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Institutions, institutional development and economic growth: the case of middle income countries

Doctoral Dissertation
Faculty of Business and Economics

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DECLARATION

I, Kristina Maric Gjorgjieva, declare that this doctoral dissertation is my original work and that no part of the dissertation has been sent for a diploma, qualification or publication in any other educational institution.

I certify that I am the original author of this paper.

KRISTINA MARIC GJORGJIEVA

Signature and date

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Dedicated to my family

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Abstract

The aim of this doctoral dissertation is to identify the impact of institutions on economic growth in middle income countries. Since the last century, the need to explain factors that will improve the conditions in which market agents perform started to grow. Having in mind Adam Smith's invisible hand, Marxian socialism, the Keynesian theory, the path of the development of the modern economics reached a point at the establishment of the neoclassical economic growth theory. Having said that, factors such as accumulation of human capital, employment of sophisticated technologies, the endowment of natural resources and the demographics were postulated as factors fostering economic growth. And yet, some misunderstandings could arise from there. The fact that, the highly developed and rich economies have the best technologies or accumulate highly skilled workforce, and on the other side countries with high population growth and endowed with unlimited natural resources are stagnated and poor, leads to opening the question: what actually foster economic growth?

The answer to the question relies in the rules of the game within society, or, simply institutions. Institutions as defined by the Noble Laureate Douglas C. North are humanly invented constrains that structure the economical, political and social interaction, or simply they are the rules of the game within society. Institutions could be formal (e.g. property rights and rule of law) and informal (social norms, culture and tradition). Of course there is also an enforcement mechanism. By analyzing both theory and empirical studies, the dissertation confirms that the institutions are in fact drivers of the economic growth. Considering the statistical data for the investment in R&D, the corruption perception index, the rule of law and the tax regulations the dissertation compare the non EU member countries and EU member countries in order to depict the institutional impact on economic growth. The general conclusion was that the EU member countries due to implemented policies and regulations, thus being more institutionally developed perform better in the process of the economic prosper than the non EU member countries. In order to achieve more accurate results and to confirm the hypothesis tested, several methods of panel data

regression analysis is performed in order to check the influence institutions have on economic growth. The model developed to run the regression analysis indicates to the fact that the institutions significantly impact the economic growth.

Preface

Striving to find the key causes of economic growth, researchers developed wide range of theories. The ground theory is the neoclassical economic growth theory. However, not always the neo-classical economic growth theory explains the driving forces of the economic growth. Thus, this doctoral dissertation is focusing on providing evidence that in fact institutions and their development are considered as key factors in encouraging the process of economic prosper and growth. in order to achieve the objective, the focus is on analyzing different theories, statistical data from different data bases, and creating a model for panel data regression analysis. The structure of the doctoral dissertation is divided into three parts.

Part I identifies the main hypothesis, objectives, the path development of the modern economics, from Adam Smith to the New Institutional Economics, as well as a definition and rational behind the main concepts of institutions.

Part II focuses on more concrete theoretical - empirical analysis. By using data from different databases, it statistically compares the rule of law and government effectiveness; the expenditures in R&D and the creation of the knowledge-based economies; the impact of institutions through the corruption perception index on the process of attracting FDIs; and the difference of the tax systems employed. The comparison is among the middle income Balkan countries, divided into two sets: non EU member countries (Albania, Bosnia and Herzegovina, North Macedonia and Serbia) and EU member countries (Bulgaria, Croatia, Romania and Slovenia) for the time span of 20 years, starting from year 2000 to 2019. Although, the general conclusion already confirms the hypothesis that institutions have an impact on economic growth, further testing was needed.

Part III presents the methodology employed in the doctoral dissertation. It starts by presenting empirical studies and models developed for testing the relationship between the institutions and economic growth. It further proceeds with developing a model for panel data regression analysis. The model is ran for the pooled OLS, Fixed Effect Model, Random Effect Model and the Hausman -Taylor Model. All of the models indicated to the connection between institutions and economic growth.

However, when dealing with this topic, the main obstacle was finding data, i.e the availability of data for the chosen countries is scarce. In addition to this, prior to the creation of the model, an analysis is made for all the institutional proxies in order to select the most suitable one. Still, the model even though confirmed the main and the alternative hypothesis, as well as answered to the research questions, further recommendations are provided for more detailed research in the field.

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Part I
Chapter 1 INTRODUCTION

1.1 Introduction of the topic

The determinants of economic prosperity, growth and development are passionately debated among economists. In recent years, especially after the latest recession, the issue of economic development and growth and factors encouraging them became very popular. In the period after WWII, the establishment of the neoclassical economic theory of growth elaborated on the fact that physical and financial capital, labor and technical progress could explain most differences in the rate of economic growth and development between countries (Solow, 1956). Later, in the 1980s, the development of endogenous growth theory introduced the role of innovation (Romer, 1986) and education (Lucas, 1988) as significant factors in promoting economic growth and development.

Having in mind the above postulates of the neoclassical economic growth theory, one might consider that those factors (innovation, education, capital accumulation) are actually growth, they are not growth facilitators.

<div align="center">

TFP

institutions =>   human capital   =>   economic development

physical capital

</div>

In the above figure in which some of the proximate factors, such as innovation, education, capital accumulation are listed, it could be stated that those factors generally corresponds to the factors of production incorporated in the aggregate production function. Nevertheless, the fact that it is commonly known that the developed countries, and in here we assume as well institutionally developed, experience higher levels of total factor

productivity (TFP), more educated workers (human capital) and more machines, tools and factories (physical capital), whilst other countries do not. Thus, the interesting intellectual question, arising from the above view point is why it is that some countries are so much more innovative than others, why they invest much more resources into the educational system, and why people save and invest to accumulate physical capital.

The topic of economic growth have been associated to accumulation of human capital, country's endowment to natural resources, new technological developments as well as population density. The need to determine what foster economic growth goes way beyond these factors of fostering economic growth. The latest financial crises as well as failed transition experiments have highlighted the fact that functioning institutions are fundamental to the goal of achieving economic growth. Thus, one might find it crucial that the new institutional economic theory studies the influence of institutions and the mechanisms by which institutions affect economic development. The purpose of this thesis is to consider theoretical and empirical relationships between institutions and growth. The focus is on the definition of "appropriate institutions" (the idea that different institutional arrangements are appropriate at different stages of economic development), the influence of institutions on productivity, the effect of economic development on transitions to democracy and institutional and regulatory reforms in the middle income countries.

Nobel Prize Winner, Douglas North (1991) defines institutions as humanly invented constraints that structure political, economic and social interaction. Or simply, North (1991) considers the institutions as "rules of a game" within a society. Institutional framework is consisted of formal rules (constitutions, property rights, laws, reforms, etc.) and informal rules (sanctions, taboos, customs, traditions and codes of conduct) and also enforcement mechanisms (law enforcement and social ostracism). They can be economic, political and social (Yeager, 1999).

This doctoral thesis will refer to the same definition North provided for institutions. As in terms of institutional development, the basic definition of the level of development of institutions is their stability and independence from the government. In that respect, the more developed institutional society provides a certain degree of stability and certainty according to which the agents in the society (organizations and people) respond and base

their decision. More stable institutions in terms of no constant change of rules and reforms, the higher the development of those institutions. Also, the more independent institutions from the government influence, the more developed institutional framework within the country.

1.2 Research problem

The above introductory part emphasized the role of institutions and the level of their development in the issue of economic growth. Thus, the main idea of this doctorate thesis is to forge the link between the institutions, their development and how they impact the economic growth in the case of selective sample of middle income countries presented in Table 1.

Table 1. List of countries of interest of this dissertation

No.	Country	EU Status	Income status
1	Albania	Non EU member	Upper middle income
2	Bosnia & Herzegovina	Non EU member	Upper middle income
3	Bulgaria	EU member	Upper middle income
4	Croatia	EU member	High income
5	North Macedonia	Non EU member	Upper middle income
6	Romania	EU member	High income
7	Serbia	Non EU member	Upper middle income
8	Slovenia	EU member	High income

Source: the author using the income status classification according to the World Bank database

The reason why middle income countries are regarded in this research is that low income countries are more suitable with researching the issue of economic development,

whilst the high income countries are already considered as institutionalized societies having high level of institutional development. Having the reason to justify the selection of middle income countries is the fact that most of them are transition countries, and by definition transition is " the widely accepted term for the thorough going political and economic changes" in ex-European communist countries in order to establish market-oriented economies (Murrell, 2006). Further on, the transformation process from central-planned to market-oriented economies involved four major elements such as macroeconomic stabilization, privatization, liberalization and what is in our interest here - institutional reforms. In the countries of interest presented in the above Table 1, it could be considered that three of them, Croatia, Romania and Slovenia are actually classified as high income countries. Also, the three countries are members of the EU, including Bulgaria, which even though is EU member country its income status is upper middle income. That, strengthen the choice of countries of interest in this project, since the comparison of institutional role among the countries of interest would be even more adequate.

In order to be more precise, this research will be based only on few institutional frameworks, such as legal, educational and financial institutions. By examining the level of development of these institutional frameworks, not only that we will examine separately but rather the interconnection will be made. That is, if for example there is significant institutional development in one institutional framework such as in legal, how it will impact on other institutional frameworks such as educational and financial.

1.3 Research Hypothesis

More detailed analysis of factors encouraging economic growth, with a specific emphasis on the role of institutions in the process of promoting and accelerating economic growth the following hypothesis are defined:

Ho: The institutions have in general impact on economic growth

H1: The higher the institutional development the greater the stability and certainty in the society, thus creating prospects for economic growth

H2: Political and economic institutions have a positive impact on economic growth in middle income countries

H3: Large differences in the wealth of nations are mainly due to the differences in the quality of their institutions and economic policies

The hypothesis testing will provide answers to the research problem stated in the above. The rejection of the null hypothesis will indicate that in fact institutions and their development has limited or no effect at all in economic growth of middle income countries.

1.4 Research Questions

In an attempt to determine whether the institutions and their level of development have an impact on economic growth in the selected set of middle income European Balkan Countries, the doctoral dissertation will tend to provide answers on the several research questions:

1. What are the reasons behind the fact that middle income countries do not have highly developed level of institutions?

2. Is the growth in the economy proportional to the institutional development?

3. Are the institutions crucial for joining the European Union and striving towards acceleration of the economic growth?

4. Does institutions have in general impact on economic development or specific segments drive it towards it?

1.5 Research Objectives

The objective of the doctoral thesis is to emphasize the link between the institutions, their prospects of development and impact on economic growth in the middle income countries. As stated in the above subsection, the objectives are highly determined to answer any of the research questions stated in the above.

Figure 1 The relationship between the institutions and economic growth and development which is the objective of the doctoral dissertation
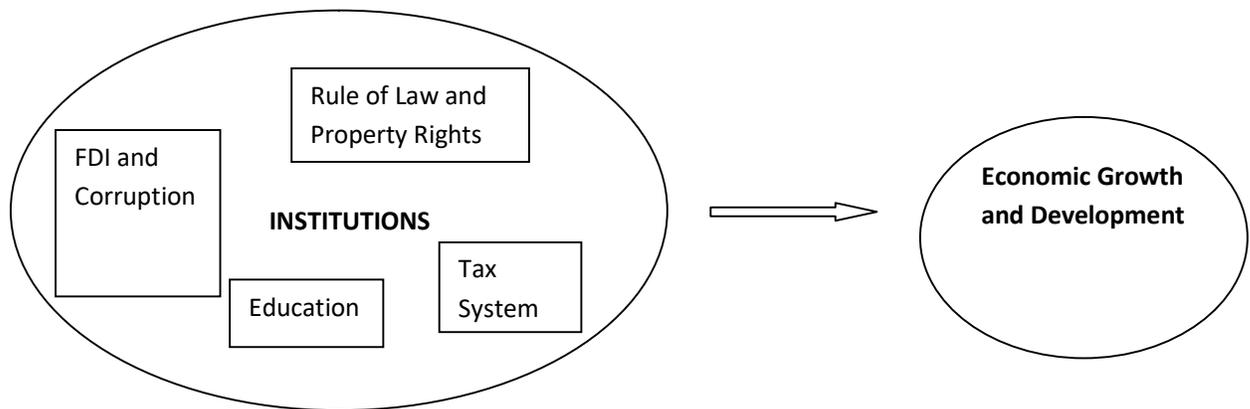
Source: The author

1.5.1 Specific objectives

In an attempt to provide answers, the more specific objectives have been created:

1. Analysis of the general impact of political and economic institutions on economic development and growth

2. Analysis of the implementation of the Rule of Law in each country from the period of 2000 to 2019

3. Analysis of the Educational process, since it is taken as important factor in producing highly skilled workforce thus boosting economic growth. The analysis will be separate by each country from the period of 2000 to 2019

4. Analysis of the tax system implemented in each country

5. Analysis of the level of corruption and its impact on attracting Foreign Direct Investments (FDI) by each country

1.6 Research Methodology and Data

The doctoral thesis will use several methodological approaches in order to depict the link between the institutions and the economic growth. The methodology will incorporate both, quantitative and qualitative data. The organization of the study and the path followed in order to draw the findings and the conclusion is presented in the below Figure 2.

Figure 2 Organization of the study and the path followed in order to draw the findings and the conclusion

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                    ┌─────────────────────────┐
                    │  Future Recommendation   │
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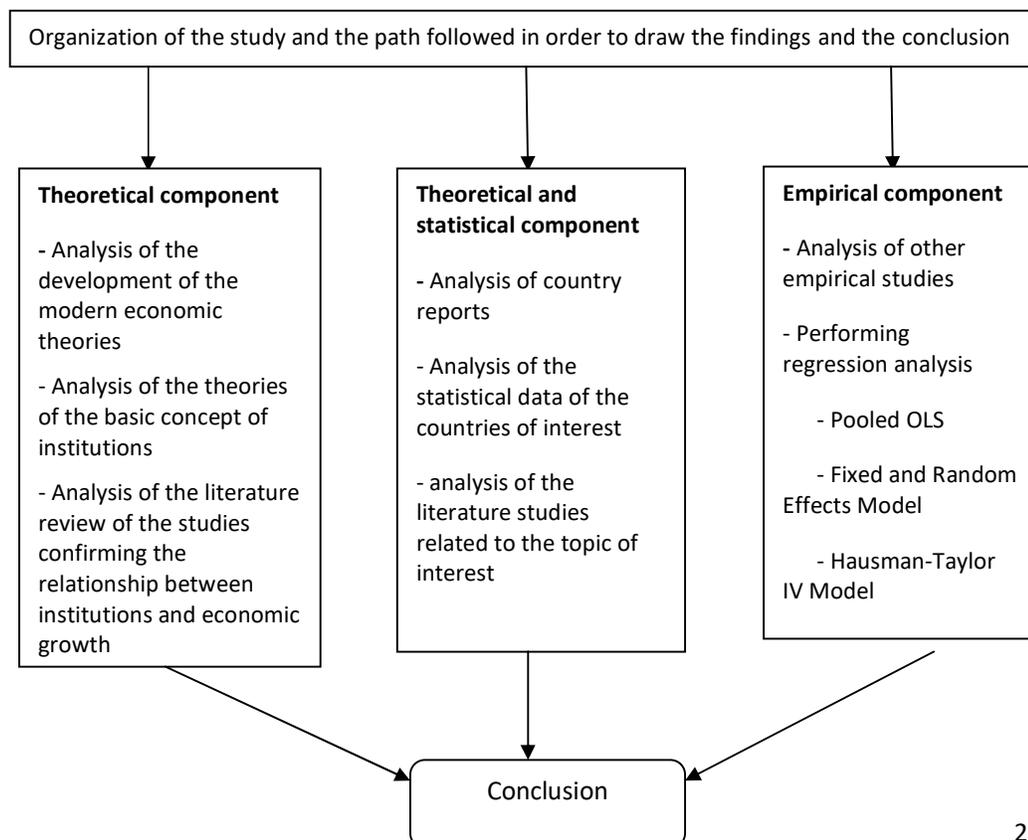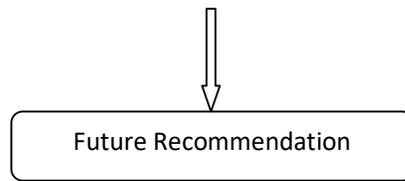
Source : The Author

Qualitative data

The qualitative data is composed by the analysis of the literature and country reports and comparing statistical sets of data in order to determine the link between the institutions and economic growth. The country reports will be mainly by the UNSD Statistical Database, OECD, World Bank, Heritage Foundation, EBRD and European Commission (the latest applies where appropriate).

Quantitative data

In terms of quantitative data, the doctoral thesis will try to depict the relationship between the institutional development and economic growth in selected middle income countries compared with selected upper income countries with time span of 20 years - from 2000-2019. Since it is panel data, the model employed is pooled OLS, fixed and random effects and Hausman-Taylor Instrumental variable (IV). The endogenous variable will be the level of GDP per capita (a proxy also for the process of selecting middle income countries). The explanatory variables will be treated as exogenous. In quantifying this topic, the main concern is establishing a proxy variable for institutions. Thus, this doctoral dissertation is using the Index of Economic Freedom[1] by Heritage Foundation. The other explanatory

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[1] According to the Heritage Foundation, The Index of Economic Freedom is consisted of 12 quantitative and qualitative factors, grouped into four broad categories (Rule of Law, Government Size, Regulatory Efficiency

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variables are Education Index developed by UNDP, the Fixed gross capital formation (using data from the World Bank database), and population growth annual rate (using data from the World Bank data base).

The model for regression analysis is the following:

$$Y_{it} = \beta_0 + \beta_1 INST_{it} + \beta_2 GFCF_{it} + \beta_3 PG_{it} + \beta_4 EI_{it} + \varepsilon_{it}$$

i= 1,...I and t=1,...T

where,

Y   = GDP per capita annual growth % rate

INST = Institutions index

GFCF = Gross fixed capital formation

PG   = Population growth annual rate

EI   = Education Index

Y is explanatory variable while INST, GFCF, PG, EI are explanational variables. ε_{it} denotes the error terms.

1.7 Significance of the Research

When economists are debating over the factors that encourage economic growth, they usually think about the accumulation of the human capital, natural resources,

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and Open Markets. More detailed discussion of the Index of Economic Freedom is provided further in the other Chapters. (This information is taken from the site of Heritage foundation and can be accessed on the following link https://www.heritage.org/index/about)

technological developments and population density. However, this doctoral thesis takes on a new, different perspective when it comes to the issue of the factors promoting economic growth. However, it has to be stated that this perspective offers deeper understanding of the factors encouraging the economic growth. That is that, in order to be more human capital accumulated, there has to be some norms and regulations in the educational system so that high skilled work force will be able to increase the countries productivity. Furthermore, in order to attract Foreign Direct Investments, one country has to have clearly defined, well regulated and sustainable financial framework. Additionally, the legal system as a cornerstone of one society has to be stable, with clearly stated rules and regulations and free of government biases.

1.8 Limitation of the research

Topic in concern in the thesis suffer from a range of issues, the most important are the qualitative aspect of institutional variables, hence the problem of measuring these variables, the reliability of sources and the subjectivity data. It could be stated that institutions are a complex phenomenon and empirical research cannot capture all of the complexity, thus simplified institutional indicators and proxies need to be used. Moreover, the number of independent variables is also limited. Even though Part II of the thesis identifies the importance of the rule of law and the taxation as well as the corruption and its impact on FDI inflows, these, as variables are not included separately in the regression analysis, since they are incorporated in the institutional index. However, by testing their impact on economic growth, separately, as it was the case with education, the regression analysis might provide better results. Moreover, the countries data used in the analysis is also limited, since the focus is on middle income countries from the Balkan region. In order to depict a more detailed analysis of the impact of institutions on economic growth, other countries should be included as well.

1.9 Background of the Literature

One of the mostly debated topics recently and especially with the latest recession is the topic of economic growth and factors encouraging it. In economics factors such as human capital, natural resources, population density and technology are considered as to be a driving force of economic growth. Yet, some economies are still not performing at a satisfactory level. Thus, it could be stated that institutional development could be a key factor of promoting economic growth. This paper forges a link between institutional development and economic growth. Research suggests that unlike the postulates of the old economic theory stating that establishing significant policies would lead to a one time boost of the income and hence to the transitory increase in the economic growth rates, new approach of the economic theory predicts growth from rational policies. Thus, one might say that the public policies do matter when it comes to the issue of economic growth. Taking into consideration the latest statement, it has to be emphasized that those countries with the best policies and institutions realize most of their potential, while other benefit from only a tiny fractions of their potential income. Hence, it could be the starting point of the hypothesis that large differences in the wealth of nations are mainly due to the differences in the quality of their institutions and economic policies (Olson, 1996).

Although the role of institutions in social transformation has been extensively analyzed in the sociological literature, their importance has only recently been recognized within economic theory. After WWII, in 1960s, economists established the neoclassical economic growth theory, implying that physical and financial capital, labor and technical progress could explain the disparity in the rate of economic growth and development between countries (Solow, 1956). Two decades later, in 1980s, the development of endogenous growth theory introduced the role of innovation (Romer, 1986) and education (Lucas, 1988) as significant factors in explaining the issue of economic growth and

development. Nevertheless, the beginning of the 1990s and the transition of the former socialist countries into market-based economies, brought to attention the quality of institutions and their role in determining the prospects of economic growth (Elster et al. 1998). The idea that institutions in both the public and the private sectors have distinctive role to play in supporting economic development is widely acknowledged (Bartlett et. al, 2013). It has been considered that proper institutions can generate economic growth and act as important growth accelerators (Hausmann et al., 2004).

It could be stated that the role of institutions in the society provides the encouragement that directs economic as well as political activity. Even though the research in this field is scarce compared to other fields in the economic research, still there are some empirical studies which support the importance of the institutions in the economy. Stable political structures, well specified and enforced property rights and low cost enforcement of contracts (typically through the rule of law) have resulted in the low transaction costs underlying the success of the developed economies.

As stated in the introductory part, the issue of economic growth and factors promoting it is highly debated among economists. The literature on institutions, the institutional development and economic growth is scarce. That is the reason why there should be more research on that topic. However, there are some papers dealing with the issue, or least to something similar.

1.10 Expected Result

The expected result after testing the hypothesis by performing the quantitative and qualitative research is that the institutions are a driving factor for economic growth. Higher the institutional development, higher the economic growth the middle income country will experience. Finally, the expected outcome of this research is the completion of the PhD dissertation at South East European University.

1.11 Structure of the paper

The first part of this dissertation constitutes of three chapters (Chapter 1, Chapter 2 and Chapter 3) in an attempt to provide all the basics needed to introduce the topic. The first chapter, Chapter 1 puts an emphasis on the general idea about the topic, the definition of the research problem, the hypothesis, the background of the literature, a brief explanation of the methodology employed and a future prospects of the research. Furthermore, it continues with Chapter 2, which putts an emphasis on the historical development of the modern economics. Thus, Chapter 2 starts with presenting the economic theory developed by Adam Smith, than it continues with the economic aspect of socialism presented by Karl Marx, persisting with the Keynesian economics, and after presenting the neoclassical economic growth theories, it finishes with the institutional economics by Douglas North and Thomas Piketty. It is crucial to mention that the final remarks of Chapter 2 are actually critics on the all of the above economic thinking provided by the Noble winner Josef Stiglitz. After establishing the point of introducing the new institutional economics in the development of modern economics, Chapter 3 provides the basic definitions and concepts of the institutions and their importance.

The second part, Part II presents a mixture of theoretical and empirical implications of the topic of concern. In that manner, Chapter 4 presents the connection between the institutions and the political system. Besides the theory employed in the chapter, it also provides with an inside of empirical findings, subsection named countries comparative statistics, using the appropriate data for the selected countries presented in Table 1 in Chapter 1. Following the identified importance and the established connection between the institutions and the political policies, Chapter 5 presents the connection between the institutions and human capital, by using data for education, R&D and innovation. It also presents a subsection of countries comparative statistics. Chapter 6, identifies the connection between institutions and FDIs, since it is known for a fact that the importance of the human capital which incorporates education and R&D leads to attracting FDIs, and

accelerate economic growth. Thus, the relationship between institutions and FDIs is crucial, as it is the relationship between institutions and human capital development. Furthermore, Chapter 7 tries to depict the relationship between institutions and tax system, as find to be a crucial one, not only for attracting new FDIs but for better economic growth prospects.

The third part, Part III presents the methodology employed in this research in order to test the hypothesis established in this dissertation. It starts by presenting the background empirical literature of other conducted research studies, and then it presents the model, its outcomes and finishes with conclusion, along with further recommendations.

Chapter 2 THE DEVELOPMENT OF MODERN ECONOMICS

In order to understand the importance of institutions in terms of economic development it is crucial to understand the path of modern economic development. More precisely speaking, with the intention of understanding how to get from Adam Smith's invisible hand, through Marxian socialism and continuing with Keynesian economics and neoclassical economic theories to finally establishing institutional economics which is based on institutions, their development and role in generating higher economic prospects.

