECONOMIC DEVELOPMENT IN
SELECTED COUNTRIES**

By

MARYAM JAFARI GALOORYEK

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of
Doctor of Philosophy**

January 2016



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DEDICATIONS

I dedicate this

To my ever-lovely Father and Mother

To my lovely sisters

And

To my tolerant husband



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment
of the requirement for the Degree of Doctor of Philosophy

GOVERNMENT EFFICIENCY AND ECONOMIC DEVELOPMENT IN SELECTED COUNTRIES

By

MARYAM JAFARI GALOORYEK

January 2016

Chair : Associate Prof. Zaleha Bt Mohd Noor, PhD
Faculty : Economics and Management

The financial crisis that lasted from 2007 to 2009 highlighted the inabilities of markets to manage macroeconomic variables. In addition, the inefficiency of free markets has led us to approve of government intervention. Nevertheless, it is necessary to remind ourselves that sometimes governments create fluctuations and make mistakes when developing policies in an economy. The recent economic crisis in the Eurozone gives reason to highlight the incompetence and inefficiency of the European governments who caused the situation to deteriorate. As a result, most experts believe that the recent economic crisis has been the crisis of governments. Hence, most economists explain that to make development and positive progress, societies not only need a powerful government to achieve a better situation, but they also require a good government, as it is one of the most effective tools to reach the goals of countries. Although a good government is recognized and defined by different criteria, such as good people, good process, good accountability, good performance, and good standard, investigating all the aspects of good government is beyond our study's purpose. Based on a theoretical background, we have concentrated on government efficiency as one of the primary requirements for defining a good government. However, it would be interesting to observe how the efficiency of governments could affect economic development progress. Accordingly, in the first step, we applied a Stochastic Frontier Analysis (SFA) model to estimate government efficiency by considering the factors that created inefficiency in 49 countries during the years between 1996 and 2013. The efficiency of central governments has been structured based on the Opportunity and Musgravian indicators. The SFA method is able to consider the explanatory variables that influence the level of inefficiency. In addition, the result of this research illustrates that government efficiency does not solely depend on the level of a country's income.

The second objective concerns the effects of government efficiency on human development as a proxy to development. To this aim, we have listed 49 countries in three income groups: high, middle, and low income, over the period spanning 1996 to 2013. The positive relationship between government efficiency and the economic

development process, by assuming the different level of income, has been represented by using the dynamic panel data method, known as System GMM. Finally, regarding the dawn of the crisis in developed countries, especially those in Europe, happened when governments concentrated on fulfilling their financial policy package through the injection of capital and liquidity. This hasty decision was a catalyst to sparking the difficulties of repaying their debt. Thus, the impact of the inefficiency of governments on government debt has been analyzed for 6 selected European countries using the Pooled Mean Group (PMG) model between 1996 and 2013. The estimation of this relationship has subsequently found a positive link between government inefficiency in the economic responsibility of government and government debt, which was intensified in the economic crisis. On the other hand, the role of government in an economy was not rejected, but rather government inefficiency has been introduced as an obstacle to the economic development process.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

KECEKAPAN KERAJAAN DAN PEMBANGUNAN EKONOMI NEGARA- NEGARA TERPILIH

Oleh

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Krisis kewangan yang berlangsung 2007-2009 menekankan kebolehan pasaran untuk menguruskan pembolehubah makroekonomi. Di samping itu, ketidakcekapan pasaran bebas telah membawa kita untuk bersetuju dengan campur tangan kerajaan. Walau bagaimanapun, ia adalah perlu untuk mengingatkan diri kita bahawa kadangkala kerajaan mewujudkan turun naik dan membuat kesilapan apabila membentuk polisi dalam ekonomi. Krisis ekonomi baru-baru ini di Zon Eropah memberikan sebab untuk menyerlahkan ketidakcekapan dan ketidakcekapan kerajaan Eropah yang menyebabkan keadaan merosot. Hasilnya, kebanyakan pakar-pakar percaya bahawa krisis ekonomi baru-baru telah menjadi krisis kerajaan. Oleh itu, kebanyakan ahli ekonomi menjelaskan bahawa untuk membuat pembangunan dan kemajuan positif, masyarakat bukan sahaja memerlukan kerajaan yang kuat untuk mencapai keadaan yang lebih baik, tetapi mereka juga memerlukan sebuah kerajaan yang baik, kerana ia adalah salah satu alat yang paling berkesan untuk mencapai matlamat negara. Walaupun kerajaan yang baik diiktiraf dan ditakrifkan mengikut kriteria yang berbeza, seperti orang yang baik, proses yang baik, akauntabiliti yang baik, prestasi yang baik, dan standard yang baik, menyiasat semua aspek kerajaan yang baik adalah di luar tujuan kajian kita. Berdasarkan latar belakang teori ini, kami menumpukan kepada kecekapan kerajaan sebagai salah satu syarat utama untuk menentukan kerajaan yang baik. Walau bagaimanapun, ia akan menjadi menarik untuk melihat bagaimana kecekapan kerajaan boleh menjejaskan kemajuan pembangunan ekonomi. Oleh itu, dalam langkah pertama, kami menggunakan satu Stochastic Frontier Analisis (SFA) model untuk menganggarkan kecekapan kerajaan dengan mengambil kira faktor-faktor yang mewujudkan ketidakcekapan dalam 49 buah negara pada tahun-tahun antara 1996 dan 2013. Kecekapan kerajaan pusat telah distruktur berdasarkan Peluang dan petunjuk Musgravian. Kaedah SFA mampu mempertimbangkan pembolehubah penerangan yang mempengaruhi tahap ketidakcekapan. Di samping itu, hasil kajian ini menunjukkan bahawa kecekapan kerajaan tidak semata-mata bergantung kepada tahap pendapatan negara.