2.1 The establishment of modern economics - Adam Smith

Adam Smith was a radical and a revolutionary

in his time—just as those of us who preach

laissez faire are in our time.

—Milton Friedman (1978, 7)

Adam Smith was an 18th century Scottish economist, philosopher and author who is widely credited for creating the field of modern economics. Considered as a father of modern economics, Smith did for economics what Darwin did for biology and Newton did for physics. Smith's book, " An Inquiry into the Nature and Causes of the Wealth of Nations", is considered to be the one which had the most impact globally, and have provided a basic fabric of economic science, over two centuries later. When summarizing Smith's work, it has to be stated that he outlined the concept of GDP (gross domestic product) as a measurement of national wealth, as well as he identified the vast productivity gains made possible by specialization. Furthermore, it has to pointed out that he also indicated that both sides, seller and buyer benefit from the trade, not just the seller, since they both gain

something that they value more. The last but not least, he introduced the concept of free market.

All of the above represents revolutionary staff in the field of economics. However, it has to be mentioned that Adam Smith is also famous because of his idea of "invisible hand" which guides the forces of supply and demand in an economy. More precisely, it implies that every individual by looking out for themselves, unintentionally helps to crate the best outcome for all. Still, the invisible hand theory is mostly presented with reference to a natural phenomenon that guides free markets and capitalism in the direction of efficiency, throughout supply and demand as well as competition of scarce resources, rather than as something that results in the well-being of individuals.

The Wealth of Nations

Mark Skousen (2007) in his book the Big Three in Economics considers that one of Adam Smith's main objectives in writing The Wealth of Nations was to revolutionize the conservative view of the economy, which allowed the mercantilists to control the commercial interests and political powers, and to replace it with his view of the real source of wealth and economic growth, thus leading England and the rest of the world toward the "greatest improvement" of the common man's lot.

Subsequent to the very old tradition in the Western World, the mercantilists believed that the world's economy was inert and its wealth fixed, so that one nation grew only at the expense of another. Throughout the history, the economies of civilizations were based on either slavery or several forms of serfdom, implying that, wealth was mainly acquired at the expense of others, or by the exploitation of man by man. As Bertrand de Jouvenel observes, "Wealth was therefore based on seizure and exploitation" (Jouvenel 1999, p. 100)[2]. in that regard, it could be stated that European nations established government authorized monopolies which supported colonialism abroad, sending agents

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[2] cited by Skousen (2007)

and troops into economically poorer but richer with natural resources countries in order to seize gold and other commodities. As Adam Smith observes in the Wealth of Nations, the mercantilist system considers wealth as to be consisted of money per se, or at that time gold. According to Adam Smith, the encouragement of the exportation and discouragement of importation are the two great engines by which the mercantilist system proposes to enrich each country (Skousen, 2007). Smith carefully outlined the host of high tariffs, duties, quotas and regulations that aimed at restricting trade. However, unfortunately, the system also restrained production and a higher standard of living. In this regard, Smith considered natural advantages that one country possesses over another crucial, since the key to the wealth of nations were production and exchange, not artificial acquisition of gold at the expense of others. As cited in Mark Skousen's book, "*the wealth of a country consists, not of its gold and silver only, but in its lands, houses, and consumable goods of all different kinds. Wealth should be measured according to how well people are lodged, clothed, and fed, not according to the number of bags of gold in the treasury*" (Skousen, 2007).

The Wealth of Nations was considered as an important worldwide masterpiece since it implies the principle of natural liberty, which is the freedom to do one wishes with little interference from the state. Moreover, it encourages the free movement of labor, capital, money and goods, or in other words, it shows the free market trade. However, the importance is also found in the proposition that Smith is running through the Wealth of Nations, that is that economic freedom not only leads to a better life, but it is a fundamental human right.

According to Adam Smith, the new economic freedom includes the right to buy goods from any source, foreign products included, without the restraints of tariffs or import quotas. It also includes the right to be employed in whatever occupation a person desires, as well as the right to charge the wage not regulated by the state, but by the market. At last but not the least, the new economic freedom includes the right to save and invest, as well as to accumulate capital without government restraint, considered as important driving forces to economic growth. it is also important to be mentioned that Smith endorsed the virtues of thrift, capital investment and labor-saving machinery as crucial ingredients to promote rising living standards. in terms of accumulation of capital, Smith emphasized

saving as a key to economic growth, in addition to stable government policies, competitive environment and a sound business management.

In the Wealth of Nations Smith identified three keys of a self-regulated system[3].

1. Freedom: individuals have the right to produce and exchange products, labor, and capital as they see fit

2. Competition: individuals have the right to compete in the production and exchange of goods and services

3. Justice: the actions of individuals must be just and honest, according to the rules of society.

On a general scale, the voluntary self-interest of millions of individuals would create a stable, prosperous society without the need for central direction by the state. His doctrine of enlightened self-interest is often called "the invisible hand," based on a famous passage (paraphrased) from The Wealth of Nations: "*By pursuing his own self interest, every individual is led by an invisible hand to promote the public interest*" (Skousen, 2007).

A point has to be made in terms of validity of Adam Smith's theory, and it has to be stated that welfare economics such as Pareto's optimality and Walras's law, both confirmed it mathematically and graphically. However, it also shows how, generally speaking, government induced monopolies, subsidies and other forms of noncompetitive behavior lead inevitably to inefficiency and waste.

In recent years, several studies tested the validity of Smith's theory, that is whether the economic freedom leads towards higher living standards. A comprehensive study by James Gwartney, Robert A. Lawson, and Walter Block released in 1996 and (Gwartney and Lawson, 2004) materialize to confirm Adam Smith's point of view that economic freedom and prosperity are closely related. The authors scrupulously created an index to measure the level of economic freedom for more than 100 countries, based on five standards, i.e. size of government, property rights and legal structure, sound money, trade, and

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[3] This is taken from the book by Mark Skousen, The Big Three in Economics (2007)

regulations. Then they compared the each country's level of economic freedom with its growth rate, based on per capita income, and documented a conclusion that shows linear relationship between the degree of freedom and economic prosperity, such as greater the economic freedom, higher the standard of living.

It has to be pointed out that even from that time, the institutional framework was considered as a necessity to steer individuals toward productive pursuits that are beneficial to society. This institutional framework consists of institutions like a justice system designed to protect and promote free market trade and fair competition. On the other hand, Smith argued in his book that when governments interfered with that freedom with certain controls, tariffs, taxes and etc, they made people worst off in terms of wealth. However, it has to be pointed out that his revolutionary ideas influenced politicians and changed countries' decision making process. To be more precise, his ideas led to trade treaties, tax reform and unwinding of tariffs, and created an era of free trade and growing world prosperity.

2.2 Karl Marx

> *Karl Marx was possessed of demonic genius*
> *that was to transform the modern world.*
> —*Saul K. Padover (1978)*

The 18th century's German philosopher, economist, sociologist and politician Karl Marx declared that the means of production were the most important components in any economy. Considering what was written in the previous subsection, it could be stated that Marx understood the labor theory better than his precursor Adam Smith. As stated in the previous subsection, Adam Smith considered that in the buying and selling process, both parties benefit the same amount, since they get something that they value more. However, Marx in his best known three volume title Das Kapital (Capital in English), presented an overwhelming intellectual challenge so that "if goods and services tend to be sold at their true objective labor values as measured in labor hours, how do any capitalists enjoy profit?" (Skousen, 2007). In other words, Marx came up with a conclusion that it must mean that the

capitalists were either underpaying or overworking labor, and in that manner exploiting laborers to coerce down the cost of production. Although Marx's answer was ultimately proven faulty and later economists accepted the subjective theory of value his simple allegation was enough to show the weakness of the labor theory's logic and assumptions.

In this Chapter, the historical development of modern economics is presented so, after the above section about Adam Smith one might say that If his work is the Genesis of modern economics, that of Karl Marx is its Exodus. According to the Marxist John E. Roemer , the main difference between Smith and Marx is as follows: *"Smith argued that the individual's pursuit of self-interest would lead to an outcome beneficial to all, whereas Marx argued that the pursuit of self-interest would lead to anarchy, crisis, and the dissolution of the private property–based system itself. . . . Smith spoke of the invisible hand guiding individual, self-interested agents to perform those actions that would be, despite their lack of concern for such an outcome, socially optimal; for Marxism the allegory is the iron fist of competition, pulverizing the workers and making them worse off than they would be in another feasible system, namely, one based on the social or public ownership of property"* (Hodgson, M.G, 1989).

According to Marx, labor is the sole producer of value and as such it urges that the value of a commodity should be equal to the average quantity of labor hours used in creating the commodity. If that is so, then one might ask the question, where does that leave the profit and interest. That is how Marx came up with the term "surplus value", unjustly extracted from the true labor earnings. Furthermore, he also considered that profits and exploitation are increased by extending the workday and also by hiring women and children at lower wages than men, as well as the employment of technology also benefited more to the capitalist than the working class (Skousen, M., 2007). In the era of high technological development, hence employment of the technology in the production process, the cost of production was increasing, leading to reduced profits and lower labor wages, in order to keep up with the competition. It could be stated that this lead to accumulation and saving thus wages became lower and the unemployment higher.

Marx proposed a solution to the problem, which was a revolutionary socialism, implying removing the power of the government and establishing socialism. Besides his

masterpiece, the Capital, he also provided the Communist Manifesto in 1848 including ten points program[4]

1. . Abolition of property in land and applications of all rents of land to public purposes

2. Abolition of all right of inheritance

 3. A heavy progressive or graduated income tax

4. Centralization of credit in the hands of the state by means of a national bank with state capital and an exclusive monopoly

 5. Confiscation of the property of all emigrants and rebels

6. Free education for all children in public schools. Abolition of child factory labor in its present form. Combination of education with industrial production

7. Combination of agriculture with manufacturing industries; gradual abolition of the distinction between town and country, by a more equitable distribution of the population over the country

8. Centralization of the means of communication and transport in the hands of the state

9. Extension of factories and instruments of production owned by the state; the bringing into cultivation of waste lands, and the improvement of the soil generally in accordance with a common plan

10. Equal obligation of all to work

However, Marx claims were proven to be wrong, anyway not at the same time. First and foremost, the labor theory was proven to be wrong having in mind that with that theory Marx rejected Say's law which proclaims that the value of goods and services is determined by utility, meaning if there is no demand for a particular product or service, it won't determine value, besides how much labor effort was put into producing it. Furthermore, another problem with Marx theory is that some industries were labor whilst others were

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[4] Mark Skousen 2007

capital intensive. However, nowadays, there is no clear distinction between capitalists and working class, because less and less workers are only employees, rather they are often shareholders or part owners in the companies they work for. As a final point, the introduction of technology did not lead to lowering the wages or laying off employees, it rather made the whole working process easier.

Besides, what has been written in the above part, still it is vital to stress out some crucial points that Karl Marx pointed to, which move the economies into different direction. It is vital to be pointed out that Marx through his work stressed out some issues such as inequality of wealth, income and opportunities which are still considered as important issues when discussing economic policies.

2.3 Keynesian Economics

John Maynard Keynes rejected the classical belief that the capitalist system is self-adjusting over the long run, thus one might say that the emergence of a mixed economy was a response to charges imposed by Karl Marx. As Adam Smith created The Wealth of Nations and Karl Marx created The Capital, the main masterpiece of Keynes is The General Theory[5]. Having in mind that capitalism is unstable, Keynes claimed that as income and wealth accumulated, the potential of increasing savings diminishes, thus introducing the concept of psychological law indicating to the fact that the marginal propensity to save increases with income. Namely, as individuals earn more income and become wealthier, they tend to save more. It could be stated that, according to him, saving could be considered as variable form of spending, since it could be only effective if invested. In the General Theory, Keynes introduced the concept of effective demand, which is the aggregate

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[5] The full name of the book is The General Theory of Employment, Interest and Money, by John Mynard Keynes written in 1936.

output, a summation of consumption and investment. Nowadays, the term aggregate effective demand is substituted with gross domestic product (GDP).

Furthermore, Keynes provided a solution for a recession - an increased effective demand. Accordingly, if demand is increased through additional spending, more goods have to be produced and the economy will recover. A successful way of increasing the effective demand is government to start spending. It is known fact that a rise in government expenditures encourages consumption and investment and therefore, the aggregate output increases. Thus, demand creates supply not the other way around as it was stated in the above part by Say's law.

- Liquidity Trap

When discussing Keynes, it is crucial to mention the liquidity trap. According to Keynesian way of thinking, the power of monetary policy to encourage economic activity by diminishing interest rates may be impaired by the occurrence of a liquidity trap (Grandmont and Laroque, 1976). The liquidity trap represents a particular characteristic of the demand for money, which is supposed to increase without limit as the long term rate of interest fails to zero, or approaches low but positive level. The liquidity trap phenomenon is streamlined by the assumption that interest rates expectations are inelastic. When considering the liquidity trap phenomenon, it is crucial to mention that it goes side by side with the liquidity preference, the desire to hold liquid assets - cash. As Keynes considered the economy could be indented indefinitely in a deep depression where interest rates are so low and liquidity preference set so high that reducing interest rates further would have no effect (Skousen, M., 2007). Although, Arthur Pigou, contradicted the liquidity trap principle. According to Pigou, Keynesian view disregarded the beneficial side effect of a reduction in prices and wages, implying that deflation increases the real value of liquid assets, which than raises the aggregate demand and leads to higher consumption and increased employment rate when the economy recover. The Pigou effect can also be extended to the issue of wage cuts during a recession. It is important to mention that Keynes rejected the classical argument that wage cuts are necessary to adjust the economy to new equilibrium conditions, from which a solid recovery could occur. Besides the critiques from Pigou, many other economists made criticisms on the Keynesian view of how the economy is functioning. It could be stated

that Keynesian model fails to grasp the true nature of the production- consumption process, since the model only assumes that the only thing that matters is current demand for final consumer goods - the higher the consumer demand, the better.

2.3. Neoclassical economic growth theories

The starting point of almost all analysis of economic growth is the neoclassical economic growth model developed by Solow and Swan in 1956. The focus of the neoclassical economic growth theories is capital accumulation and its relation to savings decisions. The key feature of the neoclassical economic growth theory is the assumption of diminishing returns to labor and capital. In that respect, it is crucial to state that there are three main characteristics in the neoclassical economic growth theory. First and foremost, in the long run steady state the growth of output is determined by the rate of growth of labor in efficiency units and it is independent of the saving and investment ratio to GDP. Furthermore, the level of per capita income depends on the ratio of saving and investment to GDP and it is positively related with the saving and investment ratio and negatively related with the rate of growth of population. Lastly, given the identical preferences and technology across countries, there is an inverse relation between the capital and labor ratio and the productivity of capital. The Solow model of economic growth is based on two equations - a production function and a capital accumulation equation. In Solow's model of economic growth, where other things remain unchanged, savings/investment and the rate of population growth are important determinants of economic growth. High savings/investment rates lead to the accumulation of capital per employee and thus higher output per employee. On the other hand high population growth has a negative effect on economic growth simply because most of the savings in high population growth economies are oriented towards maintaining a constant capital-labor ratio. In the absence of technological change and innovation, an increase in capital per worker will not be compared to a proportional increase in output per worker due to reduced returns.

After Solow, Paul Romer developed two models, the first one in 1986 and the second one in 1990. Unlike in Solow model, Romer assumed positive externalities associated with human capital such as education and training as well as research and development (R&D) which prevent the marginal product of capital from falling and the capital output ratio from rising. What was revolutionary in Romer's work is the fact that he assumes economic growth to be endogenous outcome of the economic system, and not a result of forces that impose from outside.

2.4 Institutional economics

In the above subsections, it was explained the path of development of the modern economics, starting with the invisible hand of Adam Smith, continuing with the Marxian socialist view of economic functioning, through the General Theory of Keynes and his phenomenon of creating the liquidity traps due to liquidity preferences of individuals, and finally with the explanation provided by the neoclassical economic growth theories of what actually constitutes growth and how it can be achieved. They all strive to explain how countries can achieve economic growth and development and improve the living standards of the people. So, there are some common fundamental characteristics of what constitutes economic development and growth. Those include, accumulation of human capital, endowment of natural resources, technological development and population growth. Yet, some economies could not achieve economic growth. It is known for a fact that for example, the developed and rich economies have highly skilled human capital, or employed the best and sophisticated technologies. On the other side, many countries, for example Latin America, that have high population density or are endowed with natural resources are not experiencing economic growth. Thus, one might say that there is an imperfect information of what actually constitutes growth.

In the previous subsection, discussing the neoclassical economic growth theories, it is noticed that the economic system is simply adjusting supply to demand and

production to consumption, under the coordination of the price mechanism. In that respect, it could be stated that the neoclassical economists treated the firm as a "black box", a production function that that turned inputs into outputs, responding to changes in relative prices and available resources in ways that maximizes profits (Menard and Shirley, 2011). The assumptions such as perfect information, rationality of individuals and instantaneous and costless exchange under which the neoclassical economists tried to explain the way economic system operates were purely simplified which in turn led to the creation of the new institutional economics. Another point, emphasizing the importance of the development of the new institutional economics is that the economic growth was purely a result of different endowments of resources and human capital and different rates of investment as well as employment of new technologies. What's most important is the fact that the role of the state is missing in the attempts to explain the phenomenon of economic growth. The main concern is why the political market does not function as the economic market, which raises another concern implying the circumstances under which the states protect property rights. As a result, the new institutional economics proposes three key concepts in order to explain those concerns, and those are, transaction costs, property rights and contracts.

The aim of this chapter is to discuss, historically, how the modern economics was developed. In that respect, in order to avoid redundancies, the rest of this subsection will mainly focus on Douglas North and his contribution in the institutional economics, whilst the general concepts of institutions and institutional development in broader aspect will be discussed in the next Chapter 3.

2.4.1 Douglas North

In 1991, Douglas North was among the first economists which postulate the philosophy of institutional economics, for which he won the Noble Prize in Economic Sciences. As stated in the introductory part of Chapter 1 the definition of North (1990)

considers institutions as humanly invented constraints that structure political, economic and social interaction. Or simply, institutions are the "rules of a game" within a society. Having in mind what was stated in the introductory part that the institutional framework is consisted of formal rules (constitutions, property rights, laws, reforms, etc.) and informal rules (sanctions, taboos, customs, traditions and codes of conduct) and also enforcement mechanisms, the market participants, or more broadly the whole society is consisted of players of the game. Before discussing his theory, it is crucial to determine the intellectual roots and what inspired North to postulate such revolutionary ideas.

- *Main milestones in North's institutional theories*

It is vital to underline the trigger of North's intellectual roots, so that it could be better understood how he managed to provide answers on one of the most researched topic, that is what generates economic growth and how countries could achieve it.

Figure 3 describes the early intellectual roots of North's ideas. As Marx got his ideas for socialism as early as he was an undergraduate student, North started his ideas at the University of California at Berkeley, while doing his undergraduate studies. Furthermore, as he was about to join the merchant marines in World War II his profound thinking about violence and society started to increase. Subsequently, Douglas North was influenced by the ideas of creative destruction developed by Joseph Schumpeter, Austrian economist, through the entrepreneurial school of Arthur Cole at Harvard (Menard and Shirley, 2011). Later on, he was also influenced by Ronald Coase, British economist, whose ideas of the importance of transaction costs in the economy is implemented in North's work of institutions, institutional development and change.

Figure 3 Intellectual Roots of North's ideas
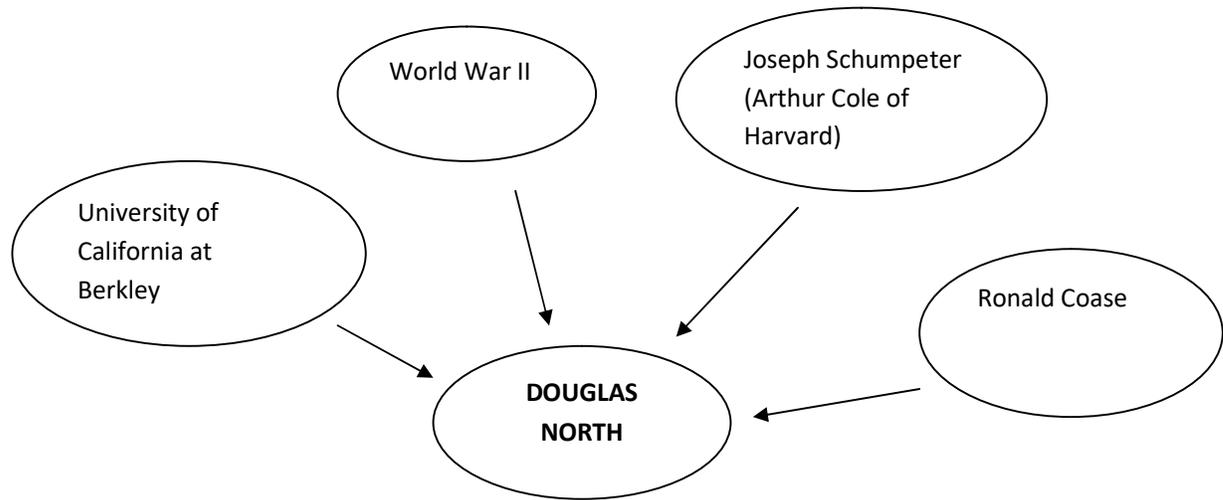
Source: The author

Considering the above presentation, one might say that, North's emphasis on importance of institutions began later on and developed steadily. During the 1960s, North attributed economic growth to three factors such as human capital, technology and efficient economic organization, giving predominance of the technology. In that respect, North was kind of following the neoclassical theories of economic growth. However, in his famous paper in the *Journal of Political Economy* in 1978 he turned away from the neoclassical approach knocking off the importance of technology down (Menard and Shirley, 2011).

Further on, in his book with Lance Davis, *Institutional Change and American Economic Growth* in 1971, he focused on diminishing the importance of the technology in explaining economic growth and prioritize the importance of institutional change. The same genesis can be found in North's book *The Rise of the Western World. A New Economic History* written in 1973 with Robert Paul Thomas, although the main postulates of the neoclassical economic growth theories could still be visible. Yet, he was not able to determine what makes one countries rich and other poor. Thus, his revolutionary master piece in 1990 *Institutions, Institutional Change and Economic Performance*, went further by

abandoning the neoclassical economic growth approach and postulated the base for New Institutional Economics. In providing the answer of why some countries are rich and other poor, in his book he states that "*institutions provide the basic structure by which human beings throughout history have created order and attempted to reduce uncertainty in exchange".* [6]

Figure 4 North's Evolving View of the Economy

Institutions, Institutional Change And Economic

Performance (new institutional economics roots)

⇑

The Rise of the Western World. A New Economic History

(partial neoclassical roots)

⇑

Institutional Change and American Economic Growth (partial

neoclassical roots)

⇑

Sources of Productivity Change in Ocean Shipping (Journal of

Political Economy) neoclassical roots

Source: The author

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[6] Taken from Noble Prize Press Release. It could be found at https://www.nobelprize.org/prizes/economic-sciences/1993/press-release/

North's work inspired a lot of researchers and had a huge impact in many fields. One might say that Douglas North's work has an enormous impact on the direction towards shaping the new political economy. To be more precise, the impact of institutional economics in political economy was in terms such as democracy, the rule of law, legislative rules, which first started to be applicable in the United States and developed European countries, but most recently it became a huge issue for the developing countries, especially those striving to join the European Union (EU). The later, is one of the reasons why the countries chosen for research in this thesis are the transitional countries, indexed as middle income countries from the Balkan region. The main comparison will the difference between the countries that have already joined[7] European Union, and those that have started, or about to start, the negotiations for joining the EU[8].

Menard and Shirley, 2011, also confirmed that the implications of Northean institutional have became part of many economists trying to determine the causes of economic growth by adding a proxy for institutions in their Solow style growth model. However, it has to be pointed out that the empirical studies of institutions are a part of the economic growth equation is still scarce due to the fact that it is found to be difficult to find a proxy for institutions. Another important fact that needs not to be neglected is that all of the empirical studies were focused and had a tendency to include only the formal[9] institutions as defined by North, which are thoroughly discussed in the next Chapter, and those informal institutions which are found as important as the formal ones, the impact of society are dismissed, since societal impact on economic growth is difficult to be measured.

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[7] Countries that joined the European Union which will be part of the research are Bulgaria, Croatia, Romania and Slovenia.

[8] Countries that have started the negotiations or are about to start and are of the interest of this research are Albania, Bosnia and Herzegovina, North Macedonia and Serbia.