Objektif kedua adalah berkenaan dengan kesan kecekapan kerajaan kepada pembangunan manusia sebagai proksi untuk pembangunan. Untuk tujuan ini, kami telah menyenaraikan 49 negara dalam tiga kumpulan pendapatan: tinggi, pertengahan, dan berpendapatan rendah, tempoh yang merangkumi tahun 1996 hingga 2013. hubungan positif antara kecekapan kerajaan dan proses pembangunan ekonomi, dengan menganggap tahap yang berbeza pendapatan, telah diwakili dengan menggunakan kaedah panel data yang dinamik, yang dikenali sebagai Sistem GMM. Akhir sekali, mengenai fajar krisis di negara-negara maju khususnya di Eropah, yang berlaku apabila kerajaan tertumpu kepada memenuhi pakej dasar kewangan mereka melalui suntikan modal dan mudah tunai. Ini keputusan terburu-buru adalah pemangkin untuk mencetuskan kesukaran membayar balik hutang mereka. Oleh itu, kesan ketidakcekapan kerajaan hutang kerajaan telah dianalisis untuk 6 negara-negara Eropah dipilih menggunakan model Pemusatan Min Kumpulan (PMG) antara tahun 1996 dan 2013. Anggaran hubungan ini kemudiannya mendapati kaitan yang positif antara ketidakcekapan kerajaan dalam tanggungjawab ekonomi kerajaan dan hutang, yang telah dipertingkatkan pada krisis ekonomi. Sebaliknya, peranan kerajaan dalam ekonomi yang tidak ditolak, tetapi ketidakcekapan kerajaan telah diperkenalkan sebagai penghalang kepada proses pembangunan ekonomi.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The world countries to face the challenge between empowering governments and relying on free markets in economies. Keynes showed that the occurrence of the economic recession between 1929 and 1936 was a result of imperfect markets; hence that is why we need a wide-ranging intervention from governments in general (Keynes, 1936). He believes that in spite of the neoclassic opinion, which explains how free markets can cause employees to decrease their wages voluntarily because of the willingness their employers have. In the real markets, we meet the prices and wage stickiness, and the laborers will not reduce their wages. Also, we continue to exist in an imperfect competitive situation. As a result, governments need to intervene in order to navigate the economy with the goal of achieving a perfect competitive equilibrium. Proponents of Keynes explain that a government forms the core of each society, and could be considerable in reducing the negative effects of economic shocks.

Nevertheless, it should be reminded sometimes that governments themselves make mistakes, and create fluctuations in order to take decisions regarding the economy. This problem might be a reason to worsen the level of standard living of residents and lessen the satisfaction of people. For example, the experience of the Eurozone countries demonstrates the inefficiency and incompetence of some of the European governments in causing a deteriorative situation. Therefore, the role of the government cannot be rejected, but also in order to recover and improve the economic conditions of the countries, we need the presence of a powerful and efficient government. In other words, a good government can play a significant role in nurturing the talents of a country's inhabitants in order to enhance the satisfaction of people and achieve the development process, stabilize an economic situation after economic shocks and crises, and also prevent the occurrence of a crisis happening again.

1.1.1 The Importance of Government Intervention in Economic Process

Most economists believe that the recent crisis came as a tornado and destroyed the economic infrastructures. This is due to the amount of erroneous policies and incorrect management techniques implemented to control and manage the economies. When we talk about managing and controlling the economy, we will unconsciously advertise the term "government". Each economy will be built on two pillars: market and government. A market is a social system through which purchasers and vendors interchange goods, services, and information. Smith (1776) explains that markets act under perfect competition without any failures; in other words, markets are always efficient. Nevertheless, the occurrence of the Great Depression caused more discussions, stating that societies need a supervisor to lead

an economy toward recovery and improvement after suffering economic shocks, and also to prevent the recurrence of economic violence in the future.

Keynes, in his book, *The General Theory of Employment, Interest, and Money*, has illustrated not only that the invisible hand of Smith might not push the economy into the best situation, but also it could lead an economy to fall into the bankruptcy trap (Keynes, 1936). Marangos (2006) has argued in the view of post Keynesians that the interventions of governments have resulted in the development of cultivated societies and has diminished the expenditure of evolution. Moreover, Holcombe (2005) classifies that the governments grew in the twentieth century because of economic shocks such as the Great Depression, in addition to political problems like the Second World War or the Cold War. In the twenty-first century, the growth of governments sizes is continuing. He has confirmed that the existence of big governments in the advanced countries can be a good reason to specify why markets could not accomplish their own duties alone. Figure 1.1 illustrates the trend of government expenditures as the percentage of GDP between 1995 and 2013 for G7 countries.

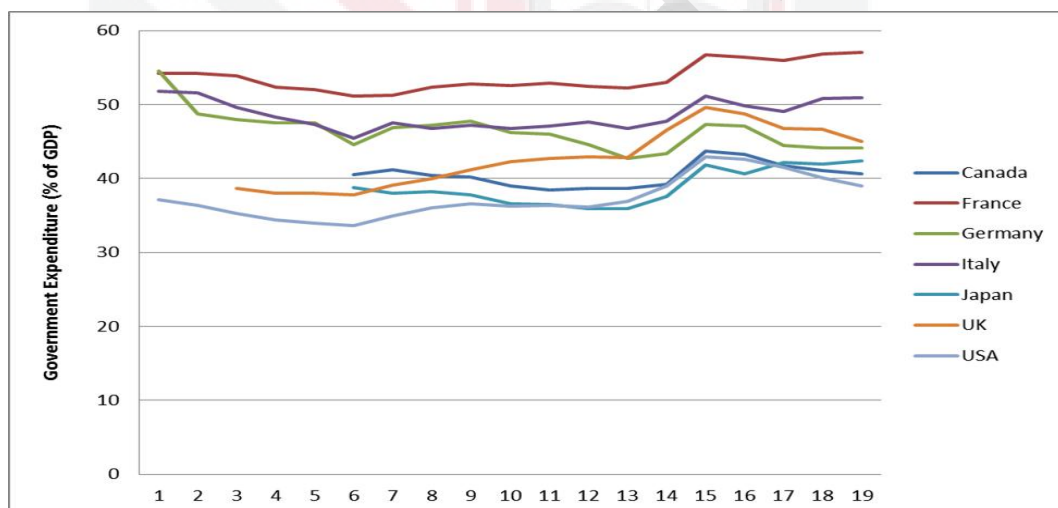


Figure 1.1 Trend of Annual Government Expenditure (% of GDP between 1995 and 2013)

As shown in this figure, government expenditure, as an indicator to explain the size of government, is something that even developed countries have not experienced with regards to the sharp decline in this index, in spite of the claim to decrease government intervention. In the time of the recent economic crisis (2008-2010) in particular, we could see the increase of government interference. However, although some economists reject the major impact of the government on economies, they claim that the government should not be considered as a main factor in economic policies and making decisions (Peters & Pierre, 1998; Strange, 1996; Thomas, 1997). The experience of the financial crisis (2007-2009) showed the theories of perfect and efficient markets have been flawed.

In addition, the bankruptcy of most firms in the capital markets, the movement of capital and labor in markets, globalization, and access to high technology have caused the role of government to be highlighted as having an important role in an economy. Moreover, the low level of standard of living in underdeveloped and developing countries, in addition to the increase of poverty, undernourishment, and illiteracy in Africa and many under developing countries and some other factors highlight the fact that we should not ignore the impressive existence of governments (Krugman, 2009a, 2009b; J. E. Stiglitz, 2010; Summers, 2011; Whalen, 2012).