[9] A definition provided by Douglas North in determining what are formal and what are informal institutions. According to Douglas North, 1990, Formal institutions are formed by sets of rules such as laws and property rights, while informal rules are "a part of the heritage that we call culture" (North, 1990, pg. 37).

- North vs. Neoclassical economics

North's intention is not a complete rejection of the neoclassical economic growth theory, but rather he put an effort for its improvement. According to him, the neoclassical economic growth theory could not be taken as accountable for explaining economic growth since it only consider market operation, and ignores the way markets develop over time. Consequently, it disregards the role of institutions in respect to growth exclusively as a function of the size of population and the rate of savings (North, 1991). Thus, the neoclassical economic growth theory only explains growth at a particular time, losing its ability to enlighten the dynamic change. Thus, a confirmation of the opening argument in this paragraph could be made, that North's intentions are not to totally reject the neoclassical economic growth theory, but to clarify it with taking into account the change over time.

When making a comparison between the neoclassical economic growth theory and the propositions made by North in an attempt of creating new institutional economics, another important fact needs to be stated. North's rejected the rationality assumption. It is well known that the neoclassical economic growth theory assumes that all agents are rational, even though there is a possibility that the information they posses might be incorrect. However, for the neoclassical economic growth theory such assumption is affordable since it presumes institutions as they are. Yet, since the institutions play a crucial role in determining the choices market agents make, it is unrealistic to take institutions for granted (North, 1991). In the reality, individuals access to information is generally insufficient and their capacity to process information is often distorted by their mental model. As a result, the process of market operation, with the absence of proper institutions, could not by itself create suitable conditions to facilitate market players to adjust their preferences and decisions (North, 1991).

A conclusion could be drawn that, once it is accepted that markets do not yield efficient outcomes, the study of institutions becomes essential component of any research interested in explaining the origin of markets, their performance over time and the mechanisms that generate self-sustaining growth.

2.4.2 Thomas Piketty - Capital in the Twenty-First Century

When discussing about the development of modern economics and reaching the point of the development of the new institutional economics it is vital to mention the Thomas Piketty's opus magnum, *Capital in the Twenty-First Century*. Previously, in this Chapter Karl Marx is discussed as having one of the crucial roles in the development of the modern economics. However, when discussing the importance of Thomas Piketty in the modern economics, it is crucial to be stated that Piketty, somehow links the Marxian view and the one that North proposes. Piketty's main concerns are the income inequality and the distribution of capital, however, also the link between the two. On one hand, he question whether the dynamics of private capital accumulation inevitable lead to the concentration of wealth in ever fewer hands as Marx believed, while on the other hand he questions the neoclassical economic growth theories stating that by balancing the forces of growth, later on income inequality will be reduced, and synchronization among classes will be achieved. According to Pikkety, modern economic growth and the diffusion of knowledge have made it possible to avoid the Marxist apocalypse but have not modified the deep structured of capital and inequality (Piketty, 2004). In an attempt to provide answer to the distribution of wealth and capital Piketty uses the following several principles:

- *The Principle of Population* by Thomas Malthus which main concern is the overpopulation.

- *The Principle of Scarcity* by Ricardo which main concern is that in the long term evolution with population growth and output growth, land would become scarce, thus leading to increased prices and rents of land. As a correction mechanism Ricardo proposes imposition of taxes.

- *The Principle of Infinite Accumulation* by Karl Marx which main concern is the understanding of the dynamics of industrial capitalism. As capital increases, the industrial

profits increases but for the long time the labor wages stagnated. Even after the late 19th century the purchasing power of wages increased.

Nevertheless, Piketty also considers the theory of Kuznets, or the Kuznets curve which is bell shaped cure of inequality, showing that at first the inequality increases up to a certain point and after reaching its peak, it starts to decline due to the industrialization and economic development. Having all of the above brief facts, Piketty came to several conclusions. First and foremost, one might state that the distribution of wealth has constantly been profoundly political and it cannot be reduced to entirely economic mechanisms. When considering the above principles, which are intentionally only briefly presented, Piketty concludes that the history of inequality is shaped by the way economic, social and political actors act and by the choices they made (Piketty, 2004). Furthermore, the second conclusion is related to the dynamics of wealth distribution which reveal powerful mechanisms pushing toward convergence (reduction and compression of inequalities) and divergence (Piketty, 2004). The general conclusion of Piketty's *Capital of the Twenty-First Century*, which relates to the topic in this thesis is certain public policies and institutions bring us closer to an ideal society.

2.5 Stiglitz's comments

Joseph Stiglitz, Columbia professor and a Nobel Prize Laureate, is considered as Keynesian and a huge opponent on Adam Smith's Invisible hand. According to him, the invisible hand is either not there or, if there is palsied (Stiglitz, 2001). Stiglitz proclaims that market imperfections and market failures are so persistent which indeed leads to market inefficiency, which than requires government correction. Since the institutional economics is of the interest of this thesis, the focus will be on Stiglitz comments and his work connected to the field of institutional economics.

As previously noted in the above subsection which presents the main highlights of Douglas North's work, the transaction cost are crucial when it comes to a discussion of

institutions. Having in mind that, information plays essential role. The vast of research performed by Joseph Stiglitz is based on information asymmetry for which he won the Nobel Prize in 2001. In his work, Stiglitz explored the consequences, given beliefs about probability distribution of prices and output of economic behavior[10]. The conclusion made was that both, firms and individuals spent enormous amount of resources in obtaining information. Another consideration of Stiglitz in terms of information is the concept of appropriability - what individuals and firms get in return for the information that they pay for. Stiglitz considers information as a public good. In his later research, *Whiter Socialism*, with the fall of the Soviet Union, Stiglitz came with the conclusion that it was due to the inadequacy of the competitive market equilibrium, which failed to recognize the complexity of the information (Prychitko, 1996). In that manner, Stiglitz emphasized the importance of competition, corporate governance, finance and more importantly the institutional infrastructure.

2.6 Concluding remarks

After presenting the path of development of the modern economics, it could be stated that throughout the history, many significant names occurred in an attempt to create a better society, improved living standards, and most importantly provided keys to economic development and growth. Even from the above brief discussion, one might state that the new institutional economics emphasizing the importance of institutions and institutional development plays a crucial role in how countries could achieve higher economic prospects - by creating proper institutions. The next Chapter is focused on presenting the most important defining terms of institutions, and their role in the attempt to achieve higher economic growth.

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[10] The information is obtained from the Nobel Lecture he provided and can be obtained at the following link

<https://www.nobelprize.org/prizes/economic-sciences/2001/stiglitz/biographical/>

Chapter 3 Institutions, institutional development and economic perspectives

*It is hard to make much progress in the study of
institutions if scholars define
the term to mean almost anything. (Ostrom 2005)*

To understand economic transition and growth it is not enough to analyze physical and human capital; it is vital to also understand the broader context in which they perform. The discussion in the previous two chapters has suggested that the level of institutional reform may affect the rate of economic growth in middle income countries. However, it is vital to argue that it is not just the level of institutional reform that determines growth but also the path of change in the various institutions that make up the economic and social system that is important in explaining growth.

3.1 The meaning of institution

As presented in Chapter 1, and just for a reminder, before proceeding with other details, institutions are defined as humanly invented constraints that structure political, economic and social interaction, or simply, (North, 1990) considers the institutions as "rules of a game" within a society.

Before proceeding further, an important point has to be made. (North, 1990) considers institutions to be created by individuals, they evolve and are changed by individuals. It is commonly known that often institutions are misinterpreted with organizations. In that respect, (North, 1990) in his masterpiece *Institutions, Institutional Change and Economic Performance* makes a distinction between institutions and organizations. Since it is already stated that institutions are rules of a game, organizations and individuals are the players in the game. Certainly, North also states that, in some cases,

without providing specific example, organizations are also institutions since they provide structure for human interaction. He states, though, that even though organizations may be considered as institutions in some cases, it is the individual, who as a member of that organization, makes choices leading to the establishment or change of institutions (North, 1990).

Furthermore, it has to be stated that the main critique Douglas North provided of the neoclassical economic growth theory is based on the main postulates of the neoclassical economic growth theory, where the information is perfect. He considers that institutions are established in order to reduce barriers arising from imperfect and asymmetric information. These barriers that institutions tend to overcome are described as transaction costs, which is more detailed explained in one of the subsections in below. Yet, in his theory, North recognizes two separate constraints i.e. formal and informal, which together embrace, according to him the rules of a game.

Douglass North (1990) was among the first to highlight the role of both formal and informal institutions for economic performance. Formal institutions are formed by sets of rules such as laws, tax regimes and property rights, while informal rules are "a part of the heritage that we call culture" (North, 1990). One might state that formal rules are only small subset of the constraints that direct choices and human interaction, whilst informal constraints and conventions are so persistent that one is often misled into understanding their role and importance. In that respect, institutions, both formal and informal, tend to reduce uncertainty, structure incentives, define property rights, limit choices and ultimately determine the transaction costs (North, 1990).

Williamson (1999), considered an institutional analysis in a framework with four levels presented in the below Table 1. Before explaining these levels and trying to find their interconnection, it is vital to explain the concept of embeddedness. In that respect, it could be stated that the concept of embeddedness has deep roots in social science, introduced by (Polanyi, 1957), who affirmed that the human economy is embedded and entangled in institutions, both, economic and noneconomic. This concept is also central to research in economic sociology and is also used as a synonym with the perception that organizations and the economy are part of a larger institutional structure. This concept of embeddness is

used by Granovetter (1985), in order argue that the economy is structurally embedded in social networks that affect its functioning. Thus, going back to the Williamson (1999), institutional analysis, it could be stated that at the lowest level 4, market agents operate in accordance with the existing institutions, making marginal decisions that are in compliance with the neoclassic economic theory. He further explains that these decisions are made in the context of governance structures which is level 3, implying that the decisions are made based on the institutional arrangements governing rights over resources.

Table 2 The Economics of institutions

Level	Purpose	Theory
1. Embeddedness: social environment - informal institutions: norms, beliefs, traditions, culture	**Protect, preserve** and empower	**Social Theory**
2. Institutional environment - formal rules of the game: laws, property rights and constitutions	**first order economizing** create appropriate institutional environment	**Economics of property rights; positive political theory**
3. Governance - the play of the game	**second order economizing** create appropriate governance structure	**Transaction cost**
4. Neoclassical analysis	**Third order economizing** create appropriate marginal conditions	**Neoclassical theory**

Source: Adapted from (Williamson, 1999)

However, these institutional arrangements or governance are determined by the institutional environment or level 2, or as known by the rules of the game, considering both formal and informal rules. Thus, as a final point Williamson (1999) made, these formal and informal rules of a game are embedded in deeper traditions, norms and cultures.

Considering the process of development in the economics, much attention has been paid to level 2, 3 and 4 and quite little in level 1. However, for the purpose of researching and studying the economics and for the purpose of this dissertation topic, it is enough to only mention the implications of level 1, and focus primarily on level 2.

Furthermore, it has to be stated that besides Williamson (1999), Scott (2001) also identified three pillars of institutions
- the regulatory pillar is legally sanctioned and includes rules and laws
- the normative pillar which is morally governed and includes certifications and accreditations
- the cultural cognitive pillar which includes common beliefs of action.

The above listed three pillars form a continuum moving from the conscious to the unconscious, from the legally enforced to the taken for granted (Scott, 2001). Furthermore, Scott (2001), also states that most researchers draw attention to the regulatory aspects of institutions that constrict and regularize behavior, implying that society's rules of the game fundamentally determine incentives which guide the undertaken actions. Considering the above three pillars, it could be stated that the economists, mostly prefer to view institutions as in accordance with the first pillar. The definition of institutions, quoted by North (1990) presented in the above, supports the later point. To be more elaborative on this, it could be stated that Scott (2001), argues that the accent on the regulatory pillar may diverse in part from the fact that economists focus the attention on behavior of the market actors in competitive situations, where competing interests are more common, hence precise rules are necessary to preserve order. In that respect, one might say that, that is the rationale behind the importance of property rights in considering the institutions. However, regarding the second and third pillar, it could be stated that in recent economic research, the importance of the cultural aspects, values and informal constraints such as norms was also validated.

3.2 Types of Institutions: Formal and Informal

As it was recognized by Douglas North, institutions can be formal and informal. In the above section, it was obvious that Williamson's four level framework implies that the formal rules at level 2 are embedded in informal rules at level 1, however, both formal and informal rules of the game exist in levels 2 and 3, and formal and informal rules are embedded in each other (Ostrom, 2005).

North's analysis initiated an expansion in the economic, social and political literature addressing *formal* and *informal* institutions in relation to economic development. Institutions evolve over time. This point is crucial, especially considering the middle income countries in South Eastern Europe. Political and economic changes in the early 1990's meant that formal institutions that define the economic, political and legal systems have changed in a short period of time, which topic is covered in more details later in this chapter. However, informal institutions given their nature, have needed time to absorb these changes as they have evolved at a slower rate. This indicates to the fact that during the process of transition, the change in formal institutions may outpace the change in the informal institutions. If "institutional complementarily" is important to ensure the consistency of an economic and social system (Amable, 2003) then it is likely that the consistency of institutions is reduced during the initial stages of transition, and this may lead to an undesirable effects on economic growth. Institutions may become less complementary in these early stages of transition, and it may only be in a later stage of transition that the complementarity of institutions is restored, as informal institutions catch up with the rapid pace of change of formal institutions (Bartlett, et. al., 2013).

As previously defined the Informal institutions, given their nature, they have been also analyzed by sociologists. Pierre Bourdieu (1986) has identified social, cultural and symbolic capital as specific institutional configurations that also determine the velocity of economic development and growth and particularly the structure of social discrimination and inequality. Given the EU's new emphasis on "inclusive growth" in the Europe 2020

Strategy this would seem to be an important consideration for the analysis of the institutional development. According to Bourdieu (1992) social capital depends on cultural capital, which in fact is formed by the possession of knowledge and skills that give a person higher status in the society. Moreover, the symbolic capital reveals other resources based on prestige, status and honor. Considering these forms of capital it could be concluded that they are important elements in determining the extent of social inclusion. Bourdieu (1992) also underlines the role of social networks as crucial element of social capital (what according to North is considered as informal institution) recognizing the fact that they are underpinned by formal rules (the rule of the law and property rights). Thus, it could be stated that individuals gain resources in the form of social, cultural and symbolic capital in part through their membership of social networks (Bourdieu, 1992). In this theoretical view point, any type of network could be used in order to achieve advantage, including institutional as well as family networks.

The theory of social capital was also argued by Robert Putman who acknowledged social capital with social networks. "Social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them" (Robert Putman, 2000, pg.19)[11]. In his analytical approach of social capital, he outlines the importance of being involved in a community. The demolition of communities which can occur due to large structural changes such as those occurring during the process of economic transition, corresponds to a loss of social capital. However, the social inclusion has come under attack for disregarding the role of power relations and interests of the dominant elites which shape and provide a context to the institutional framework and which limit the extent of institutional reform (Bartlett, et. al., 2013). Hence, one might state that institutional reforms have become caught at a half-way stage in many transition economies, a phenomenon that can be explained by the struggle to continue the process of reform imposed by specific interest groups.

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[11] as cited by Bartlett et. al., 2013

3.3 Scope and Function of Institutions

As previously discussed, the purpose of institutions is to help market agents to improve their welfare, however, it could also be considered that different institutions might serve the same function. Thus, it is important to mention that the type of institution that emerges depends on various factors such as information structures, power relations, legal environment, path dependence. More precise, North (1991), reviews the main function of institutions as forming enticement structure of a society, having in mind that political and economic institutions accordingly are the underlying determinants of economic performance. Consequently, institutions are considered as crucial in determining economic performance since they influence the cost of production, i.e. it influence the input and transaction cost. Hall and Soskice (2001), presents the below three ways of the relationship between political economy and behavior, implying that the institutions of the political economy has the most important function in shaping the behavior of the firms:

1. *Institutions can be considered as socializing agencies that instill a particular set of norms or attitudes in those who operate within them.*

2. *The effects of institutions can be considered as stemming from the power they confer on particular actors.*

3. *Institutions of the political economy can be considered as a matrix of sanctions and incentives to which the relevant actors respond*.

When discussing about the scope and function of the institutions it is vital to outline that institutions are considered as governance tools, which guide cooperation between market agents as well as overcome market failures. One might state that the institutions serve different purposes, still, on a general level, they manage conflict.

Yet, it is important to state that individuals are not merely controlled and inclined by the institutions, they are jointly shaped by the natural environment, natural heritage and institutions. However, the concept of institutions must coincide with the equally valid concept that institutions are formed and changed by individuals (Hodgson, 1998).

3.4 Transaction costs

In Chapter 2, it was presented in Figure 2, that North's intellectual roots were influenced by Ronald Coase, even though, in that subsection it was not explained in details. In his article "*The Problem of Social Cost*" published in 1960, Ronald Coase is considered to be among the first institutionalists who tried to incorporate the issues of property rights and transaction costs into economic analysis (Meramveliotakis & Milonakis, 2018). To be more precise, he tempted to clarify his argument regarding the issue of how ownership arrangements, which generates external effects, can drive the system into an efficient source allocation. Specifically, Ronald Coase tend to examine the economic implications of the allocation of legally defined rights, to be precise, those that have external effects on the value of other individuals' abilities to excercise their rights over assets (Meramveliotakis & Milonakis, 2018). Thus, one might consider that the basic element of his analysis is the concept of transaction cost. In general, transaction cost can be define as the cost of negotiating, measuring, and enforcing exchanges. Negotiating an agreement can be a long and costly process. All sides to the exchange must bargain with one another even when they are in better position. Labor unions and management must negotiate new contracts periodically. Sometimes the process is so difficult that mediators must be brought in to facilitate the discussions.

Regarding transaction costs, it has to be stated that Ronald Coase argued that the function of the market as such is not without costs, implying that there is a cost of using the price mechanism (Coase, 1988). *Vis-à-vis* transaction costs, Coase identified three types of transaction costs:

1. Search and information costs - discovering what the relevant prices are

2. Bargaining and decission costs - concluding a contract for each transaction on the market

3. Policying and inforcement costs - establishing a long term contracts

According to Coase, "*In order to carry out a market transaction, it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiation leading up to a bargain, to draw up the contract* (Coase, The Problem of Social Cost, 1960).

Since the idea of this Chapter is to present the basic notions of the institutions, the theory of transaction costs needs to be further elaborated in order to present the implications it has on institutions. Thus, one might say that the concept of transaction cost is used as a benchmark to divide the economic analysis into two distinct parts. The first part, the theory of transaction cost attempts to identify the essence of property rights in the society with zero transaction costs, whilst in the second part the attempt is to enlighten the allocation of the legally endorsed property measures in the society of positive transaction costs. The former case, i.e. the first part, is what is nowadays universally known as the Coase Theorem. So, one might conclude that the neoclassical model could yield the appropriate results only in the absence of the transaction costs, whilst with positive transaction cost the resource allocation is distorted by the property rights. Nevertheless, neither Coase or other researchers managed to find the rationale behind the cost of transaction cost (North, 1990).

Having in mind the basics for transaction costs developed by Ronald Coase, North tended to increase the application of transaction costs in a further direction. According to (North, 1990), the purpose of transaction costs is not only applicable in the market transaction, but in the society as a whole. Thus, one might conclude that the application of transaction costs is not only in the performance of the market transaction, but rather it is also applicable in running and operating economic and political systems. North defines transaction costs as "*the costs of specifying and enforcing the contracts that underline exchange and therefore comprise all the costs of political and economic organizations that permit economies to capture the gains from trade*" (North, 1990). This wide definition

facilitates his ability to interpret the past, trace the evolution of institutions and evaluate qualified virtues of institutional arrangements despite of whether they are economic or political (Schlag, 1989).

3.5. Political and economic institutions

After presenting the base definition of North's institutions, the IMF (2005) extends it by outlining the connection between economic and political institutions. Economic institution refers to institutions that shape political institutions by determining the comparative prosperity of various groups of society. In addition, political institutions are considered to outline the enticements of political executive and establish the distribution of political power, which also has the ability to shape economic institutions. The difference between good economic institutions and bad economic institutions is the fact that, the god economic institutions presumably thrive in a society in which small groups are not able to benefit of a monopoly position in a particular sector or have monopolistic access to resources, whilst bad economic institutions enable the exact opposite. This leads to the fact that good economic institutions are more likely to be accompanied by good political institutions, confirming the prior statement. To be more exact, if the political power is broadly shared and transparent, the risk of monopolistic abuse would be lowered.

A study performed by Acemoglu, Johnson and Robinson (2005) presents a survey, summarizing the important points made so far in this section. They outlined that the literature so far, considering in retrospect, largely endeavor to create a skeleton in order to explain why economic institutions diverge across countries and how economic institutions shape the political institutions. As it was stated so far, and now confirmed by this study, the economic institutions establish the incentives of and the constraints on economic actors and thus shape the economic outcome. However, partial groups within the society with political power also attempt for the distribution of economic institutions to affect the distribution of resources. Despite these attempts to provide a clear understanding of what is economic institution and what is political and the interconnection among the two, there is a general

impression that there is no universally accepted measure of institutions. In order to avoid redundancies, the discussion of choosing an appropriate measure for institutions is further discussed into details in Chapter 8.

3.5.1 Rodrik's taxonomy of market - sustainable institutions

The definition of good economic institutions according to Rodrik (2003) involves institutions which deliver the main economic principles such as market-based competition, debt sustainability, contract enforcement and protection of property rights, in an effective way. Having in mind the discussion about economic and political institution, Rodrik emphasized the importance of political institutions in the economy, such as the enforcement of contracts and the protection of property rights. Thus, he propose a taxonomy of market - sustaining institutions considering four dimensions, presented in the below figure 4.

Figure 5 A taxonomy of market - sustainable institutions

√ Market - creating institutions	√ Market - regulating institutions
- Property rights -Contract enforcement	- Regulatory bodies - Other mechanism for correcting market failures
√ Market - stabilizing institutions	√ Market - legitimizing institutions
- Monetary and fiscal institutions - Institutions of prudential regulation and supervision	- Democracy - Social protection and social insurance

Source : Rodrik (2003)

The importance of market process is found to be crucial for economic prosper. As stated earlier in this chapter, the well functioning market should provide market agents with proper information in order to make the most rational decision. Thus, the first dimension market-creating institutions, includes property rights and contract enforcement as

mechanisms through which the market would provide security and thus enforce economic prosper. For a market to function well, certain regulations are required in order to diminish the abuse of power and asymmetric information, and that is the second dimension, i.e market - regulating institutions. After establishing this, the market requires market - stabilizing institutions, to enforce the monetary and fiscal policies. Finally, the market-legitimizing institutions are considered as a cornerstone of the well functioning market and economic prosper, having in mind that democratic environment could be a base of well functioning, quality and developed institutions.

The above taxonomy could be considered as a framework for presenting the synergy between economic and political institutions.

3.6 Institutions in transition countries

Economic and political liberalization has changed a variety of the formal communist institutions such as the laws, regulations and organizations characteristic of the communist era. At the same time, the informal institutions from the pre-communist and communist era, including relationships, norms and rules of behavior, continue to outline expectations, incentives and behavior. In that respect one might draw a conclusion that the informal institutions are emerging along with the newly developed formal laws and organizations. Another important point made by North, (1991), is that in an attempt to design and introduce new set of rules and regulation i.e. formal institutions, reformers and policymakers have to be cautious that all these measures will confront and interact with remains of the old arrangements and instinctively develop informal institutions. Thus, conflicts and discrepancies in the interaction between formal and informal institutions can provide unexpected consequences, including dissenting behavior and underground economic activity. Hence, it has to be stated that it could be very difficult to set the optimum level of institutionalization.

Institutional reforms in majority of middle income countries and transition economies can be seen the outcome of a policy process which involves a political struggle between pro-reform and anti-reform elite groups and the emergence of political coalitions which have specific interests in the outcome (Bartlett, et. al., 2013). In the literature examining the transition period, it could be seen a long debate about the relative influence of 'winners' and 'losers' on the transition process. From one side, the potential losers from the transition process are expected to resist reform, and present the reform process with severe political constraints (Roland, 2000). Moreover, the losers, including workers who have lost their jobs as a consequence of the privatization and restructuring of state owned enterprises may be mobilized into opposition to reform by members of the old elites, including managers of state-owned enterprises who prefer the status quo to radical reform. In order to minimize this, pro-reform leaders should guarantee that economic reforms are accompanied by appropriate social reforms, and that a social safety is established to compensate exposed groups for their losses (Kramer, 1997)[12]. On the other side, it could be stated that it is the winners from reform that are the most dangerous opponents of reform progress (Hellman, 1998). The winner side of the transition process is considered to be formed by the new elites who gain from the early stages of reform. To be more precise this group consists of managers of large privatized enterprises, politically well-connected tycoons who gained privatized assets at bargain prices, media barons and directors of public institutions who owe their positions to political connections, and also, political leaders who represent these groups. Accordingly, in a partially reformed economy, new elites create monopolistic positions that provide opportunities for rent-seeking, and they strive to prevent further reforms which could lead to undermining their new privileges. Social capital as a result of institutional reform can consequently be seen as a challenging concept.