1.1.2 The Concept of Good Government

Economists have always discussed about the appearance of governments (Adelman, 1999; Armev & Armev, 1995; D. V. Bell, 2002; Benáček, 1993; Borisova & Megginson, 2011; Breitenfellner & Wagner, 2010; Keynes, 1936; Smith, 1776), while liberals tend to declare that we do not need governments. Some extremists define the government as “a demon.” For example, in 1981 Ronald Reagan, the former president of the United States said, “government is not a solution to our problems; government is the problem.” Anti-government torrents have always tried to hobble and decrease the role of the government in the economy. They believe that governments are only a political tool to manage a society. On the other hand, the experience of different countries has illustrated that a government is necessary to produce and promote public goods, protect and manage societies during economic crises, shocks and natural disasters, create infrastructure, and finally develop social security. Although this issue does not mean that governments should always interfere in everything.

The government should play a positive role in order to balance the unbalanced economic and social situation. Perhaps, some economists and social scientists disagree with the attendance of government in the economy because they think that in most societies there is an undeniable poverty that has originated from an asymmetric and unaccountable economic policy that only relies on self-interest. However, if it is assumed that ultimate goal for each government is the increase in the level of satisfaction of its residents, therefore, to achieve this objective, a good government will be morally required to undertake the distributive justice for the society, rather than a traditional not government (Besley, 2011). Based on the report of the House of Commons, all governments can be considered as good governments when they are effective in building and implementing policies successfully (Committee, 2009). The concept of a good government is important, but at the same time very difficult to define; therefore, nobody has completely determined it yet (J. E. Stiglitz, Sen, & Fitoussi, 2010).

Before 2008, many experts believed that good governments could only be found in developed countries; however, the occurrence of the financial crisis in recent years has confirmed that the character of being good or bad for government, governance, and the state can be described for both groups of countries as thus; developed and developing societies (Rothstein, 2011). According to a report from the House of

Commons Public Administration Select Committee, being good for British Government can be described by the five indexes, which include: (Committee, 2009)

- Good people: means government ministers, civil servant, and public servants must be people who have the skills and abilities to work for a government effectively.
- Good process: explains how to choose the appropriate structure, system, and procedures in a suitable time and place.
- Good accountability: refers to be accountability of a government for as to the correct way to act, perform, and make decisions. For this aim, governments have to define their roles and responsibilities clearly.
- Good performance: effective performance is one of the important prerequisites to access the goals and objectives of each government.
- Good standard: displays high ethical standards via powerful ethical regulation and ethical leadership to ensure the confidence and public trust in government institutions.

Although, factors such as the size of government (Alesina & Angeletos, 2005), level of corruption (Kurer, 2005), democracy (Deininger & Mpuga, 2005), and perfect information (Banerjee, Kumar, Pande, & Su, 2010; Besley & Burgess, 2002; Ferraz & Finan, 2008; Humphreys & Weinstein, 2012) are notions to help governments to be good, in this research it has been defined based on the economic tasks. Therefore, good governments are efficient governments, which could accomplish their economic duties well. On the other hand, although most scholars declare that a good government is only a political issue, we would like to demonstrate the economic aspect of being good for a government.

1.1.3 Efficiency as one of the Important Indicators of Good Government

From a traditional viewpoint, governments have been introduced to provide public goods and services. Clearly, the production of public goods and services is a major obligation of governments, since the private sector has never tended to participate in the process, as it is not certain to achieve profit, and also because the markets failed to produce and supply these kinds of goods and services (Buchanan, 1965; Coase, 1974; Samuelson, 1954). Moreover, the level of welfare might be enhanced by supplying the public goods. Gradually, modern concepts like government size and expenditure were known as factors to impress the level of economic growth, welfare, and income inequality (Galor & Moav, 2004; Galor & Zeira, 1993; Maoz & Moav, 1999). Nevertheless, in recent years, several economic experts have affirmed what will increase and improve the level of economic growth; public welfare and standard of living, which are qualities of public finance (Afonso, Ebert, Schuknecht, & Thöne, 2005; Afonso & Fernandes, 2008; Barrios & Schaechter, 2008; Maiello, Viegas, Frey, & Ribeiro, 2013).

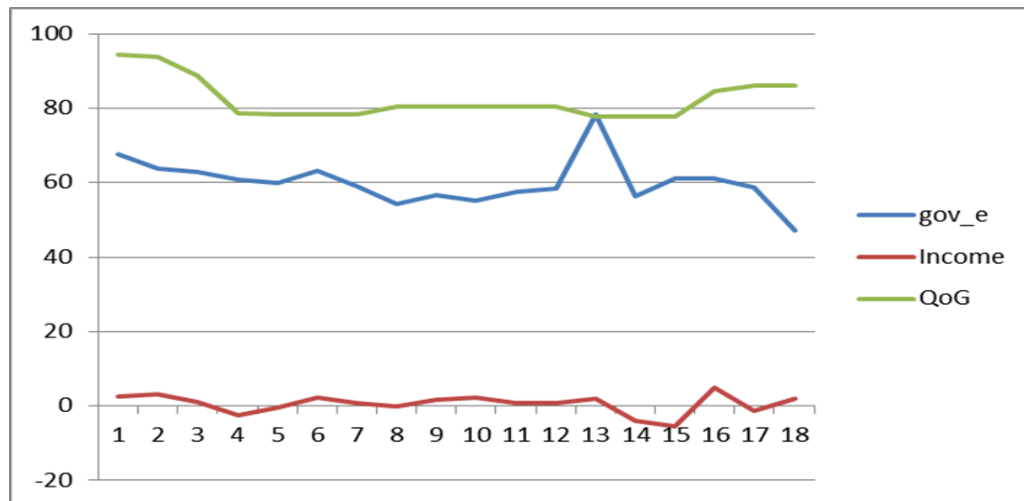


Figure 1.2 The Relation among Government Expenditures, Income Equality, and Quality of Government in Japan (1995-2013)

However, nowadays, societies are looking to achieve a comprehensive and crucial managerial system under the good government, which is able to control and manage the economic and noneconomic factors of the development process (Easterly & Levine, 1997; Hauner & Kyobe, 2010; Rothstein & Teorell, 2012). Figure 1.2 and 1.3 demonstrate the relationship between government expenditures and income equality as an indicator to highlight living standards, and also the quality of government in countries such as Japan and Malaysia. As shown, in Japan and Malaysia, government expenditure positively affects the level of income equality, although they have both experienced some tension regarding this matter. Nevertheless, an interesting point to note is that the positive effects of government quality on income equality are more than just government spending. We might conclude that today, the quality of public services and government is considered more important than the size of governments. This means that in new economies, we tend to concentrate on the quality of government, and not only government intervention.