While for Putnam, social capital is essentially a positive resource, for Bourdieu social capital can have both positive and negative consequences because social networks are both inclusive and exclusive at the same time (Bartlett, et. al., 2013). As an example to

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[12] cited by Bartlett, et. al., 2013

support the previous statement, could be used the Mafia, for which ties within a family are strong while at the same time members of the broader community are mistrusted.

A supplementary influential analysis of social capital has been provided by Francis Fukuyama who stressed out the important role of inter-personal trust and economic and social networks in promoting economic growth (Fukuyama, 1995)[13]. In his point of view, social networks play a crucial role in market economies due to the fact that they reduce the transaction cost of doing business on the basis of arms-length contracts with strangers by substituting for the need to monitor and enforce formal agreements (Bartlett, et. al., 2013). The social networks that Fukuyama (1995) illustrates are those based on honesty, the keeping of commitments, consistent performance of duties and reciprocity, in other words, social networks that have positive externalities for one group as well as for the whole society.

As stated in the above, the transition countries provide an interesting example for the analysis of the role of institutions, social capital, trust and networks in an attempt to explain the different rates of economic prosper. In the 1990s, the institutional legacy of communism imposed a strong inaction on the process of evolution of institutions in almost all transition countries. Thus, one might state that, many organizations and associations formed after the collapse of communist era were connected with organizations from the communist period;, such as trade unions and the industrialists' unions that were rarely independent from the state. They were either controlled by them or designated them. Additionally, the state depressed the development of civil society on the basis of independent social networks, NGOs as well as any other pluralistic institutions. In cases where the state assured an option for creating a civil society, its goal was often to fragment it and to prevent the appearance of independent associations (Kubichek, 2000)[14].

After presenting few crucial points on basic definitions of institutions with special emphasis on transitional countries, the thesis proceeds with few other basic concepts in order to better understand the meaning and the role of institutions in the economy. In

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[13] cited by Bartlett et. al., 2013

[14] cited by Bartlett, et. al. 2013

Chapter 2, the part discussing about the role of Douglas North in the establishment of the new institutional economics it was only mentioned (the intention was not to elaborate details in that chapter so that redundancies would be avoided) that the new institutional economics proposes three key concepts in order to better explain the role of institutions in the economy and those are transaction costs, property rights and contracts. The following part will elaborate the transaction costs and why are they important in the new institutional economics, whilst the next chapter, Chapter 4 will be focused on property rights, with special emphasis on the rule of law. At this point, in order to avoid any misunderstanding, as to why a whole chapter is devoted to only one concept out of the three, the answer is since it is crucial and of interest for this thesis, especially when it comes to the countries of interest. The comparison of two subgroups of countries, one members of the EU and one subgroup striving to be, it is vital to discuss the rule of law in more detailed manner.

PART II

CHAPTER 4 POLITICAL INSTITUTIONS

After the introducing Part I in which the basic concepts of the institutional economics were introduced along with the introductory part of the institutions in the transition countries was presented, this part focuses on more concrete theoretical representation of the topic of interest.

4.1 Political system

So far, in the previous introductory Part I, it was discussed that the political system plays a vital role in determining one country's economic prospects. In that respect, when presenting the basic concepts of the institutions, the formal institutions were mentioned and many times as an example, property rights and the rule of law were given. Before proceeding with discussing the property rights and the rule of law, some important developments in democracies it is important to be mentioned.

Francis Fukuyama in his book *The End of History and the Last man* described the fall of the Berlin Wall in 1989 as a defining moment in the evolution of political systems and the starting point of new democratization[15]. To be more precise, Fukuyama (1992), stated that liberal democracy had prevailed over all other systems of political organization and was the unavoidable sine qua non for all societies. Since the fall of the Berlin Wall, many of the transition countries become secured democracies, whilst others have at least made considerable pace towards building forceful democratic institutions, supporting the above statements presented by Francis Fukuyama. Nevertheless, the process of transition in some countries has been more inconsistent, with reforms stagnating or even going backwards[16]. However, considering again *The End of History and the Last man* by Francis Fukuyama it

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[15] (Fukuyama, 1992)

[16] EBRD Report 2013, Stuck in Transition

could be stated that the "*contemporary liberal democracies did not emerge out of the shadowy mists of tradition. Like communist societies they were deliberately created by human beings at a definite point in time, on the basis of a certain theoretical understanding of a man and of the appropriate political institutions that should govern human society*" (Fukuyama, 1992, pg. 153).

The Transition Report 2013 created by EBRD Stuck in Transition develop few conclusions regarding the topic of concern. First and foremost, it shows that there is a strong empirical support for the fact that economic development (measured in terms of GDP per capita) leads to progressive development in democratic societies, and that those countries that cross the threshold of economic development are less likely to ecperience democratic reversals[17]. An exception to the prior are those countries enriched with endowments of natural resources, since the possibility that the state could monopolize resource usage in order to avoid dependence on the system of broad taxation of population. Having said that, this avoidance of tax system dependence force another issue, the issue of inequality, which in terms makes the process of democratization impossible[18]. A conclusion could be drawn that the process of transition to democracy, countries should improve the policies and institutions which support economic growth as well as to promote market reforms. It is known for a fact that since the process of transition, the countries faced considerable productivity gaps as a result of innated capital and production structures, as well as inadequate and ineffective institutions carrying out the economic activity. The 2013 Transitional Report by EBRD (2013), presents that the transitional structural reforms as measured by the average of EBRD's six country-level transition indicators improved quickly untill the end of the decade[19]. At the end of the decade, there is a point at which the improvement of the structural reforms started to slow down or in some cases diminish, which in fact showed that the transition economies started to catch up with the advanced

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[17] (EBRD, 2013)

[18] (EBRD, 2013)

[19] (EBRD, 2013)
Note: These are the six country-level transition indicators for each country: Large-scale privatisation; small-scale privatisation; governance and enterprise restructuring; price liberalisation; trade and foreign exchange systems; and competition policy.

market economies. The EBRD (2013), Transition Report concludes that there is a remarkable correlation between the transition indicators and the quality of political institutions, particularly the degree to which societies are democratically organized. Having in mind that, the countries that scale highly on an index of democratization have achieved at least rational development towards market - oriented economic institutions. In addition to this, it could be stated that political and economic institutions play a vital role in determining country's economic development and growth potential. To remid what was stated earlier in Part I, those countries with strong institutions such as effective rule of law, more secure property rights and well defined social norms are considered to be able to attract more foreign direct investments as well as to better utilize physical and human capital more efficiently.

4.2 Rule of Law

Acemoglu and Robinson in their book *Why Nations Fall* provided a great contribution in the topic of question in this dissertation. Considering a vast number of examples and historical movements, they show how institutional developments have enourmous consequences in respect to answering why some nations differ in terms of economic and political developments. The book focuses on the complex joint evolution of political and economic institutions, and how the interaction among them could lead to favorable institutions and economic success or represive institutions and economic stagnation. Moreover, their research shows how economic forces, politics and policy choices and implementation evolve together and restrain each other, as well as how institutions affect that evolution, by then concluding that this is essential point in understanding the success and failures of nations. Acemoglu and Robinson (2012) considered that the openess of a society, its willingness to permit creative destruction and the rule of law appear to be decisive for economic development.

Considering the statements made so far, it is obvious that the rule of law, as formal institution, plays an essential role in determining the importance of institutions in defining

prospects of economic developments and growth. In that matter, it is important to first provide a definition of the rule of law, and then outline its importance as institution.

There is no universally agreed definition of the rule of law, since the concept is considered to be very broad. Generally, it implies that all humans and organizations are subject to and responsible to law that is fairly applied and enforced. However, due to the vast nature of the concept of the rule of law, usually it is considered as to be an expression of certain values such as devotion to the principles of supremacy of law, equality before law (equality in terms of gender, race, position of power etc.), responsibility to the law, separation of powers, justice in the application of the law, etc. It could be stated that the rule of law as an expression of the certain values presumes respect and value of rights. Having said that, it is crucial to identify that even if dissemination of rights is considered as very important, in order those rights to become effective, a development of a network of auxiliary supporting institutions is required, both formal and informal institutions (Brinks, 2008).

However, a more explicit approach to the relationship between institutions and the rule of law is presented by another scholar, Guillermo A. O'Donnell (2004). According to him, a network of equally reinforcing institutions is essential for rule of law. By answering the question as why have all the formal legal improvements such as new constitutions, improved laws and judiciaries that are associated with the democracy of the twenty-first century failed in many respects to produce more democratic rule of law, he stated that the role of informal institutions was neglected (O'Donnell, 2004). Having said that, a network of the combined application of formal and informal institutions is required to get the desired result.

In terms of economics, it could be stated that since free market depends on certain institutions and the enforcement of certain rules such as the freedom of contracts, property rights and enforcement of those, it could be stated that the rule of law could be considered as an enforcement mechanism of the property rights and contracts (Hayek, 1960). Furthermore, the implementation of the rule of law implies that government action could be predictable, which encourages investment and foster economic development prospects.

Yet, an important statement needs to be made in terms of rule of law and economic prospects. Even though in theory it is established that a clearly defined and properly enforced rule of law foster economic growth and development, yet the empirical studies are scarce, since it is difficult to measure the rule of law. Additional fact is that those countries which lack in rule of law enforcement, usually have poor government transparency and recordkeeping. However, in the below section, countries comparative statistics, a measure of the rule is provided by the Heritage Foundation, and it consists of property rights, judicial effectiveness and government integrity.

4.3. Property Rights

So far, as the most prominent example of institutions was considered the property rights. Thus, one might state that the institution of property rights is recognized as a fundamental building block of an economically prosperous society (Boudreaux, 2005). Property rights supported by other important institutions such as the rule of law (i.e. impartial judiciary), contract rules and norms provide individuals with incentives to create, innovate and consume[20]. The importance of property rights relies in the fact that they have the ability to facilitate the transformation from managed to market economies and by that generate economic prosperity. Moreover, property rights do more than just promoting economic prosperity. They provide the means for individuals to prosper which is the *sine qua non* of the developing policy. To be more precise, to prosper means having the greatest scope for personal fulfillment, in addition to the fact that individuals are free to pursue their own unique goals while allowing others to pursue goals that may or may not be different. Thus, one might conclude that the property rights are a prerequisite for individual prosper. Having said that, policy makers concerned about economic development and growth, must understand the role of property rights in the whole process, which once again confirm the role of institutions in the whole economic development and growth process. However, the outlining of the prior conclusion, that institutions do matter in the process of economic

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[20] The World Bank's 2005 *World Development Report* labels property rights as one of the basic requirements for a healthy investment climate and for economic growth. Available at
<https://openknowledge.worldbank.org/handle/10986/5987>

growth and developments needs further elaboration in order to strengthen the argument. Hence, it could be stated that the protected property rights provide the basis for trade and markets. These rights are more prone to promote economic development and growth if broad segments of the society are free to hold as many secure property rights as they find desirable (Boudreaux, 2005). On the other hand Boudreaux (2005), also confirms that prospects to economic growth and development will be vulnerable if the efficient use, transfer or development of established property rights is blocked by the government policies and institutional weakness. At last but not least, it could be stated that by decentralizing power and decision making, property rights tend to protect individuals against traditional abuses as well as creating a society in which individuals will prosper.

4.4 Countries comparative statistics

The above theoretical part is scarce and only presents the basic definitions of the concept of rule of law and property rights, since the following subsection would try to identify the relationship between institutions which in this chapter is represented by the rule of law incorporating the property rights and government integrity by comparing the countries of interest listed in Table 1 in Chapter 1. The factor of judicial integrity would not be considered since there is a lack of data for the period 2000-2020.

In the above part of this chapter it was presented that in a functioning market economy, the capacity to accumulate wealth and private property is a fundamental encouraging force for individuals. One might state that the property rights through the enforcement of contracts, are a crucial factor in the process of accumulation of capital for production and investment. The second component of the rule of law, as mentioned earlier is the judicial effectiveness, which implies that a sound functioning legal structures protect the rights of all citizens against violation of the law by others, including governments and powerful parties. In addition to the prior statement, it could be stated that the judicial effectiveness involves proficient and fair judicial systems ensuring laws that are fully respected, accompanied with suitable legal actions taken against violations. And last but not

least, government integrity plays a vital role in one countries future economic prospects. However, it should be mentioned that, cultural diversity might pay vital role in determining government integrity. This implies that, for example government actions in one country could be considered as corrupt, whilst in other they could simply reflect traditional relationships. Nevertheless, practices like corruption, bribery, nepotism and embezzlement erode the society and leads to economic hamper.

In the below graph, the GDP per capita growth rate (annual %) is presented for all the countries of interest. It is obvious that the higher income countries experience higher rate of per capita GDP. However, it is obvious that some of them experience negative values, due to the fact that their population growth in the given time period was growing faster, thus they experience negative per capita GDP. Having established this, the next part analyses countries performances in terms of property rights and government integrity.

Graph 1 GDP per capita growth (% annual)
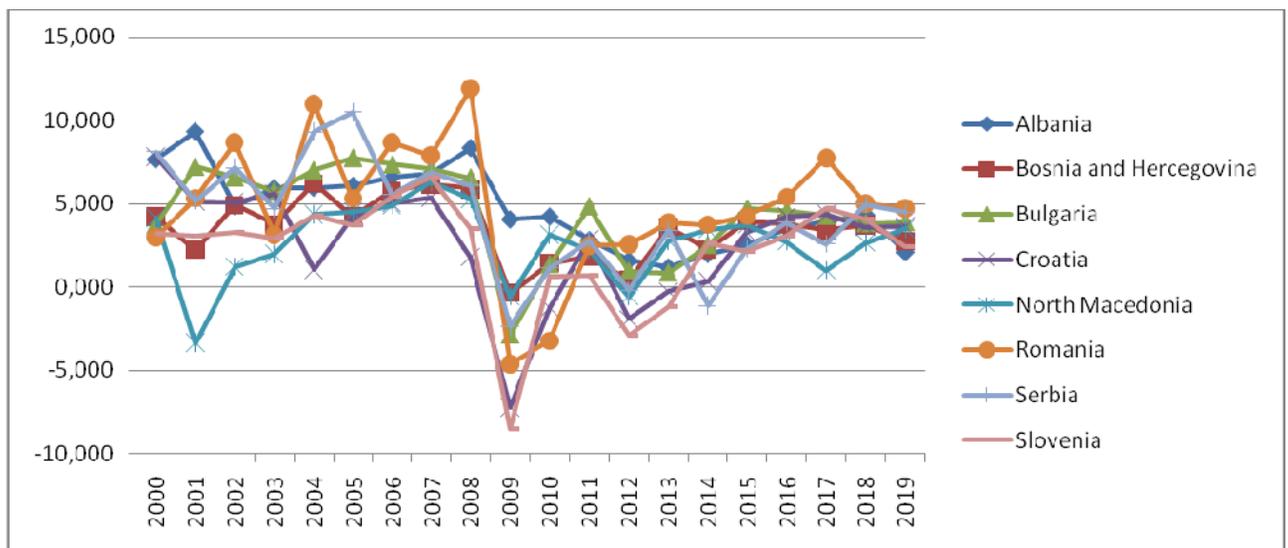
Source: Personal calculations by using World Bank Database

4.4.1 Middle income non EU member countries

Considering Table 1 in Chapter 1, in this set of countries belong Albania, Bosnia and Herzegovina, North Macedonia and Serbia. The below Table 3 presents the data for property rights in those countries, by using data from the Heritage Foundation.

Table 3 Property Rights Non EU countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Bosnia and Herzegovina	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
North Macedonia	N/A	N/A	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Serbia	N/A	N/A	30.0	30.0	N/A	N/A	N/A	N/A	N/A	40.0
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albania	35.0	35.0	35.0	30.0	30.0	30.0	35.0	54.0	54.1	54.8
Bosnia and Herzegovina	10.0	20.0	20.0	20.0	20.0	20.0	20.0	41.2	39.5	40.2
North Macedonia	35.0	35.0	35.0	35.0	35.0	35.0	35.0	67.0	64.8	65.1
Serbia	40.0	40.0	40.0	40.0	40.0	45.0	50.0	50.3	46.2	50.1

Source : Personal calculations using Heritage Foundation's data

From Table 3, it could be observed, even though for North Macedonia and Serbia for the first years of observation the data is missing, that since 2000 to 2016, the protection of property rights in these countries is extremely weak. Having in mind the graphical representation in the above, Graph 1, it could be seen that during this period the GDP per capita annual percentage change, even though it is fluctuating, it experience more downwards fluctuations, rather than upwards.

In Albania the protection of property rights remains at a weak level. In addition to this the real estate registration procedures are burdensome and subject to demands for bribe. Even though there is no data for the judicial effectiveness, according to the European Commission Report, the same conclusion was drawn, in 2016 and 2018. Even though there

is a progress in the process of democratization, the judiciary is partial independent but subject to political pressure, intimidation and limited resources. According to the European Commission report 2018, in the period from 2016 till mid 2017 huge progress was made in terms of accomplishing judicial reforms since the end of the communism. According to the European Commission reports, the public administration is still inefficient and plagued by nepotism and corruption, which could be seen in Table 4 presenting the government integrity data obtained from Heritage Foundation.

GDP per capita for Bosnia and Herzegovina as it could be observed from the graph during the period 2000-2019 never reaches an upward peak point. At some point it reaches even a negative GDP per capita rate. According to the European Commission report 2018, even though some progresses have been made, the country is still far from establishing a functioning market economy. As it could be observed from the below Table 4, the level of government integrity complies with the statements provided by the European Commission reports. The highest score of government integrity is obtained in year 2015 of 42 which is below average compared with the countries in the region.

Table 4 Government integrity non EU countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	10.0	23.0	10.0	10.0	25.0	25.0	25.0	24.0	26.0	29.0
Bosnia and Herzegovina	10.0	10.0	10.0	10.0	10.0	33.0	31.0	29.0	29.0	33.0
North Macedonia	N/A	N/A	33.0	33.0	33.0	23.0	27.0	27.0	27.0	33.0
Serbia	N/A	N/A	10.0	10.0	N/A	N/A	N/A	N/A	N/A	34.0
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albania	34.0	32.0	33.0	31.0	30.4	31.0	33.0	39.7	39.9	40.4
Bosnia and Herzegovina	32.0	30.0	32.0	32.0	33.9	42.0	39.0	32.7	28.4	30.2
North Macedonia	36.0	38.0	41.0	39.0	39.6	44.0	45.0	52.0	47.4	44.7
Serbia	34.0	35.0	35.0	33.0	34.0	42.0	41.0	38.2	36.5	37.2

Source : Personal calculations using Heritage Foundation's data

According to the European Commission Report for Enlargement 2018, the key weaknesses are rule of law (property rights, judicial effectiveness and government integrity), fragmented and inefficient public administration, weak institutional capacities and weak educational system (it will be discussed in more details in the next Chapter). It could be stated that by adopting reforms and changing the culture of the judicial system and other government institutions, would enhance the prospects for EU accessions as well as provide higher prospects for economic growth.

The similar case is for North Macedonia. The GDP per capita growth, is not experiencing any drastic upwards, it is going on a slower pace, in few years it is even experiencing negative one. Having in mind in the above statement that GDP per capita might be negative due to high population growth at a given time period, for North Macedonia, it could be difficult to discuss the data for population growth since it does not have performed census since 2002, making it difficult to establish and reform the society. Referring to the above Table 3 presenting the property rights in North Macedonia, it is obvious that the property rights as a part of the rule of law, are not in the satisfactory level, reaching the highest point of 52 in 2017, since the active reforms have started. According to the European Commission report of 2016, the country is experiencing a constant challenge in terms of democracy and the rule of law. As it was the case in Albania and Bosnia and Herzegovina, the country is experiencing vast challenges in the judiciary system, its effectiveness and its control from the political government. As it could be seen, from Table 3, the institutional framework promoting property rights needs to be improved. The European Commission report from 2019, states that after the implementation of the Prespa Agreement, the country have experienced slight change in the reforms, although it could be stated that the enforcement is quite inadequate. It could be stated that the limited independence of the judicial system as well as its politicization together with its funding are enduring concerns. Considering the above Table 4, the government integrity is positioned better compared to the countries in the region, reaching a score of 52 in 2017, when the process of reforms actively stated to be applied.

The results of property rights enforcement in Serbia presented in the above Table 3 are not promising, comparing with the path of GDP per capita. Even though there is an adequate body of laws for property rights protection, the enforcement through the system is found to be difficult. According to the European Commission Report of 2018, Serbia made some improvements in terms of respecting private property rights, although, further improvement needs to be implemented. The same comments regarding the judicial system is applied in here. As far as government integrity is concerned, in the above Table 4 it could be observed that the score is below average compared with the countries in the region, as corruption is perceived as being persistent.

4.4.2 EU member countries

Bulgaria is country member of the European Union since 2007, when the process of EU enlargement included both, Bulgaria and Romania. Even though it is a member of the EU, Bulgaria is till classified as a middle income country, unlike the other three upper income representatives, used to be compared with in this dissertation. As it could be observed from Graph 1 in the above, the GDP per capita had a drastic downturn in 2009, due to the global financial crisis. Since then, especially since 2017 it has a steady upward trend. Considering the issue of property rights, they are not well protected. According to the last report of the European Commission of 2019, although a member of the EU, Bulgaria needs to make improvements by implementing reforms in order to achieve better protected rights, better judicial system, and most of all, better government integrity. As it could be seen from the below Table 5, Bulgaria score for government integrity is lowest compared to the other seven countries, both non EU and EU members. The vast scandals of bribes and nepotism are just a part of the serious remarks by the European Commission in their Report of 2019.

Croatia joined the European Union in 2013, later than the other representative countries members of the EU. In terms of GDP per capita movements, it could be observed

the same pattern as Bulgaria, as well as with the property rights. The latest country report from the European Commission 2020, generally implies that the property rights are well established, but conflicting claims and legal ambiguity can cloud some title cases. The juridical independence is generally on a satisfactory level, although judicial efficiency needs some improvements. As for government integrity it could be observed from the scores presented in Table 6, that improvements are required.

As mentioned in the above, Romania joined the European Union in 2007, together with Bulgaria. From Graph 1 it could be observed that the GDP per capita has been expanding at a healthy pace, it is higher compared to the other countries.

Table 5 Property rights in EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0	30.0	30.0
Croatia	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Romania	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	35.0
Slovenia	70.0	70.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	60.0
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bulgaria	30.0	30.0	30.0	30.0	30.0	30.0	30.0	62.5	63.6	62.5
Croatia	40.0	40.0	40.0	40.0	40.0	40.0	35.0	65.5	65.9	66.0
Romania	40.0	40.0	40.0	40.0	40.0	40.0	35.0	63.9	61.0	66.7
Slovenia	60.0	60.0	60.0	60.0	60.0	60.0	60.0	75.0	76.6	76.4

Source: Author's personal calculations

In terms of property rights, there is an increase in the score since 2017, due to major reforms implemented. Yet, government integrity and the judicial effectiveness are still considered to be under the loop. According to the report from the European Commission 2019, the country needs to strengthen the weakest link in the society that is the government integrity and judicial effectiveness. A point has to be made, that the corruption perception index is not mentioned in this Chapter, since the data is used in one of the chapters presented further in this dissertation.

Table 6 Government integrity EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	29.0	33.0	35.0	39.0	40.0	39.0	41.0	40.0	40.0	41.0
Croatia	50.0	27.0	37.0	39.0	38.0	37.0	35.0	34.0	34.0	41.0
Romania	30.0	33.0	29.0	28.0	26.0	28.0	29.0	30.0	31.0	37.0
Slovenia	50.0	60.0	55.0	52.0	60.0	50.0	60.0	61.0	64.0	66.0
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bulgaria	36.0	38.0	36.0	33.0	35.2	41.0	43.0	41.8	38.2	35.1
Croatia	44.0	41.0	41.0	40.0	41.1	48.0	48.0	43.4	40.5	38.6
Romania	38.0	38.0	37.0	36.0	37.7	43.0	43.0	45.9	40.0	39.0
Slovenia	67.0	66.0	64.0	59.0	61.0	57.0	58.0	53.6	52.1	53.6

Source : Personal calculations using Heritage Foundation's data

Slovenia joined the European Union in 2004, and became the first formerly communist country to join the Union. Considering the GDP per capita, it could be stated that it has the same pattern as Bulgaria and Croatia. Observing the determinants of the rule of law, in this case protected property rights and government integrity, comparing with the other 7 countries, Slovenia has the highest scores in both. Since the data of judicial effectiveness is not presented due to lack of data, it could be stated from the report of the European Commission that the judiciary is independent and transparent. In terms of government integrity, the level of corruption is relatively low as it could be seen and discussed in further details in Chapter 6.

From the above countries analysis, a conclusion could be drawn implying that the GDP per capita is slightly higher in the EU member countries, those with higher scores in the property rights and government integrity, as part of the rule of law. However, even though those countries have full field reforms and conditions to access the Union, yet it could be stated that there is a need for improvement. The general conclusion is that the connection between the institutions, in this case the rule of law represented by the property rights and

the government integrity, as well as judicial effectiveness although there was no statistical data for that observation, and the GDP per capita is established. The better institutions, the higher the growth.

Chapter 5 Institutions and Education

Having in mind what is known from the history, it could be stated that in the past income were low, lives were short and there was limited or no economic growth. Considering the path of economic development in Chapter 2, it could be stated that all the economists were striving as how to improve the situation. Thus, nowadays, the situation is different, since the societies include better living standards, increased wealth and extended level of life expectancy. It could be stated that this shift was due to the increased knowledge and its transmission, better levels of education and training, demographic evolution and improved health standards. In other words, the shift was due to improvements in human capital. Under the term human capital is considered the stock of knowledge that people have learned and maintained. To be more precise, the definition of human capital according to OECD is the following: "human capital is defined as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being" (Keeley, 2007). Thus, one might conclude that the more human capital one economy has the more creative its labor force can be, the more prospects for productivity the economy will have. Consequently it could be concluded that education gives people skills that enable them to be more productive and creative (Shukarov and Maric, 2015).

Revising what was stated in Chapter 2, that Douglas North did not totally rejected the neoclassical economic growth theory, the following statement confirms that. "*Countries with better 'institutions', more secure property rights, and less distortionary policies will invest more in physical and human capital, and will use these factors more efficiently to achieve a greater level of income*" (Acemoglu, Johnson, & Robinson, 2000).

5.1 Institutions and human capital

In the discussion of institutions and factors promoting economic growth, as well as the importance of property rights and the rule of law, it could be stated that the interconnection among institutions and human capital accumulation is vital. Goldin (2014), states that institutions such as legal and extra legal rules which determine individual's property rights, as well institutions such as franchise, form of government and religion impact the human capital accumulation. Thus, Goldin (2014) concludes that the optimal human capital accumulation depends on different factors as the degree to which capital markets are well functioning and the level of confidence in the economy and political system. To be more precise, this implies that if the political power is unequally held, the human capital accumulation is more likely to be suboptimal due to the fact that individuals cannot make reliable and long term commitments to the "elites". Since, the key factor of economic success is well functioning institutions then why is not the whole world developed. The following part presents several research paper on the topic and tries to provide the answer on the previous question.

A research performed by Acemoglu, Johnson, and Robinson (2002), depicts the concept of reversal of fortune due to inappropriate and not consolidated institutions. As an example they provide the colonized parts of the world. As Europeans arrived in places which were rich with natural resources, given the poor institutional framework they were able to exploit those resource and impose tax and high rents. On the other hand, the poor countries were given allowing institutions by which the European migration was allowed. The conclusion made, is that the institutional differences produced the reversal of fortune, implying that poor places like North America became rich and rich places like Caribbean stagnated. Having in mind the example with North America and the Caribbean, another research performed by Sokoloff and Engerman (2000) concluded that it also depends which institutions will be migrated together with one nations' migration. Considering the example of North America and Caribbean, they state that the British migrated to the North America, and brought good institutions, but they also migrated to the Caribbean and brought bad

institutions. This institutional differences, complies with the conclusion made by Acemoglu, Johnson, and Robinson, (2002).

5.2 Institutions and R&D and Innovation

After presenting the basic definitions and the relationship between human capital and institutions, this part tries to depict the relationship between institutions, education and innovation on economic growth. One might state that the human capital accumulation could foster economic growth if there is a constant creation of new job vacancies, either through attraction of FDIs or through investments in R&Ds and innovation. This chapter focuses on the connection between institutions and education, and that is why only the impact of R&Ds and innovation will be elaborated into details. Whilst, the next chapter will focus on the connection between institutions and FDIs.

It could be declared that in approximately all countries, governments play a primary role in education, health, infrastructure and technology, and policies and expenditures regarding each of these areas. Moreover, it plays a fundamental role in the balance of spending among these areas, and in that way creates the economy. Briefly speaking, all governments really do have an industrial policy. However, the only difference is among those who construct their industrial policy deliberately, and those who let it be formed by others, usually by particular interests, who view with each other for concealed and open subsidies, for rules and regulations that favor them, usually at the expense of others (Shukarov and Maric, (2015); Greenwald and Stiglitz, (2012)).

Most developing countries have put an attempt in terms of resource constraints and knowledge deficiencies (Maric and Shukarov, 2016). Moreover, their development depends extensively on various factors, including the quality of the institutional and regulatory framework and its implementation, the physical infrastructure, the sophistication and depth of financial markets, the quality of educational institutions and labor skills, and the protection of intellectual capital. In addition to this, Greenwald and Stiglitz (2012), also state that learning requires resources, including access to capital, which in economic hamper is

rationed thus, investments in R&D are often surrendered. Thus, it could be stated that this has a supreme implication for policy: policies which expose countries to a high level of instability, or which increase the economy's instability have an adverse effect on knowledge (Shukarov and Maric, 2015). Examples include financial and capital market liberalization and deregulation (Stiglitz, 2008), and tarrification (Dasgupta and Stiglitz, 1977). Furthermore, research shows that societies that have highly developed educational systems, in this context it implies that institutionalized societies do the best at developing and integrating new technologies into their economies to some extent since educated workers are more able to think for themselves and solve problems creatively. In addition to the previous statement it could be stated that government can also play a crucial role in the process of development of technology by providing research and development funds to universities and researchers.

Although, there is not much literature on this specific topic, it has to be stated that Bartlett, et. al., (2007), claimed that the educational system in Bosnia and Herzegovina lacks a higher degree of institutional development. For that reason, the corporate and business sector are not in a position to invest in R&D and innovation thus, be able to compete in the global and rapidly changing business environment. The prior is just given as an example, since further in this chapter, it is discussed in more details about the countries performance.

5.3 Knowledge Based Economy

A knowledge based economy is one that exploits knowledge to develop and maintain long-term economic growth. One of the postulates of the Knowledge Based Economy Framework is the economic and institutional regime that is beneficial to creation, transmission and utilization of knowledge (Maric and Shukarov, 2016). This framework provides incentives that encourage the use and distribution of existing and new knowledge, which will help to foster policy change. Moreover, the economic environment must have well established policies and be encouraging to market transactions, as well as being open to free trade and FDIs. More importantly, the government should protect property rights to

persuade entrepreneurship and knowledge investment (Maric and Shukarov, 2016). Considering again, that one of the factors fostering economic growth is the accumulation of human capital and institutions on the other side, the relationship among the two should support the process of creating knowledge based economies. Having in mind the Schumpeterian economy in which the technological progress is the driver of economic growth, in here the importance of institutions as an economic growth driving factor is taken into consideration. One of the pillars of creating knowledge based economies is the investment in R&D and innovation discussed in the above subsection.

Yet, another important point has to be made. The knowledge based economies posses characteristics which differ from the traditional economies. The most important one is that the main economic activities are progressing about production, distribution and use of knowledge which, as commonly known is the main pillar of the economic prosper. Among other roles are the investment in R&D, improvement in the human capital through education and training, "*developing supporting and creation of knowledge networks*, *radical changes in the policies of investment, education and foreign trade, etc*" (Popovski, 2013).

A study performed by Maric and Shukarov (2015), compares the Knowledge Economy Index (KEI) for the Balkan Countries. The study includes seven of countries of interest in this dissertation, excluding Romania. By using the data from the World Bank Databse, the study compares the KEI of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Serbia and Slovenia for the time span of 18 years, from 1995 to 2012.

Graph 2 Movement of KEI for EU member countries

85
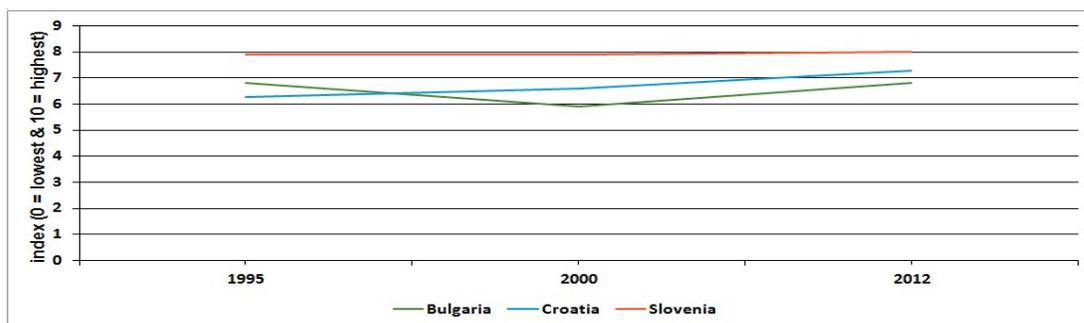
Source: Maric and Shukarov (2015)

From the above graphical representation it could be observed that the EU member countries, Bulgaria, Croatia and Slovenia reach almost the highest scores for KEI. The statement has to be made that the progress in the Knowledge Based Economy and obtaining such scores is due to the fact that these countries comply with the EU regulations and tend to have better institutional development. Considering the above graphical representation, Slovenia, reaches the highest scores at points 8, having in mind that the country joined the EU in 2004, being the first country from the Slavic region to join the union. Croatia, has an upward trend in the KEI from 6 points reaching above 7 in 2012. Comparing the three countries, Bulgaria has the lowest score in KEI, experiencing even a drop from 7 to 6 in year 2000.

Considering the below Graph 3, the scores of the non EU members countries, Albania, Bosnia and Herzegovina, North Macedonia and Serbia are significantly lower compared to the EU member countries presented in the above Graph 2.

Graph 3 Movement of KEI for non EU member countries
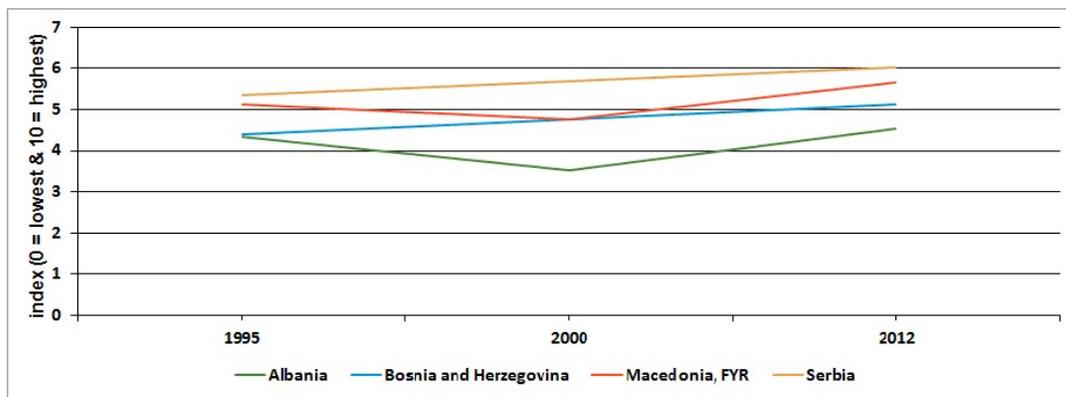
Source : Maric and Shukarov (2015)

Observing the above graphical representation, these countries reach the highest point at level 6, which compared to the graphical representation in Graph 2, it could be

stated that the lowest point of KEI in EU member countries is the highest reached by the non EU member countries in the period 1995-2012. Serbia has the highest score from little above 5 in 1995 to almost 6 in 2012, but it is an upward trend of movement. Bosnia and Herzegovina also has a straight upward trend starting from 4,5 in 1995 and reaching slightly above 5 in 2012. North Macedonia and Albania has a drop on the KEI in year 2000, in which Albania dropped the score to below 4, and North Macedonia to below 5. Since year 2000, both countries Albania and North Macedonia has an upward trend in the KEI score reaching to 4,5 and 5,5 respectively.

Having in mind that the Knowledge Based Economy encompasses the economic and institutional regime that is beneficial to accumulate human capital thus increase the prospects for economic growth, it could be concluded that the countries with better institutions, meaning better reforms, protection of property rights, higher expenditures in the R&D and innovation achieve better KEI scores. Yet, comparing only the KEI scores does not depict all the impact of institutions on economic growth. The following part of this chapter presents the connection between institutions, R&D and innovation and economic growth.

5.3.1 Brain Gain - Brain Drain

When considering the relationship between the institutional development and its impact on the education, hence on the economic growth, it is vital to mention the phenomenon of "brain drain" vs. "brain gain". The term brain drain refers to the international transfer of human capital, meaning large-scale migration of highly educated and skilled labor force from developing to developed countries (Stankovic, et. al, 2013). It could be stated the process of globalization is the reason behind the occurence of brain drain, as well as the selection of policies which impose conditions to filter highly educated immigrants (World Bank, 2008). The phenomenon of "brain gain - brain drain" implies two concepts which need to be considered. First and foremost, the process of "brain drain" negatively impacts the economy of the host country, i.e the one that sends the highly

educated immigrants. This implies that the host countries have a need to institutionaly develop by creating policies which will restrict the mobility of the human capital. Secondly, the second concept spotlights the nature of the educated Diaspora, which will foster the process of economic development through remittances, trade, FDIs, as well as knowledge transfer (Stankovic et. al., 2013). The brain drain of the host country implies brain gain for the country in which the process of immigration of highly educated human capital immigrate. The process of brain drain has a huge negative impact on host country's economy. Primaryly, it could increase the global level of inequality, generate deficits in certain professions, etc. On the other side, the brain gain, have a positive economic impact on the country which receives the immigrated highly educated labor force.

Stankovic et. al., (2013), performed a study in the phenomenon on the brain drain vs. brain gain analysing the Balkan countries. By comparing the data for international skilled migration, from the period 1995 - 2005, North Macedonia is the country with highest level of brain drain. The other countries for comparison are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Romania and Serbia. Considering data obtained from the World Bank Database for measuring Knowledge Assesment Methodology, North Macedonia is ranked on the bottom of the list, being the country with highest brain drain in the world (Stankovic, et. al., 2013).

5.2 Countries comparative statistics

After identifying the literature background of the importance of education in the process of creating high skilled workforce, and identifying the importance and need of transforming the traditional economies into knowledge - based economies, this part focuses on the comparison of the R&D expenditures in the countries of interest.

5.2.1 Non EU member countries

The developing countries, in this case the non EU member countries, experience a recent trend of adopting industrial policies in an effort to follow the EU horizontal approach, as a part of their EU pre-accession process. These industrial policies involve aims to attract FDIs, promote R&D as well as to develop the small market economies. "*The implemented measures are intended to support applied R&D and innovation within the industry, encourage knowledge transfer between universities and industries, support and motivate the process of transferring new technology, protect intellectual property rights, and develop integrated innovation policy*" (Shukarov and Maric, 2015). Besides, the revelation of such policies is to encourage the production of high value added products and services based on knowledge and innovation. In other words, the intended policies require institutional development. So far, the reality is different. The below Table 7, presents the middle income non EU member countries from the period 2000 - 2019 and their R&D expenditures as a % of GDP. Although the data is not fully available for all the countries, especially for Albania, it could be observed that the trend of R&D expenditures is decreasing, instead of being the opposite. The only country which has an increasing trend in R&D expenditures is Serbia, with a slight decline from 2001 - 2009.

Table 7 R&D Expenditures as % of GDP for non EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bosnia and Herzegovina	N/A	N/A	N/A	0,01854	0,01524	0,02697	0,01969	0,02521	0,01842	0,02106
North Macedonia	0,4189	0,2931	0,24461	0,21064	0,23237	0,22825	0,19373	0,17093	0,22358	0,19679
Serbia	0,8981	0,3212	0,67954	0,52138	0,30444	0,3953	0,43985	0,57877	0,66966	0,8173
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albania	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0,08757	0,15412
Bosnia and Herzegovina	N/A	N/A	0,26533	0,32132	0,25725	0,2186	0,21594	0,20048	0,1988	N/A
North Macedonia	0,2163	0,2228	0,32676	0,43894	0,51646	0,44412	0,43585	0,35525	0,36398	N/A
Serbia	0,7023	0,6833	0,85316	0,68367	0,72309	0,81146	0,83951	0,87353	0,92132	N/A

Source: Author using World Bank Database

Even though it is official stated that these countries are following the EU horizontal approach into adopting industrial policies, there is no official policy or strategy for developing knowledge based economies. Considering the EU member countries, which representatives are discussed in the next subsection, these countries do not create and publish annual Report "Innovation Union Scoreboard" which present the methodology for developing of composite index for assessment the level of development of the knowledge based economies. Moreover, these non EU member countries are included in the report by the EU consisting of tools to help monitor the implementation of Europe 2020, thus confining the research and innovation. The reason for that is lack of data, as it could be observed in the above Table 7.

5.2.2 EU member countries

Unlike the results of R&D expenditures as a % of GDP presented in Table 7, the EU member countries imply exactly the opposite. Starting with Bulgaria, it could be stated that the country has a tradition of investing in high tech industries since the communist era, even though a large number of technological corporations collapsed in the 1990s (Bartlett and Rangelova, 1996). Considering the final annual report for Bulgaria in the pre-accession period of the EU in 2005, countries industrial strategy full field the general principles of the EU industrial policy requirements. Yet, the country was required to continue to invest in R&D and innovation, and till 2011 the Bulgarian industrial policy fully matched the EU industrial policy reform. This was neatly summarized in the National Reform Programme, a document for 2010-2013 adopted in April 2011 cited by Bartlett (2000), according to which the government policy in Bulgaria supported the R&D, thus increasing the level of knowledge transfer (Shukarov and Maric, 2015).

Slovenia has a highest R&D expenditures as a % of GDP. The country from the start of its independence adopted a gradualist approach to privatization, which changed in the pre-accession period with the EU. One of key aspects in the industrial policies of Slovenia was promote knowledge transfer from research institutions to the industry.

Table 8 R&D Expenditures as a % of GDP for EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	0,49866	0,45052	0,46834	0,47587	0,47449	0,44617	0,4454	0,43024	0,44787	0,4947
Croatia	1,0441	0,91644	0,94846	0,95034	1,03207	0,85689	0,74081	0,79187	0,88397	0,84323
Romania	0,36626	0,39129	0,37721	0,39708	0,38942	0,41262	0,45682	0,51148	0,55215	0,44395
Slovenia	1,3563	1,46773	1,43874	1,24528	1,36806	1,41229	1,53291	1,42382	1,62564	1,81629
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bulgaria	0,56387	0,53191	0,60479	0,63724	0,79377	0,96015	0,78006	0,75239	0,76803	N/A
Croatia	0,7422	0,75041	0,75029	0,81016	0,78252	0,84027	0,8627	0,8645	0,97489	N/A
Romania	0,45688	0,49832	0,48383	0,38787	0,38225	0,48793	0,48033	0,5039	0,5051	N/A
Slovenia	2,05763	2,42358	2,57319	2,5801	2,36743	2,19504	2,01191	1,86581	1,94221	N/A

Source: Author using World Banka Database

In the pre-accession period which complies with the global financial crisis, the industrial policy of Croatia was lacking. One of the main reasons for that was the investment in R&D and innovation and the knowledge transfer into the industry. Among other things, this could be due to the fact that compared to Albania, Bosnia and Herzegovina, Bulgaria, Romania, Serbia and North Macedonia, Croatia is on the third place with a score for brain drain during the period 2000-2005 (Stankovic et.al., 2013). It should be noted that according to the study by Stankovic et. al. (2013), Bulgaria compared to the previously mentioned countries, has the smallest % of brain drain in the period of 2000-2005. Observing Table 8, Romania has the lowest R&D expenditure as a % of GDP. According to the statistics, Romania has the second lowest R&D expenditure in EU. Considering the EU country reports, the need to invest in R&D for Romania it is crucial.

A more expended study on the institutional impact on economic growth through education is performed by Shukarov and Maric (2015). The study perform two analysis. It compared 4 countries, the first set is non EU member countries Macedonia and Serbia and the second set of countries is EU member countries Bulgaria and Slovenia from the period

2000 - 2013. The first analysis is by comparing statistical data for GDP growth in order to depict whether the economy is going upwards and downwards. The GDP growth is compared with the population growth rate as an important factor that predicts future trends in school enrollment. The other factors included are the primary and tertiary school enrollment rates, R&D expenditures, FDI inflows and the unemployment rates. The second analysis provides comparison of the Human Development Index, a statistical index composition of three measures such as life expectancy, income per capita and education, obtained from the UNDP data set.

The main findings of the study indicate that even though both sets of countries, the EU members and non EU members countries follow the EU directives in order to achieve higher economic perspective, the data shows some differences. In both, North Macedonia and Serbia, the school enrollment in the tertiary school is increasing, however due to the decline in the population growth rate and the enrollment in the primary school this percentage would be expected to be decreased in the future. Both countries create policies in attracting FDIs, the results indicate upward trend but declining. The implemented policies for attracting FDIs is further discussed in the next chapter. The investments in R&D are increasing over time, but still not achieving a high peak. Important point has to be made that in both countries the unemployment rate is still high. Unfortunately, there is no availability for data for the unemployment rate of graduate students enrolled in the tertiary schools. Considering the second set of countries, Bulgaria and Slovenia, the EU countries representatives, the data shows that the percentage of investment in R&D is increasing, as it was previously stated considering Table 7 and Table 8. For these countries the data shows that the employment rate of graduates students is set high.

As mentioned in the above, the study performed by Shukarov and Maric (2015) also analysis the Human Development Index from the period 1980 to 2013. The general conclusion was that except for Slovenia that have very high level of human development, the other three countries Bulgaria, North Macedonia and Serbia have high index of human development. However, considering the data incorporated in the study, it could be stated

that Bulgaria made the most development through time. Starting at the 1980s the country had a medium human development level, and in the 1990s the country positioned at a high level of development. The study draws the conclusion that the high institutional development has better prospects for economic growth. Both countries that are EU members, following and implementing highly developed reforms are policies, implying been more institutionally developed, perform better. They have lower unemployment rate, higher investments in R&D and are more preferable for FDIs.

From all of the above, several facts could be stated. The creation of human capital can impact economic growth, only if there is a creation of new job vacancies, implying is the policies implemented have clearly defined rules and regulations, leading to identifying the importance of institutions in the process of economic growth. Countries which invest in R&D and innovation, thus creating highly skilled workforce, perform better and have higher prospects of economic growth. The stagnation in technological developments, and the concentration on the traditional production, could seriously impact the attraction of FDIs and thus impact the economic growth.

Furthermore, countries, which tend to move toward knowledge based economies, are those that *a priori* invest in R&D and innovation and infuse high skilled workforce in the industries. Having a well defined knowledge based economy, with potential for further development would decrease the brain drain from a less developed and less institutionalized countries and could possibly benefit from brain gain.

Chapter 6 Institutions and FDIs

6.1 The Connection between Institutions and FDIs

Having established in the previous Chapter 5, the importance of human capital development and how institutions impact on the process, thus leading to creating attractive environment for Foreign Direct Investments and by that encouraging the process of economic growth, this chapter develops further and identifies the impact institutions have on attracting FDIs. Due to the fact that FDI includes employment of technology and know-how, in addition to foreign capital it is considered to be the engine of economic growth, boosting the host country's development. The knowledge overflows and back and forth relation between foreign and domestic firms were expected to bring productivity gains, technology transfers, new processes, improved managerial skills and know-how, employee training, international production networks and access to new markets (Alfaro, 2014). In addition to the above listed benefits of FDI, it is also important to be mentioned that FDI by balancing the domestic savings, creates new jobs, and by that increase the level of employment in the host country, diversify the exports, upgrade the technology, thus pushing the economy to grow and develop. Having in mind all the listed benefits, governments are keen on attracting FDIs, thus employing policies which includes reduced barriers to entry and, special incentives. Yet, "countries that receive FDI with the highest potential for capability development are, ironically, those with strong domestic capacities" (Lall and Narula, 2004). Thus, it could be concluded that in the process of attracting FDIs, human capital and government incentives are not the sole primer for the decision making process. The investors are keen on investing in countries which have highly developed and quality institutions.

Having in mind that firms are generally keen to invest in countries which protect property rights, have a developed legal framework and enforced rules of law, provide well

developed public services without burdensome bureaucracy and a redundant regulation or corruption, again it could be concluded that the role of institutions, their level of development and their quality plays crucial role in economic growth prospects.