Efficiency is one of the most important pre-requirements with regards to a good government, especially when it is based on the public and economic activities of governments to reach a good government (Rothstein & Teorell, 2012). On the other hand, over the past 30 years, the management of the public sector has gone through numerous significant changes, which according to the modern doctrine, governments have applied for efficiency to make their decisions and policies (Doumpos & Cohen, 2014). As a result, government efficiency has been transformed into one of the key issues in public finance. It means that the measurement of efficiency is a subject of continuing interest in different sectors of the economy. The governments undertake special responsibilities which, in terms of an economic view, they are categorized in two sectors: general responsibilities that provide the most essential infrastructures, such as education, health, public services, long time economic investment, social security, and even externalities.

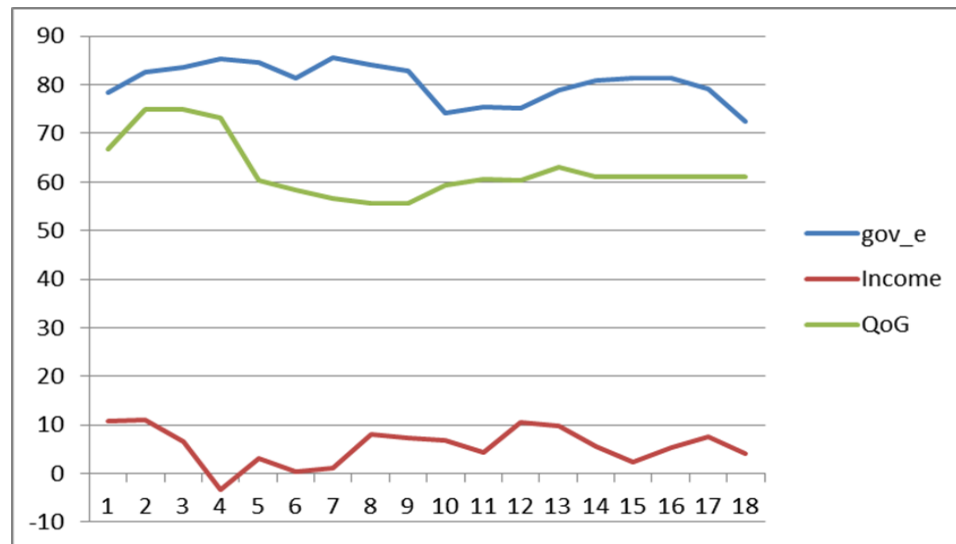


Figure 1.3 The Relation among Government Expenditures, Income Equality, and Quality of Government in Malaysia (1995-2013)

The second refers to professional economic obligations that include the allocation of economic resources, the distribution of income in each society, and economic stabilization in times of economic shocks and crises. According to the issue, in which the original responsibility of each economy is to allocate the infrequent resources to unlimited wanted of men by considering maximum utility, efficiency is an appropriate proxy to show the optimization of economic processes by maximizing the outcome to the fixed inputs in microeconomics and macroeconomics. Obviously, the efficiency of a government's activity follows this rule, because governments can be assumed as a major producer who combines the inputs to produce outputs in each sector. If the amount of more output is produced by spending less or even a constant level of input, it might be viewed an efficient government (Sanjeev Gupta & Verhoeven, 2001; Hsu, 2013). It ought to be mentioned that the development of government efficiency, as a board notion, has been concentrated along two certain lines.

Firstly, the majority of the studies on government efficiency have relied on the efficiency of government expenditures and economic growth (Hsu, 2013; Ventelou & Bry, 2006). Secondly, data envelopment analysis (DEA) is the most useful tool to address the estimation of government efficiency (Hsu, 2013; Sung, 2007; Varela, de Andrade Martins, & Fávero, 2010). However, in recent years, an interesting issue that has been discussed, especially after the occurrence of the economic crisis the in Eurozone in 2010, is whether the efficiency of government influences business cycles (Bergman & Hutchison, 2014, 2015; Calderón, Duncan, & Schmidt-Hebbel, 2012). In other words, the efficiency in the form of government expenditure policies could be a reason to conduct or prevent procyclicality. By evaluating what is explained above, we think the level of government efficiency might impress or even create business cycles and economic shocks, and also affect the development process. Furthermore, now there is real potential to use different economic tools to estimate government efficiency that they could consider the economic and non-economic variables, and also the factors that affect efficiency scores; such tools can include stochastic frontier analysis.

However, we should remember that in the most empirical economic studies, most economists prefer to emphasize the relation between governance and macroeconomic factors. Many economists and even politicians claim that the word 'government' is political. In addition, governments have been weakened to introduce the social and economic situation. Since government is a subset of governance, which has limitations in connecting and linking with other sectors, then we must use governance without government (Howlett, Rayner, & Tollefson, 2009; Peters & Pierre, 1998; Rhodes, 1997; Sullivan, 2000). Most theories and empirical studies have displayed that there is a meaningful, strong and positive correlation between the quality of governance and income per capita. Kaufmann and Kraay (2002), in their study of 175 countries have shown the relationship between income and governance could be assumed based on two dimensions: firstly, good governance causes higher income per capita. Secondly, there is not any correlation between income per capita and governance, but we also often witness the negative effect of income on governance.

This definition of good governance consists of the six indexes: (Kaufmann, Kraay, & Mastruzzi, 2010; "Worldwide Governance Indicator ", 2012)

- The rule of Law: a measurement to assess how to prevent crime and violence, and how to carry out contracts, the courts, and the police.
- Regularity Quality: demonstrates what happens with regards to the unfriendly policies on the market
- Government Effectiveness: refers to the dimension of governance to investigate the quality of bureaucracy and the delivery of public services
- Political Stability and Absence of Violence: the possibility of changing in a government, and violent threats such as terrorism
- Voice, and Accountability: a measurement concerning human, political, and civil rights
- Control of Corruption: explains the public power to capture the state by elite classes and according to the personal benefit

The range of each indicator of good governance is between -2.5 and +2.5. The positive relationship between good governance and income is the first result of focusing on these indexes. This means that the countries with the highest ranking of governance have a higher income in comparison with others, but the most important point is a one-way relationship between good governance and economic growth. In other words, the investigation of different countries shows how good governance can be a reason for increasing income. Nevertheless, such high levels of income could not undertake the high level of good governance indicators (Isomorphism problem). Another issue which should mentioned here, by studying the associated index of good governance, is, although the main goal for each society is the moving to the equal distribution of wealth and income, it seems that even good governance could not accomplish this successfully and that it forms the core of wealth in economies.