Considering the work of Douglas North (1991), economic institutions establish the incentives faced by both the domestic and foreign economic agents (Maric and Shukarov, 2017). Having in mind that, proxies for institutional variables such as government policy (Gomes-Casseres, 1991), intellectual property rights protection (Oxley, 1999) or political risk (Henisz, 2000) have been considered as crucial in developing foreign business investment strategies (Maric & Shukarov, The Role of Institutions in Attracting Foreign Direct Investments, 2017).

The empirical studies of the relationship between FDIs and institutions could be divided into three segments, depending on the variables that they are considering as a proxy for institutions. One of the main proxies for institutional variables are the level of corruption and the enforcement of the rule of law. The other two segments, involve creating a complex index, including several factors which determine the institutionalization in one country, in this case the host country.

Gastanga, Jeffrey and Pashamova (1998), in their research study concluded that low level of corruption, better contract enforcement and low level of nationalization risk lead to an increase in the FDI inflows. The same conclusion was drawn by Asiedu (2006), implying that inssuficient institutions in terms of increased corruption, political instability and the lac of enforcement of the rule of law prevent FDI inflows. Furthermore, considering Gani (2007), by using data for Latin America shows that improvements in the control of corruption, as well as increased political stability have positive effects on FDI inflows. Buchanan, et. al (2012,) created an index consisted of several factors, such as control of corruption, rule of law, polital stability and regulatory environment, thus concluding that the index of government structure has a positive effect on FDI inflows. The same construction of an index was used in a strudy by Globerman and Shapiro (2002) and the same conclusion was drawn, that improved government infrastructure has a positive effect

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on attracting FDI inflows. To support the theory whether institutions have an effect on attracting foreign direct investments, a study by Daude and Stein (2007) performed a study in which they found that unpredictible policies, and a lack of commitment doscourage FDI inflows. Generally, in the literature there is a substantial linkage between the influence of institutions and the FDI inflows. The next subsection will provide a closer look regarding the studies performed in the developing countries subject of interest in this dissertation.

6.2 Institutions, FDI and transition countries

As stated in the introductory part of Chapter 1, transition economies afford an interesting point of view to examine the impact of institution building because the entire set of formal institutions has been remodeled in the 1990s (Maric and Shukarov, 2017). The research in transition economies which started to analyze how institutions influence strategies by foreign investors shows the importance of institutional development, however only at an aggregate level (Henisz, 2000; Meyer, 2001). Furthermore, Bevan et al. (2004), by using comparative perspective, tend to explain the aspects of institutional development that provide a significant determinant of FDI receipts in transition countries. Their results as cited by (Maric & Shukarov, The Role of Institutions in Attracting Foreign Direct Investments, 2017) indicate a "*positive relationship between FDIs and the quality of formal institutions, though an impact from informal institutions can only be shown for the special case of Russia, which has suffered from a gap between the extensiveness and effectiveness of a legal reform*". The findings by Bevan et. al. (2004) indicate to several specific formal institutions which influence FDIs, for example, private ownership of business, foreign exchange and what is of interest of this dissertation, the level of legal development. In the case of the transition countries, a research performed by Kersan (2013), by using regression analysis determines the impact of the institutional development as well as its importance in attracting FDI inflows in the Western Balkan countries. The selected set of variables included in the regression analysis indicate that GDP per capita and inflation has a positive impact on FDI inflows. Moreover, the institutional factors only corruption, large scale privatization, and overall infrastructure reform have a significant impact on FDIs inflow (Maric and Shukarov, 2017).

6.3 Corruption and FDIs

The cost of investment in a foreign country with high level of corruption, is increased due to the fact that foreign investors should pay extra money in forms of bribes to get permit and license in order to conduct the investment (Al-Sadig, 2009). In corrupt societies, the level of uncertainty is increased since those corrupt actions are not admissible to court. Wei (2000), by examining 12 source countries and 45 host countries, mostly OECD members, found a negative effect of corruption and corruption induced uncertainty on FDI inflows. Furthermore, Jovorcik and Wei (2009), came to a conclusion that the corruption decreases the FDI inflows, and the foreign investors are more likely to team up with a domestic company rather than start their own green field investment. The reason, as they explain is that the local company might have certain advantages in dealing with corrupt government. By examining the overall quality of economic institutions Globerman and Shapiro (2002), concluded that the government infrastructure plays a vital role in FDI inflows. Another supporting result in favor of the negative impact of corruption on FDI inflows is obtained by the research study performed by Houston (2007). He declares that those countries with weak rule of law, corruption might have a positive impact on FDIs, conversely, it has a negative effect in countries with high institutional development.

However, by considering the supporting literature and empirical studies on the relationship between corruption and FDI inflows, there are research studies that do not find a significant effect of corruption on the FDI inflows. Similarly to the research by Wei (2000), Stein and Daude (2001) by examining 18 source countries and 58 host countries, found that there is no effect of corruption on FDI inflows.

A study worth mentioning the one performed by Bellos and Subasat (2012), examining the joint effect of the quality of institutions in both, source and host countries. By

looking at a difference in the levels of corruption, their research indicated that countries with high institutional development tend to invest in countries with lower level of institutional development.

   As discussed in Chapter 4, the government integrity as a part of the rule of law plays a vital role in determining the prospects of economic prosper. The countries of interest in this dissertation, are considered as to have high level of corruption, especially the non EU member countries. Since the above presented literature provides mixed results, further analysis is required in order to confirm or deny the findings in terms of corruption level in Chapter 4.

6.4 Countries Comparative Statistics

       Considering what is stated in the above part, this subsection presents statistical analysis of the impact of institutions on FDIs. The group of countries chosen as representatives in this paper could be sub grouped in two parts, one group representing European Union member countries such as Bulgaria, Croatia, Romania and Slovenia and non European Union member countries such as Albania, Bosnia and Herzegovina, North Macedonia and Serbia. The examination period is within 16 years range, from 2004 till year 2019. As a proxy for institutions this part considers the Corruption Perception Index (CPI) and compares it with the Foreign Direct Investment inflows for each country. The data for comparison will be used by the study performed by Maric and Shukarov (2017), for simplicity reasons.

       Before presenting the data for the selected countries in this dissertation, a similar study was performed by Maric and Shukarov (2017). The research study uses the same selected countries, as are used in this dissertation, for a time span of 11 years, from 2004 to 2014. The comparison is between the Corruption Perception Index obtained from Transparency International and the FDI inflows and GDP, data obtained from the World

Bank. The conclusion was that the CPI has an effect on the FDI and the level of GDP, although the connection could not be fully established in the countries members of the EU due to several facts. First, these countries are lead by the rules and regulations postulated by the EU. Second, for some investors it might be easier to enter in the countries already members of the EU rather than to enter the countries which are not. And third, the study is lacking in data, meaning that it only considers one variable as a proxy for institutions, whilst important variables such as the rule of law and well established property rights, human capital development, the investments in the R&D and innovation are not considered. That is one of the reason why the structure of this dissertation is using that flow, i.e. first the rule of law implications in these countries is analyzed in Chapter 4, followed by the impact of institutions on education presented through the degree of R&D expenditures discussed in Chapter 5.

The research study by Maric and Shukarov (2017), points out that in Bulgaria and Romania from the period 2004-2007 the level of FDI inflows is significantly increased, which coincides with the period prior to their acceptance in EU. The same effect is observed with the CPI, the perception of corruption index is increasing, implying the decrease in the level of corruption in these countries.

Figure 6 Tabular representation of the comparison among GDP growth, CPI and FDI inflows for EU member countries

Table 1. FDI inflows as percentage of GDP, GDP growth and CPI for EU Member Countries

period indicator/country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia											
FDI inflows (%GDP)	4,35	4,00	5,66	6,94	3,30	-7,80	1,24	0,65	-2,72	-1,06	3,05
GDP (% annual)	2,41	2,67	1,75	3,92	1,94	-0,69	0,66	1,71	0,07	0,22	2,08
CPI	6,00	6,10	6,40	6,60	6,70	6,60	6,40	5,90	6,10	5,70	5,80
Romania											
FDI inflows (%GDP)	8,45	6,89	9,27	6,00	6,65	2,94	1,91	1,38	1,53	2,01	1,94
GDP (% annual)	8,36	4,17	8,06	6,86	8,46	-7,07	-0,80	1,06	0,64	3,53	2,78
CPI	2,90	3,00	3,10	3,70	3,80	3,80	3,70	3,60	4,40	4,30	4,30
Croatia											
FDI inflows (%GDP)	2,59	3,95	6,54	7,60	7,36	5,10	2,39	2,27	2,57	1,61	6,89
GDP (% annual)	4,08	4,16	4,79	5,15	2,05	-7,38	-1,70	-0,28	-2,19	-1,06	-0,36
CPI	3,50	3,40	3,40	4,10	4,40	4,10	4,10	4,00	4,60	4,80	4,80
Bulgaria											
FDI inflows (%GDP)	10,20	13,74	22,95	31,00	18,84	7,52	2,49	3,69	3,34	3,58	3,48
GDP (% annual)	6,56	7,24	6,75	7,68	5,65	-4,22	0,05	1,58	0,24	1,28	1,55
CPI	4,10	4,00	4,00	4,10	3,60	3,80	3,60	3,30	4,10	4,10	4,30

Source: Maric and Shukarov (2017) using World Bank and Transparency International

Although, the connection between the corruption and the FDI inflows is generally established, coinciding with the fact that low level of corruption increases the level of FDI inflows, an untypical trend could be observed in the cases of Bulgaria and Romania. Prior to joining the EU the FDI inflows were significantly higher compared to the level of FDI inflows after the accession of the EU. As it could be observed in the above table 1 presented in figure 6, in 2007 in Bulgaria the level of FDIs was 31% of GDP, which dropped to 3,48% in 2014. Similarly to Bulgaria, in Romania, in 2007 the FDI inflows were 6% of GDP which within 7 years dropped to 1,94 % in 2014. It could be stated that this untypical relationship is due to the low scores of the rule of law, as presented in Chapter 4. Both countries, Bulgaria and Romania, since their accession in the EU were closely monitored by the EU Cooperation Verification Mechanism (CVM), and the main remarks were the lack of rule of law, judicial effectivness and government integrity, all of which was presented in details in Chapter 4.

The below Figure 7 represents the tabular representation of the comparison between GDP, CPI and FDI inflows for non EU member countries from the research by Maric and Shukarov (2017). In here it could be also observed that the level of FDIs is increasing in accordance to the increasing level of CPI which in fact implies lower level of corruption.

Figure 7 Tabular representation of the comparison among GDP growth, CPI and FDI inflows for non EU member countries

Table 2. FDI inflows as percentage of GDP, GDP growth and CPI for non-EU Member Countries

period indicator/country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Albania											
FDI inflows (%GDP)	4,67	3,22	3,62	6,10	9,63	11,15	9,13	8,14	7,47	9,81	8,70
GDP growth (% annual)	5,71	5,72	5,43	5,90	7,53	3,35	3,71	2,55	1,42	1,11	2,17
CPI	2,50	2,40	2,60	2,90	3,40	3,20	3,30	3,10	3,30	3,10	3,30
Bosnia and Herzegovina											
FDI inflows (%GDP)	7,08	5,56	6,57	11,68	5,26	0,79	2,59	2,53	2,28	1,85	2,68
GDP growth (% annual)	6,10	8,76	5,38	5,73	5,48	-2,87	0,77	0,91	-0,93	2,39	1,08
CPI	3,10	2,90	2,90	3,30	3,20	3,00	3,20	3,20	4,20	4,20	3,90
Macedonia											
FDI inflows (%GDP)	5,68	2,32	6,23	8,80	6,17	2,76	3,20	4,84	3,47	3,74	0,54
GDP growth (% annual)	4,67	4,72	5,14	6,47	5,47	-0,36	3,36	2,34	-0,46	2,67	3,77
CPI	2,70	2,70	2,70	3,30	3,60	3,80	4,10	3,90	4,30	4,40	4,50
Serbia											
FDI inflows (%GDP)	4,14	7,81	16,23	10,98	8,23	6,87	4,29	10,61	3,13	4,52	4,56
GDP growth (% annual)	9,05	5,54	4,90	5,89	5,37	-3,12	0,58	1,40	-1,02	2,57	-1,81
CPI	2,70	2,80	3,00	3,40	3,40	3,50	3,50	3,30	3,90	4,20	4,10

Source: Maric and Shukarov (2017) using World Bank and Transparency International

6.4.1 Non EU member countries

Considering the above presentation in Figure 7, and comparing the results with Table 9 and 10 the following conclusions could be drawn. The data shows fluctuations in the FDI inflows comparing to the CPI. The level of investments is not necessarily related to the level of CPI index. Such results could be obtained as stated in the above, due to the fact that corruption is not the only considerable factor when source countries choose a host country for investments. Yet, a conclusion could be drawn that the CPI level has a negative impact on GDP as observed in Figure 5. Higher the corruption in these countries lower the GDP.

Table 9 FDI inflows as % of GDP for non EU member countries

Country	2015	2016	2017	2018	2019
Albania	8,69054	8,80509	7,85547	7,95129	7,91159
Bosnia and Herzegovina	2,36307	1,85178	2,81762	2,94699	1,9464
North Macedonia	2,94703	5,14755	3,36727	5,13691	3,75662
Serbia	5,91276	5,79668	6,56072	8,04765	8,32904

Source: Author's personal calculations (using World Bank database)

Table 10 The CPI index from 2015 to 2019 for non EU member countries

Country	2015	2016	2017	2018	2019
Albania	3,6	3,9	3,8	3,6	3,5
Bosnia and Herzegovina	3,8	3,9	3,8	3,8	3,6
North Macedonia	4,2	3,7	3,5	3,7	3,5
Serbia	N/A	N/A	4,1	3,9	3,9

Source : Author's personal calculations (using Transparency International data)

6.2.2 EU member countries

As for the non EU member countries, the same results are obtained when analyzing the data for the EU member countries. Comparing Table 11 and 12 with Figure 5, it could be observed that the FDI inflows do not necessarily depend on the CPI index. However, it could be observed that given the time period considered for comparison, for example in Slovenia in 2009 there is a negative FDI inflow, and negative GDP.

Table 11 FDI inflows as % of GDP for EU member countries

Country	2015	2016	2017	2018	2019
Bulgaria	4,3047	2,74519	3,4272	1,84677	2,21422
Croatia	0,10554	0,81112	0,86194	1,98842	1,93667
Romania	2,42714	3,31683	2,81202	3,03921	2,76359
Slovenia	4,01518	3,23902	2,46332	2,84659	3,18178

Source: Author's personal calculations (using World Bank database)

The reason for that is not the corruption perception index, it might be the global financial crisis. It is known fact that the countries with better institutions, were heat harder during the global financial crises, compared with the countries with less developed institutions.

Table 12 The CPI index from 2015 to 2019 for EU member countries

Country	2015	2016	2017	2018	2019
Bulgaria	4,1	4,1	4,3	4,2	4,3
Croatia	5,1	4,9	4,9	4,8	4,7
Romania	N/A	N/A	4,8	4,7	4,4
Slovenia	6	6,1	6,1	6	6

Source : Author's personal calculations (using Transparency International data)

The above obtained results do not indicate a strong relationship between the Corruption Perception Index and the FDI inflows. Having in mind the presented research studies, the literature itself, although its mainly supporting the negative relationship

between CPI and FDI inflows, also provides mixed results. The FDI inflows do not solely depend on the level of corruption, but rather other factors are considered as well, such as the human capital, the rule of law, the R&D, as well as the tax incentives imposed by the government of the host country which will be detailed presented in the chapter which follows.

Chapter 7 Institutions and Tax system

7.1 Taxation and economic prosperities

Considering what is already elaborated in the above part of this dissertation, countries with the best implemented policies and institutions realize most of their potential, whereas other benefit from only an insignificant part of their potential income. Thus, to revise what is already established, large differences in the wealth of nations are mainly due to the differences in the quality of their institutions and the implemented economic policies. Having in mind that, it is vital to mention the Keynesian theory about policy changes. In Chapter 2 it was discussed about the impact Keynes has on the development of the modern economics, among which was the statement that during bad economic times, the government should lower the taxes, and *vice versa* during good economic times. This, back and forth tax policy could foster economic growth and limit inflation (Klein, 1950).

Having in mind that the fiscal policies were part of the transition process, as well as considering that the implementation of certain fiscal policies do *de facto* influence the

economic growth, a more detailed analysis of the fiscal policies is needed to be elaborated. Considering Keynesian approach, it is commonly known that, that approach is based on the assumption that consumption is related to the current income. However, the Ricardian equivalence is in a way a critique of the Keynesian assumption. If consumers are Ricardian, implying that they are forward looking and they are fully aware of the government intertemporal budget constraint, they will expect that a tax cut today, financed through the increased budget debt, will result in higher taxes imposed in the future. Thus, the permanent income is unchanged , and the deficiency of the liquidity constraints and perfect capital markets, consumption will not change (Barro, 1974). This explains the Ricardian equivalence between taxes and debt. Moreover, the focus on the Ricardian equivalence is mostly on the effects in the lump sum tax cuts for a given path of government spending. In that manner, it is crucial to state that the progressive taxes, the way in which the supply side effects of tax cuts affect permanent income should be considered as well. Thus, if the fiscal expansion takes the form of increased government spending, the impact on permanent income depends on how it will be paid in the future, due to the fact that if the increase in government spending is temporary that will be offset by cuts in the future spending, there will be no impact on the permanent income. On the contrary, if the increased government spending is financed through the higher taxes imposed in the future, the permanent income as well as consumption will significantly decrease. Elaborating on the Ricardian equivalence, the assumption of the rational expectations is vital to be identified given what was stated in the above part.

When considering the fiscal expansion the level of uncertainty increases, which could also lower the consumption and investment and by that impact the level of economic growth. The issue of uncertainty as well as the issue of rationality of people, brings in the importance of the institutional aspect of the fiscal policy on economic growth. In that respect, Alesina and Perotti (1995), advocate that large and constant deficits may reveal the existence of the deficit bias enlightened by political economy factors.

As far as the monetary policy is considered, a few points needs to be identified in connection with the rational expectations. Having in mind that the theory of rational

expectations implies that the market agents have the perfect information for the monetary rule, in this case since the monetary policy is discussed, and the contracts and institutions would adjust to it. Hence, one might state that the behavior of the money supply would not affect the real output, thus any cyclical behavior would arise exclusively from nonmonetary sources. However, the monetary authority might influence the behavior of output in the short run by passing from the rule or by changing the rule with the intention of taking benefit of institutional arrangements that most probably would not continue to exist if they were persistently exploited. Thus, one might state that the theory of rational expectations implies that the future expectations as well as the institutional structure adjust to the way policy is conducted, consequently shifting the results of the policy. Hence, the effects of a given monetary policy would not provide the same results every time it is conducted, which is in fact the base of the Lucas critique in terms of identifying the importance of the theory of rational expectations. Having in mind what was stated in this paragraph, one might draw a conclusion that the incorporation of the rational expectations in the macroeconomic analysis implies that the effects of monetary policy on output and employment depend exclusively on the expectations and the institutional structure. To be more precise, if the individuals have the information about the way policy is constructed in addition to the institutional adjustment of the conducted policy, then the growth of money supply would provide no impact on the level of the real output and the level of employment.

Many economists tried to capture the effect of tax system on economic growth, by doing empirical studies. Some of the studies confirm the positive effect taxation impose on economic growth whilst other studies claimed the opposite. In the vast literature of empirical studies, there are some which claim that taxation has no effect at all on fostering economic growth. Additionally, some policymakers state that tax cuts would both, stimulate the economy in the short run and increase output in the long run, whilst others argue that they would raise interest rates and lower confidence, and thus reduce output in both the short run and the long run (Shukarov and Maric, 2015). Since the literature is inconclusive about the impact of tax system on economic growth, it is considered as paramount to consider the empirical evidence.

The debate about tax system influences on economic growth, provoked another concerns. On one hand the high institutional stability, i.e. stable tax system would impact economic growth, and on the other hand, the constant tax policy change, would induce uncertainty and instability, thus diminishing the prospects for economic growth.

The OECD report of 2010 on Growth-Oriented Tax Policy Recommendation identifies the major impact tax system has on the process of economic growth. Besides taxes being used to finance public expenditures, the OECD 2010 Report address the importance of tax system on other economic and social issues. Considering the statements in this dissertation, regarding the institutions, and their definition it is vital to state the other economic social issues affected by tax system are the following:

- households decisions to save or consume,

-supply labor and invest in human capital,

-firm's decisions to produce, create vacancies, invest in new technologies and innovate, as well as

- investors' decisions to invest in assets.

Even though the theory emphasizes the importance of tax systems and its influence on economic growth, empirical studies imply exactly the opposite (Shukarov and Maric, 2015).

Alesina and Ardagna (2009), performed a research study covering 17 OECD countries in the time range from 1970 to 2006. They analyze the fiscal stimuli based upon tax cuts and the general conclusion is that the tax system increase growth.

A study performed by Shukarov and Maric (2015), indicates to the fact that the decrease in the present tax rate will probably lead to a middle or long run budget deficit, which would imply increased tax rates in the future. Thus, the general conclusion of the study is that in developing countries which are less institutionalized and more traditionalized, same fiscal advantages won't necessarily boost the GDP level, due to the mechanism of rational expectations. As a consequence, lowering the tax rates does not

totally capture the positive effect on the GDP growth in countries like Bulgaria, Macedonia and Romania.

Furthermore, an empirical study by Romer and Romer (2007) analyzing the overall federal tax burden as a share of GDP in the US since the WWII found a negative effect of taxes on growth. Their study included presidential speeches, congressional reports, but no statistical method analyzis and concluded that a 1% increase in taxes would lower the real GDP by 3%. Another study that indicates to the negative relationship between taxation and growth is the study performed by Plosser (1993) as cited by (Myles, 2000), considering like Romer and Romer (2007) the OECD countries. The regression analysis by Plosser (1993) included the GDP per capita growth rate and the ratio of income tax to GDP. Yet, it could be observed that the major limitation of the study performed by Plosser is the choice of countries, meaning that all of the OECD countries differ in their income levels and income has been founf to be one the most important determinants of growth (Barro, 1991). Moreover, Martens and Ravn (2012) in their study came with the conclusion that the personal income tax cuts more immediately boost the economic growth level, but at the same time lose revenue, while corporate tax generate growth in the long run and expand the tax base. Finally, a study by Gale and Samwick (2014), points out that both changes in the structure of the tax system and in the level of revenues could influence the economic activity, however, not all tax changes have an equal, or even positive effects on economic growth.

7.2 Taxation and economic prosperities in the transition countries

Since the beginning of the process of transition, institutional reforms were considered as a key component of the policy package that was suggested to the economies of Central and Eastern Europe (hereinafter CEE economies) in order to transform them from centrally planned economies operating under the socialist system, into market-type economies operating under the capitalist system in a democratic political framework (Shukarov and Maric, 2015). For all the CEE economies, the basic transition agenda already

involved significant institutional reform in such areas as central banking, fiscal policy and taxation, industrial trade policy, property rights and commercial law, (Shukarov and Maric, 2015). These considerations help to explain why institutional change was not primary goal of the reform agenda, but was rather considered as a *sine qua non* of other implemented policies.

7.2.1 The Tax System of Albania

After the declaration of the independence, Albania inherited a backward tax system, mainly basing on income direct taxes, placed on manufacturers. The tax system was composed of tax on products, livestock, tax on buildings and land, license tax and profit tax (Koprencka et al., 2013). In the period between the WW I and WW II, custom duties were set on goods, the import taxation on tobacco was set to 30%, as well as there was an increased, decreased or canceled export taxes in order to protect the domestic production. Following the end of the WW II, the government intended to completely eliminate the private property by changing the structure of the income in favor of the state income, by using the tax system as a channel. However, in 1976 with the adoption of the Constitution, complete elimination of the private property was achieved, and Albania became the only state in the world, at that time with no taxes or tariffs, since taxes were hidden in centralized prices of goods and services supplied by the state sector and cooperativeness in the economy (Koprencka et al., 2013).

Since 1991, and the beginning of the democratization process, the fiscal reforms took place. One of the reforms induced, included the establishment of a progressive income tax system, which lasted till 2007. The minimum base was 1% on income, and the upper bound was 15%. Since 2008, Albania changed the progressive way of taxation with a flat taxation, in both income and corporate tax, which percentage was set to 10%. In 1996,

Albania introduced the VAT (Value Added Tax) which was set as 12,5%. In 1997, the VAT tax was increased and set to 20%.

Moreover, during the period 1998-2000, several programs were implemented by the Albanian fiscal authorities in order to stabilize the macroeconomic environment. The IMF stabilization program " Enhanced Structural Adjustment Facility II" was implemented in order to strengthen the macroeconomic stability through several structural reforms, which resulted in reduction of the budget deficit from 12.9% of GDP in 1997 to 9.1% of GDP in 2000. Mainly the structural reforms included cuts in the government subsidies and personnel expenditures. Furthermore, during the period 2000-2008 other IMF and World Bank programs were implemented which resulted in fiscal consolidations, enhanced tax collection system and fiscal sustainability (Mancellari, 2011).

Since 2014, Albania changed the income tax from flat rate to progressive taxation including three income brackets with tax rates of 0%, 13% and 23%. The social security and insurance contributions are paid on employment, and the total percentage is 26.2% on both social security and insurance.

7.2.2 Tax System of Bosnia and Herzegovina

During the period when Bosnia and Herzegovina was a part of Yugoslavia, the tax system was mainly composed of turnover tax and taxes paid by the enterprises. Yet, the fiscal changes heavily rely upon the government structure. The tax system in Bosnia and Herzegovina consists of federal and local taxes. The composition of the tax system includes income taxes, corporate taxes, social security contributions as well as value added taxes. Of course, the excise and other custom duties also are part of the tax system, however, with a smaller portion in the total revenue, which in 2013 was around 28,6% of GDP.

Unlike in Albania, Bosnia and Herzegovina has a flat rate of income and corporate tax of 10%. The social security contributions are paid due employment, and the total value paid

by the employee and the employer for social security and insurance is 43,5%. The VAT tax was set to 17%, excluding VAT free goods and services such as medical care, education and financial services.

7.2.3 Tax System of Bulgaria

As for the previous countries discussed, Bulgaria's tax system is composed of direct and indirect taxes and social security contributions. The personal and corporate taxes are relatively very small component of the tax revenue, and are based on a strategy of having very low flat rates of 10% (Shukarov & Maric, 2015). The system of indirect taxes is mainly based on VAT with a flat rate of 20%, the same rate as in Albania. Being member of the European Union, Bulgaria is obliged to follow EU requirements especially in the excises which is an important tax revenue (Ganev, et. al., 2014). Furthermore, a study performed by Dzhekova and Williams (2014), indicating Bulgaria as undeclared economy, presents that the barriers to formalizing undeclared economic activity, the tax and social security burden is a less serious concern for firms than the overall complexity of tax regulatory systems, corruption, nepotism, institutional inefficiency. In addition to this it could be stated that according to the World Bank Doing Business study, although some improvement in relation to entrepreneurial businesses has been made since 2005 still no progress is evident in areas such as getting permits, enforcing contracts, resolving insolvency etc. A confirmation to the prior statement is discussed in Chapter 4, in which the EU report for Bulgaria's progress is still indicating that the issues such as corruption and nepotism should be resolved.

7.2.4 Tax System of Croatia

Croatia is among the states that imposes progressive income taxes and progressive corporate taxes. The progressive taxation imposed on has three rates, starting from 12%, 25%, 40% depending on the income earned. Progressive tax is usually used by governments

so that the inequality gap would become slighter. Moreover, unlike in the case of Albania, Bulgaria and Bosnia and Herzegovina, Croatia has a progressive corporate tax as well, with rates of 12% and 18% depending of the revenue business make. The residential firms are taxed on the income they earn worldwide, while the foreign investors are taxed only on the income they earn in Croatia. In terms of VAT, the standard rate is 25%, even though it has two deduction on certain goods and services, and those rates are 13% and 5%.

7.2.5 Tax System of North Macedonia

After the declerence of its independence in early 1990s, Republic of North Macedonia, introduced new reforms among which was the reform in the fiscal system, based on market principles, private property, competitiveness, modernization and orientation toward becoming a member of the European Union. The tax system is composed of income taxes (corporate tax and personal income tax), consumption taxes (VAT, excises and custom duties) and property taxes (property tax, tax on inheritance and gifts, and tax on real estate turnover). The Direct Tax System (DTS) of North Macedonia has been constantly changing in terms of implementing new reforms so that could achieve the primary tax policy principle of efficiency and simplicity (Shukarov and Maric, 2015). The main characteristic of Macedonian Direct Tax System is the application of proportional tax rates on Corporate Income Tax (CIT) as well as on Personal Income Tax (PIT). This implies that North Macedonia has applied a flat tax rate within its direct tax structure. In 2006, the nominal tax rate was set at 15%, which dropped to 12% , reaching at 10% in 2008. Moreover, it has to be pointed out the before 2008, the tax structure was composed of proportional tax rate on corporate income and progressive tax rates on personal income, which was supposed to solve the issue of inequality. However, it has to pointed out that, since the country's independence in 1991 till 1995 the corporate income tax was 30%, which fall to 15% in 1996 and stayed at the same level till 2007 (Gruevski and Gaber, 2013).

The evolution of the tax system of North Macedonia is the following. During the period of 1993-2001, the structure of the PIT was progressive and included 3 income brackets with corresponsive statutory tax rates of 23%, 27% and 35% respectively. However, in 2001 the government authorities implemented new tax code rules that set the number of income brackets to 2, and correspondingly, decreased the nominal tax rate to 15% and 18%. Furthermore, the constant changes of the country's tax system continued, when in 2004 a progressive taxes were imposed on 3 income brackets, corresponding to the three tax rates of 15%, 18% and 24%, which lasted till 2006. From the indirect taxes, North Macedonia introduced the VAT in year 2000, which kept its level of 18% since nowadays. From all of the above, it could be observed that the tax system in North Macedonia was subjected to a lot of changes implying institutional instability and underdevelopment.

Recently, the government attempted to attract FDIs, thus tried to lower the taxes and achieve higher growth (Levitas, 2009). According to the European Commission Report 2012, in North Macedonia there is a need for further progress in institutional development. Considering the tax system, the European Commission Reports states that the main problem is the institutional underdevelopment, which could lead in high level of corruption and tax evasion (Shukarov and Maric, 2015).

7.2.6 Tax System of Romania

The tax system of Romania prior to 2005 was divided on 4 brackets system with tax range from 18% to 40%. Since 2005, the tax authorities introduced the flat rate of 16% for both, legal and individual entities. The standard VAT rate is 19% nowadays, and the reduced rate of VAT of 9% is applicable to several products such as books, newspapers, hotel accommodations etc.

The central priority of the fiscal policy is controlling the issue of tax evasion due to the level of corruption and institutional need for improvement. The slow growth in Romania as argued by Voicilas (2011), is due to the slow process of privatization, reform

inapplicability in all sectors, legislative and institutional instability, high level of taxation and its lack of transparency, tax evasion, corruption, lack of information, socio – cultural conflicts, etc. Moreover, Enache (2009), performed empirical research studies on Romania's rural and agricultural sector, and concluded that the institutional development, the tax incentives and legislation are the key issues for economic prosper.

7.2.7 Tax System of Serbia

Serbia's corporate tax rate is set to 15% and the VAT rate is set to be 20%, with a deducted 10% on certain products. Moreover, the personal tax is 10%, however, there is a progressive tax rate of 15% if the earnings are higher than 3 average salaries. Moreover, Serbia's social security contributions are around 37% paid upon employment, one part of that percentage from the employee and a smaller part from the employer. Thus, the effective personal income tax rate is within the range of 20-41%.

Moreover, the public finances in Serbia had been weakening since 2008 due to the fiscal imbalances which arouse from stagnant growth accompanied with weak labor force, insufficient revenue despite aggressive tax collection, high pension spending etc. Serbia's economy during the period 2008-2015 was also experiencing high inflation rates and exchange rate volatility. During the period 2009-2011, an attempt was made to stop the growth of the public debt by implementing IMF programs, although it was proven to be insufficient. However, in 2014 another, more stronger measures associated with IMF programs were undertaken so that the control of debt increasing would be stronger. These measures were proven to be efficient.

7.2.8 Tax System of Slovenia

Slovenian tax system is composed of three main categories: direct taxes on income and property and indirect taxes. The corporate income tax is set to 19%, in addition to a 0% special rate which applies only on certain investment funds and pension funds. Since the beginning of 2013, the tax system of Slovenia implies an optional flat rate tax regime. Accordingly, the tax base for this flat rate tax regime is determined on the basis of the lump-sum costs accounting for 80% of income. What is implied in this tax system and it is not the case in the other countries, is that the R&D investments are 100% deducted from the tax base, thus inducing the R&D investments in the economy. Furthermore, the personal income tax consists of 5 income brackets with 5 tax rates imposed at 16 %, 27 %, 34 %, 39 % and 50 % rates, respectively (Ministry of Finance of the Republic of Slovenia, 2018). The VAT tax is set at 22 % with a reduced rate of 9,5%. Slovenia, has several indirect income taxes, such as taxes on profits from gambling, insurance tax, water vessel taxes, inheritance and gifts, etc.

7.3 Comparative countries statistics

Considering the short introduction of the base tax systems of the countries of interest, as well as their basic tax rates, it is obvious that the rich countries have higher taxes and progressive tax system. The main idea of the progressive taxation is to lower the income inequality within the society.

Having in mind what was stated in the introductory subsection of this chapter, that the empirical findings regarding how taxes impact the economic growth are inconclusive due to the fact that they test only one or two taxes and the effect on GDP is difficult to be captured, this subsection uses the Tax Burden scores by Heritage Foundation and compare them with the GDP per capita annual percentage rate. It is known for a fact that governments enforce fiscal burdens on economic activity through taxation and borrowing. Higher taxes reduce the ability of individuals and companies to follow their goals in the market place, thus lowering the level of overall economic activity. The above short introduction about the tax rates in the countries of interest in this dissertation, mainly

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presented the corporate and income taxes which are an important and direct constraint on individuals economic freedom, however they are not a complete measure of the tax burden. The indirect taxes imposed by the governments in terms of VAT, payroll, sales and excise also play a vital role when considering the tax burden and how it inflicts the institutional impact on the economy. Tax burden as being part of the government size indicator, the other two indicators belonging the composition of the government size are important to be mentioned. The government spending is crucial when the issue of economic growth is discussed. Government expenditures which are due to investment in infrastructure, research or other ways in order to improve human capital might be considered as investment. However, excessive government expenditure on investments which would not bring future benefits, might lead to crowding out the private sector activity. Even though through government spending the economic growth might be speed it up in the short run, it would imply negative consequences in the long run, in terms of increasing taxes. Finally, one of the comprehensible indicators of the extent to which a government respects the principle of limited government is the budget, and limited government is a signal of well developed institutions. It could be stated that enlarging the budget deficit and expanding the debt burden, both of which are indicators of poor government budget management, would lead to erosion in country's overall fiscal health. While from one side, debt financing of public spending could have a positive contribution to productive investment as listed when explaining the government spending; on the other side excessive levels of public debt might lead to various negative impacts such as raising taxes, interest rates and limiting the ability of fast response of the government during crises.

7.2.1 Non EU member countries

Considering the fact that the policies which allow greater economic freedom, would lead to a higher economic growth and prosper. In this part, such policies are represented through tax burden and government efficiency and compared with the GDP growth % annual. Unfortunately, there was no availability of data for the fiscal health, so that that

aspect is not covered. A note to be made, the institutional factors in this comparison are the tax burden and the government spending.

Table 13 Tax Burden index for non EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	80,2	79,5	79,2	83,8	83,6	83,3	81,2	87,3	90,3	92,8
Bosnia and Herzegovina	82,0	67,0	66,8	66,1	70,1	70,1	75,1	74,9	73,7	71,8
North Macedonia	N/A	N/A	81,0	80,3	84,6	83,6	80,4	85,0	88,1	89,4
Serbia	N/A	N/A	89,8	79,8	N/A	N/A	N/A	N/A	N/A	85,9
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albania	92,6	92,1	91,4	92,6	92,7	87,2	87,8	86,9	85,1	86,3
Bosnia and Herzegovina	83,2	83,9	84,3	83,2	82,9	82,9	83,9	83,5	83,5	84,3
North Macedonia	89,3	90	91,2	91,4	91,4	91,4	92,1	91,9	91,6	91,8
Serbia	83,2	83,6	84,1	84,2	83,1	82,4	84,3	83,3	83,5	82,0

Source: Author's personal calculations using Heritage Foundation Data

Observing the data in Table 13, 14 and 15, it could be stated that during the selected period, Bosnia and Herzegovina and Serbia have lower index of tax burden and government spending. At the same time the level of GDP is lower as well. Conversely, in Albania and North Macedonia is the opposite case. The conclusion could be drawn that the impact of tax policies and government spending policies as institutional factors do impact on economic growth.

Table 14 Government Spending index for non EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	74,8	71,2	67,3	70,4	72,3	71	75,6	75,1	76	75,6
Bosnia and Herzegovina	52,0	N/A	N/A	3,2	18,3	23,8	47,8	47,8	48,3	37,6
North Macedonia	N/A	N/A	63,3	85,7	48,1	49,6	65,1	60,9	61,6	65,1
Serbia	N/A	N/A	74,8	89,2	N/A	N/A	N/A	N/A	N/A	46,3
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albania	74,2	68,7	69,5	75,1	75,6	76,1	75,0	72,5	72,7	73,9
Bosnia and Herzegovina	28,8	24,1	24,4	26,9	27,4	27,3	33,1	33,7	41,5	46,1

North Macedonia	65,9	64,3	66,7	69,1	70,7	65,6	69,6	68,9	70,3	70,0
Serbia	41,4	41,9	39,3	40,3	38,6	27,1	44,1	40,3	40,6	45,1

Source: Author's personal calculations using Heritage Foundation Data

Table 15 GDP growth annual % for non EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	7.630	9.314	4.851	5.924	5.957	6.068	6.573	6.787	8.328	4.053
Bosnia and Herzegovina	4.231	2.238	4.927	3.764	6.200	4.229	5.749	6.133	5.885	-0.365
North Macedonia	4.136	-3.385	1.213	1.984	4.359	4.502	4.875	6.305	5.295	-0.558
Serbia	8.104	5.173	7.164	4.687	9.301	10.486	5.522	6.872	6.106	-2.341
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Albania	4.223	2.822	1.585	1.187	1.985	2.517	3.480	3.898	4.328	2.095
Bosnia and Herzegovina	1.430	1.817	0.400	3.577	2.256	3.950	3.777	3.402	3.726	2.752
North Macedonia	3.130	2.215	-0.577	2.752	3.459	3.750	2.728	1.004	2.641	3.471
Serbia	1.137	2.811	-0.199	3.394	-1.110	2.299	3.883	2.594	4.964	4.469

Source: Author's personal calculations using World Bank database

7.2.2 EU member countries

When observing the below tables 16, 17, 18, the same conclusion could be drawn as for the non EU member countries. As stated in the introductory part of section 7.2, the importance of creation of tax policies, and the good management of the bugdet creates prospects for economic growth.

Table 16 Tax Burden index for EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	67,9	58,1	68,3	72,4	81,1	80,3	83,2	82,4	82,7	86,2
Croatia	68,9	66,9	68,3	77,6	67,3	59,3	69,6	69,9	68,8	68,7
Romania	58,3	57,6	64,4	69,1	69,9	70,1	87,5	85,9	85,6	87
Slovenia	52,9	52,8	51,8	53,1	54,4	55,6	64	54,6	62,4	62,9
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bulgaria	86,3	86,9	93,6	94	91,2	91	91,1	91	90,9	90,2

Country										
Croatia	70,3	74,6	76,4	75,4	69,4	74,9	70,8	66,8	66	66,4
Romania	85,8	86,8	87,4	87,9	87	86,9	87,5	87,4	87,3	89,7
Slovenia	64	65,1	64,8	65,7	58,9	58,1	58,6	58,7	58,7	58,4

Source: Author's personal calculations using Heritage Foundation Data

Table 17 Government Spending index for EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	54,4	67,3	49,6	56,7	64,5	53,4	49,8	57,8	56,0	58,7
Croatia	41,9	33,7	25	28,6	22,9	26,2	23,2	24,4	28	31,7
Romania	63,3	79,7	58,9	62,4	74,8	68,9	68,9	71	70,8	70
Slovenia	36,5	47,1	41,9	40,6	40,6	45,3	44,3	30,9	33,2	38,4
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bulgaria	48,3	58,3	50,3	64,2	64,5	64,5	60,4	58,4	60,5	63,9
Croatia	47,1	50,3	45	48,7	45,8	46,5	33,7	31,3	32,5	33,4
Romania	59,8	57,6	55,1	62,2	59,2	62,3	65,5	65,3	66,9	69
Slovenia	46,1	41,1	27,9	22,3	22,6	N/A	N/A	28,6	31,2	38,3

Source: Author's personal calculations using Heritage Foundation Data

Table 18 GDP growth annual % for EU member countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	3.721	7.217	6.565	5.752	6.994	7.741	7.351	7.102	6.555	-2.877
Croatia	7.846	5.172	5.116	5.615	1.040	4.244	5.048	5.361	1.806	-7.255
Romania	3.025	5.344	8.679	3.133	10.974	5.347	8.666	7.876	11.930	-4.615
Slovenia	3.181	3.095	3.301	2.908	4.286	3.738	5.442	6.607	3.515	-8.554
Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bulgaria	1.358	4.832	0.948	0.857	2.510	4.693	4.571	4.267	3.820	3.891
Croatia	-1.251	2.880	-1.940	-0.268	0.321	3.265	4.227	4.364	3.599	3.645
Romania	-3.212	2.490	2.601	3.907	3.758	4.277	5.410	7.748	5.043	4.751
Slovenia	0.620	0.703	-2.891	-1.189	2.655	2.121	3.056	4.747	4.069	2.394

Source: Author's personal calculations using World Bank Data

Part III
Chapter 8 Research Methodology

"In God we trust;

all others must bring data"

William Deming

The aim of this chapter is to present the empirical literature on the institutional impact on economic growth by presenting empirical studies literature as well as a regression analysis.

8.1 Empirical Evidence on Institutional impact on economic development and growth

The empirical studies trying to depict the relationship between institutional impact on economic growth is not vast. As a stepping stone in the empirical research studies in determining the impact of institutions on economic growth is the study performed by Hall and Jones (1999). They hypothesized that differences in capital accumulation, productivity, hence output per worker are primarily interrelated to differences in social infrastructure across countries. They use the term social infrastructure to denote institutions and government policies which establish the economic environment in which individuals accumulate skills and firms accumulate capital, thus producing output (Hall & Jones, 1999). The conclusion that they draw was that institutional quality in fact impact the economic growth.

Mbaku and Kimenyi (1997), by performing a Weighted Least Squares test (WLS) offered a political economy explanation of why policy makers could consider the positive relationship between institutions, in their study denoted as political freedom, and economic growth. They conclude that otherwise, the abuse of political power would stagnate the process of economic prosper. Furthermore, another important study which needs to be mentioned is the one performed by Grier and Tullock (1989) investigating post war economic regularities on economic growth. By using pooled cross-section/time series data for 113 countries, their results indicate that political repression have a negative impact on economic growth. Mauro (1995), by using cross-country analysis concluded that the effect of corruption on growth, investment and government expenditure are robust to controlling for endogeniety due to the fact that a composed index is used for performing a model of univariate OLS and 2SLS and multivariate OLS and 2SLS.

Furthermore, Beck and Laeven (2005), using two major explanatory factors such as reliance on natural resources and years under the socialist government, provide a conclusion that countries with indistinct political systems in the transitional process and countries that are significantly endowed with natural resources have failed in development of the market compatible institutions and therefore had slower economic growth in the transitional period. Another important research study by Easterly and Levine (2003), identifies that institutions in fact enlighten the cross-country differences in GDP per capita identifying the impact of endowments on institutions and on economic prosper. Kurul and Yalta (2017) performed a panel data analysis identifying the relationship between institutions and FDI flows for developing countries. By using a sample for 13 countries for a time span of 10 years, they identified that some, but not all institutional factors have a positive influence on FDI inflows and economic growth. Another study important to be mentioned in this dissertation is the one performed by Sarwar et. al. (2013), by using data for South Asian countries. The empirical study identifies that the quality of institutions in South Asia is of average quality. They also concluded that the variables such as physical capital, population and education, as well as institutions have a positive effect on economic growth.

Another study confirming the positive relationship between institutions and economic growth is the study by Djankov et. al. (2006). By using sample of 135 countries and using an aggregate index of 7 regulatory areas as a proxy for institutions, the outcome they came up with is that the business regulation and growth are consistently positively correlated. Lazarov and Slaveski (2015), by investigating the CEE (Central and Eastern European Countries), identified a positive relationship between the institutions and economic growth, by testing the random and fixed effects. However, by using the same data and performing a GMM model, they found a negative relationship between the two. Yet, their main explanation of the difference between the result is that the time period selected for testing is during the latest financial crisis. The negative effect of institutions on economic growth during the latest global financial crises is also an outcome of the empirical study by Bartlett and Prica (2012). The explanation of such outcome relies on the fact that those countries which have made the most progress integrating with the EU and thus, attempted

to comply with the EU compatible institutions were most vulnerable to the crisis. Still, they outlined that the recovery process was speeded up in those countries due to the quality and development of their institutions. The below table presents the main empirical studies with their outcomes and used techniques.

Table 19 Presentation of the main empirical literature studies

Study	Measure for institution	Method technique	Finding
Grier & Tullock (1989)	Government consumption	Pooled OLS	Negative relationship between government expenditures and economic growth
Paulo Mauro (1995)	Bureaucratic efficiency index/ Political stability index / Corruption index	Univariate OLS and 2SLS Multivariate OLS and 2SLS	Negative relationship between corruption index and economic growth and positive

			relationship between bureaucratic efficiency and political stability index
Mbaku & KImeni (1997)	Political freedom	Weighted Least Squares (WLS)	Positive relationship
Esterly & Levine (2003)	Institution index of six components[21]	OLS	Positive relationship between institutional index and economic growth
Beck & Leaven (2005)	Natural resources and transition countries	IV (instrumental variable) regression	Positive relationship between institutions and economic growth
Djankov et al (2006)	World Bank indicator for doing business[22]	OLS	Positive relationship between institutions and economic growth
Bartlett & Prica (2012)	EBRD transition index	OLS	Negative relationship between institutions and economic growth
Sarwar et al. (2013)	Economic Freedom Index by Heritage Foundation	GMM (General Method of Moments	Positive relationship between economic growth and institutions
Lazarov and Slaveski (2015)	Index of corruption, political rights and civil liberties	OLS and GMM	Positive relationship between institutions and economic growth when doing OLS / negative relationship between economic growth and institutions in GMM model
Kurul and Yalta (2017)	World Bank Governance indicators	GMM	Positive relationship between institutions and economic growth

8.2 Research Methodology

The methodological approach is panel data analysis, for eight countries listed in Table 1 in Chapter 1. For a reminder the countries of interest are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Romania, Serbia and Slovenia. Because

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[21] the six components are: voice and accountability, government effectiveness, rule of law, political stability and absence of violence, freedom from graft and light regulatory burden (Easterly & Levine, 2003)

[22] starting a business, hiring and firing workers, registering property, getting bank credit, protecting equity investors, enforcing contracts in the courts, and closing a business (Djankov, McLiesh, & Ramallo, 2006)

there is a heterogeniety in data, for the different countries, panel data analysis is considered since it takes into account individual heterogeniety. The time span is 20 years, from year 2000 to 2019.   Panel data analysis is actually cross-country analysis over selected time period. Because of that fact, panel data is considered as more informative, including variability, effectiveness and reduced colinearity.

In order to find the relationship between institutions and economic growth the following model was developed:

$$Y_{it} = \beta_0 + \beta_1 INST_{it} + \beta_2 GFCF_{it} + \beta_3 PG_{it} + \beta_4 EI_{it} + \varepsilon_{it} \qquad (1)$$

$$i = 1,...I \text{ and } t = 1,...T$$

where,

Y   = GDP per capita annual growth % rate

INST = Institutions index

GFCF = Gross fixed capital formation

PG   = Population growth annual rate

EI   = Education Index

Y is explanatory variable while INST, GFCF, PG, EI are explanational variables. ε_{it} denotes the error terms.

GDP per capita

In this study as a proxy for economic growth the GDP per capita is used and abbreviated by Y. The data is used from the World Banka Database.

Institutional Index

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The main consideration in this model was choosing the right variables. Moreover, it could be stated that that is the main issue when discussing the empirical testing of institutional impact on economic growth. Considering the below table 20 it could be considered that the index of Economic Freedom is covering a variety of aspects, thus it is most suitable to be used as a proxy variable of institutions. The expected sign is $\beta_1 > 0$.