For example, as indicated by table 1.1, in spite of having a high ranking in the good governance index for countries like the United States, which also suffers from wealth inequality, the wealth, but the experience of governance in Bahrain highlighted that the distribution of wealth was located in better situations, although the governance meets the lower level of the good governance index (Dualism problem). Furthermore, Andrews (2010) explains the indicators of good governance have been chosen without any appropriate framework.

Table 1.1 The Relation between Good Governance and Distribution of Wealth (2012)

	V&A	PS&AV	GE	RQ	RL	CC	GINI Coefficient of Wealth ^a (%)
Cyprus	1.00	0.63	1.38	1.12	1.07	1.24	75.3
Denmark	1.69	0.90	1.92	1.79	1.85	2.39	70.1
Hong Kong	0.62	0.98	1.82	1.94	1.56	1.71	83.6
Netherlands	1.63	1.19	1.80	1.75	1.84	2.13	81.2
United States	1.12	0.63	1.51	1.29	1.60	1.38	85.2
Bahrein	-1.32	-1.13	0.54	0.69	0.28	0.39	59.1
Brunei Darussalam	-0.49	0.92	0.83	1.16	0.81	0.64	59.1
Pakistan	-0.87	-2.68	-0.79	-0.73	-0.91	-1.06	63.9

Sources:

- WGI data at www.govindicators.org
- a: Global Wealth data book, 2013

The first row represents Voice & Accountability, Political Stability & Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption and GINI Coefficient of Wealth respectively.

Finally, we might conclude what is called as the good governance index, is really a general indicator that is not exactly measureable for the majority of aspects of analyzing the good governance (Andrews, 2008, 2010). As a result, in most societies, we should apply a subset managerial system from governance which could carry out what an economy needs efficiently, while also considering the economic and non-economic factors which influence the economic activities simultaneously. The government may be an appropriate collection to undertake this responsibility, and we will aim in this research to introduce government efficiency as an indicator or requirement of a good government to accomplish general and economic responsibility well, and also increase the level of living standards and resident satisfaction.

1.1.4 Is the Government as a Reason for Recent Economic Crisis in the European Union?

Societies have always confronted business cycles, and this recession and boom could affect the development process and attaining the aims of different aspects of development in terms of time. Nevertheless, almost no one believed that the occurrence of a price bubble in the housing market in the United States, before 2007, and their subsequent bursting, in July 2007, could be the origin of the most harmful recession in the world economy after the Great Depression in 1929. The global crisis, which was caused by the financial market in 2007, was enlarged in the real economy, depressed the production process, and finally involved the goods and services, labor, and capital markets in the last quarter of 2008 (Ahamed, 2009). According to the annual report of the United Nations, in 2012, the world has experienced a weakened economic situation ("World Economic Situation and Prospects 2013," 2013). Many developed countries have struggled with a double-dip downturn. The bankruptcy of some parent companies, a high rate of unemployment, and the debt crisis are some problems which the developed countries have had to face.

Table 1.2 Growth of World Output 2006-2014

	2006-2009	2010	2011	2012	2013	2014	2015
World	1.1	4	2.7	2.2	2.4	2.6	3.0
Developed Economic	-0.4	2.6	1.4	1.1	1.1	1.8	2.2

Source: World Economic Situation and prospects 2014, 2014

Table 1.2 demonstrates that the rate of growth of the global real output was estimated at 2.2% in 2012, 2.4% in 2013, and 2.6% in 2014. In addition, there is a forecast of about 3.0% for the year 2015. As a result, in spite of reforming the developed countries, after the crisis we have only seen an initial movement in terms of global production. Of course, a point, which should be considered here is that the rate of real output growth for developed communities is less than the average of the rate of global growth. Finally, the recent financial crisis caused the world to face a harsh and rapid decline in the production of industries, a reduction of international trade, a lack of mobility and attractant of foreign investment, and a debt crisis. We could strongly say the recent crisis in the European Union has been the most horrific crisis since 1957, when this union started gradually to form. Most experts believe that the recent economic crisis has even created difficulties for the convergence of European countries.

The indebted countries of the union such as Greece, Italy, Spain, Ireland, Portugal, and Cyprus had to refund their debts through economic austerity plans, which led to the anticipation of a dark and hopeless perspective for European governments. The risk of collapse of the Euro currency, instability across the whole of the European financial system, a decline of 4% in economic growth, and a tripling of the debt of

European governments since 2008 up to 2013 are all problems the Europe Union countries have encountered. The increase of unemployment from 7.5% in 2008 to 9.9% in 2009 and 11.5% in 2011, in addition to the enhancement of European governments' deficit at the end of 2009 caused a deficit of about 9 billion Euro. Further, a decrease in interest rate from 4.25% in 2008 to 1% in the last of 2009, in addition to a reduction of exports and the downturn of housing value and the bankruptcy of many European banks are the most important results of the economic crisis in Europe.

It is a fact that the financial crisis has amounted a defeat for all the members of the Europe Union. For feeble members, the collapse of the value of national money, ungovernable inflation, and enhanced government debt were the results of arising this crisis, and on the other side, the powerful countries, which mainly include western European countries, the crisis caused them to lose their sales markets and a decline in demand for their productions. As a result, they experienced impressive unemployment and missed their economic position in the world (Allen & Gale, 2009). The significant point that we should bring up here is that governments may have considerable effects to weaken the negative effect of economic crises (Ozkan, 2011). However, it is necessary to remind that sometimes governments, themselves, are reason to create fluctuations in crisis. This problem can result in a worsened level of resident living standards, and also a lower satisfaction among people in general. The experience of some European countries which displays the incompetence, and inefficiency of European governments, which has helped to deteriorate the situation (Hijman, 2009).

Most experts believe that the recent economic crisis has been the crisis of government. After the occurrence of the crisis, the fluctuation in housing prices in the United States and its transmission in the American and European financial markets, the bankruptcy of parent companies caused the decreasing trend of national production in the duration between 2007 and 2009. The trend sharply fell in 2009 in most members of the European Union. Figure 1.4 illustrates this issue for six European countries including Cyprus, Greece, Ireland, Italy, Portugal, and Spain, and also the wider Eurozone and European Union. Nevertheless, what changed the financial crisis to a government crisis in the European countries was the precipitous trend of central government debt which originated in 2010. The European Union and Eurozone, especially regarding countries like Cyprus, Greece, Ireland, Italy, Portugal, and Spain, were involved with the large amount of central government debt, in which Greece experimented the worst situation in comparison with other countries (figure 1.4).

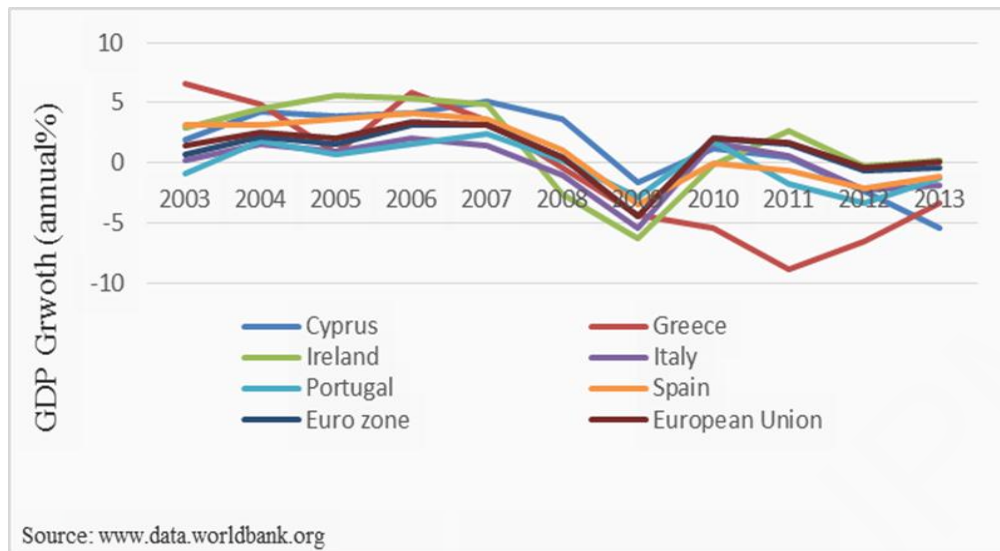


Figure 1.4 Trend of Annual GDP Growth (2003-2013)

According to the Maastricht Treaty¹, the ratio of the annual government debt to GDP has to be reduced by less than 60% at the end of certain financial year. In 2011, the ratio of government to GDP in Greece was estimated to be about 173%. In addition, countries like Spain and Ireland, which started to recover their economic situation sooner than other countries, declared the evaluated central government debt ratio to GDP to about 97.1% and 109.7% respectively in 2014. It means, in spite the previous comments, even if these countries could recover and improve their economies, they would still suffer the important problem of “government debt”. The excessive debt of European governments as well as the decline in economic growth in these countries since 2010 demonstrates that an incapable government could not only be able to manage the economic shocks and fluctuations, but also they sometimes act as a catalyst to worsen an economic process (Akerlof & Shiller, 2010; Pauly, 2008, 2009).

Consequently, unlike many economic experts, not only might we find the positive role of governments in economies to manage and control a situation, but also we guess that what could create problems for economies are unable, incapable, inefficient governments without any economic and managerial knowledge of how to manage an economy.

¹ This treaty, which was signed by European community’s members on 7 February 1992 in Maastricht in the Netherlands to engage integrating Europe. In other words, the European Union was created by it and led to the creation the Euro as a single European currency.

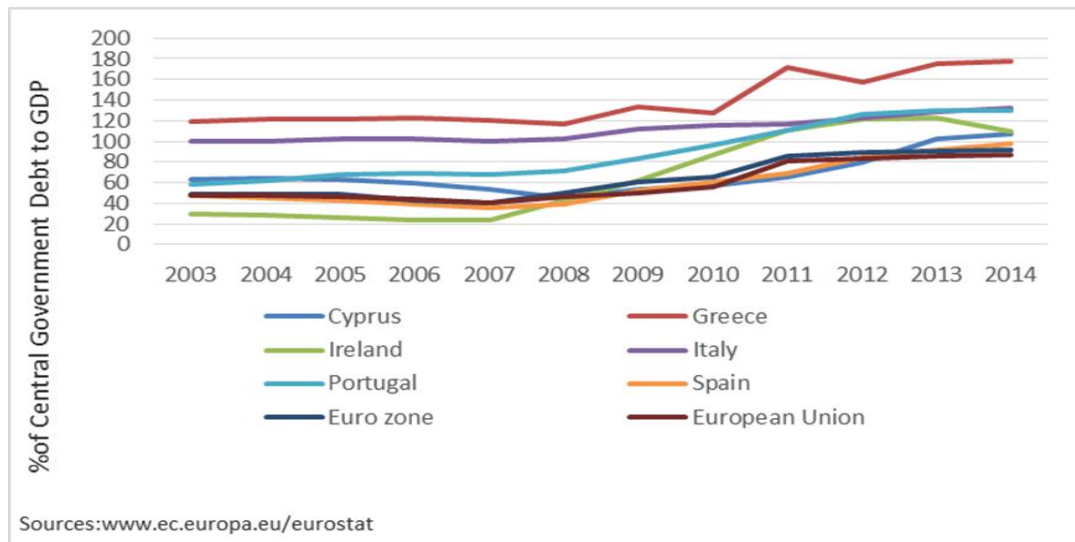


Figure 1.5 Trend of Ratio the Annual Government Debt to GDP (2003-2014)

Benáček (1993) believes that what governments can accomplish is privatization and deregulation, due to their inabilities. He further indicates that the market is a kind of public good, and in addition, Keech, Munger, and Simon (2012) explain that the market failure will happen as a cause of government failure. This means that when a government is not able to amend the structure of the market, we will face market failure. Recognizing the market as a public good is displayed in its construction; we need infrastructures, rules and huge investment, which a government can only provide. In other words, the market is a special public good that has much authority to affect on the economy. If we accept the market is a public good, a free market without any intervention of government, and irregular liberalization will be a sign of the inability of government. To analyze the effects of the public policy of governments in economic activities, macroeconomic analysis applies two theoretical approaches:

first, one explains the endogenous growth models in which the public policies of governments not only determine the level of output, but also because the permanent rate of economic growth is driven by them (R. Barro & Martin, 1995; R. J. Barro, 1989). The second approach is the neoclassical approach. Afonso and Jalles (2013) concentrated on the short-term effects of fiscal policy on economic growth. In this view, exogenous factors such as population or the development of technology would drive long-term economic growth. Thus, the implementation of fiscal policies like tax or expenditure of government would only affect the level of output and would not have a considerable permanent effect on the rate of growth. This division of the economic growth models, which also shows the impacts of public policy of governments, offers two issues:

1) Government interference, when the economic shocks and crisis happens, by performing the financial policies, could save the economies from the recession as an incitation and catalyzer in the short term. However, the mistakes of policy making could also even conduct the economies to bankruptcy; 2) Based on reached by Afonso and Jalles (2013), government debt is one of the contributing factors which

influences economic growth. Consequently, it could be a result that government debt is one of the significant variables to create the hard and severe economic downturn in some members of the European Union, by considering the controversial debates about the transformation of financial crisis to government crisis in European countries. Consider the relationship between central government debt and the rate of economic growth for Greece as a European Union's member, which has experienced a horrific economic situation since 2010, due to the recent economic crisis in the Eurozone.