Table 20 Choosing the right indicator for Institutions

Institutions	Aspects Covered
Freedom House - Annual Survey of Freedom	Political rights and civil liberties
Polity IV - Political Regimes	Institutionalized democracy and autocracy
Heritage Foundation - Index of Economic Freedom	Rule of law, regulation efficiency, government size and market openness
World Bank - Governance indicators	Political stability, rule of law, control of corruption, government effectiveness
World Bank Ease of Doing Business	Starting a business, employing labor, enforcing contracts and paying taxes
International country risk	Economic risk, political risk, financial risk

 The Index of Economic Freedom incorporates 12 aspects of economic freedom, grouped into 4 categories [23]

- Rule of law - property rights, judicial effectiveness, government integrity
- Government size - tax burden, government spending, fiscal health

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[23] The basic information is taken from the web site of Heritage Foundation and could be accessed on https://www.heritage.org/index/book/chapter-2

- Regulatory efficiency - business freedom, labor freedom, monetary freedom

- Market openness - trade freedom, investment freedom, financial freedom

Some of the above listed scores of economic freedom are used in the Chapters of Part II when doing the countries comparative statistics.

Gross Fixed Capital Formation

Capital plays one of the key roles in the determinants of economic growth, and for that reason this variable is included in the model. According to the definition provided by the World Bank Gross fixed capital formation includes land improvements, plant, machinery, capital investments in terms of infrastructure, schools, hospital etc. In other words it includes all the important components of the quality of human life. The data used for this variable is from the World Bank Database. The expected sign of Gross fixed capital formation is $\beta_2 > 0$.

Population Growth

The inclusion of population growth in the model is based on two reasons. First, the importance of population relays on the fact that it provides the labor force in the country. Moreover, population also creates the economy of scale. The second reason is that population have a key role in establishing new markets and creating incentives for production. In this model, the dada for population growth annual rate is used from the World Bank Database. The expected sign is $\beta_3 > 0$

Education Index

Considering the fact that education plays a vital role in creating human capital, the index of education is included in the model. The data used in this model is from UNDP. The Education Index represents the ratio between the average adult years of schooling and expected years of schooling for children, each having an equal weight by 50%. The expected sign is $\beta_4 > 0$.

8.3 Regression analysis

Considering the presented empirical literature study, two things can be concluded. First, the empirical study is scarce. And second, there is not much choice of the models used to test the relationship between institutions and economic growth. After establishing the model in the above equation (1), and explaining the importance of the variables in the model, the following subsections present the regression analysis.

8.3.1 Pooled OLS Model

The first step in empirically testing the relationship between institutions and economic growth, is to do Pooled OLS regression analysis. Pooled OLS technique is simple OLS technique used in panel data. As stated in the above, the OLS estimation test ignores the country pair specific heterogeneity. In addition to this, model of such type, bases its assumption on the error term $\varepsilon \sim N(0, \sigma^2)it^2$, implying that there is no autocorrelation between the error terms of different observations, hence the error terms are homoscedastic. Besides, this assumption which could give good OLS estimation, the

problem with heterogeniety between units in panel data is challenging, hence leading to biasness of coefficients.

Yet, the results from the pooled OLS are worth mentioning. The below Table 21 shows the results obtained from pooled OLS estimation. The coefficients obtained for institutions and gross fixed capital formation are as expected, positively related to GDP per capita, whilst education index and population growth have both negative signs which implies that they have negative impact on GDP per capita.

Table 21 Pooled OLS Regression Results

Variables	Pooled OLS
gdppercapita	
instit_dex	.6364634
(s.e)	(.4912922)
grossfixedcapital formationannual	.1693284
(s.e)	(.0175842)
populationgrowthannual	-1.069437
(s.e.)	(.3296804)
educationindex	-3.903019
(s.e)	(2.833391)
No. of obs.	136
R-squared	0.4999
F	32.73

Note: Statistically significance at 5% level
Source: Author's personal calculations

Even though the results obtained from the pooled OLS estimation confirm the null hypothesis that institutions in fact impact the economic growth, considering the theoretical assumption of biasness of coefficients due to heterogeneity, the regression analysis go further. The further question is whether to use Fixed or Random Effect. The below subsection provide both Fixed and Random Effect analysis.

8.2.2 Fixed and Random effect model

In order to eliminate the heterogeneity problem in pooled OLS, the testing proceeds with Fixed and Random Effect. Considering the above equation (1), when testing for Fixed and Random effect it could be rewritten as following:

$$Y_{it} = \beta_0 + \beta_1 INST_{it} + \beta_2 GFCF_{it} + \beta_3 PG_{it} + \beta_4 EI_{it} + \alpha_i + \varepsilon_{it} \qquad (2)$$

For simplicity, equation (2) can be rewritten as

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_k X_{kit} + \alpha_i + \varepsilon_{it} \qquad (3)$$

$$i = 1,...\ I \quad t = 1,...T \text{ and } n = 1,...K$$

The inclusion of α_i in equation (2) and in the simplified version of equation (2), the equation (3), denotes the individual special effect or the unobserved effect. For simplicity, the focus will be on equation (3). When performing Fixed and Random Effect, the basic assumption is whether the included term α_i is correlated with the explanatory variables. The equation (3) becomes Random Effect model if α_i is uncorrelated with the explanatory variables X_k, implying that the covariance is zero $Cov(X_{itn}, \alpha_i) = 0$.

When considering the Fixed Effect model, considering the rewritten equation (3)

$$Y_{it} = \beta_0 + \beta_1\ X_{1it} + \alpha_i + \varepsilon_{it} \qquad (3.1)$$

$$t = 1,...T$$

For each i = 1,... N the following data could be considered:

Y_{i1}	X_{i1}	α_i	ε_{it}

Y_{i2}	X_{i2}	$α_i$	$ε_{it}$
...	...		
Y_{iT}	X_{iT}	$α_i$	$ε_{it}$
$\overline{Y} = \sum_{t=1}^{T} Yit / T$	$\overline{X} = \sum_{t=1}^{T} Xit / T$	$\overline{a} = \sum_{t=1}^{T} ai / T = α_i$	$\overline{ε} = \sum_{t=1}^{T} εi\, t / T$

Thus, there will be i=1,...N of these time averages for each variable in the model. Considering " N average " observations, the following equation could be considered:

$$\overline{Y} = β_0 + β_1 \overline{X}_i + α_i + \overline{ε}i \qquad (3.2)$$

By subtracting the two equations (3.1) and (3.2) the individual special effect will cancel out, and following equation is obtained

$$(Y_{it} - \overline{Y}) = β_1 (X_{it} - \overline{X}_i) + (ε_{it} - \overline{ε}_i) \implies \widetilde{Y}_{it} = β_1 \widetilde{X}_{it} + \widetilde{ε}_{it} \qquad (4)$$

The obtained variables in equation (4) $\widetilde{Y}_{it}$, $\widetilde{X}_{it}$, $\widetilde{ε}_{it}$ are called time-demeaned data and this transformation is called the within transformation. The obtained R- squared from this regression is within R^2, showing how the deviations in regressors from their within unit means affect deviations of Y from its within-unit mean.

Thus, it could be stated that the fixed effect estimator is efficient when the random errors are serially uncorrelated, and there is no assumption about the correlation between the unobserved effect $α_i$ and the explanatory variables.

The Below Table 22 presents the regression analysis obtained from running a Fixed and Random Effect models.

Table 22 Fixed and Random Effect Regression Results

Variables	Fixed Effect	Random Effect
gdppercapita		
instit_dex	.6785018	.6374915
(s.e)	(.6558366)	(.4957376)
grossfixedcapital formationannual	.1589912	.1695829
(s.e)	(.0175019)	(.0176834)
populationgrowthannual	-1.283443	-1.04167
(s.e.)	(.4145474)	(0.3328481)
educationindex	-12.28719	-4.143598
(s.e)	(5.51957)	(2.860608)
No. of obs.	134	134
R-squared	0.4726	0.5071
F	31.89	
Chi^2		130.05

Note: Statistically significance at 5% level

Source: Author's personal calculations

The results from regression analysis of both Fixed and Random Effects, confirms the initial outcome of pooled OLS. The significant variables are the institutional index and gross fixed capital formation, they impact the GDP per capita. Whilst, the education index and the annual rate of population growth have negative impact on GDP per capita. Yet, some of the variables might be endogenous, thus provoking biasness in the regression output results. In order to make clear statement, or maybe even to confirm what is obtained till now from running the pooled OLS, Fixed and Random Effect mode, the final step is to run the Hausman-Taylor Instrumental Variable Model.

8.2.3 Hausman-Taylor Instrumental Variable model

After testing the Fixed and Random Effect Model, the results obtained by both methods are more or less the same. However, the possibility that the Fixed Effect model eliminates anything that is time invariant in the model requires a further testing. Moreover, the possibility that random regressors are correlated with the unobserved effect α_i, indicate to

the fact that Random Effect model identifies the need to proceed with further testing and choosing something in between. Thus, a Hausman-Taylor test is performed, which an Instrumental Variable (IV) estimator that enables the coefficients of time-invariant to be estimated (Hausman and Taylor, 1981). In order to test the Hausman-Taylor IV model, the model equation should be rewritten as following:

$$Y_{it} = \beta_0 + \beta_1 X'_{1it} + \beta_2 X'_{2it} + \gamma_1 z'_{1it} + \gamma_2 z'_{2it} + \alpha_i + \varepsilon_{it} \tag{5}$$

where,

X'_{1it} = k1 variables that are exogenous, time varying and uncorrelated to α_i

X'_{2it} = k2 variables that are endogenous, time varying and correlated with α_i

z'_{1it} = w1 variables that are exogenous, time invariant and uncorrelated with α_i

z'_{2it} = w2 variables that are endogenous, time invariant and correlated with α_i

The estimation of equation (5) will make the OLS and GLS (General Least Squares) not convergent due to the correlation of some variables with the α_i - Random Effect Model. As well, the Fixed Effect estimator does not allow testing for γ_1 and γ_2 parameters. Moreover, the correlation between variables related to parameter β_2 and parameter γ_2 as well as with the α_i would not produce consistent estimates. The below Table 17 presents the results obtained from the Hausman-Taylor test.

In the below Hausman-Taylor model the instrumental variables that are tested are exogenous institution index, gross fixed capital formation and education index, while the endogenous is the population growth annual rate. The obtained coefficients indicate to the same results obtain in the previously tested pooled OLS, Fixed and Random Effect model.

Table 23 Hausman – Taylor Regression Results

Variables	Hausman - Taylor IV model

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gdppercapita	
instit_dex	.5474822
(s.e)	(.5992103)
grossfixedcapital formationannual	.1535893
(s.e)	(.0173909)
populationgrowthannual	-1.154877
(s.e.)	(.4098597)
educationindex	-8.795834
(s.e)	(4.438073)
No. of obs.	134
R-squared	
F	
Chi^2	128.73

Note: Statistically significance at 5% level

Source: Author's personal calculations

8.3 Empirical model - choosing the best appropriate model

Although the same results were obtained by running the regression model in pooled OLS, Fixed and Random Effect Model and the Hausman-Taylor Model, considering the limitations and restrictions these tests have, a choice has to be made which one represents the best suitable regression output in order to determine the impact of institutions on economic growth. Having in mind the regression results in the above Table 21 , 22 i 23, the choice would be between Fixed Effects, Random Effects and Hausman-Taylor Model since the Pooled OLS was just a preliminary test, given the obstacles the model implies.

The Hausman Test is used to choose between the Fixed and Random Effect Model and the Hausman-Taylor Model. An explanation of the null hypothesis of the Hausman test is required. The null hypothesis in Hausman test imply that the coefficients obtained in bith, the Fixed and Random Effect model are identical. The null hypothesis could be rejected if the p value is less than 0.05 ($p < 0.05$), implying that the Random Effect Model presents better estimator than the Fixed Effect Model. Considering the opposite. If the results

indicate value of $p > 0.05$, than the Fixed Effect Model provide better indicator than the Random Effect Model.

Considering the fact that the Hausman-Taylor Model is improved model of the Random Effect Model, the choice is between Fixed Effect Model and the Hausma-Taylor Model, by using the same technique as choosing between the Fixed and Random Effect Model. In this case, the null hypothesis indicate that the coefficients obtained by the Hausman-Taylor IV Model provide the same outcome as the Fixed Effect Model. The alternative hypothesis indicates that the Hausman-Taylor IV provide better regression outcome than the Fixed Effect. Thus, it could be stated that the Hausman-Taylor Model chooses the more efficient model between the Fixed and Random Effect Model.

Considering again the data from Table 16 and 17. It could be stated that the null hypothesis stating that Fixed Effect and Hausman -Taylor IV model provide the same regression outcome is rejected, thus the Hausman-Taylor IV Model is more suitable than the Fixed and Random Effect.

8.3 Empirical Results

The below Table 24 presents the results from Pooled OLS, Fixed Effects, Random Effects and the Hausman-Taylor IV Model. From the table it could be observed that the Hausman-Taylor IV Model provide better outcome than the Fixed and Random Effects. As stated in the above, the results from the Pooled OLS estimation present that the unobservable individual-specific effect is heterogenous, this model is not considered in explaining the institutional impact on economic growth since the coefficients are biased. Using the Hausman test, comparison is made between the Fixed and Random Effects. The results, indicating that the null hypothesis stating that the Fixed and Random Effect report the same results is rejected

and the Fixed Effect shows better results than the Random Effects. In the comparison between the Fixed and Hausman-Taylor IV Model the results indicate that the Hausman-Taylor IV Model is more suitable for the explanation of the institutional impact on economic growth since it has better coefficient output.

Table 24 The regression output from all the regression analysis

Variables	Pooled OLS	Fixed Effect	Random Effect	Hausman-Taylor IV
GDP per capita				
Instit_ndex	.6364634	.6785018	.6374915	.5474822
	(.4912922)	(.6558366)	(.4957376)	(.5992103)
Grossfixedcapital formationannual	.1693284	.1589912	.1695829	.1535893
	(.0175842)	(.0175019)	(.0176834)	(.0173909)
Populationgrowth annual	-1.069437	-1.283443	-1.04167	-1.154877
	(.3296804)	(.4145474)	(.3328481)	(.4098597)
educationindex	-3.903019	-12.28719	-4.143598	-8.795834
	(2.833391)	(5.51957)	(2.860608)	(4.438073)
No. of obs.	136	134	134	134
R-squared	0.4999	0.4726	0.5071	
F	32.73	31.89		
Chi^2			130.05	128.73

Note: Statistically significance at 5% level
Source: Author's personal calculations

In the Hausman-Taylor IV model the exogenous variables are institutional index, education index and the gross fixed capital formation, while the endogenous IV estimator is the population growth annual rate. The regression analysis did not provide all the expected coefficients signs. The Institutional index has a positive coefficient of .5474822 which was expected and the conclusion to be drawn is that institutions in fact have a positive impact on economic growth. Moreover, the gross fixed capital formation also has a positive coefficient of .1535893 and the conclusion to be drawn is that the capital has a positive impact on GDP per capita, thus on economic growth.

What is unexpected, the result from education index has a negative coefficient sign of -8.795834, which implies that has a negative impact on GDP per capita, hence the economic growth in the specified countries. However, in Part II, in the countries

comparative statistics in Chapter 5, the investment in R&D and innovation, as a proxy for institutional development proved to have a positive impact on the economic growth. The same negative impact is for the population annual growth rate. In the country's specific data, the population growth has a negative impact on the GDP per capita.

8.4 Answers to research questions and hypothesis

After the theoretical and empirical analysis of the issue of institutional impact on economic growth in the case of sample selected middle income countries, the need to identify whether the research questions were answered and whether the established hypothesis were accepted or rejected is crucial.

Research Questions

1. What are the reasons behind the fact that middle income countries do not have highly developed level of institutions?

-        The political and economic institutions matter for economic growth due to the fact that they shape the incentives of key economic actors in the society, meaning that they influence the investments in physical and human capital, in technology and the organization of production. Besides that, the economic institutions do not only determine the aggregate level of economic growth, but the distribution of wealth within the society, too. Moreover,

it has to be stated that not all individuals would prefer the same set of economic institutions, due to differences in culture, which according to North, are determining the informal institutions. It has to be pointed out that the interconnection of the political and economic institutions is vital, considering the fact that without properly enforced property rights or the rule of law, the whole process of economic prosper would not exist. Furthermore, the political stability, the level of democracy, freedom of expression, and the government accountability plays an important role in the process of achieving economic growth.

By comparing the middle income non EU member countries, with EU member countries, they are still lacking in the enforcement of the rule of law, property rights, they have higher level of corruption, low investment in R&D and not satisfactory levels of tax and government expenditure policies. All of these facts, leads to a conclusion that the middle income countries are still more traditional societies rather than institutional. Additionally, a note has to be made that the process of transition in the middle income non EU member countries played a vital role in stagnating the level of institutionalization.

- Is the growth in the economy proportional to institutional development?

- Considering the theoretical part, as well as the empirical part of this dissertation, and after extensive research from both, theory and empirical studies, it could be concluded that the economic growth is proportional to institutional development. This implies that higher the institutional development, higher the prospects for economic growth. Considering a democratic environment, with clearly defined rules and regulations, rightfully enforced reforms, aiming towards investing in human and physical capital, as well as in technology, would increase the level of economic growth, proportionally; higher the institutional development, higher the prospects of economic growth.

- Are the institutions crucial for joining the European Union and striving towards acceleration of the economic growth?

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- One of the main goal of the middle income countries, besides achieve higher economic prosper, is to become members of the EU. When considering all the progress reports from the European Commission, it is obvious that the institutions play a vital role in the EU acceleration process.

"The EU's founding values include the rule of law and respect for human rights. A proper functioning judicial system and an effective fight against corruption are of paramount importance, as is the respect for fundamental rights in law and in practice" (European Commission, North Macednia 2019 Report, 2019)*.* Considering the citation from the European Commission, it could be stated that institutions do matter for joining the European Union. From the analysis in Part II, Chapter 4, it is obvious that the countries which are not member of the EU are lacking in the rule of law, the property rights, the judicial effectiveness and government integrity.

- Does institutions have in general impact on economic growth or specific segments drive it towards it?

- Considering the theoretical part and empirical studies presented so far in an attempt to provide answers for the research questions, the following arguments could be made. First and foremost, the literature supports the argument that institutions in general have an impact on economic growth. However, the empirical studies provide mixed results, although the general conclusion was that institutions in general impact the level of economic growth. Nevertheless, in Chapter 6 when analysis were performed on the level of corruption on FDI inflows and the impact on economic growth, the results were not indicative towards a negative relationship between the level of corruption and the FDI inflows. However, in general, it could be stated that institutions have an overall impact on economic growth, as for the specific segments it could be researched even further, on a micro-level.

Considering the above, it could be concluded that the dissertation managed to answer all of the previously established research questions.

The hypothesis established in the introductory Chapter 1 are as follows:

H_0: Institutions have an impact on economic growth

- Even though the presented literature in Part II accepted this hypothesis, further testing was performed by running a panel data regression. The selected variable as a proxy for institutions was the Index of Economic Freedom composed of 12 separate indices, trying to capture the most crucial factors in the determination of the economic freedom. The regression analysis included pooled OLS, FE (Fixed Effect Model), RE (Random Effect Model) and Hausman- Taylor Instrumental Variable (IV) Model. In all of the regressions, institutions were proven as significant variable in determining the economic growth. However, it has to be noted that the path from pooled OLS to Hausman-Taylor IV Model was due to rechecking the obtained regression results, having in mind that the models has certain inconsistencies and limitations. Finally, the most proper model, the Hausman-Taylor IV model, confirmed the significance of the institutions in deterring economic growth. Thus, the null hypothesis was accepted and institutions do have an impact on economic growth.

H_1: Political institutions have a positive effect in economic growth

- This hypothesis was not separately tested in the regression analysis. Its acceptance is due to the findings in comparing statistical data of the rule of law incorporating property rights, judicial effectiveness and government integrity. All of these components of the rule of law are consisted part of the Index of the Economic Freedom. By comparing the statistical data of the separate indices, the conclusion was drawn that the political institutions play a vital role in determining the prospects of economic growth. Thus, this hypothesis was accepted since political institutions do have a positive effect on economic growth.

H_{2:}Economic institutions have a positive effect in economic growth

- The same as for hypothesis H_1 applies in here. There was no separate testing for the economic institutions, since they were a composite part of the Index of Economic Freedom. However, their positive effect was found in Part II when comparing statistical data. It was considered that the tax policies and government spending plays a crucial role in the prospects of the economic growth. Thus, this hypothesis was accepted as well.

H_{3:}Education has a positive effect on economic growth

- Education is considered as to be one of the key factors for boosting the economic growth. Prior to the establishment of the new institutional economics, the neoclassical economic growth theories considered the accumulation of human capital the most important determinant of economic growth. Having in mind that, this variable was tested in both ways; by comparing statistical data and also as a variable in the regression analysis. When comparing the statistical data, the significance of education through the view point of institutions, it was considered that it has a positive effect on economic growth. However, when education through the Education Index developed by the UNDP, was included in the regression analysis, it indicated a negative relationship, which was surprising. Thus, it could be stated that this hypothesis is neither accepted nor rejected.

8.5. Limitations of the research

Even though the research of this dissertation, by using theoretical, statistical and empirical analysis managed to answer all the research questions, as well as to accept all of the hypothesis, it has several limitations.

1. The research focuses on very small sample of countries as representatives.

2. The availability of data was not at the satisfactory level

3. The accuracy of data is questionable

4. The selection of institutional proxy is difficult

In order to solve the limitations of the research, a recommendations are provided in Chapter 9, section 9.2.

Chapter 9 Conclusions and Recommendations

9.1 Conclusions

The role of institutions in determining the economic prosper is considered as one of the newly most debated topics. The establishment of the new institutional economics was due to the fact that some postulates of the neoclassical economic growth theory could not be taken for granted and another perspective was needed. The other perspective is that institutions and their development plays a key role in economic growth.

However, even though the theory generally supports the hypothesis that institutions do impact the economic growth, still there are many studies that are inconclusive. In that respect the aim was to try and find the impact of institutions and their development on middle income selected countries.

After the introductory Part I, presenting the basic theory of institutions, the next Part II analysis statistical data for the sample selected countries. By comparing the rule of law component (consisted of property rights, judicial effectiveness and government integrity) of the Index of Economic Freedom developed by Heritage Foundation, the conclusion was drawn that the political institutions, i.e. the rule of law plays a vital role in determining the economic growth prospects. Furthermore, an analysis of the human capital development was performed, through the investments in R&D and innovation. Considering the importance of education in the whole economic growth process, several important facts were also included. The issue of crating knowledge economy through investments in R&D and by that lowering the level of brain drain, was presented. The middle income countries which are not EU member countries, even though receive guidelines from the European Commission as to what to achieve and how, in order to become institutional economies, spent very little on R&D and innovation. If that trend continue, these countries would not be able to transition from traditional into knowledge based economies, thus, would face an extreme problem due to brain drain process. Moreover, the investments in human capital would also imply other benefits, such as attraction to new FDIs. As for the level of corruption, which is also considered as to be high in these countries, it shows that it has no direct effect on the attraction of the FDIs. In these countries, corruption is a major issue, and if they want to access the EU, this issue must be resolved. By doing so, solving the issue of corruption, the countries would increase their chances in entering the EU. Moreover, the government spending and tax policies also play a key determinant of the relationship between the economic growth and institutions. By proper tax policies and transparent and good government budget management, these countries would have higher prosper for economic growth.

As for the comparing countries, the EU member countries, except for the possibility of corruption and nepotism in the Bulgarian judiciary system, these countries perform well

under the rules and regulations imposed by the EU. By acting in accordance with the EU postulates, these countries perform better, in terms of economic growth.

Even though the statistical Part II answered the research questions and hypothesis, further testing was performed in order to empirically test the impact of institutions on economic growth in the case of middle income countries. After analysis of which variable to be included in the model as institutional proxy, the Index of Economic Freedom by Heritage Foundation was considered as most suitable one since it incorporates 12 components which increase the economic freedom in the countries. By performing pooled OLS, Fixed and Random Effect Model as well Hausman-Taylor IV Model, the regression analysis found significance of the institutions on economic growth.

Thus, having stated all of the above, it could be concluded that the institutions and the institutional development positively impact the economic growth in the middle income countries.

9.2 Recommendations

The research of this dissertation did confirm the null hypothesis that the institutions have an impact on the economic growth in the middle income countries. However, considering the limitations of the research only briefly listed in Chapter 8, several recommendations are provided.

1. The research focuses on a very small sample of countries as representatives. The inclusion of other countries in the research might lead to more accurate results. Having stated that, by inclusion of more data another model could be performed in the regression analysis.

2. A proposed method for future research is the Dynamic GMM (General Method of Moments) model. By applying thr GMM model, the endogeniety problem which could arise due to correlation of country's specific effect or due to time invariant characteristics will be eliminated. It is possible that it could be due to the endogeniety of variables on both sides of the equation. would be eliminated

3. Considering another proxy for institutional proxy. The most difficult thing in doing research on this topic is the chose the right institutional proxy. For further research, it could be considered other proxy variables, or even several ones, it does not necessarily means that all the institutional factors should be included in one variable.

4. It could be consider a micro - level analysis, like examining the firm or sector level of development and how the institutions and institutional development impacts it.

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