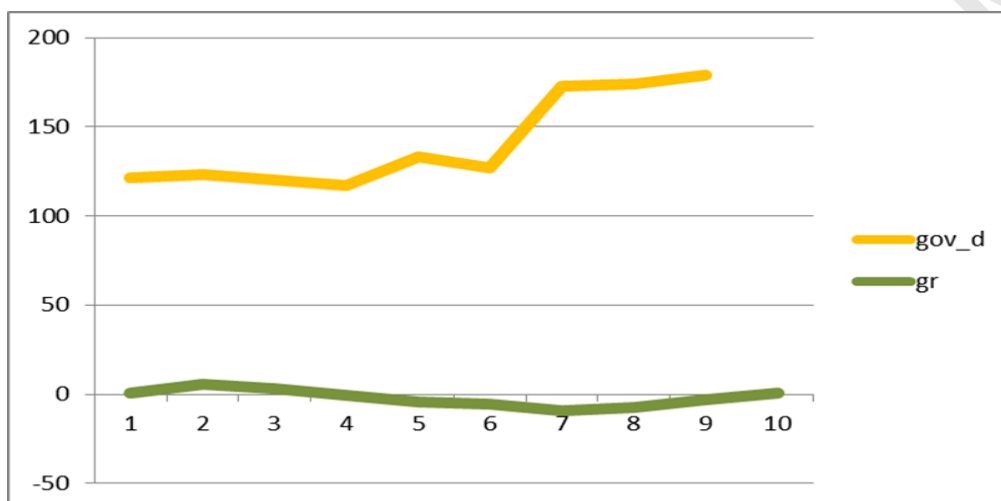


Figure 1.6 The Relation between Central Government Debt and Growth of GDP in Greece (2005-2013)

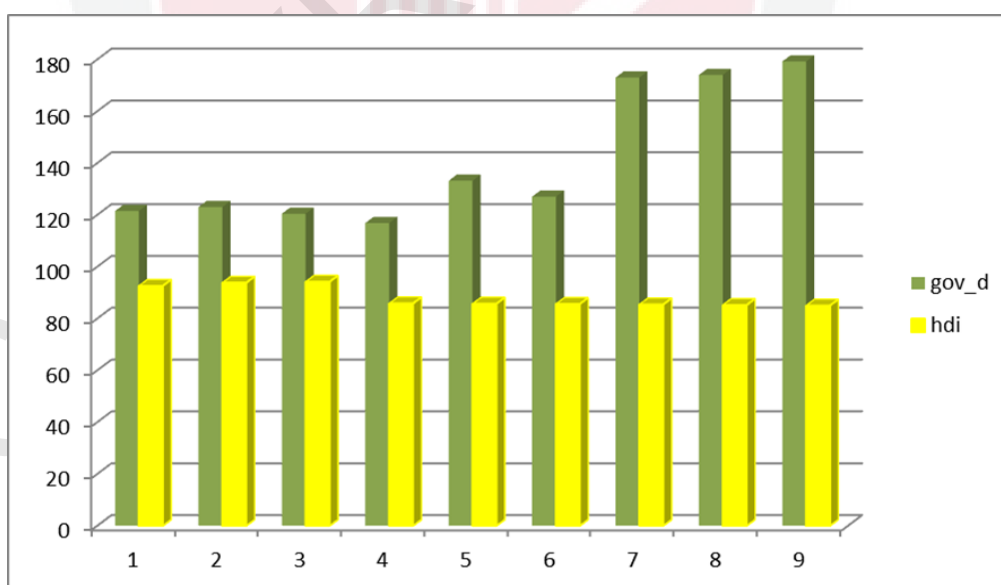


Figure 1.7 The Relation between Central Government Debt and Human Development Index in Greece (2005-2013)

As indicated by figure 1.6, along with the increase of debt in the Greece government, as a percentage of GDP, the level of economic growth declined between 2008 and 2013. Moreover, we conclude that growing in government debt even might justify reducing in the human development index when it has been considered as a factor of economic development (it has been shown by figure 1.7). However, as a result, the debt of central government may be investigated as a variable to show the economic depression and economic shocks and crisis.

1.2 Problem Statement

In the last century, the Great Depression, in 1929 has been the most tragic event until now. This incident imposed a terrible economic situation, and many people of the world suffered from joblessness and recession. The Great Depression even revealed the inability of economists and politicians to solve the problem and recover the damaged economy of affected societies. However, this tragedy was a perfect teacher for us to learn how we can prevent the similar status. The most significant and important point we learned from the global crisis in 1929 was a need to introduce and define the role of government in each economy. Discussion about the presence of government in the economy was born with the publication of John Maynard Keynes's book, *The General Theory of Employment, Interest, and Money*. Keynes, in his book, has depicted how a creditworthy government might, in sensitive situations and economic shocks and crisis conditions, borrow to spend for the recovery of the economy and also how a government could help unemployed people to come back to work (Keynes, 1936).

As a result, the recent financial crisis in 2008 was an outcome of forgetting the lessons of the Great Depression in 1929. Perhaps it is better to say that Thatcherism and Reaganism forced us to forget it. Thatcherism in Great Britain and Reaganism in America were emphasized that the intervention of government in an economy should be as little as possible. In other hands, the propagation of the Thatcherism and Reaganism ideology of the eighties and nineties, which was based on markets, vast privatization, deregulation, liberalization, and decreased the role of governments, caused an obstacle in the way that ethical development, institutions, especially governments have been ignored (Gasper, 2008, 2012). Although Akerlof and Shiller (2010) have mentioned the "animal spirits" of humans, which acknowledges that each economy needs a government to control and manage the economic behavior of residents, otherwise, societies might be conducted into economic shocks and crises.

Nevertheless, the economic recession of European Union members in 2010 has shown that government intervention might also act as a catalyst in order to worsen an economic situation in the face of economic shocks, instability and even market failure. According to a mass of theoretical and empirical literature about the interference of government in the economy, we may strongly state the problem of underdeveloped, developing, and even advanced societies is the loss of a powerful, efficient and effective or in short, good government. Governments could play a positive role to manage and control the economies. Governments, in each society, undertake certain economic and non-economic responsibilities and duties as a result.

When we search for a definition of a good government, one that could be offered is “efficiency” and “effectiveness”. In other words, a good government should fulfill efficiently and effectively its responsibilities. Efficiency and effectiveness are two concepts that will be investigated separately.

To avoid the complexity of notions and effective and comparable studies among different countries, here, efficiency has been presented as a good government requirement. Now the aim of this research is how to determine the level of government efficiency by considering the different economic and non-economic factors which could influence it. In the middle of the 1990s, the adherent of the institutionalist school emphasized that governance was one of the ring chains of the economic development process in societies. As a result, in 1996, to show the level of governance performance, an indicator was introduced by considering six dimensions as “good governance.” Most economists have defined a positive and significant relationship between good governance and economic growth and development. Nevertheless, we could strongly discuss that there are two basic problems in terms of good governance as a factor of bettering the economic growth situation: Firstly, although good governance includes the dimensions, which seem to be comprehensive, some aspects of this index are based on idealism opinion and are not accurate and computable, especially in developing countries.

Andrews (2010) has clarified that good governance and even government could be different in several countries. Consequently, estimating the good government indicators based on similar social, cultural and political measurements in numerous societies is not logical and scientific. Secondly, the focus on governance has not offered any eligible results yet. Although, governance could create the necessary conditions for economic movement as an alternative, in most developed and developing countries, as previously stated, isomorphism and dualism are two problems that affect the good governance indicator in defining a complete and comprehensive relationship between this index and economic growth and development process. Each society needs a coherent strength that is not as large as governance in order to manage, make decisions and policies, and also to improve the economic, social, cultural and political situation. In other words, the development process needs a good government as a subset of good governance in order to generalize and be reliable for the denoted indicators.

Governments, in managing and controlling the process of the situation of societies in terms of the economy undertake the special responsibilities that can improve the social, political, and cultural indexes as long as they fulfill them efficiently. Then, according to the studies of Afonso and Fernandes (2006), Afonso and Fernandes (2008), Afonso and Jalles (2012), Afonso, Schuknecht, and Tanzi (2005), and Afonso and St Aubyn (2005), efficiency might be introduced as an indicator of good government and could also significantly influence the level of economic growth and development. Government efficiency is a general indicator based on economic variables, which could improve the social parameters. We can apply it to each country without any problems in terms of being different in several countries, much like the different dimensions of the good governance index. In addition, it could

reduce the risk of accumulation, the unequal distribution of wealth, and economic power in central governance. Nevertheless, an important issue has unfortunately been ignored in modern economies, that is, government inefficiency.

Many empirical studies have pointed to the positive and significant role of government efficiency, in the public and economic sectors, of an economic growth process; however, in most situations, the problem of inefficient governments has been neglected. Good governments are an essential condition for development, and also increase the level of the standard of living. We must also consider the weak governments, in terms of managerial and technical knowledge, which could make problems and hinder the process of development. Consequently, these societies will confront various social, economic, political, and cultural shocks and crises and governments can still make mistakes when solving the created problems due to shock, crisis, and a worsening situation of communities. Then, although government efficiency could be investigated as a positive factor and an engine for economic growth and development, the inefficiency of governments might also be defined as a barrier for development or creating a catalyst for economic shocks and crises. This study will seek to understand what the role of government inefficiency was during the recent economic crisis in some of the European Union member states.

1.3 Objectives of the Study

The general objective of this study is to look at government efficiency as an index of good government and its contribution to economic development and the economic crisis. We have selected three specific objectives:

- 1) To estimate the government efficiency as a requirement of good government by Stochastic Frontier Analysis
- 2) To investigate the relationship between government efficiency and economic development
- 3) To analyze the effect of government inefficiency on the economic crisis in the European Union

1.4 Significance of the Study

The various empirical and theatrical studies of development were used to illustrate the development of a society. We need political power in the form of a government in order to plan, manage, control, and assess the situation of development progress. Adelman (1999), Shepherd (2000), Holcombe (2005), and Parnini (2011) are scholars who have accepted the undeniable role of governments to improve the various aspects of development progress. Based on a definition of development, preparing the ground to flourish humans talent to have satisfied life, as well as access to technology. Preparation process, transfer, and use of information are reasons, why we cannot only trust the market to lead an economy toward the best situation. Moreover, the experience of different countries, especially after the recent financial crisis in 2008 displayed the government only as a political power to develop society

and the economy is unable to manage the status. Hence, the required tool to develop communities is a good government with an effective market.

We believe that good governments should fulfill their responsibilities well. In this thesis, efficiency of government is considered as a measurement to define good government. Opportunity Indicators and Musgravian Indicators using the Data Envelopment Analysis (DEA) method has been computed (Afonso & Fernandes, 2006; Afonso & Fernandes, 2008; Antonio Afonso et al., 2005; Afonso & St Aubyn, 2005). Although almost all of the previous literatures regarding government efficiency have applied the DEA method to calculate efficiency, because of it being so simple in comparison with other methods, this research will use the Stochastic Frontier Approach (SFA) to estimate the efficiency. This method of relying on econometric tools could consider the variables, which affect the inputs and outputs and might be a reason to inefficiency. In other words, by this method, we can score also the inefficiency of each part of the responsibilities of government in one-step against the DEA method that analyzes the affected variables on efficiency in two stages.

In addition, because of our emphasis on the key and comprehensive concept of development, which contains economic, social, political and cultural aspects, economic growth is not an appropriate proxy to show the improvement of standards of living. As a result, the index of human development, as one of the most important components of development, has been employed to investigate the impact of government efficiency on economic development. We hope this positive relationship would help us to draw a clear direction or prove that human community can attain a high level of satisfaction. Finally, although some economists in the theoretical study have explained that the occurrence of the financial crisis has not only been because of the decreasing the role of governments in developed societies, but also the absence of efficient, effective, and powerful governments may be an obstacle for each society to move forward and develop even in the developed areas. The experiences of the European Union members confirms the lack of ability of governments, to make policies, rules, legislations, manage financial problems, survey current conditions, and anticipate that the future will cause communities to face human tragedy and calamity.

Vast protests in European countries and reported data about the number of people who lose their jobs every day demonstrates that unable and weak governments in this area cannot provide the conditions to solve serious economic problems after the financial crisis in 2008. Furthermore, the increased debt of some European countries created a complex situation, which worsened the situation and even led them into bankruptcy. Consequently, this research will empirically demonstrate that the inefficiency of governments in public and economic sectors could lead societies to an economic crisis and subsequent downturn. In other words, we would like to illustrate what some economists have claimed about the negative role of governments during the recent financial crisis, in terms of theory, by employing an empirical model to Europe Union countries like Cyprus, Greece, Ireland, Italy, Portugal, and Spain.

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